

Graduate Unemployment in Ethiopia: the ‘Red Flag’ and Its Implications

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Abstract

The Ethiopian higher education sector has experienced remarkable expansion in the past two decades. However, the accompanying trend of growing graduate unemployment appears to have been overlooked. This article examines graduate unemployment in Ethiopia using secondary data extracted from surveys conducted by the country’s Central Statistics Agency. While these statistics indicate that overall unemployment has decreased in Ethiopia, the percentage of graduate unemployment relative to total unemployment has increased. Moreover, unemployment among female graduates as compared to unemployed females is rising. It is thus timely for Ethiopia to undertake higher education reform aimed at aligning the expansion of the sector with market demand.

Key words: employment, expansion, higher education, unemployment

Le secteur de l’enseignement supérieur en Ethiopie connaît un développement remarquable depuis deux décennies. Cela va cependant de pair avec un phénomène croissant de chômage chez les étudiants diplômés qui semble avoir été largement négligé. Cet article étudie le chômage chez les étudiants diplômés en Ethiopie, à partir de données secondaires qui proviennent d’enquêtes réalisées par l’Agence Centrale de Statistique (Central Statistics Agency) d’Ethiopie. Ces statistiques indiquent que, bien que le taux de chômage en Ethiopie ait baissé de façon globale, le pourcentage d’étudiants diplômés au chômage par rapport au nombre total de chômeurs a augmenté. De plus, le chômage chez les femmes diplômées connaît une augmentation par rapport au chômage chez les femmes de façon générale.

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C'est donc le moment opportun pour que le gouvernement éthiopien entreprenne une réforme de l'enseignement supérieur qui vise à faire coïncider le développement de ce secteur avec les demandes du marché.

Mots clés : emploi, développement, enseignement supérieur, chômage

Introduction

Ethiopia achieved impressive economic growth averaging 10.8 percent from 2003-2014/15 (Federal Democratic Republic of Ethiopia (FDRE), 2016) and is one of the fastest growing economies in Africa (Mo-Ibrahim-Foundation, 2017). Remarkable achievements have also been recorded in expanding access to higher education. The number of higher education institutions, student enrollment and funding have increased for the past two decades. Parallel improvements have also been observed in the number of graduates with higher degrees. However, the growing level of unemployment among graduates has not received sufficient attention. This article addresses the gap by analysing graduate unemployment trends in comparison to overall unemployment rates in Ethiopia.

The Higher Education Landscape in Ethiopia

Western style higher education commenced in Ethiopia with the establishment of Addis Ababa University (formerly Haile Selassie I University) in 1950 (Bahru, 2014). This was followed by several other colleges and institutes. However, at the beginning of the 21st century, the country's higher education system experienced major changes (Ashcroft, 2012; Woldegiyorgis, 2015) in relation to student enrollment, governance and the growth of tertiary institutions (Ashcroft, 2004; Ashcroft and Rayner, 2012).

The number of public universities increased from two in 1991 (Semela, 2011) to 36 in 2015 (FDRE Ministry of Education (FDRE-MoE), 2016) and 11 more will be established in the second Growth and Transformation Plan (GTP II) period (2015-2020) (FDRE, 2016). Student enrollment, academic staff numbers and higher education expenditure have also grown. The Gross Enrollment Ratio (GER) increased from 5.7 percent in 2013 (FDRE-MoE, 2013) to 10.2 percent in 2014/15 (FDRE-MoE, 2016) and is expected to reach 15 percent by 2019/20 (FDRE-MoE, 2016). Strong commitment to educational development since 1994 is reflected in budget allocations to this sector. From meagre commitments prior to the year 2000, spending on higher education increased steadily to reach more than 25 percent of total government expenditure on education, and 5.7 percent of GDP in 2012 (FDRE-MoE, 2013). The total budget allotted to higher education increased from 24,299 billion birr in 2015/16 to 34,632 billion birr in 2019/20 (FDRE-MoE, 2015).

Furthermore, the number of undergraduate students more than doubled from 326,318 (263,001 males and 63,317 females) in 2007/8 to 729,028 (475,971 males and 253,057 females) in 2014/15 (FDRE-MoE, 2016). Post-graduate enrollment rose six-fold from 7,355 (6,652 males and 703 females) in 2007/8 to 40,287 (30,704 males and 9,583 females) in 2014/15 (FDRE-MoE, 2016). Cumulatively, undergraduate and postgraduate enrollment grew at an average rate of 17 percent and 63 percent, respectively from 2007/8 to 2014/15. However, male enrollment was higher than female enrollment. For example, the Gender Parity Index in undergraduate and postgraduate programmes in 2014/15 was 0.53 and 0.31, respectively.

Similarly, the number of academic staff increased from 11,028 (9,942 males and 1,086 females) in 2007/8 to 27,638 (24,572 males and 3,066 females) in 2014/15 (FDRE-MoE, 2016), with female academic staff constituting 11 percent of the staff complement in 2014/15 (FDRE-MoE, 2016). Increased staff numbers resulted in a lower Pupil-Teacher Ratio (PTR) from 28 in 2007/8 to 23 in 2013/14.

However, against the backdrop of these developments, the Ethiopian higher education system has experienced considerable challenges. These include the quality of its offerings (Ashcroft, 2004; Tessema, 2009; Akalu, 2017) and graduate unemployment. However, previous research inclines to the former rather than the latter.

Research Problem

The expansion of higher education in Ethiopia has attracted considerable research interest. However, studies have focused on education quality rather than graduate unemployment. At the beginning of the expansionary period (around 2003), Ashcroft (2004) predicted that on-going growth was likely to result in challenges relating to funding, academic governance and the quality of teaching and learning. Several studies supported Ashcroft's predictions. For example, Tessema (2009) noted that the expansion of higher education in Ethiopia significantly increased teaching loads. Similarly, Akalu (2017) observed that the massification process has increased the work burden of faculty members which in turn led to a loss of academic autonomy.

While studies have been conducted on youth unemployment (ages 15-29) in Ethiopia, few have focused on graduate joblessness. Those that examine youth unemployment do not disaggregate this segment of the population into graduates and non-graduates (see, for example, Broussar and Tsegay, 2012; Muhdin, 2016; Nayak, 2014). Other studies examine graduates' employment status by focusing on a few disciplines. For example, Tamiru (2017) examined employment status and education-job match among engineering graduates from 2009 to 2013.

Research on youth unemployment in Ethiopia highlights the factors that cause such unemployment. However, the studies did not disaggregate graduates from the overall youth population. Moreover, they focused on graduate (un)employment in a few fields (civil engineering, mechanical engineering, and electrical engineering) rather than the whole range of disciplines.

It is in light of this background that this article explores trends in graduate unemployment in Ethiopia. It was guided by the research question - what is the trend of graduate unemployment relative to total unemployment in Ethiopia?

The Concept of Graduate (Un)employment

Graduate employment literally refers to the situation where a graduate obtains a job in the discipline in which he/she was trained. However, different countries employ different definitions. In the United Kingdom, graduate employment is equated with obtaining a job, regardless of whether or not it is in the field in which the graduate was trained (see Yorke, 2006). Similar definitions are observed in the Ethiopian context. The government reports used for the current article tend to use the International Labor Organization's (ILO) definitions of (un)employment (see FDRE-CSA, 2012; 2014).

According to the ILO, employment refers to "persons who during a specified brief period such as one week or one day, (a) performed some work for wage or salary in cash or in kind, (b) had a formal attachment to their job but were temporarily not at work during the reference period, (c) performed some work for profit or family gain in cash or in kind, (d) were with an enterprise such as a business, farm or service but who were temporarily not at work during the reference period for any specific reason" (ILO, 1982 pp.2-3). Furthermore, the ILO defines unemployment as someone: i) without work; ii) available for work; and iii) seeking work (ILO, 1982). However, according to the Ethiopian CSA, unemployment is understood in terms of complete and partially relaxed definitions. Under partial relaxation, it includes discouraged job seekers, future starts and layoffs (FDRE-CSA, 2012; 2014).

In light of these definitions, the article conceptualises graduate unemployment as the number of people with bachelor and higher degrees reported as employed or unemployed in the national surveys conducted by the CSA.

Method

The study was based on secondary data produced by the CSA that was accessed from the agency's websites in March 2017. Two types of survey reports, the national labour force survey and the urban employment and

unemployment survey, were used. The former are published every six years, while the latter are produced annually. The national labour force survey covers employment and unemployment in urban and rural settings, while the urban employment and unemployment survey only assesses urban (un)employment. With this understanding the following procedures were followed to extract relevant secondary data from the existing survey reports.

Firstly, national labour force survey reports (reported in 1999, 2005 and 2013) and those on urban employment and unemployment (reported between 2010 and 2016) were accessed. Survey reports starting from 1999 were considered because the Ethiopian higher education sector started to expand from 1999/2000 (see Ashcroft, 2004).

The second step was to determine whether disaggregated data on graduate employment and unemployment (bachelor degree and above) were available in the CSA reports. Reports that lacked disaggregated data on the number of “estimated graduates” and “unemployed graduates” for bachelor degrees and above were excluded. The national labour force survey reports on urban and rural (un)employment reported in 1999, 2005, and 2013 treated all graduates as “diploma and above”. Given that they lacked disaggregated data on graduates with bachelor degrees and above, the survey reports on urban and rural unemployment were excluded. Similarly, the survey reports on urban employment and unemployment for 2010 and 2012 did not contain disaggregated data on the number of estimated graduates and unemployed graduates and were hence excluded. Although the 2011 report included data on unemployed graduates, the figure for the number of unemployed female graduates is greater than the number of estimated graduates, implying that the data lacked precision. Thus, the 2011 survey report was excluded.

Thirdly, the secondary data extracted from the survey reports on the number of estimated graduates and unemployed graduates (i.e., those published in 2014, 2015 and 2016) were analysed. The analysis included 1) the percentage of unemployed and employed graduates relative to the number of estimated graduates. 2) the percentage of unemployed graduates relative to total unemployment. In both cases the number of unemployed and employed graduates were compared with the estimated number of graduates and total unemployment.

Results

The data are presented in two sections. The first shows trends in graduate (un)employment relative to total graduates and the second presents the trends in graduate unemployment relative to total unemployment trends in Ethiopia.

A. Trends in graduate (un)employment relative to total graduates

Table 1. Percentage share of (un) employed graduates relative to graduates

Year	Graduates	Unemployed Graduates	Employed Graduates	% share of unemployed	% share of employed
2016	862,137	58,506	803,631	6.79	93.21
2015	749,925	46,319	703,606	6.18	93.82
2014	619,837	37,535	582,302	6.06	93.94
Rate	13 %	19 %	13 %		

Authors' compilation.

Source: Survey Report on Urban Employment and Unemployment 2014 (pp. 25, 232); 2015 (pp. 25, 237); 2016 (pp. 25, 237)

Table 1 shows the percentage share of (un)employed graduates relative to total graduates. The share of graduate unemployment increased slightly from 6.06 percent in 2014 to 6.79 percent in 2016. Conversely, the share of employed graduates declined slightly from 93.94 percent in 2014 to 93.21 percent in 2016. While the percentage of (un)employed graduates remained almost constant for the three years, there seems to be a difference in the rate of increase in total graduates and unemployed and employed graduates. As shown in table 1, the increment for unemployed graduates stands at 19 percent whereas the increment rates for total graduates and employed graduates each stand at 13 percent. Therefore, the growth in graduate unemployment appears to be higher than growth in graduate employment.

Table 2 . Trends relating to Male and Female Unemployed Graduates

Year	Total	Male	Female	% Males	% Females
2016	58,506	30,675	27,831	52.43	47.57
2015	46,319	24,747	21,572	53.43	46.57
2014	37,535	20,770	16,765	55.34	44.66

Authors' compilation.

Source: Survey Report on Urban Employment and Unemployment 2014 (pp. 25, 232); 2015 (pp. 25, 237); 2016 (pp.25, 237)

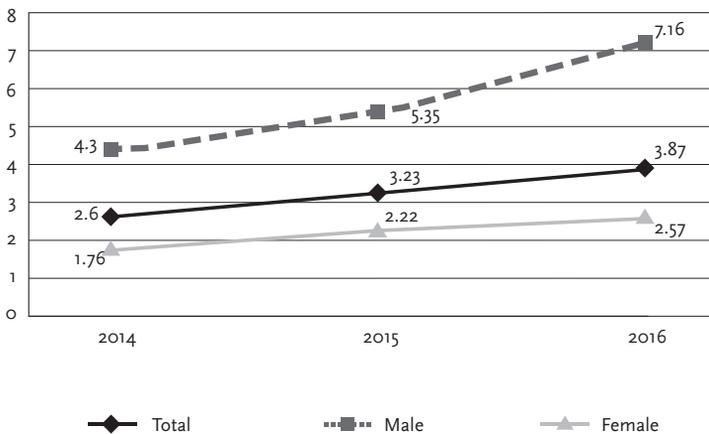
Table 2 shows the number of male and female unemployed graduates relative to the total unemployed graduates from 2014 to 2016. It illustrates

that the percentage share of male unemployed graduates compared to total unemployed graduates declined from 55.34 percent in 2014 to 52.43 percent in 2016. However, the share of unemployed female graduates increased from 44.66 percent in 2014 to 47.57 percent in 2016. Overall, while the table reveals somewhat proportional shares among male and female unemployed graduates from 2014 to 2016, there was a decline in the former and an increase in the latter.

B. Graduate unemployment trends relative to total unemployment

Total unemployment refers to the number of unemployed people in the country and includes all those reported as unemployed in the study periods. Figure 1 below shows trends in graduate unemployment relative to overall unemployment from 2014 to 2016.

Figure 1. Trends in graduate unemployment relative to total unemployment



Authors' compilation

Source: Survey Report on Urban Employment and Unemployment 2014 (p. 232); 2015 (p. 237); 2016 (p. 237)

The figure illustrates that the share of unemployed graduates relative to total unemployment increased from 2.6 percent in 2014 to 3.8 percent in 2016. Thus, of 100 unemployed people in 2014, almost three were graduates with a bachelor's degree and above and this increased to almost four in 2016. However, once again, the situation differs with respect to

gender, where the total number of male unemployed graduates is higher than female unemployed graduates. Figure 1 shows that, the share of male unemployed graduates relative to total unemployed males increased from 4.3 percent in 2014 to 7.16 percent in 2016. Thus, of 100 unemployed men in 2014, four were graduates with bachelor degrees and this increased to seven in 2016. The share of female unemployed graduates increased from 1.76 percent in 2014 to 2.57 percent in 2016, implying that, for every 100 unemployed women, almost three were graduates.

Discussion

The data analysis points to two major findings. The first is that graduate unemployment relative to total unemployment increased substantially from 2014 to 2016. Secondly, the growth rate of graduate unemployment is higher than the growth rate of graduate employment. Overall, these findings suggest that graduate unemployment is increasing in Ethiopia.

These findings seem to contradict the overall unemployment trends in Ethiopia reported by the Federal Statistics Agency (FDRE-CSA, 2014). The CSA reported that unemployment declined from 8.1 percent in 1999 to 4.5 percent in 2013. However, this does not seem to be true when it comes to graduate unemployment. Although the national unemployment rate in urban and rural settings has decreased, the percentage of unemployed graduates has substantially increased. Furthermore, it is likely that the figures for graduate unemployment would be higher were the strict definition of unemployment to be used. As noted previously, the CSA uses a more relaxed definition and merely considers whether a person has earned a wage or salary as a result of his/her attachment to a certain job. It does not consider whether a graduate is employed in the profession for which he/she was trained or whether the graduate is under/over employed. Studies point to the fact that many graduates enter the informal sector (Nayak, 2014) which accounted for around 31.7 percent of total employment in urban areas in Ethiopia in 2012 (FDRE-CSA, 2012).

These findings are in line with previous research on graduate employment. Broussar and Tsegay (2012) established that, a positive relationship exists between educational attainment and youth unemployment in Ethiopia. Their study demonstrated that, despite the remarkable increase in educational attainment “youths with higher education were less likely to be unemployed in 1999 than they were in 2011” (Broussar and Tsegay, 2012, p. 21). A continental study on youth unemployment in Africa also confirmed a slight positive correlation between levels of youth unemployment and the tertiary education GER from 2006-2016 (Mo-Ibrahim-Foundation, 2017).

The other significant finding is related to the percentage share of male and female unemployed graduates. It was found that the percentage share

of male unemployed graduates relative to total unemployed graduates declined from 2014 to 2016. Conversely, the percentage share of female unemployed graduates relative to total unemployed graduates increased. These findings support previous studies on the employment prospects of male and female graduates. Tamiru (2017) found that female graduates were less likely to obtain jobs than their male counterparts. Similarly, Muhdin (2016) noted that female youth unemployment in 2015 was significantly higher than unemployment among young men.

Graduate unemployment is a complex phenomenon and there are no straightforward explanations why graduates are unemployed. The interplay among various factors such as the person (the graduate), universities, employers and government rules and regulations may contribute to graduate unemployment. Previous research revealed that graduates' competence, the quality of their training institutions and employers' capacity (Oluwajodu, Blaauw, Greylin, and Kleynhans, 2015) determine graduate unemployment rates. Other authors (e.g., Bailly, 2008; Cai, 2013) noted that employers' attitudes have a strong impact on the rate of graduate employment.

Mulu (2009) maintained that the quality of higher education in Ethiopia has been negatively affected by inadequate schooling at lower levels of the education system and that the tendency to promote students regardless of their performance, including at tertiary level, has become a critical challenge. Amare (2009) noted that lack of clarity on the roles of academic and vocational education in the country has undermined the quality and relevance of the higher education curriculum. Therefore, the growth in graduate unemployment in Ethiopia could be attributed to the rate of higher education expansion and the lack of curriculum designed to enhance students' entrepreneurial skills.

As the number of graduates increases, market capacity to absorb graduates is likely to decline, especially in countries such as Ethiopia where there is meager demand for the skills nurtured by some academic programmes (Mulu, 2009). Therefore, considering the annual graduation rate of both private and government universities that hovers around 79 percent (MoE, 2015), the share of graduate unemployment relative to total unemployment is likely to increase. Increased access to higher education in Ethiopia may have contributed to the increase in the number of unemployed graduates in the study period. While much remains to be done, this phenomenon has prompted a review of student placement policies and, at the same time, led higher education institutions to offer modules/courses on entrepreneurship.

In terms of student placement, 70 percent of students have been assigned to science and engineering fields and the remaining 30 percent

to social sciences and humanities. However, it is not clear whether this has resulted in reduced graduate unemployment. At the time these changes were introduced, Ayalew, Dawit, Tesfaye, and Yalew (2009) observed a lack of adequate preparation and staff capacity to provide quality education in engineering and sciences. They added that the shift towards engineering and sciences was not accompanied by the necessary logistics.

While offering entrepreneurship training to students to enhance their capacity to create jobs is commendable, this is unlikely to significantly impact graduates' employment status unless such efforts are extended to the primary and secondary school curriculum. According to Adane and Reda (2016), the Ethiopian school system does little or nothing to develop entrepreneurship. To achieve optimal benefits, such efforts should start at the grassroots of the education system.

Conclusions and implications

The Ethiopian higher education system has experienced significant expansion over the past two decades, with remarkable increases in student enrollment, the number of academic staff, funding and institutional autonomy. However, graduate unemployment appears to be deeply entrenched. This article traced the growth of graduate unemployment during the period of higher education expansion.

Graduate unemployment is an economic loss. It means that investment in training graduates does not yield a proportional return and at its apex, it may create potential ground for social and political unrest. Hence, while it is too early to conclude whether graduate unemployment in Ethiopia has reached its limit, its increase could be perceived as a 'red flag' to higher education expansion. If higher education is to make a meaningful contribution to the socio-economic development of a country, its expansion must be aligned with market demand. Furthermore, placement policies that consider students' interests and qualities in a particular field should be adopted.

Higher education is regarded as an important instrument for Ethiopia's future socio-economic development. Expansion continues in the sector based on the rationale that the higher education participation rate is low relative to the total population and the country's geographic features. Ethiopia's Higher Education Policy Statement (for example, the higher education proclamation) notes that tertiary institutions have a responsibility to produce knowledgeable, capable and entrepreneurial graduates. This should be borne in mind in the expansion process to contain graduate unemployment and enhance higher education's contribution to the country's development.

Limitations and Future Research

The article relied on secondary data. Thus, while it offers some insights into trends relating to graduate unemployment, it is difficult to pinpoint the causes of such trends. Furthermore, the secondary sources considered were not census statistics, but were collected from sampled major cities in Ethiopia. Therefore, the findings cannot be generalised to the entire country. Given these limitations, it is important to conduct further research such as national graduate tracer studies that employ primary data and wider geographical coverage. Such studies are important in building an empirical database on the status of graduate (un)employment in Ethiopia.

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