



LUND UNIVERSITY

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Wishing for better jobs: Understanding the mismatch between education and youth employment in Ethiopia

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Abstract: Ethiopia is the second most populated country on the continent of Africa, with a high density of young people. Its economy remains largely based on agriculture, however, in recent years, slow structural change can be seen. Concurrently, youth education has been on the rise. Due to this phenomenon, the educated youth are now trying to match their skills with current employment opportunities. As a consequence, unemployment rates for the educated youth are the highest in the country. The purpose of this study is to investigate the developments between education and the labour market, specifically in the case of youth, by providing a comprehensive overview of secondary data gathered by the Ethiopian National Labour Force Surveys (NLFS) in 1999, 2005 and 2013. The study discusses the possible effects of the simultaneously launched Millennium Development Goals (MDGs) on the size and scope of youth unemployment. Results show clear evidence of a skills mismatch, resulting from the insufficient quality of education to undeveloped markets without open internet usage. Low job creation has resulted in high unemployment of the educated youth, especially in the urban areas. The results from this study suggest that measures need to be taken to match education and employment in order to sustain a highly populated country.

Key words: Skills mismatch, youth unemployment, Ethiopia, developing country

EKHS21

Master thesis, First Year (15 credits ECTS)

August 2017

Supervisor: Jeanne Cilliers

Examiner: Tobias Karlsson

Word Count: 14 721

Acknowledgements

I would like to thank my supervisor Jeanne Cilliers who provided good insights and encouraged me to improve this research. I would also like to express my gratitude to my partner Lauri and my family who helped me to cope with the thesis writing process. Thank you for your support.

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List of Abbreviations

AfDB – African Development Bank

CSA – Central Statistical Agency

GTP – Growth and Transformation Plan

ILO – International Labour Organization

MDGs – Millenium Development Goals

MoFED – Ministry of Finance and Education

NLFS – National Labour Force Survey

NPC – National Planning Commission

OECD – Organisation for Economic Co-operation and Development

UCW – Understanding Children’s Work Programme

UEUS – Urban Employment Unemployment Survey

UN – United Nations

UN DESA – United Nations Department of Economic and Social Affairs

UNDP – United Nations Development Programme

UNECA – United Nations Economic Commission for Africa

1 Introduction

The African continent has had a tumultuous past and many African nations presently suffer from the typical developing country problems: violence, hunger, poverty, under-education and bad governance. The big push towards continent-wide structural change, which is the movement of resources from one sector (agriculture) to another (manufacturing and/or services), has largely been unsuccessful, and broadly speaking, much economic transformation has resulted from a series of booms and busts in the market for primary commodities that most African economies rely on. As a result, Africa is said to be the continent that failed to industrialize.

Since many African governments have not been able to implement change themselves, foreign direct investments have been an important factor in recent developments. Since opening up their markets, the world's view of Africa has changed from it being a fundraising cause to a potential investment opportunity. This has encouraged many countries to team up with super-powers like China to transform their economies by investing in infrastructure that would pave the way towards becoming the next manufacturing houses of the world. China has in a very short time period experienced an incredibly high and lasting growth phase, which included significant poverty reduction and the creation of new vibrant industries. What has been missing in Africa is the structural transformation that is created by reaching higher productivity in agriculture, allowing labour to move into industrialized work with higher wages. In order to have sufficient labour for the manufacturing or services jobs, investments have to be made in human capital through education, but also in creating jobs and modernizing the sectors. China's government has actively pursued job creation, whereas Africa seems to have become stuck relying only on commodity booms to keep the economy going. Many African economies are struggling to reach a successful structural transformation with enough productivity growth to reduce poverty and provide new employment opportunities (AfDB, OECD, UNDP & UNECA, 2013).

What makes the labour force an important area of research is that Africa will host the most youth and working age population in the world in the future (Africa Renewal, 2013). Africa's prospects to continue its development and become a more significant player in the global economy will depend on it having a well-functioning work force and productive economic sectors. Traditionally mass education is associated with the spread and acceleration of modern economic growth (Easterlin, 1981). Human capital development is therefore imperative, as it creates a population capable of high skilled and specialized employment, which in turn stimulates economic growth (OECD, 2002). However, if the skills attained do not reflect the need in the existing job market, a mismatch between the supply and demand of labour will develop.

Particularly concerning, given the age distribution of African populations, is the high share of youth unemployment (ILO, 2016a). As the youth have the power to change a country's

development curve, it is vital that the next generation have the opportunity to receive a decent education. Access to, and completion of, higher education is not only key at the individual level but also at the societal level, as high levels of unemployed youth can also have harmful social consequences. A warning example can be seen with the rebellions in the Arab world in 2011, where youth unemployment due to too few and poor employment opportunities was announced to be a major cause for the instances (ILO, 2011). These unrests can potentially hinder, what in the African context, is an already fragile development path.

Ethiopia has recently experienced major unrests, which lead the country to impose a state of emergency. Though the initial spark for these unrests was potential land grabbing, one of the causes admitted by the government was youth unemployment, even though the rates in Ethiopia have been decreasing steadily (Financial Times, 2017). Despite these recent events, the country has shown resilience and managed to keep a steady growth rate for over a decade (World Bank, 2017). In addition, the country has demonstrated its ability to take advice from international bodies and implement policy efficiently to address problems such as education provision. Nevertheless, as the second most populous African country, with over 70% of its population under the age of 30 (PopulationPyramids.net), a mismatch between education and employment sector in Ethiopia could have serious long-term repercussions.

Studying Ethiopia's case using the existing National Labour Force Surveys (NLFS) for the years 1999, 2005 and 2013, will hopefully give an insight towards correct policies, which can be used for other similar countries. The surveys were commenced almost simultaneously with the United Nations' Millennium Development Goals (MDGs). The surveys in 2005 and 2013 mention that the results serve as an input to assess the meeting of the MDGs, as well as monitoring and evaluating the national programmes such as the country's poverty reduction strategy framework (PASDEP - Plan for Accelerated and Sustained Development to End Poverty) in 2005 and the Growth and Transformation Plan (GTP) in 2013.

1.1 Country Background

For over a decade Ethiopia has been one of the strongest growing African economies (World Bank Data, 2017). The country's GDP growth rates have been mostly double digit since the turn of the millennium (figure 1.1) forecasting a positive future. However, while GDP per capita has experienced an increase, it remains one of the lowest in the world, estimated to be 619 USD in 2015 (World Bank Data, 2017). Though, Ethiopia reduced the share of its population living in poverty (living on less than \$1.90 a day), from two thirds in 1995 to one third in 2010 (World Bank Data, 2017). Additionally, universal primary education was reached in 2015 and significant increases in higher education opportunities became available; the country had only 3 universities in 2000, but had increased the amount to 33 public universities and several private higher education institutions in 2014 (NPC and UN in Ethiopia, 2015). All of these improvements have contributed to shaping the present Ethiopian workforce.

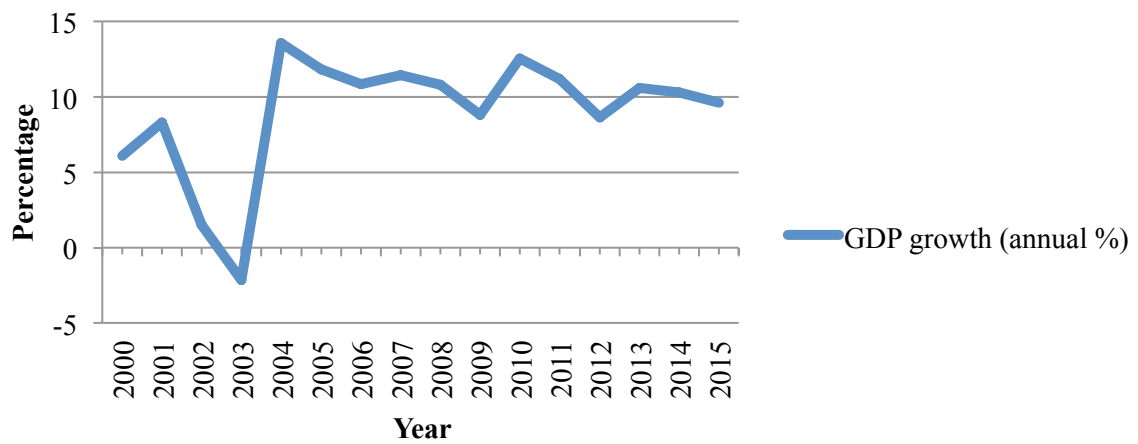


Figure 1.1 GDP growth (annual %) in Ethiopia from 2000-2015 (World Bank Data, 2017)

By tackling healthcare issues already in the 1980s, such as child mortality, population growth experienced an upturn. A massive population was on its way as the country doubled its population from around 48 million in 1990 to a staggering 99 million in 2015. This makes it the second largest national population in Africa after Nigeria (World Bank Data, 2017). When observing the age structure more closely, Ethiopia shows having a minimal amount of older population, 3,48 % in 2015 compared to the developed world in Western Europe with 19,6 % (PopulationPyramid.net, 2017). The differing population age structures of Ethiopia compared to Western Europe can be seen in figure 1.2 below.

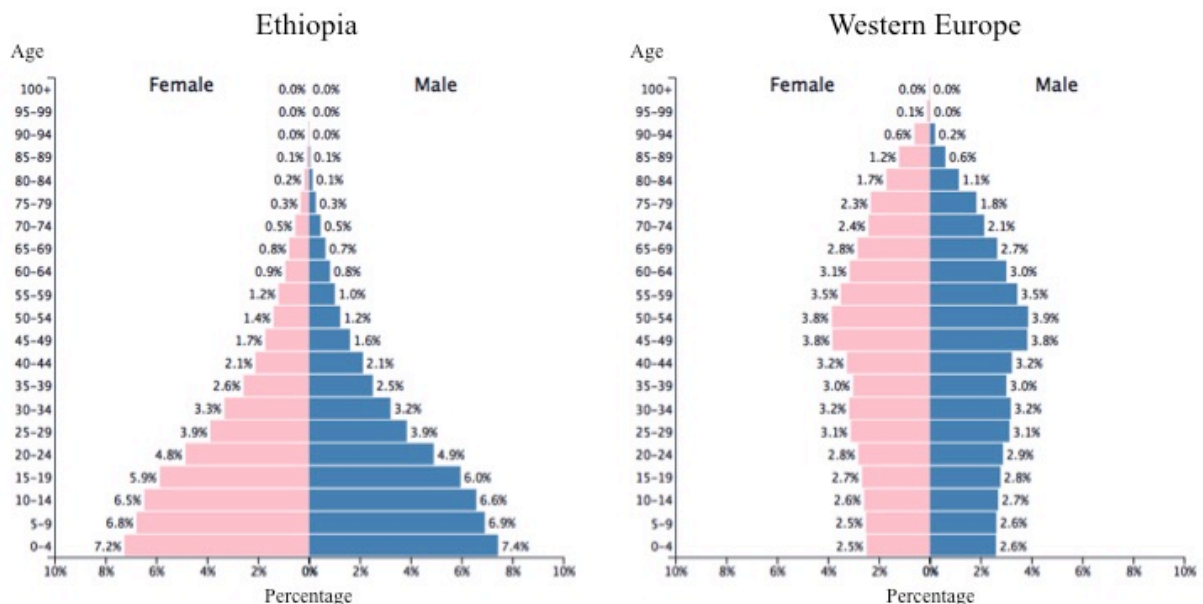


Figure 1.2 Population pyramids of Ethiopia and Western Europe in 2015 (PopulationPyramid.net, 2017)

Africa will in just a few decades have more people entering the work force than the rest of the world combined (World Bank, 2015a) and so skilled labour will be needed. When the rest of the world will struggle with a growing amount of retiring ageing population, which brings a continual burden of increasing taxation to cover the costs, Ethiopia on the other hand will for a while mainly deal with a young population. According to the NLFS (CSA, 1999a; 2014a) the overall age dependency ratio, which is the ratio of dependant population - the young (less than 15 years of age) and the old (over 65 year of age) - to the working age population 15-64, giving an approximation of the economic burden on certain age groups, was 102 in 1999 and 92.3 in 2013. This shows that the movement is towards having more people in the working age group than there is outside it. When the shares are separated between the young and the old, the ratios are 95 and 7 for 1999 and 85.3 and 7 for 2013 respectively, confirming that there is extensively much more young population than old, and that in 2013 the amount of supported people has decreased only from the young age group as the great amounts of young people enter the working age, so increasing the productive age groups. However, the age dependency does not necessarily reflect the participation in economic activities, as not all in the before mentioned groups engage in economic activities. More accurate estimates can be found when comparing the economically active and not active population, discussed more in depth later in the research.

However, with its economy still largely based on agricultural production, Ethiopia's problem has become insufficient job creation, particularly amongst its youth. Even though the ILO figures for youth unemployment are comparably low in Ethiopia, 8,1 % of 15-24 year olds in labour force in 2016 against a world average of 13,6 % (World Bank Data, 2017), the country deserves some special interest. To begin with, youth, as defined in the Ethiopian national context, covers the ages of 15-29, so the age group has a larger range but also due to population increase the age group includes a great amount of people, 29,4 % of total population compared to a 17,4 % in Western Europe in 2015 (PopulationPyramids.net, 2017). The amount of unemployed will have an impact on the country's future.

Historically manufacturing sector has provided the labour-intense jobs and been the engine of growth. As this sector is very marginal in Ethiopia, the country has to find a substitute or reorganize its economic sectors as the supply of labour is ever growing. Unemployment is higher in the urban areas for all ages, but specifically affects the youth in both urban and rural areas. The service sector has been a strong contributor to GDP, increasing its share of employment yearly, though currently still employing only 20,5 % of population. An obstacle for the growing service sector could be the country's low internet penetration due to restrictions imposed by the authoritarian government, in addition to infrastructural hardships, resulting in only 11,6 % of the population having access to internet in 2015 (World Bank Data, 2017). The decisions affecting the country's future orientation affect the youth the most, as they are more prominent to receive schooling or training, which wasn't available for their parents, and so could naturally be placed working in new growing sectors of the economy.

It has been estimated by the International Labour Organization (2016b) that over the next two decades, over 600 million new jobs need to be created to support the growing working age population, though not forgetting to mention the hundreds of millions of people still living on the poverty line, working, but unable to improve their current situation. This means that promoting low-skilled jobs for local workers will not be sufficient as, if investments in

education are made, the job opportunities in Africa will not meet with the education of the labour in the future. While investing in human capital has been shown to have positive spillover effects, having undeveloped labour markets, which do not support the level and quality of education being provided may result in adverse outcomes.

1.2 Aim and Objectives

The aim of this study is to find out what has affected the current unemployment situation of the youth in Ethiopia. Youth has been defined as those aged 15-29 years, but often country total figures are used for reference. Further, the aim is also to understand how the mismatch between education and labour market developed during the periods 1999, 2005 and 2013 at the national level. Distinction will also be made between urban and rural developments.

In order to understand the mismatch between the education and the labour market, the following questions are asked:

RQ1. What were the developments in education and the labour market in Ethiopia over the period in question?

RQ2. How has the implementation of MDGs affected the mismatch?

The findings of this thesis will provide more understanding to the movements within the labour force as increasingly more educated individuals enter. The results of this study can be used to guide other developing countries with similar backgrounds towards more successful development paths.

1.3 Outline of the Thesis

The thesis explores the situation in Ethiopia and is organized in the following manner. Chapter 2 presents theory and previous research on human capital and the mismatch between skills and labour market, in addition to describing policies used in Ethiopia to gain human capital. Chapter 3 explains the methods and data used, outlining data relevance and data constraints. Chapter 4 lays out the main findings with regard to the features of the labour market and education. Chapter 5 discusses the main findings and strives to answer the research questions. Chapter 6 concludes with the implications of this research for current policy and proposes which aspects should be further researched.

2 Literature and Theoretical Review

This research will apply human capital theory to understand the educational and economic investments made in Ethiopia and why a potential mismatch between the two can appear.

2.1 Human Capital and Skills Mismatch

Economic growth was first thought to be the result of physical capital and land. The human skills and knowledge was not counted as a source of growth before Schultz (1961) defined it as the unknown factor, which would explain the additional increases left over after already accounting the two others. Moreover, Schultz argued that human capital accumulation was of equal or greater importance in creating growth than physical capital, land, or labour. Similarly as with physical capital, human capital is associated with costs as investments, which are to result in returns as benefits. Skills can be acquired through education, training or on-the-job-learning. The costs could be direct, as tuition fees, or indirect, as earnings lost during the time of education. Schultz emphasized that individuals will go through extreme efforts in skill accumulation in order to receive a higher return in the form of a better job, higher wages, or more agreeable working conditions. This suggests that an increase in education would be positively correlated with an increase in income.

To explain the effects of educational attainment in theory, Psacharopoulos and Patrinos (2004) provide a curve of costs and benefits of attaining high school versus university, shown in figure 2.1 below. The figure shows that the expected returns of education need to be higher than the cost for an individual to pursue a higher degree. This theory looks at the private returns of an individual (wages), with costs being represented by the foregone earnings lost due to studying longer, in addition to possible education fees. While the increase in potential earnings for a master degree starts at a later age, the trajectory of the curve is steeper than that of the returns to a high school education, suggesting that a higher wage later on will compensate the costs in the beginning. Though for a developing country primary education should be the most prioritized investment as during these years there are no foregone earnings, so creating the most private returns, but also as the economy of a developing country is based on agriculture a farmer does not need more education beyond primary (Psacharopoulos, 1994).

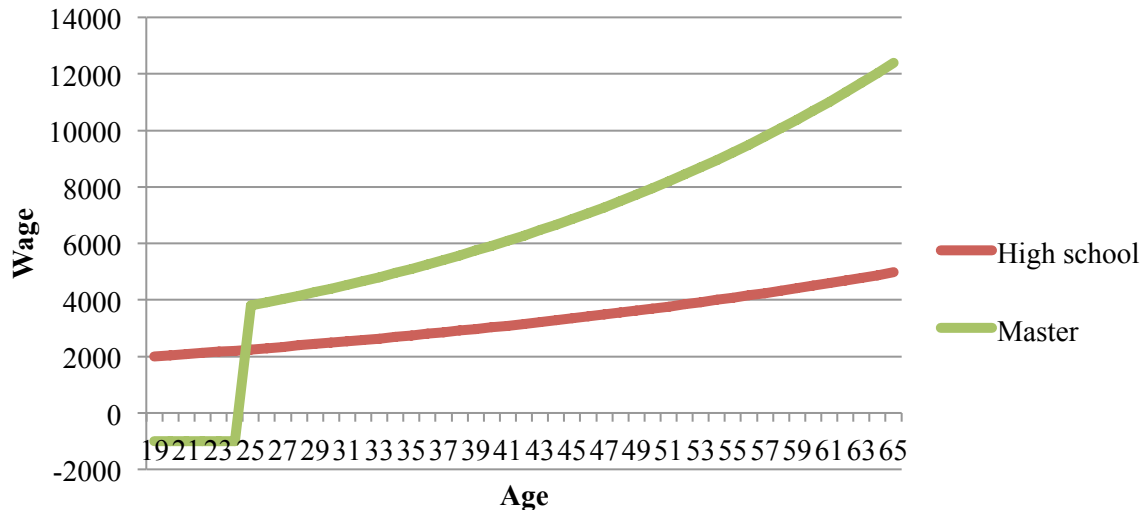


Figure 2.1 Returns to investments in human capital (Psacharopoulos & Patrinos, 2004)

Education is generally thought to provide the skills necessary to increase individual productivity, however, Arrow (1973) argues that educational attainment is only an indication of a person's abilities, not an affirmation of productivity. Arrow explains that an employer can use educational attainment as a screening device for selecting the most promising employees. Similarly the employee can signal with the chosen duration of education that they are also able to pass the possible filters set by the employer (Weiss, 1995), in example higher education can signal an understanding of more complex issues. Additional positive outcomes signalled by higher educational attainment include that an individual will be less likely to quit or be absent from work, and will generally be healthy and less likely to take sick leave. For the employee, the benefit of attaining higher education improves employment opportunities and reduces the risk of becoming unemployed (OECD, 2015).

In addition to the returns on education one can also consider the returns to age and experience. As Becker (1975) mentions, wages have been seen to increase with age though at a decreasing rate. Becker notes that the rate of increase and slowdown are positively correlated with the skill level. As already shown with the returns to investment curve, a certain level of education needed is to determine the growth curve for wages. While additional education is necessary for increases in wages, Mincer (1974) found that post-school investments are relatively important in defining the distribution of wages, which can also be seen as more accurate measure an individual's productivity. Using age and experience profiles of earnings, the author showed that higher education with experience results in higher wages. Though age will have an impact on wages, experience such as learning-by-doing and on-the-job training affects productivity and earnings more. In the case of high school and master studies, those who have less schooling can start earning earlier, but their wages will not match the trajectory of those with more experience, despite their wage growth having started later. Granting that, Mincer discovered that the correlation between schooling and earnings declines with increasing experience. For new entrants, the first ten years on the labour market are marked by frequent job changing, shorter periods of employment, efforts to find the most suitable job, and gaining experience, but account for the most substantial wage

increases. This explains around one third of the total wage growth (Topel & Ward, 1992). Younger persons are also more favoured in receiving on the job training than older persons (Becker, 1975).

An increase of skilled labour, however, does not directly imply the best allocation of these skills across the labour market and so cannot ensure an increase in productivity (OECD, 2015). With rising enrolment levels, the demand for these newly acquired skills must increase also; otherwise the labour supply will not match the demand. This is described as an occupational or skills mismatch, various forms presented in table 2.1. In this case, a gap exists between an individual’s skills and their employment opportunities. This mismatch can be the result of under-education or over-education according to a study by the International Labour Organization (2013a). The study notes that in low-income, mostly developing countries, under-education or under-qualification in occupations results in low productivity growth and low ability to diversify the economy. The study found out that young workers in particular often receive lower than average wages and are the ones either over-qualified or under-qualified for the work. However, as the ILO study comments, the educational level does not certainly imply an individual’s abilities as on-the-job training for under-educated workers can raise the worker to the appropriate skill level, thereby receiving the necessary qualities to perform the job successfully and simultaneously increasing the firms’ productivity levels. In addition, according to an OECD working paper by Adalet McGowan & Andrews (2015), a lower mismatch between skills is related to a higher participation in lifelong learning, which supports the theory of experience becoming more important in returns of investment to human capital. The reasoning in the study is that training post-school reflects the needs of the labour markets in example due to advances in technology. On the other hand, explained by Halaby (1994), the occupational mismatch of overeducation has already been noted some time after the World War II, when the building of new industries had slowed down but the amount of college educated population kept on growing. One outcome given was the economic decrease of educational attainment, as a higher degree would not guarantee a higher wage. According to ILO (2013a), overeducated workers lose their productive potential to the economy, as they are unable to function according to their full capability.

Table 2.1 Types of skills mismatch (ILO, 2013a)

Skill shortage (surplus)	Demand (supply) for a particular type of skill exceeds the supply (demand) of people with that skill
Skill gap	Type or level of skills is different from that required to adequately perform the job
Vertical mismatch	The level of education or qualification is less or more than required
Horizontal mismatch	The type/field of education or skills is inappropriate for the job
Overeducation (undereducation)	Workers have more (less) years of education than the job requires
Overqualification (underqualification)	Workers hold a higher (lower) qualification than the job requires

As noted by ILO (2013a), identifying a mismatch between demand and supply of labour by comparing the employed and unemployed populations’ educational attainments might be indicative of the existence of a supply shortage of a specific level of education. However, this

does not indicate a demand for a certain educational level. The same applies to vocational training or specific fields of training. Previous research (ILO, 2013a) provides information that mismatches are especially common within youth employment, but fails to provide any overriding suggestions to solve the mismatch as the problem needs a country-specific evaluation. As human capital is a vital part of the whole economic growth, actions to build and direct it most effectively are made by applying correct policies.

The International Labour Organization suggested the following policy areas for the youth employment crisis:

- Employment and economic policies to increase aggregate demand and improve access to finance
 - Education and training to ease the school-to-work transition and to prevent labour market mismatches
 - Labour market policies to target employment of disadvantaged youth
 - Entrepreneurship and self-employment to assist potential young entrepreneurs
 - Labour rights that are based on international labour standards to ensure that young people receive equal treatment
- (ILO, 2013a)

The developments in Ethiopia have shown signs of mismatch before, though the country has seemingly low youth unemployment. A study by Broussard and Tekleselassie (2012), found that there was positive development between higher educational attainment and unemployment between years 1999 and 2011 in Ethiopia. Additionally, a study by UCW (2013) reinforced the findings in Ethiopia. The following four Sub-Saharan African countries, Cameroon, Liberia, Rwanda and Tanzania, researched in the study could be seen representative of Ethiopia because of their location and the population's alike educational attainment - primary education being the main education, however still leaving a large amount of population uneducated. The study discovered similar outcomes that higher education is more likely to result in higher unemployment. This was explained that less educated start their transition to work earlier and so secure a job.

As the less educated do not seem to be the main part of the unemployment issue in a number of developing countries, the positive relationship or a mismatch - the education and training skills available not matching the requirements of the labour market – is termed as the educated unemployment problem. According to the both studies, other papers have suggested that due to the lack of access to unemployment and social security benefits in many developing countries, it is the better-off individuals who are able to attain higher education and so are more likely to hold out for better jobs. Oppositely, there might not be decent or matching jobs for the educated and with long-term unemployment or underemployment the human capital attained might be wasted and the society is losing on not achieving its highest productivity growth (ILO, 2013a). Cross-country estimates in 22 selected OECD countries have shown that the ones most affected by mismatch are the young and the ones with higher educational attainment levels (Adalet McGowan & Andrews, 2015). Though these OECD countries are mostly advanced economies, the study's suggestion, that policies increasing educational levels might not be enough to target the mismatch, could be accurate also in a developing country as Ethiopia where the labour market is not developed enough. As a further

note, a country might experience higher unemployment among the more educated if there is only a small formal employment sector, but the ambitious new graduates search for a secure employment (ILO, 2013a).

2.2 Policies and Programmes to Support Human Capital Attainment in Ethiopia

Many African countries reached a new growth phase after the start of the new millennium. Simultaneously in year 2000 the United Nations (UN) launched a 15-year project, the Millennium Development Goals (MDGs). By committing member states with time-bound targets, the goal was to help the world's poorest. Throughout this time the targets became more achievable for many developing countries, though slowly but steadily the work still continues. One of the most mentioned successes has been the poverty reduction in the world. The goal was to halve the proportion of people in extreme poverty, which was accomplished 5 years ahead of schedule (UN, 2017).

The UN Millennium Development Goals were to:

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria and other diseases
7. Ensure environmental sustainability
8. Global partnership for development

(UN, 2017)

Alike, Ethiopia became fairly successful as it managed to fulfil six out of the eight goals, missing only goals 3 and 5, according to the MDG report 2014 Ethiopia (NPC and UN in Ethiopia, 2015). Ethiopia succeeded in reaching most of the development goals by positively responding to suggestions and embedding the MDGs into its own national programs starting from the Sustainable Development Poverty Reduction Programme (2002/03-2004/05). A 10-year plan was later conducted to tackle the MDGs, which created the two programs: the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) (2005/06-2009/10) and the Growth and Transformation Plan (GTP 1) (2010/11-2014/15) (NPC and UN in Ethiopia, 2015). Though the research in this thesis mainly focuses on education and labour market developments, the improvements in healthcare and quality of life affect human capital attainment.

With an increasing educational attainment and population growth the need to strengthen employment opportunities was already noted in the PASDEP already in 2005 (MoFED, 2010). 5 years later in GTP 1, micro and small-scale enterprises (MSEs) on were seen as the main key for job creation and poverty reduction (MoFED, 2010). It was realized that

manufacturing is far from global technological levels and was not productive. Technical and vocational education and training (TVET) was emphasized in order to supply employees matching the labour market demands, promote self-employment and to help transform MSEs with newer knowledge. General education with an aspect to the quality of education was targeted in order to reach the MDGs.

The most relevant goal for the research in question is MDG 2, achieving universal primary education. The goal's target was to "ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling" (NPC and UN in Ethiopia, 2015, p. 28).

The following indicators were used to monitor the target:

- (1) net enrolment ratio in primary education
 - (2) first cycle primary completion rate
 - (3) second cycle primary education completion rate
 - (4) literacy rate
 - (5) gross primary enrolment rate
- (NPC and UN in Ethiopia, 2015, p. 28)

As mentioned, Ethiopia succeeded in fulfilling the criteria for goal 2. A review of the educational features in Ethiopia is provided and the effects of reaching the goal are discussed in the study in order to understand the mismatch between the education and labour market.

3 Methods

This study is a comprehensive review of secondary data gathered via three national surveys. The case study concentrates on Ethiopia, as correct policies to solve the youth employment problem need both a global and country-specific evaluation of the employment and labour market issues. The research will be based on above-mentioned theories, but also looks for comparisons from other Sub-Saharan or low-income countries, which can be applied to the specific case. However, the study understands the potential difference in between other developing and also developed countries. The National Labour Force Surveys are the most informative surveys available to capture the characteristics of the labour force. Generalizations are made according to the statistics and a more in depth analysis about the youth education and employment is pursued.

3.1 Data Collection Method

The main sources for the data used in this thesis are the three National Labour Force Surveys (NLFS) made in 1999, 2005 and 2013 gathered by the Ethiopian Central Statistical Agency (CSA). The surveys collected cross sectional data on the employed and unemployed population, such as the size, distribution and socio-economic and demographic characteristics, in order to find out the current status and to predict movements in the future. The survey was conducted to give info on national, regional and major town levels (population of 100,000 or over including region capital cities), covering all urban and rural areas in Ethiopia. In 2013 the survey covered 49 550 households, almost equally divided between rural and urban areas.

The data was gathered by using a questionnaire and collected in March in 1999 and 2005 and in June in 2013. The survey is used to assess the developments made towards Millennium Development Goals (MDGs), in addition to monitor and evaluate the Growth and Transformation Plan (GTP) of the country (CSA, 2014a).

In addition to this, data and analysis is used by the World Bank, Millenium Development Goal Report 2014 Ethiopia by the National Planning Commission (NPC) and United Nations Development Programme (UNDP), Urban employment unemployment surveys (UEUS), and Decent Work Country Profile Ethiopia by International Labour Organisation (ILO). Most of these however base their knowledge on the National Labour Force Surveys.

The method was to read through all existing labour surveys and other additional data sources in order to have a good understanding of the labour statistics in Ethiopia. The secondary data was then especially used to investigate and portray the developments within education and employment focusing on youth. The data was reorganized and different data collection years could be compared by using excel.

3.2 Limitations of the Data

The main data used is limited to the three periods 1999, 2005 and 2013, as these surveys are the only available data on the labour force.

Due to the relatively short time period between the three surveys, the changes in the country are not expected to be radical. It must be noted that there might be slight differences in the cross sectional data collected depending on the time periods as the 2013 survey was done in June whereas the two earlier ones were collected in March.

The main challenge faced was the access to data. Restriction of the internet in Ethiopia and the inadequate or partially downloadable contents made available by the government affected the thesis work. An example of an experienced challenge was that in the beginning of the research the statistical part of the 1999 NLFS was not open for download on the Central Statistical Agency's official webpage, but suddenly appeared in the beginning of May, which made more information available, but lengthened the research process. Moreover, the document was not fully uploaded leaving many important figures out of comparison. Generally dealing with the data proved difficult and access to government web pages changed daily.

Slightly different data collection made the comparison more difficult, as some categorizations were changed for the next year. Though new questions were added, which gave more insight. However, some data did not match with the calculations made by the researcher, which lengthened the thesis process as the numbers had to be double-checked. Mistakes between the analytical and statistical reports existed, which made it difficult to figure out where the mistake was made and which data to believe.

As mentioned the survey covered almost 50 000 households but the population is over 100 million. As the total population is much larger than the sample size, this risks the data being imprecise. Moreover, the survey does not inform about any specific data (division between sex, age, etc) of the collected sample other than the household amount, which might impose a bias. Household can consist of one or more individuals, who share the housing but do not necessarily need to be relatives (CSA, 2014a). However, sample amounts were collected from each region, regionally representing the whole country.

Additionally, as the surveys provide secondary data for the research, some interesting points of reference cannot be made, as the data does not allow for this. In example, due to secondary data, some figures mentioned in the analytical version of the NLFS could not be found in the statistical version and so a comparison with youth could not be performed, including a comparison between illiterate and literate unemployed youth by region.

4 Data Findings

Though strides for development have happened in a short time period, Ethiopia is still categorized as one of the least developed and belongs to the group of low-income countries (UN DESA, 2015). The analysis pursues to comprehensively present the most significant features of education and labour market.

4.1 Features of Education

4.1.1 Public Expenditure on Education

Ethiopia has clearly started to emphasise the importance of education starting from the 2000s. Increases in expenditure on education as % of GDP can be seen in figure 4.1. Ethiopia's government expenditure curve has followed the regions upward development and in 2013 resulted in 4,5 %, which represents the exact same share as in Sub-Saharan Africa average (World Bank Data, 2017).

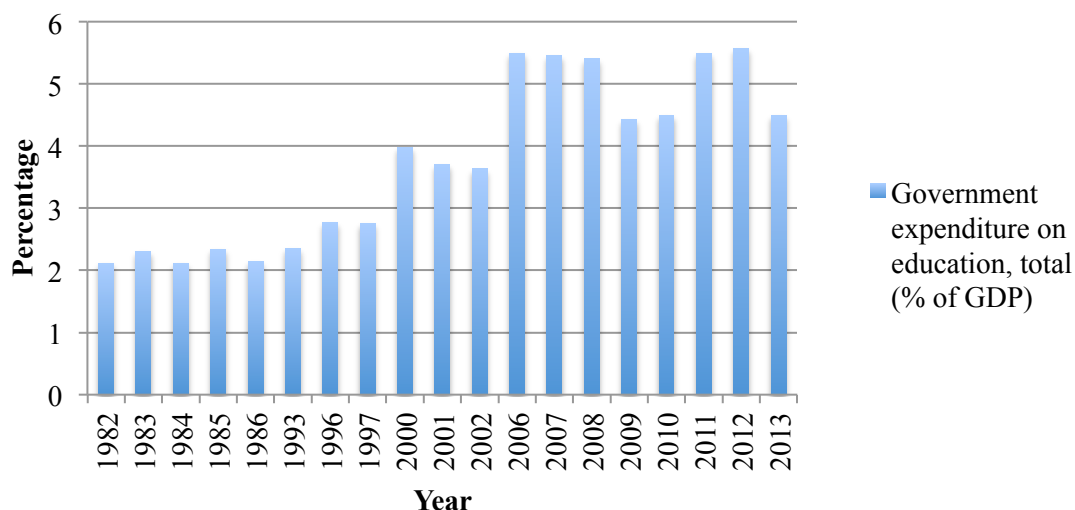


Figure 4.1 Government expenditure on education (% of GDP) in Ethiopia from 1982-2013 (World Bank Data, 2017)

Though the average expenditure followed the regional average, the expenditure per pupil per school level in 2011 shows some variance, see figure 4.2. Compared to other low-income

countries the expenditure on primary education is approximately the same, with 8,9 %, but in secondary education the expenditure is over the median with 27,1 %. The difference between the school levels could show either a low expenditure on primary education or a lesser amount of students attending the lower secondary.

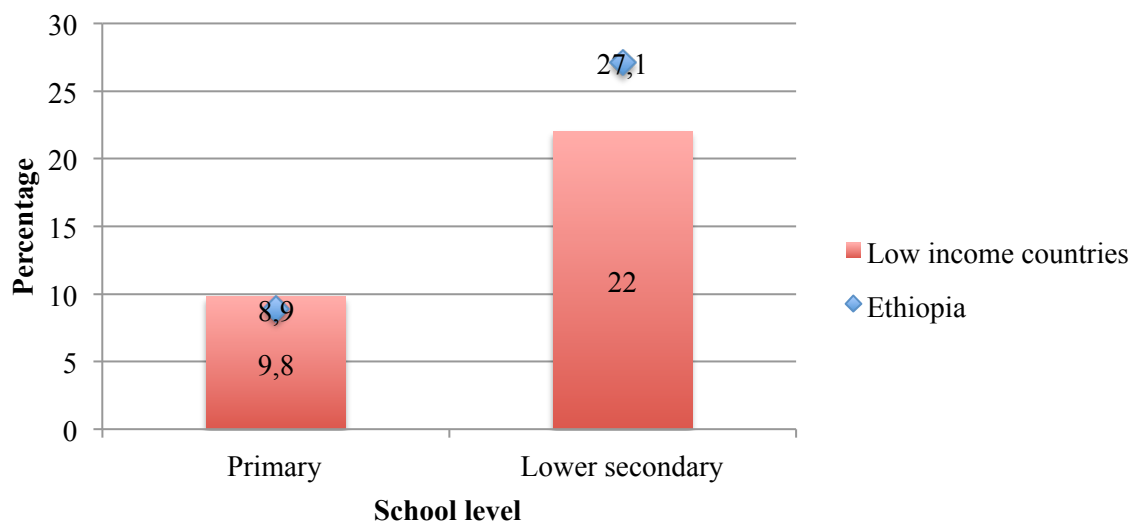


Figure 4.2 Government expenditure per student by school level (% of GDP per capita) in Ethiopia and low-income countries in 2011 (World Bank Data, 2017)

4.1.2 Educational Opportunities

Ethiopia has in the recent decades seen a vast increase in the number of schools. As shown in table 4.1 almost twenty thousand primary schools were established between 2003 and 2014. Primary education reached all the relevant aged students and an increase in secondary education was seen. Under the period of PASDEP (2005-2009) the number of trainees undertaking TVET grew from 106,336 to 717,603 (MoFED, 2010), though during the time the number of TVET schools had just doubled. In addition, higher education is still in its early development.

Table 4.1 Number of schools in Ethiopia from 2003-2010 (ILO, 2013b; NPC and UN in Ethiopia, 2015)

	2003	2004	2005	2006	2007	2008	2009	2010	2014
Number of schools									
Kindergarten	1067	1244	1497	1794	2313	2740	3865	3318	-
Primary education (Grade 1-8)	12471	13181	16513	19412	20660	23354	25212	26951	32048
Secondary education (Grade 9-12)	491	595	706	835	952	1078	1197	1335	2333
TVET*	153	158	199	264	388	458	458	448	-
Higher education	13	21	23	50	55	61	72	90	-

*Technical and Vocational Education and Training

4.1.3 Enrolment and Completion

According to the 2013 NLFS, over half of the population aged ten years and above were reported to have a school attendance status. Table 4.2 also reveals that the share of ever attending school increases significantly with the younger population, in both urban and rural areas. In 2013 of all population over 10 year old 58,5 % had ever-attended school. This number was much higher in the urban areas (82,9 %) than in the rural (52,2 %). However, this difference became smaller within the younger age groups 10-14 and 15-19 year olds of around 16-17 percentage points, portraying a more promising future for the generations to come.

Table 4.2 Population aged ten years and above by status of school attendance, age group and region in Ethiopia in 2013 (CSA, 2014b)

Age group	Total	Ever attended, %	Urban	Ever attended, %	Rural	Ever attended, %
All ages	55629497	58,5 %	11504022	82,9 %	44125475	52,2 %
10-14	10926901	81,0 %	1659513	95,6 %	9267388	78,4 %
15-19	8445312	81,6 %	1756676	94,3 %	6688636	78,2 %
20-24	6507320	68,8 %	1681547	90,4 %	4825773	61,2 %
25-29	6515694	53,5 %	1713812	85,0 %	4801882	42,3 %
30-34	4562823	45,4 %	1088450	82,0 %	3474373	34,0 %
35-39	4745478	44,9 %	1010146	79,7 %	3735333	35,5 %
40-44	3252359	42,0 %	616563	76,0 %	2635796	34,1 %
45-49	2707925	39,4 %	503196	72,4 %	2204729	31,9 %
50-54	2120551	34,1 %	380303	64,3 %	1740248	27,5 %
55-59	1604748	32,8 %	305623	62,8 %	1299125	25,7 %
60-64	1433297	25,5 %	260424	52,1 %	1172873	19,6 %
65+	2807089	21,1 %	527770	39,7 %	2279319	16,7 %

According to NLFS in 1999 only 29,9 % of the total population in Ethiopia were literate and more than half (59,2 %) of all the literate population had completed only the grades 1-6. As shown in table 4.3, literacy rates had shown great development, as the number grew up to 52,1 % in 2013, still placing Ethiopia amongst the countries with lowest literacy rate. Though the highest grade completed by a major portion of the literate (79,2 %) was still primary education – however a longer education nowadays, consisting of grades 1-8. The youth show development, as in 2013 they became even more literate than the country average, greatest development happening in the rural areas.

Table 4.3 Literacy rate of population aged ten years and above by age group, country total and youth (aged 15-29), and region in Ethiopia in 1999 & 2013 (CSA, 1999b; 2014b)

Age group and region	1999	2013
Total		
All ages	29,9 %	52,1 %
Youth 15-29	37,9 %	65,3 %
Urban		
All ages	72,0 %	80,0 %
Youth 15-29	83,2 %	88,7 %
Rural		
All ages	22,1 %	44,9 %
Youth 15-29	28,0 %	57,9 %

Estimations reveal that primary school gross enrolment reached over 100 % in 2014, whereas secondary gross was still 37,7 % in 2012 (World Bank Data, 2017). However, dropout and repetition is high. Primary completion rate was only 53,7 % of relevant age group and lower secondary completion rate even lower with 29,4 % in 2014. Of total enrolment in primary 7,6 % were repeaters in 2014. Though compulsory education has been set to 8 years according to 2014 World Bank Data (2017), this is clearly not being enforced. When looking at the youth figures the above mentioned percentages drop a bit because, because as shown earlier, each year the following age group gradually becomes more educated. The completion of primary education for the youth increased from 1999 to 2013 by 20 percentage points, but represented still under a half of the age group in 2013.

Table 4.4 Youth (aged 15-29) primary education (grades 1-8) completion rate in Ethiopia in 1999 & 2013 (CSA 1999b; 2014b)

Year	Primary education completion rate
1999	27,12 %
2013	47,43 %

The expansion of schooling has come for the benefit of the young population. However, non-formal education was still a second major group for educational attainment for around 4 % of the whole population in both 1999 and 2013 (CSA, 1999b; 2014b). Though regionally the contribution differed; non-formal education was the second largest contributor to education in rural areas after primary education (grades 1-8), but in urban areas non-formal contributed the least (CSA, 1999b; 2014b).

In 1999 the data about highest educational attainment was collected as “beyond grade 12”. Grade 12 was the end of secondary school, and the beginning of higher education in Ethiopia. The proportion of literate population who completed grades beyond 12 was very small (3,0 %), accounting less than 1 % of all population (CSA, 1999b). In 2013, this same number was 6,6 % of all literate and grew to a 3,4 % of all population (CSA, 2014b). Examining the youth

educational attainment shown in table 4.5, urban youth have clearly increased in tertiary educational attainment with 15,62 % in 2013, whereas the main development within the rural youth has happened in primary education. These numbers still being low, they reflect a change happening but a country with low human capital.

Table 4.5 Youth (aged 15-29) educational attainment by region in Ethiopia in 1999 & 2013 (CSA 1999b; 2014b)

Region and age group	Year	Primary education or less	Secondary education	Tertiary education
Total 15-29	1999	29,75 %	7,27 %	0,87 %
	2013	49,40 %	14,66 %	5,14 %
Urban 15-29	1999	45,67 %	33,44 %	4,08 %
	2013	40,30 %	33,99 %	15,62 %
Rural 15-29	1999	26,26 %	1,53 %	0,17 %
	2013	52,27 %	8,55 %	1,70 %

4.1.4 Quality of Education

Even though the diffusion of universal primary education was succeeded and enrolment to primary education is high, as seen this does not automatically result in completed studies. Also the level of educational attainment should not be taken as a guarantee of skills, as the quality of education might differ around regions. The literacy rate in 1999 NLFS was measured as the same as having educational attainment, whereas in 2013 this kind of assumption was not made. As the literacy rates do not represent the same number as population having a schooling status, this provides proof that what is really learned in school is vague. It is necessary to find out what children learn in school as some areas might teach only memorizing texts, but not literacy, numeracy or other life skills (UNICEF, 2014). The literacy rates were much higher in urban areas, 82,9 %, than in rural areas, 52,2 % in 2013, increasing from the 1999 figures of 72.0 % and 22,1 % respectively (CSA, 1999b; 2014b). Increasing literacy is just the starting point for a more inclusive and functioning country.

Simultaneously with the building of general schools, the number of TVET institutions has increased due to government's strong belief in the need. However, an earlier analysis of the NLFS's by Seid, Taffesse & Ali (2015) noted that the type of education the graduates receive in TVET programmes does not reflect the skills needed by the manufacturing sector, and thus has not made the effort successful, but created a mismatch. In addition to this the study finds that quality standards are not met, as the programmes do not seem to be demand driven.

Moreover, enrolment to private primary and secondary education in 2011 was 5,4 % and 11,3 %, respectively (World Bank Data, 2017). As the government builds the majority of schools in Ethiopia, the increasing percentage in private secondary could portray an insufficient supply from the government's side or a demand for different skills or quality.

Also, the language used in education influences learning. Ethiopia consists of over 80 different ethnic groups with different languages or dialects, of which four major languages Oromo, Amharic, Somali and Tigrinya are spoken by 75 % of the population (CSA, 2007). Especially in the last years of primary education (grades 7-8) English has been also introduced as a teaching language, and not just as a subject. The results of a study by Heugh, Benson, Bogale and Yohannes (2007) show that this is not recommended as the students learn better in their own mother tongue or in a language that is widely used around their hometown and so can be heard and used outside of school. The study noted that teachers might have lacked proficiency in the language, which made learning even more difficult. Ethiopia shows also a relatively higher pupil teacher ratio throughout primary and secondary education than other low-income countries. This is a strong implication of not having enough resources per student and can result in lower quality of education.

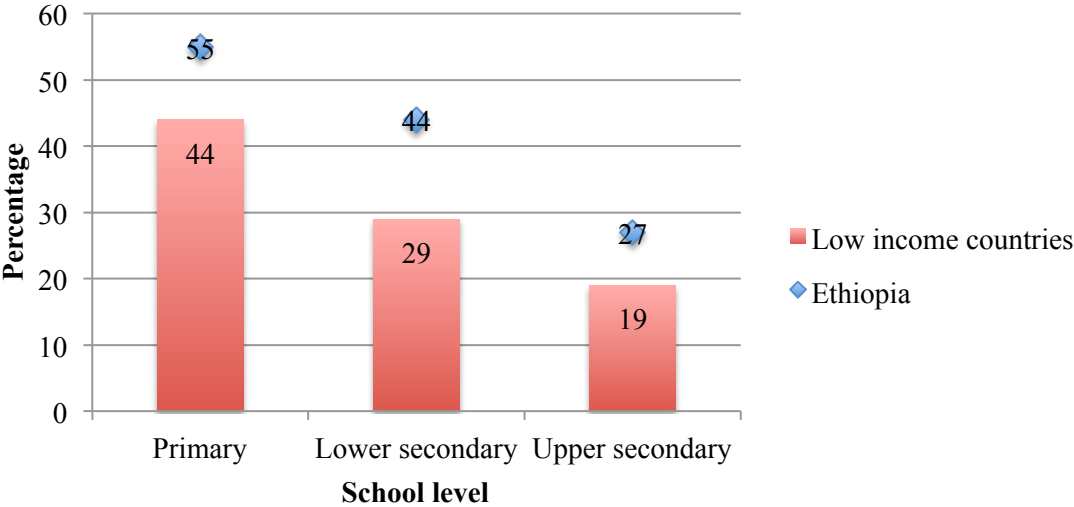


Figure 4.3 Pupil Teacher Ratio (PTR) by school level in Ethiopia and low income countries in 2011 (World Bank Data, 2017)

4.2 Features of the Labour Market

Employment in agriculture is still high in Ethiopia at 72,7 % in 2013. Services is the next biggest employer with 20,4 %, having wholesale and retail trade as one of its biggest areas (5,4 %), which leaves industry as a smaller employer with 6,9 %. Looking back to the national labour force survey made in 1999, agriculture has shrunk by 7,1 percentage points, giving space mainly to the service sector.

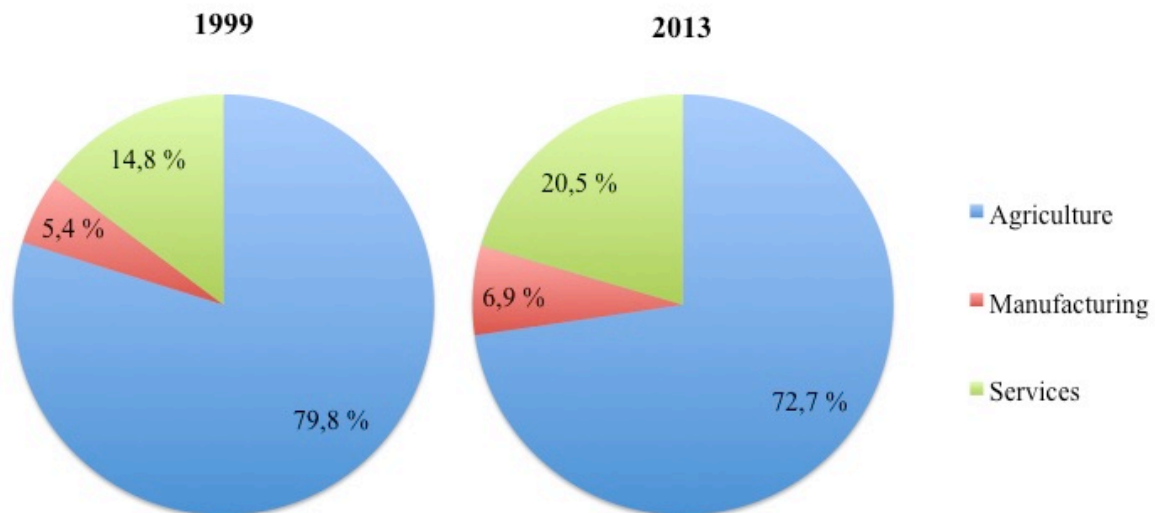


Figure 4.4 Currently employed population aged ten years and above by major industrial divisions in Ethiopia in 1999 & 2013 (CSA, 1999b; 2014a)

Agriculture's share of GDP has been gradually decreasing whereas industry and service sectors have increased their shares. As a result, the share of agriculture in GDP is now comparable to that of the service sector.

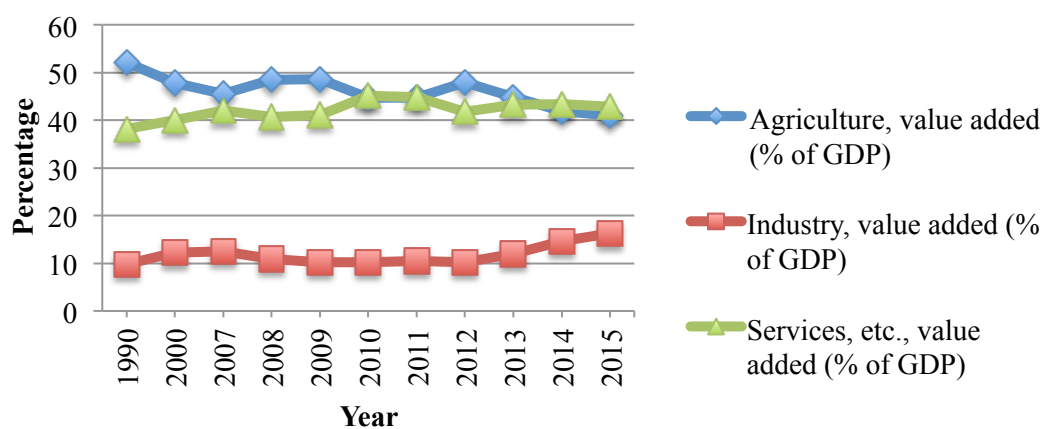


Figure 4.5 Economic sectors, value added (% of GDP), in Ethiopia from 1990-2015 (World Bank Data, 2017)

Industrialization is thought to be the force behind structural transformation. As theory says developing economies will become more productive in agriculture but simultaneously the sector must become a smaller share of a country's GDP (Perkins, Radelet, Lindauer & Block, 2013). As Africa's economic growth has occurred mainly due to commodity booms, the economies have not yet restructured.

Ethiopia has a great potential for a strong labour force as a majority of the population is in youth age category. A current status approach, which measures the activity status in relation to a short reference period, in this case seven days before the survey was made, was used by the NLFS to capture the figures of the economically active population, including the employed and unemployed who are available to work. The economically inactive population comprises of the ones who are not working due to education, homemaking, illness, too young or old age.

The amount of economically active youth population has not changed much throughout the years from 1999 to 2013, though the amount of young population has significantly increased. The rates for economically active population in the rural areas are always higher than that of urban areas at all ages. This might not be as positive sign as more children work in rural areas and population from age 10 and above are counted as economically active. Working hinders the possibility to attain school, which is seen in lower levels of educational attainments in rural areas.

Table 4.6 Economically active youth population (aged 15-29) by region in Ethiopia in 1999, 2005 & 2013 (CSA 1999b; 2006; 2014b)

Age group	Year	All persons in relevant age group	Economically active (last seven days)
Total			
15-29	1999	13942397	81,01 %
	2005	16416090	80,78 %
	2013	21468326	81,83 %
Urban			
15-29	1999	2507683	70,97 %
	2005	3218181	60,12 %
	2013	5152035	69,04 %
Rural			
15-29	1999	11434719	83,21 %
	2005	13197910	85,82 %
	2013	16316291	85,87 %

Lowest economic activity was measured in the capital region of Addis Ababa City Administration at 62,8 % (CSA, 2014a), in addition to the lowest age dependency of only 31.6 young and 6.3 old to every 100 persons in the productive age of 15-64 years. A lower amount of young in the urban areas combined to a lower economic activity would mean that in urban areas children go to school and stay there longer. The reasons for inactive population

in the rural areas are mostly that women are homemakers and men students, in comparison to the reasons in urban areas where men and women are more equally students and children do not work (CSA, 1999a). Table 4.7 shows that a clear difference between the economic activity of the youth can be seen in the age group of 15-19, where only 42,4 % in urban are active compared to 80,0 % in rural.

Table 4.7 Economically active population aged ten years and above by age group, country total and youth (aged 15-29), and region in Ethiopia in 2013 (CSA, 2014b)

Age group and region	Economically active (last seven days)
Total	
All ages	79,8 %
15-19	72,2 %
20-24	85,3 %
25-29	90,9 %
Urban	
All ages	66,5 %
15-19	42,4 %
20-24	77,5 %
25-29	88,1 %
Rural	
All ages	83,3 %
15-19	80,0 %
20-24	88,1 %
25-29	91,8 %

4.2.1 Employment and Unemployment in Urban and Rural Areas

In 1999 up to 89 % of working population were employed in the rural area, leaving only 11% in the urban (CSA, 1999a). Some urbanization has happened, as in 2013 already 18 % of population lived in urban areas (CSA, 2014a). According to World Bank Data (2017) Ethiopia's urban population has been steadily growing with 4-5 % annually, resulting in 19,5 % of total population in 2015.

Throughout the three labour surveys it has been the youth, 15-29 year old, who record the highest unemployment. This is clearly visible in the urban areas where unemployment percentages were as high as 21,6 % in 2013, though decreasing yearly (see figure 4.6).

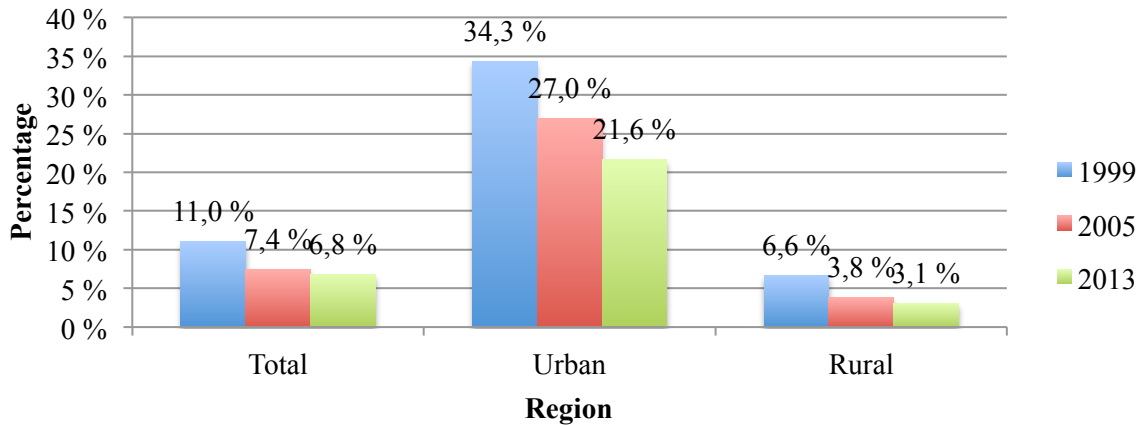


Figure 4.6 Youth (aged 15-29) unemployment rate by region in 1999, 2005 & 2013 (CSA, 1999b; 2006; 2014b)

Though the youth unemployment has decreased in percentages, table 4.8 shows that in actual numbers it has stayed the same in the whole country. In urban areas the amount has increased and simultaneously decreased in rural areas, which might either imply migration to urban or better working conditions in the rural.

Table 4.8 Youth (aged 15-29) unemployment by region in Ethiopia in 1999, 2005 & 2013 (CSA 1999b; 2006; 2014b)

Year	Total	Urban	Rural
1999	1242520	610912	631608
2005	1004595	565100	439494
2013	1200030	768103	431927

Looking more closely at the youth unemployment figures in table 4.9, it can be seen that the young population aged 20-24 years recorded the highest unemployment rate (9,10 %) of all age groups in 2013. The rate of unemployment for the particular age group was also highest in both urban and rural areas. Opposite to the information given by table 4.8 the only increase in youth unemployment in 2013 was seen in this age category due to an increase in the rural areas. As a whole the general increase in population affects the figures, and a larger percentage are being employed than unemployed. Although the percentage decreases shown in table 4.9 in urban areas are generally higher than in rural, the much larger population in rural defines the contribution to unemployment.

Table 4.9 Percentage change of unemployment rate of population aged ten years and above by age group, country total and youth (aged 15-29), and region in Ethiopia in 1999, 2005 & 2013 (CSA 1999b; 2006; 2014b)

Age group and region	Unemployment rate			Change of unemployment rate in percentage point from 2013 to	
	1999	2005	2013	1999	2005
Total					
All ages	8,02 %	5,00 %	4,50 %	-3.5	-0.5
15-19	11,28 %	7,20 %	5,60 %	-5.7	-1.6
20-24	12,66 %	8,40 %	9,10 %	-3.6	0.7
25-29	8,96 %	6,80 %	6,00 %	-3.0	-0.8
Urban					
All ages	26,40 %	20,60 %	16,50 %	-9.9	-4.1
15-19	38,21 %	25,90 %	23,10 %	-15.1	-2.8
20-24	38,54 %	31,20 %	25,80 %	-12.7	-5.4
25-29	26,36 %	23,60 %	17,20 %	-9.2	-6.4
Rural					
All ages	5,14 %	2,60 %	2,00 %	-3.1	-0.6
15-19	7,31 %	4,40 %	3,10 %	-4.2	-1.3
20-24	7,08 %	3,70 %	4,00 %	-3.1	0.3
25-29	5,31 %	3,30 %	2,10 %	-3.2	-1.2

When discussing the urban unemployment, it is assumed that the regions are urbanized. NLFS defines localities with 2000 or more inhabitants as urban centers, but however takes into account regional and zonal capitals or municipal towns and localities, where population is primarily engaged in non-agricultural activities, regardless of the number of inhabitants (though population must exceed over 1000). Even when comparing major towns listed, the ability to compare between them is questionable. Addis Ababa has an economically active population of over 1,7 million (UEUS, 2015). No other major town in Ethiopia reaches this size as all other have active population under 200 000 or less. It can be doubted if the other towns can be seen as real urban centers having an infrastructure, which can support modern sectors or a strong economic activity. Addis Ababa had the third highest urban youth unemployment among the major towns, but as critiqued before the youth figures were much higher than in any other major town, shown in table 4.10.

Table 4.10 Youth (age 15-29) unemployment & population size in major towns in Ethiopia. Top three highest towns in unemployment and in population size marked in bold. (UEUS, 2015)

Major town	Youth unemployment	Youth population
Dessie Town	31 %	42 822
Adama Town	30 %	77 655
Addis Ababa City	28 %	749 182
Bishoftu Town	28 %	35 264
Dire Dawa Town	22 %	59 948
Jijiga Town	22 %	21 398
Mekele Town	21 %	77 766
Jimma Town	20 %	46 683
Bahir Dar Town	20 %	76 771
Shashemene Town	19 %	30 917
Gambella Town	18 %	17 342
Harar Town	18 %	24 185
Hawassa Town	17 %	70 705
Gonder Town	17 %	81 187
Asosa Town	16 %	13 406
Asayita Town	14 %	6 545

Migration to urban areas was much higher than to rural, highest proportion of migrants compared to the total population of an area observed for Addis Ababa at 39,5 % (CSA, 2014a). Main reasons for migration in the urban and rural areas are to search for work and to live along with family, respectively, but for the youth up from age 20 the main reason to migrate to rural is marriage arrangement dominated by the females (CSA, 2014a; 2014b). Though the country has experienced strong urbanization and cities are being extensively constructed to accommodate the migrants, the employment markets have not seen a similar expansion, according to NPC and UN in Ethiopia (2015). The study notes that private sector development is needed in order to create jobs.

4.2.2 Employment Opportunities

Looking at the change in employment in major industrial divisions in Ethiopia from 1999 to 2015 in table 4.11, agriculture shows the greatest decrease whereas most other sectors show an increase. It must be noted that comparing the two periods is somewhat difficult because new industries have been created during this time and some industries have been regrouped with certain industries or divided into separate ones. In 2005 and 2013 these have become more defined, in example Transport and Communication was divided into Transport and Storage and Information and Communication in 2013. Also the amount of currently employed population grew from 24,896,586 in 1999 to 42,403,879 in 2013 (CSA, 1999b; 2014b).

Table 4.11 Currently employed population aged ten years and above by major industrial divisions in Ethiopia in 1999, 2005 & 2013 – Country total & Urban youth (aged 15-29) in 2013 (CSA 1999b; 2006; 2014b)

Major industrial divisions	1999	2005	2013	2013 Urban youth
Agriculture, hunting, forestry & fishing	79,8 %	80,2 %	72,7 %	10,7 %
Mining and quarrying	0,1 %	0,3 %	0,4 %	0,8 %
Manufacturing	4,4 %	4,9 %	4,5 %	13,8 %
Electricity, gas steam and air conditioning supply* (combined with water supply in 1999 & 2005)			0,1 %	0,3 %
Water supply; sewerage waste management and remediation activities* (combined with electricity in 1999 & 2005)	0,1 %	0,1 %	0,5 %	0,7 %
Construction	0,9 %	1,4 %	1,9 %	8,0 %
Whole sale & retail trade, repair of motor vehicles and motorcycles* (included personal and household goods in 1999 & 2005)	5,9 %	5,2 %	5,4 %	19,0 %
Accommodation and food service activities	3,5 %	2,4 %	1,1 %	6,5 %
Transport and storage* (combined with communication in 2005)			0,8 %	5,0 %
Information and communication* (combined with transport in 1999 & 2005)	0,5 %	0,5 %	0,1 %	0,9 %
Financial and insurance activities	0,1 %	0,1 %	0,3 %	1,7 %
Real estate activities (combined with renting & business activities in 1999 & 2005)	0,1 %	0,2 %	0,01 %	0,02 %
Professional scientific and technical activities			0,3 %	1,8 %
Administrative and support service activities			0,3 %	1,7 %
Public administration and defense; compulsory social security	1,0 %	1,2 %	0,7 %	3,1 %
Education * (combined with Human health and social work activities in 1999)		0,9 %	1,6 %	6,8 %
Human health and social work activities	1,4 %	0,2 %	0,6 %	3,2 %
Arts, entertainment and recreation			0,1 %	0,6 %
Other service activities* (combined as other social, cultural, personal and household activities in 2005)	1,2 %	1,4 %	1,1 %	6,0 %
Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use* (private Households with employed persons in 2005)	0,8 %	0,8 %	7,3 %	9,2 %
Activities of extraterritorial organizations and bodies description	0,03 %	0,2 %	0,1 %	0,3 %
Not stated	0,2 %	0,03 %	-	-

One sector, especially primary or secondary, employing most of the population reflects the low development status of a country. As the growing service sector should imply a creation of

skilled jobs for educated youth, the restriction of internet around the country does not further encourage the highly important growth of ICT sectors in order for the country to become a modern economy and so globally competitive. Examples of the internet being arbitrarily and without a notice “switched off” for days have recently surfaced, as during the school entrance exams in order to prevent cheating (Africanews, 2016; BBC, 2107). Information and communications was represented only by 0,1 % in 2013 of employed population, compared to the ICT employment in OECD of 3,7 % in 2011 (OECD Data, 2017). However, the urban youth are more employed in all industrial divisions, except in agriculture, than the country average, as a strong positive correlation exists between the increase in education levels and the share of employment in service sector (UCW, 2013). Also, the urban age group 25-29 dominate the older age groups in all divisions, minor exceptions being electricity gas steam and air conditioning supply, and real estate activities. The largest employing divisions for the youth were whole sale and retail trade, manufacturing, agriculture, hunting, forestry and fishing, and activities of households as employers. In rural areas agriculture still employs as much as 80 % of the youth (CSA, 2014b).

Table 4.12 shows that youth in urban areas are moving towards occupations such as professionals, technicians and associate professionals, service and sales workers, which could be expected to require higher education. Though occupations such as crafts and related trades and elementary occupations have experienced a significant fall, large shares of employment are still in these occupations. However, already over half of urban youth worked in non-manual occupations in 2013. In rural areas the most apparent increase is in skilled agricultural and fishery workers, whereas the second biggest employment, elementary occupations, shows a decrease similar to urban areas. The rest of the occupations in rural areas are fairly minor to discuss of changes, while urban areas start to show a more equally distributed shares.

Table 4.12 Currently employed youth population (aged 15-29) by major occupational groups and region, categorized into broad occupational groups by skill level in Ethiopia in 1999 & 2013 (CSA 1999b; 2014b)

Age Group	Year	Total employed persons	Broad occupation groups										Others
			High-skilled non-manual			Low-skilled non-manual		Skilled manual		Unskilled			
			Legislators, senior officials & managers	Professionals	Technicians & associate professionals	Clerical support workers	Service & sales workers	Skilled agricultural & fishery workers	Crafts & related trades	Plant and machine operators & assemblers	Elementary occupations		
Total													
15-29	1999	10051912	0,14 %	0,12 %	0,90 %	0,63 %	7,09 %	30,28 %	13,09 %	0,49 %	47,09 %	0,18 %	
	2013	16367846	0,47 %	2,51 %	2,58 %	0,65 %	10,54 %	40,92 %	4,85 %	1,11 %	37,21 %	0,04 %	
Urban													
15-29	1999	1168772	0,95 %	0,98 %	5,44 %	4,75 %	27,22 %	4,21 %	23,59 %	3,08 %	29,37 %	0,42 %	
	2013	2789037	1,92 %	7,23 %	8,21 %	3,40 %	31,13 %	6,91 %	12,89 %	5,19 %	22,97 %	0,14 %	
Rural													
15-29	1999	8883141	0,03 %	0,00 %	0,30 %	0,09 %	4,44 %	33,71 %	11,71 %	0,15 %	49,42 %	0,14 %	
	2013	13578809	0,17 %	0,48 %	1,42 %	0,09 %	6,31 %	47,90 %	3,20 %	0,27 %	40,14 %	0,02 %	

Recently foreign investors have become more interested in Ethiopia due to its low wages, cheap electricity and benefits as duty free markets to the US (Bloomberg, 2015). The foreign investors, mainly China, might have promoted a greater change in industry than what the Ethiopian government has been able in decades. In example, a Chinese leading shoe manufacturer recently grounded a factory in Ethiopia, presumably generating 30 000 jobs in the country (Financial Times, 2015). With the governments support to create special industrial

parks as huge as Hawassa, amassing 1,3 million square meters, becoming the largest in all Africa, Ethiopia demonstrates a wish to complete structural change (Ethiopia Online, 2016). Even though it is mentioned that some local entrepreneurs join the movement, it is clear that foreign firms, as from China, make the most investments. As according to a study made by World Bank (2012), China's reducing competitiveness in labour-intensive low-skilled manufacturing could soon be reallocated to low-income countries opening up almost 100 million jobs. The study notes that Ethiopia is also one of the non-resource-rich countries, which had non-existent Chinese FDI in 2004, but already in 2010 the amount was almost 60 million USD. The growing interest might indicate the opportunity of relocating the labour-intensive manufacturing to Africa as China's wages keep rising. Ethiopia is set to become a top manufacturer in Africa, especially in leather and textiles industries (allAfrica, 2017). Manufacturing is expected by the government to annually increase by 25 % simultaneously creating 200,000 jobs each year (Bloomberg, 2015). The private sector is expected to lead Ethiopia towards a middle-income country in 2025 (World Bank, 2015b).

Even though industrial parks are a way forward in creating employment, this will not affect the employment opportunities in cities. The informal sector is a major employer in urban areas (25,8 %), though a decline can be seen throughout the years (CSA, 2014a; 2014b). The major branches in urban areas are whole sale and retail trade, manufacturing, construction, mining and quarrying in addition to an even larger share in the rural working in informal agriculture, hunting, forestry and fishing (CSA, 2014b). As the criteria for informal work is not having a book of account or licence for the business but the product or service is mainly for the market (CSA, 2014a), this seems to picture most agricultural work in a developing country, which creates a doubt over the fairly low rural informal work percentage of 16,6 % (CSA, 2014b). Additionally, NLFS statistics for rural unemployment are exceptionally low, which can be partly explained again by categorization, as in rural areas unpaid work among families is the most common status in employment, 55 % in 2013, but still counted as employment. The next largest group in rural areas, also not included in the paid employees, is self-employed population with 40,3 % share of total employed (CSA, 2014b). These two groups are considered as vulnerable employment by ILO (2013a), common among youth as unpaid family work is a usual starting point with continuation to self-employment. Similarly, found out by the study, even though developing regions as Sub-Saharan Africa, so including Ethiopia, state a low rural youth unemployment rates, the poverty levels in the same area are high, which means working is a necessity for young people. Young people accept work, which does not pay well, develop skills or have job security, as other option would be starvation because in many cases social protection is non-existent (Africa Renewal, 2013).

Consistent with the statistics of Ethiopia, is the notion that self-employment is more common for low levels of education (UCW, 2013). Education, even little of it, positively increases the chances of receiving wage employment with contract, which is less common in the informal market (UCW, 2013). Data gathered by the CSA (2014b) supports this as out of the total employed population in rural areas only 3,8 % are paid employees, compared to 45 % in urban areas. Looking at the urban areas, the largest group of employed still falls into unpaid category, self-employed (39,3 %), after which comes employee in a private organization (18,5 %) (CSA, 2014b). The government encourages entrepreneurship, also seen in the forms of self-employment and other household activities, by supporting MSEs. A good effort is needed as Ethiopia finds itself in the bottom quintile of the Global Entrepreneurship Index (GEI),

which measures entrepreneurial attitudes, abilities and efforts of the local population against social and economic infrastructure such as broadband connectivity or transport possibilities (The Economist, 2016; The GEDI, 2017). In addition, according to the CSA (2014b), the main problem faced by the unemployed population both in urban and rural areas when establishing their own business was shortage of finance. Moreover, the survey shows that the steps taken by unemployed population in order to find a job had moved from trying to establish their own firm in 1999 to acquiring an unemployment card and asking from friends and relatives in 2005 and 2013. Half of the type of work sought was any available work. However, the former had been decreasing over the years, while the share of establishing an own business increased. As establishing an own firm falls into self-employment, a low share of youth in this category might have implied low levels of young entrepreneurialism (UCW, 2013). Unfortunately the NLFS statistics do not allow a deeper look into age groups.

4.2.3 Educational Characteristics of the Unemployed

The unemployment rate by educational attainment summarized in figure 4.7 shows that the chance of becoming unemployed increases with educational attainment. The rate begins to grow when starting preschool, culminating in preparatory education with 24 %, which is the grades 11-12 preparing for college, and then again diminishing towards higher education. However, the unemployment rate does not return as low as it was with lowest educational attainment as illiterate and non-formal education. The lowest unemployment rate was for persons who had attained only non-formal education with 1,6 %.

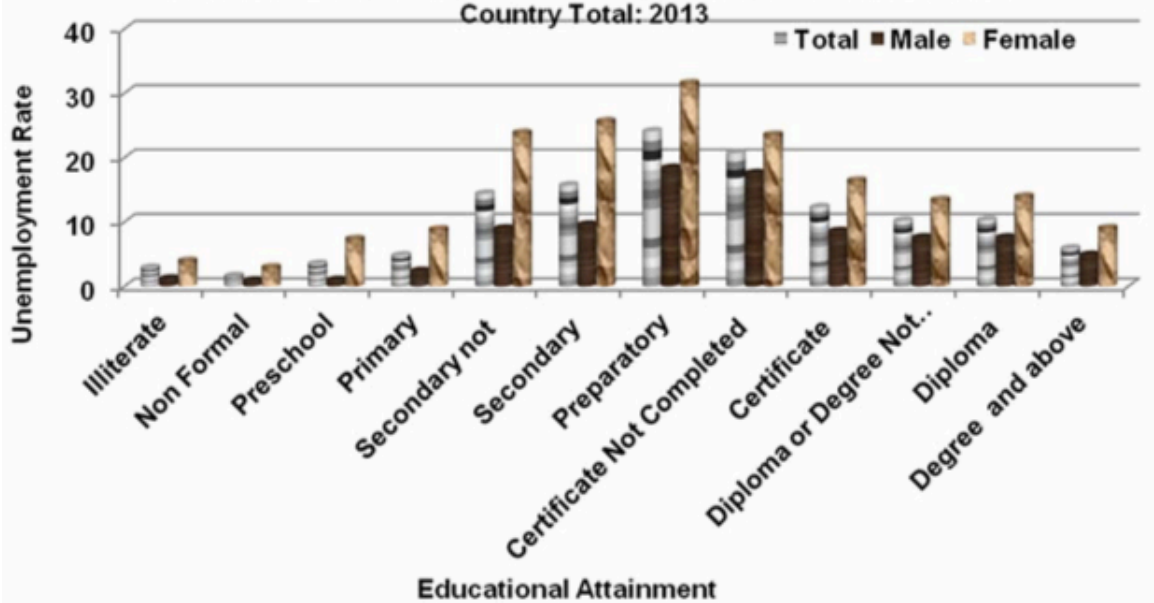


Figure 4.7 Unemployment rate of population aged ten years and above by educational attainment and sex in Ethiopia in 2013 (CSA, 2014a, p.90)

Moreover, the difference in economic activity between the literate and illiterate population has grown, table 4.13. The literate have been thought to be longer in school, not engaging in

production of goods and services, and so being less economically active. Similarly, in both urban and rural areas illiterate had a higher activity rate than the literate.

Table 4.13 Economic activity rate by literacy status in Ethiopia in 1999 & 2013 – Country total (CSA, 1999; 2014)

Economic activity by literacy status	1999	2013
Literate	75,2 %	73,4 %
Illiterate	77,2 %	81,9 %

The unemployment rates by literacy support the unemployment by education status statistics. Throughout the three NLFS, the unemployment rate of literate persons was higher than of illiterate persons, see table 4.14. This could reflect the division of literate residing in cities and illiterate in the countryside, as the rural unemployment is lower and so is the literacy rate. The unemployment by literacy rate neither a comparison between regions was possible to be compared with youth statistics, as the data did not allow a further research.

Table 4.14 Unemployment rate by literacy status in Ethiopia in 1999, 2005 & 2013– Country total (CSA, 1999; 2006; 2014)

Unemployment rate by literacy status	1999	2005	2013
Literate	8,0 %	7,8 %	7,0 %
Illiterate	6,0 %	3,5 %	2,9 %

When looking at the statistics of an individual and previous job experience, a person without experience has a higher chance of being unemployed. In 2013 a larger share of the unemployed did not have previous work experience (2014b). A slight difference could be seen between urban and rural, where in the former the contribution of experience decreased. In the rural work experience mattered more. This might be caused by the more educated youth in urban areas proving their abilities through education.

5 Discussion

The aim of this study was to find out what were the developments in education and the labour market in Ethiopia during the periods 1999, 2005 and 2013. A comprehensive overview was provided in order to understand the mismatch between education and labour market resulting in youth unemployment. Additionally the effect on the mismatch of the implementation of the MDGs was researched.

5.1 Developments in Education and the Labour Market in Ethiopia

The government expenditure on education (% of GDP) has been since the start of 2000s higher than ever before. The main developments during the researched time were the increase in the amount of schools, now enabling universal primary education, and the vast increase of educated youth. Literacy rates, ever-attending education and primary completion rates have in growing numbers increased among the younger age groups; urban areas continually scoring higher than rural in all educational categories. However, the compulsory schooling of 8 years is not being enforced and dropouts and repetitions are common. Additional concerns on the quality of education are brought up by the literacy rates not representing the same rate of population having a schooling status, which provides information that even the most basics of schooling (reading and writing) are not always achieved. Though in 2013 just under half of the youth had completed primary education and 19,7 % had a higher educational level than primary.

Labour markets are still dominated by agricultural sector but employment in urban areas has shown development as more youth are working in non-manual occupations. Additionally, services exceeded agriculture in percentage of GDP value added in 2015, whereas manufacturing has a small contribution. The labour force becomes increasingly younger as the masses of youth enter. More youth are economically active in the rural areas, which might imply that more in the urban are out of work force due to studying longer. Also persons as young as 10 years old are considered economically active, and especially in the rural areas children take part in many types of economic activities at young ages and so further increase the regions economic activity.

Even though unemployment is decreasing, urban youth unemployment is still high at 21,6 % in 2013. In particular the urban age group 20-24 records the highest unemployment rate of 25,8 %, which could portray an issue in school to work transition. It cannot be said that unemployment rates have decreased because of a better situation. As with Ethiopia, also other

African countries have suffered from violence and unrests, as the youth cannot find their place in the workforce (Africa Renewal, 2013).

As discussed before the only main city according to population size in Ethiopia is Addis Ababa City. All other major towns have a population of under 200 000, whilst the capital has just a youth population of 749 182. Youth unemployment rate in the capital was up in 28 % in 2013. Urban and rural distinctions must be made as the two areas have very different characteristics and so are the causes for unemployment.

5.2 Causes of Youth Unemployment

Though the increasing educational attainment of the youth promises a better future, the problem of high youth unemployment lies somewhere in between the education received and the absorbing capabilities of the labour markets. Ethiopia's youth statistics reflect very clearly the problem of transitioning from school to workforce. The trend of positive development between higher educational attainment and unemployment, found already in a study by Broussard and Tekleselassie (2012) between the years 1999 and 2011, continued in 2013. As mentioned before, the highest unemployment rate was found within the preparatory education and lowest for persons who had attained only non-formal education, see figure 4.7.

The unemployment by educational attainment figure represents the whole labour force of Ethiopia and doesn't make a difference between region and age group. As the amount of rural employment is much higher than urban the contribution affects country averages. If the separation could have been made claims such as uneducated workers not being as well employed in the urban areas as the figure implies. It must be noted that less educated tend to reside in rural areas, where unpaid family worker is the main employment status and as the job might have been started at a very young age, also disrupting schooling, these persons are never marked as unemployed. If unpaid family worker would not be categorized as employment, the very low rural unemployment rate of 2,0 % would increase to 56 %. The lower unemployed numbers in rural could show an increase in population in urban because of migration as there is not really sustainable employment options in rural. However cities are also unable to provide for the new entrants, as there is simply not enough job creation.

Additionally, the current status approach used to measure employment accounts a person employed if they have worked in the last seven days. This does not ensure continuous work and might provide different figures during another month, in example due to harvesting. Unpaid family worker and self-employment, also described as vulnerable, are common jobs among youth but are not jobs to aspire. Individuals who have received some schooling might seek jobs from cities, even informal jobs in cities being better than jobs in general in rural areas. The immense population size might prevent a thorough research.

Moreover, secondary data did not allow a further research in an essential area, characteristics of the unemployed youth, as example in the share of youth with a specific education level employed in a specific profession compared to unemployed in a certain region. This could have given implication of overeducation or undereducation, which would have shown a

mismatch between the supply of education and the demands of labour markets. Though it was possible to note that majority of unemployed had training in social sciences, specifically in finance and accounting, almost all residing in the urban areas (CSA, 2014), which provides information that these occupations are in supply but not in demand. As previous studies (Broussard and Tekleselassie, 2012; UCW, 2013) suggested that the better-off individuals are the ones able to attain a higher education and so can wait for a more suitable job, the same could possibly be seen in Ethiopia as the more educated search for jobs matching their education. The better-off individuals might also choose an education out of personal interest even though the labour market requirements would not match. This could be seen with the finance and accounting, as finance is a small industrial division in the whole country scale.

Primary educated workers constituted 44 % of the unemployed, which could imply that the skills mismatch is mainly among this educational group. The labour markets demand could be either under or over the demand of workers with primary education. However, higher rate of unemployment among more educated workers is most likely not an indication of abundance in this skill level, as in the developing countries underqualification is common. As under half of the population has only primary education, the chance of workers being underqualified for their jobs grows. Additionally the quality of education might not be sufficient for the market demands as was found out with the TVET and so cannot be used to signal workers ability.

The theory of returns to investments in human capital, presented in chapter 2.1, would not in the Ethiopian case come true as according to the statistics the least educated are less likely to be unemployed than the educated and so taking on the investment to receive education risks a future of unemployment and does not certainly lead to a wealthier future. Though when looking back at the Ethiopian case the ones who have finished their university degree or continued further have a relatively low unemployment rate. Also, when employed the more educated will most probably receive a higher wage as the development towards non-manual work in urban areas showed. As a summary, some schooling is inadequate at the current moment, but with more schooling the individual fits better into the labour market.

Additionally, work experience was found out to decrease the chances of becoming unemployed, possibly overtaking educational attainment as a sign of ability. The notion that the ones without work experience are more likely to be the ones who study longer is challenging, as assessing this with basic human capital theory, the individuals have invested in their future in order to receive better jobs and higher wages, but end up unemployed. If the costs of education, including foregone earnings and experience, are higher than the gains of education, then the investment to human capital should not have been made. Here the mismatch is visible as more education positively affects unemployment, though if the gains are still higher after a period of unemployment, then the investment was profitable. Youth unemployment with and without work experience could not be defined with the existing data.

The labour market development has not been as rapid as the increase in educational attainment. Options at the countryside seem limited as jobs were dominated by unpaid family worker and self-employment. Even though a person would be undereducated in a city a pursuit for jobs that pay encourage leaving the countryside. However, as agriculture still continues to employ the largest share of labour, youth are left to decide whether to accept a lower skilled job, work in the informal sector or risk possible unemployment in the cities.

The market composition could explain part of the youth unemployment. Informal market employment was high especially in urban areas. The prevalent worker at informal sector in urban area has finished primary education, followed by secondary educated worker (CSA, 2014b). As almost half of the country can be placed in the previously mentioned educational attainments, informal markets is not just for the least educated. If encouraging entrepreneurship is seen as important growth factor by the government, then more investments need to be made in order to keep the young entrepreneurs and skilled employees not sliding into informal sectors.

Though as mentioned the government supports entrepreneurship, but the actions to improve the private sector do not seem to be enough. Majority of unemployed had previously taken steps to find work by establishing their own firm but in 2013 acquiring an unemployment card was the main action. In GTP 1 TVET was encouraged in order to transform MSEs, which would then grow and create employment opportunities. However as the number of the TVET trainees is still low (717,603 in 2009) compared to the approximately 80 million economically active population, the effects are insufficient.

Another challenge for MSEs is that access to finance for firms is difficult. Either traditional banks will not give loans to these small operations (The Economist, 2016) or as in Ethiopia the internet is restricted and so financing without internet services is difficult. The Ethiopian government has realized the need to conquer this challenge and focused to allow easier access to financing (MoFED, 2010). However, the actions taken by the government and financial institutions were not seen as sufficiently supportive and so World Bank Group (WBG) cooperated with investments to build dedicated industrial zones to link MSEs with larger firms (World Bank, 2015b).

The restriction of internet is hindering the modernization of the country and could be damaging to the youth as everywhere else the youth of today are called as the internet generation, who are born with constant connection around the world and operate through the internet. The new technology has also created whole job sectors, which are minimal or non-existent in Ethiopia. As Ethiopia refuses to allow access, the competitiveness of the country might be weakened as new sectors of economy are not able to grow but also as the best available employees are not found. Screening and signalling of the best candidates for the job is a major challenge as job announcements are difficult to find. One of the main ways to find a job was to ask from friends and relatives.

5.3 Effects of the Implementation of MDGs on the Mismatch

Though MDGs have certainly succeeded to encourage countries to take steps towards a more stable country, following the simplified recommendations might have not been the most efficient decision, as country-specific policymaking is needed. Advanced in health and education have both contributed to the increasing human capital attainment but also to the massive population growth. Large amounts of population attaining only primary education, or

not even completing the educational level, misallocate the group. The majority of the young population will finish primary education, but as the unemployment by education shows this group is part of the ones most probably unemployed. Primary education in rural areas could be overeducation as work in rural is mainly unpaid family workers or self-employment and so would be unproductive use of the skills, but for jobs in urban areas the skill level is insufficient.

Focus on primary education resulted in neglect towards secondary and tertiary education. The lower numbers of secondary and TVET schools could imply continuing education to be difficult or not a possibility for all. Also the massive diffusion of education has not provided equal quality of education and the effects can be strongly seen in the TVET programs, which were strongly encouraged, but found out not to supply the market what it needed.

Ethiopia should further encourage the educational attainment, as rural rates in primary are still very low. Actions to enforce compulsory schooling, such as providing schooling for free or even supported, so inherited poverty does not affect the children and they can possibly break the poverty cycle. Learning to read and write increases is a basic necessity as farmers can make better contracts, learn about intensive farming and encourages more productive work.

5.4 Actions to Reduce the Mismatch Between Skills and Jobs Available

The GTP 1 policies identified similar actions as the ILO policy areas suggest in addressing the youth employment crisis, such as access to finance, education, especially towards TVET in order to support modernization and growth of MSEs. However, though realizing the need for job creation the mismatch was not discussed. Self-employment, small-scale production of goods and selling these on the market is the most common employment, but does not guarantee a secure job. With an increasing population, it was understood that there is a need to diversify the economic activities towards the manufacturing sector to ensure more durable jobs for the lower skilled masses. Industrial zones were built in order to become more competitive and to increase employment opportunities.

Expansion of education happened before introduction of large-scale manufacturing. Now the government is strongly supporting the building of manufacturing industries, which will employ more masses. The manufacturing industry will come for the benefit of the low-skilled employees such as ones with primary education. However, the educated youth wishing for decent jobs in urban areas are in need of a modern and developed service sector, as previous research noted that increasing educational attainment could be seen in correlation with growing service sector. As the data shows urban unemployment is the highest for youth in the whole country, so opening up industrial parks 200 kilometers away from Addis Ababa (Hawassa) most probably does not reflect a job opportunity for an individual already in the city but will employ others in the countryside. However, building industrial parks does not assist in modernizing the farming techniques in order to reach the much-needed higher productivity in the agricultural sector.

Because of the growing investments in Africa, alongside towards the primary products, China has often been accused of keeping Africans in the low-skilled job sectors (Fortune, 2015) and just taking the resources what is needed at the moment, without implying development. However, comparing to the small size of the manufacturing industry and the fairly unproductive agriculture, China might be just providing the basis for a growing more modernized sector as strong investments in infrastructure are also part of the deals. Human capital investments have also been made as already in 2014 Financial Times (2014) wrote about China's increasing investments in education and joint research, though the quality has been questioned.

In the globalizing world competition becomes stronger and countries need to stress and develop their competitive advantages. In a study by Kwon (2009) human capital or in other words people will become the main asset in order to reach growth. As the trade with China shows, human capital has not been in the main focus because lower-skilled job has been sufficient for now. However, to create more productive industries the investments should be made in human capital as the individual competence matters. If public education is unable to provide sufficiently educated workers, the hiring companies need to take responsibility of training their staff for their needs if the education sector is unable to. As Adalet McGowan & Andrews (2015) pointed out that a lower mismatch can be achieved through lifelong learning, and as large amounts of young Ethiopians will not be educated before the need arrives, on-the-job training becomes important.

Increasing the educational attainment of rural youth needs more attention. One solution could be to set an age at which people leave education. As poor families, especially at the countryside, cannot afford their children to miss out on daily chores as helping with farming or tending the cattle by going to school, attending school should be supported more by the government. For the government children and youth working does not create any advantages as when comparing to the curve of rate of returns of education, the children do not forgo any earnings by staying in school, as they would usually be employed in the unpaid family worker category. For the future outlook, education is most important in the first years and becoming literate is for the benefit of the whole country. As mentioned earlier having even a little of education is positively correlated with increased chances in finding wage employment. Avoiding job search focusing mainly in urban areas, region-specific vocational training, such as intensive farming, could alleviate youth to settle in their own area.

Moreover, policies for education and labour markets should move in the same direction ensuring a seamless transition from school to work. If subjects taught and quality of education are not consistent with the demands of the labour market mismatches will appear. Additionally, political atmosphere, global trends and the age structure of the country affect mismatches as seen with the case of Ethiopia.

6 Conclusion

Youth unemployment in Ethiopia will be one of the country's toughest challenges as the following age groups entering the labour force will be even larger. The youth will be more educated than the generations before but at the moment not even half of the urban youth possess an educational status, which could qualify for higher skilled jobs. Additionally, there just are not enough jobs on offer as job creation has been low.

Global competition puts pressure on a developing country and hands down opportunities mainly in low-skill, low-paid work, which developed countries do not wish to operate. Nonetheless, human capital attainment is necessary in today's knowledge-based economy. If human capital is more important than physical capital, then advances made in Ethiopia towards a manufacturing-based country seem backwards, with the notion of fast advances in automation in the specific sector. As the country wishes for a quick lift to becoming a middle-income country, manufacturing is now seen as mass employer for the majority of middle and low-skilled workers found in the country. However, this orientation has forgotten the more educated workers in the urban areas, which creates unrest. Educated jobseekers are looking for jobs matching their skills. Though the encouragement for entrepreneurship is visible, but as the government continues to control the markets, financing is and new important industries relying on internet access are not growing.

When young people have decent jobs, political weight, negotiating muscle and real influence in the world, they will create a better future – United Nations Secretary-General Ban Ki-moon (UN, 2015).

Increasingly more educated people enter the labour force and with the age structures around the world changing, the youthful African countries could have their chance to show their importance in the world. It will be seen if Ethiopia succeeds to industrialize by recreating the successful mass-manufacturing with the help of China or will the service sector increase to accommodate the educated youth.

6.1 Future Research

This research provided information of education and labour markets in Ethiopia, with a focus on youth, in order to understand the mismatch and the resulting high unemployment. However, in order to fully answer the research questions, a much larger and more detailed study would have been necessary. Though education and the labour market are the main parts affecting the mismatch, numerous other indicators could have been researched.

Some data was unable to be found such as school locations, subjects taught and graduates per school. As the development of TVET received a major focus from the government the supposed effects on the growth of MSEs would have been interesting to find. Also, secondary data did not allow access to statistics on education of the employed, which could have provided information on mismatches when comparing with the education of the unemployed.

Future research could consider using wage levels and returns to education theory in order to identify the benefits of educational attainment. Moreover, as a developing country Ethiopia should be making use of new technology in order to catch-up with development and become competitive, but it is creating a restricted internet. The global connection the internet offers is nowadays rather a must than a benefit in business and the effects of restricting the access might impact the private sector growth and foreign investment. A further research could be done on how a highly educated but authoritarian country without open internet can sustain itself.

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