

UNIVERSITY OF GHANA, LEGON

YOUTH UNEMPLOYMENT IN GHANA.DOES RESERVATION

WAGE MATTER?

BY

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DECLARATION

I KOJO TAWIAH AMPAH, hereby declare that this thesis is the original research undertaken by myself under the guidance of my supervisors; and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where stated otherwise by reference or acknowledgment.



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ABSTRACT

Unemployment is often cited as one of the macro-economic indicators measuring the strength and growth of an economy. Given that the youth are three times more likely to be unemployed, it is only prudent that in addressing issues of unemployment, programs, and policies are structured to address youth unemployment. In an attempt to better understand the dynamics of youth unemployment this study takes a brief look at the patterns of unemployment in Sub-Saharan Africa, particularly Ghana, to determine whether the reservation wage is a contributing factor to youth unemployment, its determinants and finally to answer the question of whether the youth are over-pricing themselves in the Ghanaian Labour Market. In determining whether the reservation wage is a contributing factor to youth unemployment in Ghana, we apply a probit regression estimation technique to explore how each of the reservation wages influences the probability of an individual becoming unemployed. Secondly to investigate the determinants of reservation wage among the youth in Ghana we employ an OLS regression model. Finally, in determining whether the youth are overpricing themselves in the Ghanaian labour market we use an independent sample t-test to test for significant difference between the mean of unemployed youth reservation wages and employed youth actual wages. Results from the study showed that the reservation wage is a determining factor of youth unemployment in Ghana and showed that youth with reservation wage have 26.8 percent chance of being unemployed. Also, unemployed youth, mean reservation wage was significantly lower than the mean actual wage at 5 percent level of significance indicating a lower price expectation to the actuals in the labour market.

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CHAPTER ONE

INTRODUCTION

1.1 Background

According to the Sustainable Development Growth's Report in 2018, the youth were three times more likely to be unemployed than adults with global unemployment rates of 13 percent. The primary focus of the Sustainable development goals is to eradicate all form of poverty by calling for action by all countries to promote prosperity while protecting the planet. These goals are all inter-connected, in a system and without the right balance and attention; its achievement will be prolonged. Unemployment has been one of the major challenges faced by many countries. Being employed enables an individual to at least earn a living to make ends meet. With the high level of unemployment particularly amongst the youth, the Sustainable Development Goals such as no poverty, zero hunger, good health and living, quality education, gender inequality, affordable and clean energy among others will be difficult to achieve given the interrelated nature of the goals and the role of unemployment. The renewed commitment in recent times by the Governments in developing countries to address youth unemployment serves a means to intensifying the fight against extreme poverty, and achieving this understanding, the elements responsible for unemployment particularly amongst the youth will go a long way in achieving these goals.

The Ghanaian population is characterized by the youthful group and is defined officially from ages 15 – 35 years according to the National Youth Policy 2010. Over the past four decades, particularly amongst the youth, the Ghanaian population increased significantly from 1.1 million to 2.3 million, starting from 1960 to 1984 and to 3.5 million in 2000. It has been observed from recent data that 34.1 percent constitute the youth out of the total population of 26,347,424 as of 2014. The Ashanti

region has the highest share with about 6.8 percent of youth next to Greater Accra with 6.2 percent. The Upper West and Upper East respectively share a percentage of 1.0 and 1.4 of the youthful population in Ghana (Ghana Statistical Service, GLSS 6 Report, 2014).

According to the report, those largely influenced by unemployment in the country are those that fall within the age brackets of 15-24 (10.9 percent) as compared to the older generation who are 65 years and above (2.5 percent); which holds for both males and females. Similar to this, individuals within the same age brackets (15-24 years) in urban areas, have higher rates of unemployment (16.3 percent) compared with those in other age groups. The Institute of Statistical and Economic Research (ISSER) of the University of Ghana states that “about 250,000 young people enter the labour market yearly”. The formal sector is only able to absorb 5000 (or 2 percent) of this amount. The informal sector then becomes a ground of solace and survival for the remaining 98 percent. (ISSER, 2010).

In an attempt to identify one of the factors responsible for youth unemployment in Ghana, the reservation wage has been cited in the literature as one of the contributing factors to the seeking but non-economically engaged nature of some participants in the labour market (Baah-Boateng 2013).

Under the fundamental theory of labour supply, the labour leisure choice model shows that any amount below the worker's bait (reservation wage) will lead him to spend all his hours on leisure. The individual's decision to enter the labour market largely depends on the prevailing market wage, which determines how much employers are willing to offer. The worker's bait also shows how much the worker requires to work that first hour. Thus the reservation wage is the wage individuals peg or value their observed or unobserved characteristics for which when received are willing to

work; anything below this wage the individual will not work since his opportunity cost of leisure will be too high i.e. the least wage which an individual is willing to work for. This wage gives the lowest wage necessary to induce the individual to work. A job offering similar working conditions will be rejected by the worker at a lower wage rate. It makes workers indifferent between taking a job or remaining unemployed ([Hogan 1999](#)).

The role of youth towards national development cannot be overemphasized. All over the world, the youth continue to be recognized as a critical human resource capable of significantly influencing national growth and development. With this, many development programs in Ghana by the government and non-governmental organizations have been centered towards tapping into the underexplored potential of the youth. The National Youth Employment Programme (NYEP), launched in 2006 in Ghana, was aimed at addressing issues relating to youth unemployment. This program was to provide the right training and present the youth with job opportunities in order to engage the youth in socio-economic development. The Youth Enterprise Development Project (YEDP), another initiative of NYEP, was set up to create avenues for entrepreneurial youth to start their own business by providing enabling environments and other forms of training at zero cost.

1.2 STATEMENT OF PROBLEM

The problem of youth unemployment continues to be a major issue in most developing economies particularly within the region of Sub Saharan Africa (WESO, 2016). Given that the youth form a larger percentage of participants within most labour markets, in addressing problems of poverty and economic growth, issues relating to youth unemployment need to be at the forefront of most developing programs (WESO, 2017). The distribution of the youth population in Ghana derived from the GLSS6 indicates that the youth constitutes a little more than one-third of the population

(34.1 percent) out of a total of 26,347,424. In 2017, the ILO estimated youth unemployment rate in Ghana was at 11.5 percent, which is also about one-third of the youthful population.

In trying to understand this problem of unemployment this paper primarily seeks to determine the proportion of youth that is setting acceptance wages higher than that on the prevailing labour market and contributing to this phenomenon of unemployment. Given that individuals have an intrinsic value at which they peg their worth in the labour market, it is necessary to understand the extent to which this contributes to unemployment and the determinants of this value (reservation wage). Finally, in an effort to inform policy development on unemployment the knowledge of the deterministic effects of reservation wage can be leveraged on.

Many studies on the determinants of reservation wages and its effect on unemployment have been carried out internationally but very few studies have been conducted in West Africa, more specifically Ghana.

1.3 RESEARCH QUESTIONS

This research will be answering the following questions;

1. Is the reservation wage a contributing factor to the level of unemployment amongst the youth in Ghana?
2. Are the youth overpricing themselves in the Ghanaian labour market?
3. What are the factors responsible for determining the reservation wage amongst the youth in Ghana?

1.4 OBJECTIVES OF THE STUDY

The main objective of this study is to determine the factors responsible for the reservation wages set by the youth, using Ghana as a case study and its effect on unemployment using data from the

GLSS 6. The study also intends to determine whether the youth in Ghana are overpricing themselves out of the Ghanaian labour market. Specifically, the study will pursue the following objectives;

1. To determine whether the reservation wage is a contributing factor to youth unemployment in Ghana.
2. To investigate the determinants of reservation wage among the youth in Ghana.
3. To determine whether the youth are overpricing themselves in the Ghanaian labour market.

1.5 SIGNIFICANCE OF STUDY

The purpose of this study is to bring to light the trends and patterns of youth unemployment in SSA and determine using Ghana as a case study the extents to which the reservation wage contributes to youth unemployment. In this, we will be able to determine whether the youth are overpricing themselves out of the labour market. Few studies related to the subject matter of reservation wages have been conducted in the African region. Thus this study will contribute to the existing knowledge of reservation wages particularly in the African continent.

1.6 ORGANIZATION OF STUDY

The study will be organized into six (6) as follows: Chapter one will examine the introduction and will contain a brief description of the study, problem statement, objectives of the study, research questions, scope of the study, and significance of the study. Chapter two gives an overview of the topic looking at the patterns of unemployment and youth unemployment on a global scale in Sub Saharan Africa and in Ghana and also issues relating to the reservation wage. The necessary theoretical and empirical literature of the study under consideration is dealt with in chapter three. Chapter four discusses the methodology, and discussion of empirical results. The fifth discusses

the results and outcome of the study and finally, the sixth chapter concludes the thesis and provides policy recommendations based on the findings of the study.

CHAPTER TWO

AN OVERVIEW OF UNEMPLOYMENT IN SUB SAHARAN AFRICA AND GHANA

2.1 DEFINITION OF UNEMPLOYMENT

Many authors have defined unemployment across diverse perspectives in economic literature. The earliest account to measure unemployment was by the Census Bureau of the United States in 1880 which sort for data on all individuals who were 10 years of age or older who reported a “job occupation or trade, how many weeks they had been unemployed during the Census year (1 June 1879 to 31 May 1880).” The questionnaire implicitly derived what is known now as the labour force as individuals with “gainful occupation” (Hauser, 1949; Ransom and Sutch, 1986).

Subsequent research works conducted by the Works Progress Administration and the Census Bureau according to Card D. (2011) brought to light the modern definition of unemployment in the late 1930s. Under this definition, “people who were not working but were actively searching for jobs were counted as unemployed”. Although the idea of unemployment with active search was highly criticized at the time for not aligning with the existing theoretical concepts, it conforms to the modern search-theoretical framework. The “active search” definition appeared initially in the following Enumerative Check Census in 1937 known as the Census of Unemployment. Following this, it was also adopted in the Works Progress Administration’s monthly labour force survey. In modern times, a similar definition is used in labour force surveys globally to quantify unemployment. According to international statistical standards, the term unemployment should in principle satisfy these three dimensions of “being without work”, “being available for work”, and “seeking work” (D Byrne 2002).

The strict or narrow definition of unemployment looks at individuals who are 15 years and above and are without a job, available for work and actively seeking work. The relaxed or broader definition of unemployment, however, looks at all individuals 15 years and above available to work, without jobs but not actively seeking employment. This definition usually yields higher results than the narrow definition due to the third criteria of “actively seeking”.

In measuring this macroeconomic indicator, those who fall within the unemployed category are weighed over the total labour force to arrive at the unemployment rate. The labour force is composed of all persons in employment and those who are unemployed. According to the [ILO 2007](#) “unemployment captures persons who are of working age who are not in employment, but who are actively putting pressure on the labour market by seeking opportunities in a recent period (comprising the previous 4 weeks or month) and were currently available to take up employment (in the reference period or within a short subsequent period not exceeding two weeks in total)”.

Decomposing the key points into perspective, it takes into consideration all persons of working age who were: a) without work during the reference period, i.e. were not in paid employment or self-employment; b) currently available for work, i.e. were available for paid employment or self-employment during the reference period; and c) seeking work, i.e. had taken specific steps in a specified recent period to seek paid employment or self-employment. Future starters, that is, persons who did not look for work but have a future labour market stake (made arrangements for a future job start) are also counted as unemployed, as well as participants in skills training or retraining schemes within employment promotion programs, who on that basis, were “not in employment”, not “currently available” and did not “seek employment” because they had a job offer to start within a short subsequent period generally not greater than three months and persons

“not in employment” who carried out activities to migrate abroad in order to work for pay or profit but who were still waiting for the opportunity to leave.

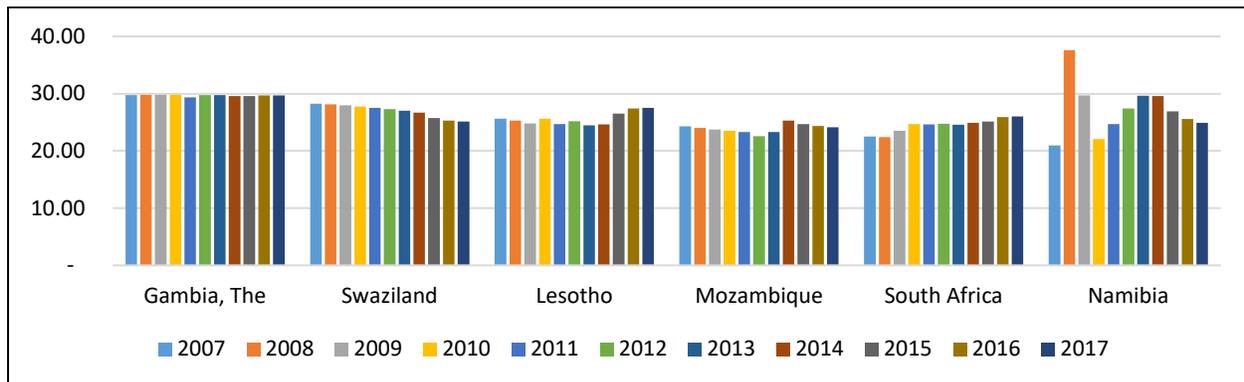
This definition however has been questioned as to whether it provides an accurate depiction of the current state of unemployment in Africa. Baah-Boateng, W. (2015), in his paper sought to establish the concept of unemployment defined by the International Labour Organisation. He was of the view that this definition appeared to be too narrow within the context of many African countries including Ghana. This phenomenon tends to put many jobless adults into the discouraged worker category thereby giving a misleading picture about the unemployment situation in these countries. In addition, the structure of the labour market in many African countries is such that informality takes the face of unemployment. He found that there was a significantly negative correlation between unemployment and informality in Africa. Beside the high level of informality that hides the face of unemployment, the exclusion of many discouraged workers in estimating unemployment underrates the seriousness of the phenomenon.

2.2 UNEMPLOYMENT IN SUB-SAHARAN AFRICA

Sub-Saharan Africa (SSA) is the area south of the Saharan desert. This realm can be further broken down into regional components: Central Africa, East Africa, West Africa, and Southern Africa. This section consists of 49 countries out of the 54 African nations with a population of roughly 962 million and a GDP of \$1.59 trillion. This represents one-eleventh for that of the US as of 2015 ([World Bank 2016](#)). Unemployment particularly amongst the youth continues to be a major challenge for the Sub Saharan region. Globally, 73 million youth are registered unemployed, 620 million are currently not in employment, education or training (NEET), according to the World Bank while 600 million young slated to enter the job market in the next decade ([World Bank 2015](#)).

With only 200 million jobs awaiting them – the youth unemployment crisis is not projected to improve anytime soon. The post-2015 development agenda is prioritizing decent work and economic growth in its Sustainable Development Goal 8, but promoting inclusive and sustainable economic growth, employment and decent work for all requires targeted solutions (*The World Bank, 2015*).

The youth unemployment rate in SSA since 1991 has hovered around the values of 13.30% and 11.10% which has been greater than a few world regions over the same period. Major contributors to this rate as at 2016 were Swaziland (52.85%), South Africa (52.28%), Namibia (49.89%), Gambia, The (43.81%), Mozambique (41.41%), Gabon (39.66%), Comoros (38.07%), Lesotho (37.33%), Botswana (33.29%), Mauritius (24.36%), Sao Tome and Principe (24.33%), Sudan (22.41%) and Kenya (22.17%) which had their youth unemployment rates greater than 20% (ILO Data on Unemployment 2017) . Out of this data, females continue to occupy a larger portion of those unemployed followed by their male counterparts. In total, the number of willing people in constant search for jobs in SSA has averaged about 7.6% over the last ten years. This average represents the total number of people who have been unemployed since 2007 to 2017 as a percentage of the total labour force. On average the total population of SSA over this period has been about 929 million. In perspective out of this increasing population yet to peak, with an average labour force of about 360 million, 27 million people over this period have found themselves to be without jobs (ILO 2017).

Figure 1: Top Contributors to Unemployment In SSA

Source: Authors Composition with Data from the World Bank.

According to the McKinsey Global Institute report, “despite the creation of 37 million new and stable wage-paying jobs over the past decade, only 28 percent of Africa’s labour force holds such positions. Instead, some 63 percent of the total labour force engages in some form of self-employment or “vulnerable” employment, such as subsistence farming or urban street hawking. If the trends of the past decade continue, Africa will create 54 million new, stable wage-paying jobs over the next ten years but this will not be enough to absorb the 122 million new entrants into the labour force expected over the same period” (McKinsey 2012).

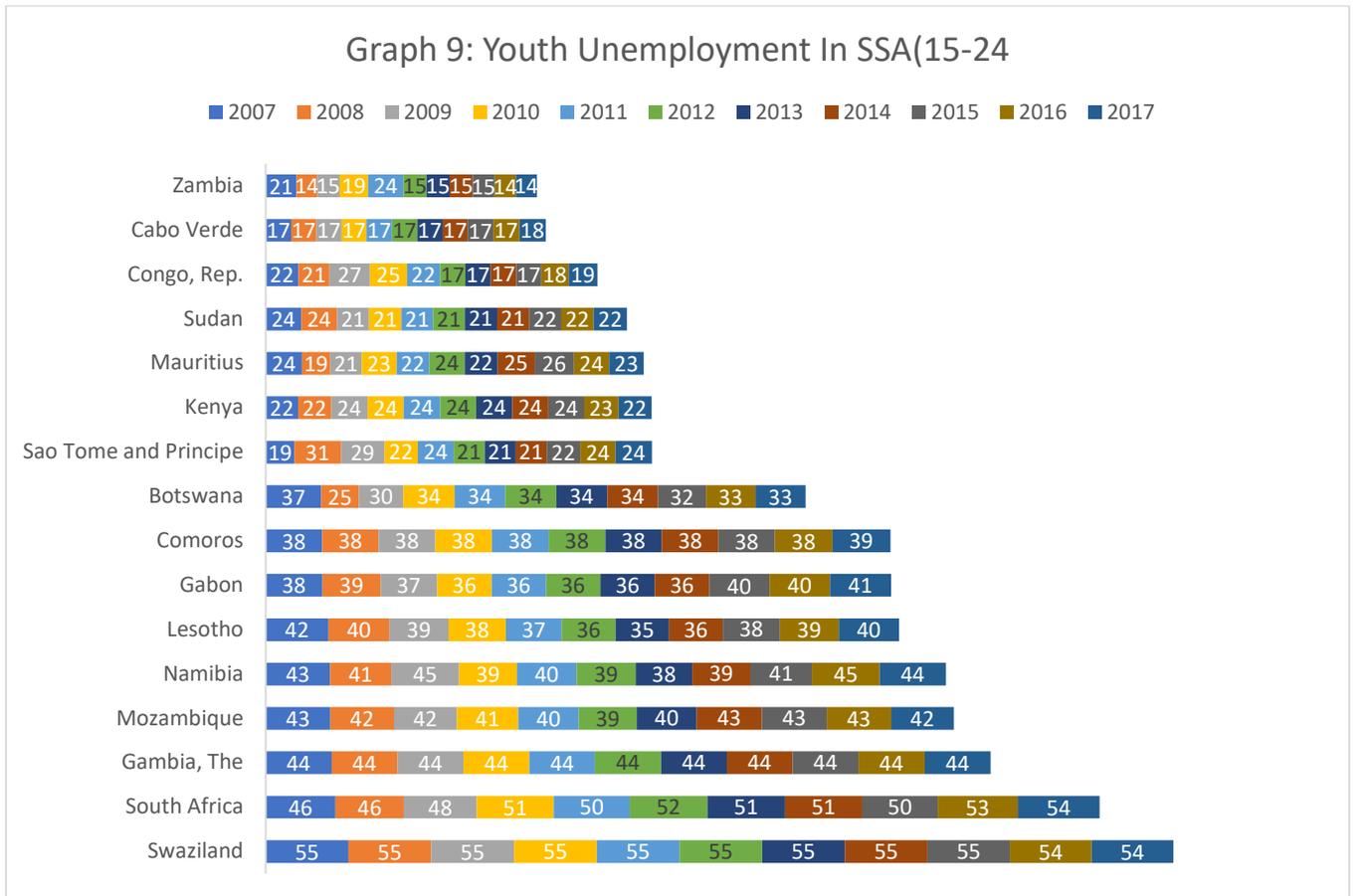
2.3 YOUTH UNEMPLOYMENT IN SUB SAHARA AFRICA

The unavailability of jobs amongst the youth continues to be a global issue as much as it is Africa, with severity levels wavering between countries. As these causes vary with respect to countries, so do their solutions. The youths are the force and the future potential for the development of every country, and if well-organized could propel many nations to greater levels of prosperity. In this vein, governments are concerned with the most effective ways of nurturing this resource the best way possible into the labour force. Knowing the importance and relevance of youth to national

development the topic of youth development has not seized is always at the forefront in many national development forums.

The term “Youth” is described as the period between childhood and adulthood. The UN, for statistical consistency across regions, defines ‘youth’, “as those persons between the ages of 15 and 24 years, without prejudice to other definitions by the Member States”. It can be based for instance on the definition given in the African Youth Charter where “youth” means “every person between the ages of 15 and 35 years”(National Youth Policy, 2010)._The policy defines “youth” as “persons who are within the age bracket of fifteen (15) and thirty-five (35)” (National Youth Policy, 2010).

Figure 2: Youth Unemployment In SSA(15-24)



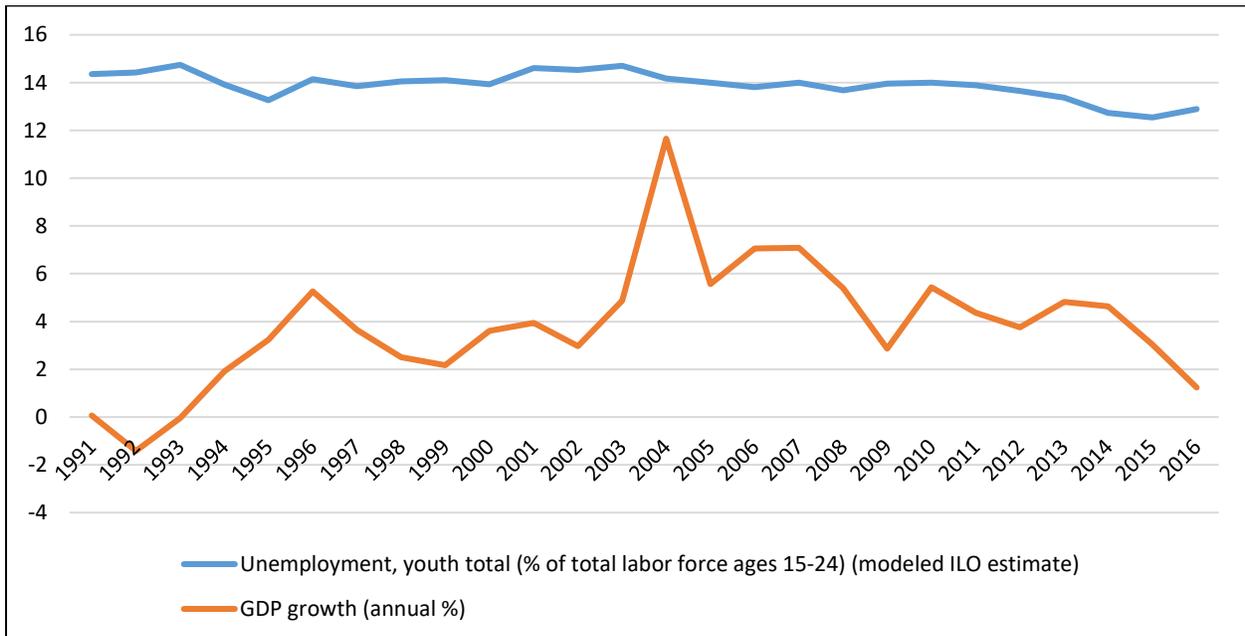
Source: Authors Composition with Data from the World Bank.

Figure 3 shows the youth unemployment rate from 2007 to 2017. It captures the top contributors of unemployment in SSA showing that the youth account for a larger percentage of unemployment within these countries.

On the whole, given the proportion of the unemployed to the labour force, the unemployment rate in SSA has hovered around 14% showing some form of correlation with the growth of GDP over the years. This paints an average picture but in detail outliers have unemployment rates greater or less than the regional average.

It can be seen from Figure 3 that in periods where GDP is rising, all things being equal unemployment falls.

Figure 3: Youth Unemployment and GDP Growth In SSA



Source: Authors Composition with Data from the World Bank.

2.4 YOUTH UNEMPLOYMENT IN GHANA

The Labour Market in Ghana is made up of both the formal and the informal sector. The mode of entry and exit defines, as well as the method of production clearly the difference between the sectors. “Most analysts describe the informal sector as a sector of non-capitalist activities with family ownership of the means of production and absence of hired wage labour, or as a sector dominated by unregulated, unlicensed and untaxed activities” (Baah-Nuako, 1991).

About 6 million people are known to be engaged by the firms in the informal sector and household enterprises which turns to be a major source of employment. This is about 54% of the total employee population. Small scale firms and Microenterprises (represent 91% of registered firms) also play a crucial role in fulfilling the supply of labour. Whereas the Private sector accounts for only a 2 % share of total employment. According to Honnorait et al 2016, “The limited diversification and growing inequities in Ghana’s labour markets make it harder to create more, better, and inclusive jobs. Ghana’s economy needs to create about 300,000 new jobs per year between now and 2020 to absorb a growing population if it is to avoid increasing unemployment or inactivity (those who are not in school and are not looking for work).”

1.1.1 The Extent of Youth Unemployment in Ghana.

According to the World Population Review 2018, Ghana’s current population is estimated to be 29.46 million, a gradual increase from the official 2010 census figure of 24.2 million. This total is composed of 10,603,758 people below 15 years old (5,360,202 males / 5,243,556 females) 17,449,819 persons between the ages of 15 and 64 (8,724,328 males / 8,725,200 females) 1,035,272 persons above 64 years old (468,912 males / 566,069 females). In perspective, the

percentage of population under 15, between 15 and 64 years old and population 65+ is 36.5% 60% and 3.6% respectively. The Ghanaian National youth employment agency defines “youth” as “persons who are within the age bracket of fifteen (15) and thirty-five (35)”.

The youth continue to be acknowledged as an engine for growth developing economies and their potential to significantly contributing to national development cannot be overlooked but must be recognized by all stakeholders in national development. *Table 1* below gives a clear depiction of the distribution of the total youth population according to sex, type of locality and region as of 2014. From *Table 1*, out of a total population of 26,347,424, the youth constituted 34.1 percent. The region with the highest share of the youth population is Ashanti (6.8%) followed by Greater Accra (6.2%) whilst Upper West and Upper East Regions have much lower proportions of 1.0 percent and 1.4 percent respectively (Ghana Statistical Service – GLSS 6 Labour Force Report, 2014).

Table 1: Share of youth (15-35) in total population by region, locality and sex

	Estimated total population ('000)	Estimated total youth population ('000)	Share of youth in total population
Ghana	26,347.4	8,992.3	34.1
Western	2,430.5	848.1	3.2
Central	2,332.2	757.0	2.9
Greater Accra	4,297.5	1,638.7	6.2
Volta	2,284.1	732.6	2.8
Eastern	2,735.1	868.0	3.3
Ashanti	5,194.2	1,780.9	6.8
Brong Ahafo	2,611.6	880.2	3.3
Northern	2,633.5	873.8	3.3
Upper East	1,068.9	361.8	1.4
Upper West	759.7	251.1	1
Locality			
Urban	13,204.2	4,853.9	18.4
Rural	13,143.2	4,138.4	15.7
Sex			

Male	12,689.6	4,198.0	15.9
Female	13,657.8	4,794.2	18.2

Source: Ghana Statistical Service – GLSS 6 Labour Force Report 2014

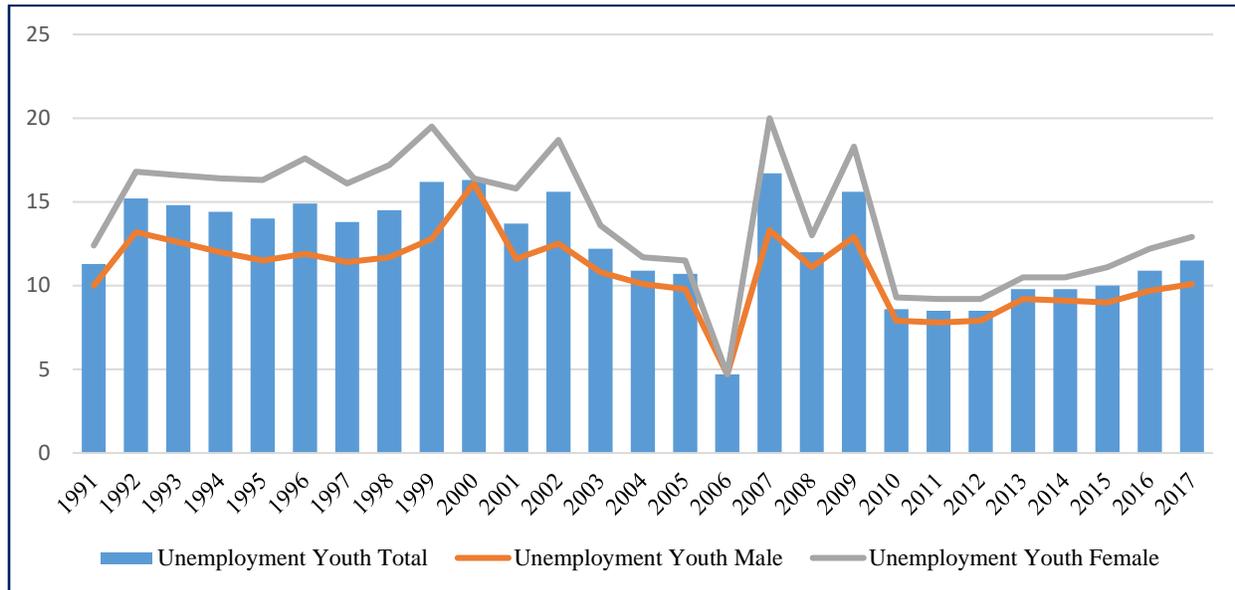
According to the GLSS 6, the total percentage of the unemployed youth in Ghana was 5.5 percent. Out of this total, 6.5 lived in urban areas and 4.3 percent in rural areas. From *Table 2*, it can be seen that the rate is higher for those aged 15 – 24 years (6.4%) compared to those aged 25 – 35 years (4.4%) and also higher for females than males in both urban and rural areas. A higher rate could be seen for those aged from 15- 24 because they fall in a particular age grouping that does not have too many jobs available within the market. Also within this group, most of the youth just completed secondary school or university and may find themselves frictionally unemployed. Females in rural areas are seen to be involved in other household production activities that prevent them from gaining the requisite skills for wage employment. When they happen to migrate, to urban centres they are unable to find the right jobs based on this skills deficit leading to higher rates of unemployment

Table 2: Youth Unemployment rate by age group, type of locality and sex

Age group	Total			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	5.5	5.2	5.7	6.5	6.4	6.7	4.3	4.0	4.6
15-24	6.4	6.2	6.7	7.7	7.6	7.8	5.1	4.8	5.4
25-35	4.4	4.0	4.6	5.2	5.0	5.4	3.3	2.7	3.7

Source: Ghana Statistical Service – GLSS 6 Labour Force Report 2014

Over the past 27 years, the youth unemployment rate in Ghana has averaged about 12.41 percent with females scoring 13.9 percent and males 10.7 percent. Much improvement can be seen in recent years as compared to the '90s where the youth unemployment rate averaged 14.3 percent as compared to 11.4 percent from 2000 till date. *Figure 4* shows the youth unemployment rate in Ghana from 1991 to 2017.

Figure 4: Ghanaian Youth Unemployment

Source: Authors Composition with Data from the World Bank.

The reasons for this persistent rate of youth unemployment could be due to the rapid increase in the youthful population and also the inability of the economy to generate sustainable programs and ventures to absorb the youth at the rate at which they increase. According to the Ministry of Youth and Sports the factors responsible for the youth unemployment in Ghana are as follows:- “the introduction of the Junior Secondary School and Senior Secondary School system without adequate planning for integration into the trades/vocations and job placement; education and training have no link to the needs of the important sectors of the economy; the near-collapse of Ghana’s industrial base due to ineffective management of the divestiture process which resulted in the closure of many factories without a structural transformation of the economy to generate alternative jobs for people; the shrinking of public sector employment opportunities coupled with a relatively slow growth of the private sector; and the lack of a coherent national employment policy and comprehensive strategy to deal with the employment problem.” (Ministry of Youth and Sports, 2010).

Higgins, 2001 and Amankrah, 2006 stated that the problem of youth unemployment in Ghana was not only as a result of the inadequate response of the market to meet the supply-sided nature of the unemployed youth but also as a result of a weak macroeconomic performance over the past 50 years. Being an economic indicator, high rates of youth unemployment could be an indicator for a weak economy all things being equal. Thus in tackling youth unemployment, sustained economic growth would be essential in solving this national threat. According to Nsowaah-Nuamah and Amankrah, 2003 in the report on registration of unemployed and underemployed persons there are about 230000 new entrants in the Ghanaian labour market every year. They further stated that “data from the registration exercise further show that gender has a strong influence on the hopes and aspirations in the changing labour market” (Nsowaah-Nuamah and Amankrah, 2003). “More males (41.7 percent) than females (22.7 percent) desire to work but unable to get work because they don’t have the right work experience but at the same time not getting the opportunities to improve their chances of gainful employment”. “On the other hand, one out of every two females desire to set up their own enterprises but unable to do so because they lack capital, space, and also due to the competition of indigenous value-added products with imports”. More to this, “while more females desire to marry or prefer family re-integration, the males desire to travel overseas” (Nsowah-Nuamah N.N.N. & Amankrah J.Y. ,2003).

1.1.2 Policies and Programs to Mitigate Unemployment in Ghana

In an effort to resolve this persistent problem of unemployment, the governments since independence have adapted numerous employment policies such as the Workers Brigade Programme which span between 1963 and 1970, the Operation Feed Yourself and National Reconstruction Programme 1972 and 1978 which was followed by the National Mobilization Programme between the periods of 1982 and 1993.

Economic Reform Programme (ERP) and the Structural Adjustment Programme (SAP) embarked on by government made the National Mobilisation Programme something temporal. The hard-hit effects of ERP and SAP on employment forced the government to come up with Programme of Action to Mitigate the Social Cost of Adjustment (PAMSCAD) with the aim of creating employment for rural and northern household and the vulnerable in the urban areas as well as providing credit for women and small scale (Ministry of Employment and Labour Relations, 2014). In the mid-1990s, the Vision 2020 sought to reduce high levels of unemployment and vulnerable employment.

The government since 2000 has enacted a number of projects aimed to generate employment and job creation for the youth. These projects include the continuation and expansion of “Skills training and Employment Programme (STEPP), the National Youth Employment Programme (NYEP), the Graduate Entrepreneurial & Business Support Scheme (GEBSS), Microfinance and Small Loans Center Rural Enterprises Programme, and Young Entrepreneurs Programme, among many others”.(Ministry of Employment and Labour Relations, 2014).

Graduate Unemployment

According to the World Bank Survey (1998), indicates that education and unemployment are highly related. The prospects for an individual in employment are influenced by the kind of education they receive. Unemployment rates amongst educated youth have been seen to be higher than those without any form of education (UNECA, 2010). The unemployment rate for individuals with education in 2003 was 8.5 percent and 6 percent for those without any form of education in Ghana. UNCEA,2010 attributed these results to the fact that those with some level of education are more prone to select among several job opportunities using a wide range of variables but those without education are limited to this luxury of choice.

According to the 2010 census, individuals with secondary school education had the highest unemployment rates; 9.6% in 2000 and 19.7% in 2010. This was followed by those with tertiary education recording unemployment rates of 2.7% in 2000 and 9.1% in 2010. Female rates of unemployment were higher than their male counterparts at every level of education. Unemployment rates for females with no level of education were the lowest (17.0% in 2010) with similar patterns for the males. “This educated joblessness” is what has now become known as graduate unemployment where people with tertiary degrees cannot find work to do after years of education.

1.1.3 Wages Offered In The Ghanaian Labour Market.

According to the Neo-classical theory of labour supply, the two main factors influencing the supply of labour are the participation decision and the hours of work decision. These two decisions are influenced by the fact that an individual derives satisfaction from the consumption of goods and services. Therefore an individual will decide to participate in the labour market and will determine their hours of work in order to earn a wage to enable them to purchase the commodities they want. “For many of the currently employed, the most important characteristic of work is the income received” (GLSS6, 2014). According to the GLSS6 Labour Report, 2014 “income from employment in Ghana consists of the payments in cash or in-kind which are received by individual workers as a result of their current involvement in paid or self-employment jobs”. It showed on average earnings per hour for all employees in all occupations was GHC1.82. Professionals and legislators/managers earn an average hourly income of GHC5.44 and GHC4.70 respectively. Skilled agriculture and fishery workers earn the least hourly income of GHC0.81.

Also, GHC 495.47 was estimated to be the average monthly earnings of all employees for all occupations in 2014.

Males had higher earnings on average (GHC 592.64 than for females (GHC 395.48). *Table 3* shows the average monthly earnings of paid employees 15 years and older.

Table 3: Average monthly earnings of paid employees 15 years and older

Occupation	Average monthly earnings (cash and in-kind) by all paid employees			Average monthly cash earnings by those receiving cash			Average monthly in-kind earnings by those receiving payments in - kind		
	All	Male	Female	All	Male	Female	All	Male	Female
Legislators/managers	1,081.34	1,260.01	804.99	1,078.54	1,257.69	801.45	179.54	110.02	500.00
Professionals	982.23	1105.21	775.92	979.87	1104.68	771.05	150.92	122.96	229.54
Technicians and associate professionals	717.96	756.19	576.2	719.84	757.87	578.7	96.12	126.87	36.90
Clerical support workers	685.78	561.77	830.13	675.26	543.47	827.88	187.07	202.16	103.16
Service/sales workers	490.43	685.54	435.88	490.05	684.15	435.77	76.08	95.07	64.88
Skilled agric/fishery workers	263.09	345.88	127.34	263.05	345.79	127.14	99.76	103.76	92.31
Craft and related trades workers	485.52	549.46	398.67	486.77	551.79	398.91	107.41	114.24	89.51
Plant machine operators and assemblers	661.9	670.1	418.48	661.35	669.63	416.39	107.42	108.88	72.00
Elementary occupations	376.35	453.74	236.54	378.23	454.11	239.02	48.02	59.03	37.84
Other Occupations	3,294.81	3,440.54	1,500.00	3,294.81	3,440.54	1,500.00	0.00	0.00	0.00
Total	495.47	592.64	395.48	495.28	592.39	395.44	104.06	114.05	87.17

Given these wages offered on the labour market what are the expectations of new entrants and re-entrants to the labour market?

CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

This chapter reviews the literature relevant to this study. It starts with a theoretical framework, which draws some fundamental theories of unemployment and later bring out the origins of the reservation wage (the job search theory and the neoclassical theory of labour supply). It then reviews the empirical literature on the determinants of reservation wages, followed by the causes of unemployment particularly amongst the youth in Ghana.

3.2 THEORETICAL FRAMEWORK

3.3 FOUNDING THEORIES OF UNEMPLOYMENT

The problem of unemployment has been explained from different perspectives in the economic literature. According to Classical economics, unemployment occurs when real wages are kept above the market-clearing wage rate, leading to a surplus of labour supplied. These wages tend to be higher than the market clearing wages as a result of the powerful trade unions which bargain for wages above the equilibrium, minimum wages that create a legal minimum for wages for employees and finally deflation and 'sticky wages'. If there are falling prices, to maintain full employment, it may be necessary to cut wages. However, workers and firms often avoid nominal wage cuts for the psychological cost. Therefore, during a period of deflation, classical unemployment is more likely to occur. Classical economists stress the importance of this type of unemployment. They argue that if wages were more flexible, then most unemployment could be solved.

From the traditional Keynesian view, unemployment is generally caused by deficits in aggregate demand over certain periods in the business cycle such that jobs created are not enough for

everyone who wants to work (Keynes, 1936). Unemployment of this nature is involuntary because those out of work are constrained by inadequate availability of job openings. What this means is that firms do not benefit from the ideal amount of demand for their products to enable them expand employment. Seasonal unemployment could be linked to this demand deficient type of unemployment which is created by predictable seasonal variation in demand corresponding to changes in climatic conditions. The duration of this type of unemployment is quite short and can be regularly anticipated.

Due to assumption of perfect information and flexible wages, the neoclassical believe that the labour market is deemed to always clear . Thus, individuals seeking for jobs are absorbed by the labour market and the unemployment that arises is voluntary. Voluntary unemployment can also result from the time it takes the individual to find and move into a new job or the time and resources it takes an employer to identify and recruit suitable workers to fill vacancies. This type of unemployment resulting from job hunting by workers (see Stigler, 1962; Phelps, 1970) is called frictional search unemployment which is also of short duration. Another type of voluntary unemployment is structural unemployment which occurs as a result of a mismatch between the skill requirements by firms and the skills possessed by jobseekers.

From the neoclassical argument, involuntary unemployment only occurs when there is external interference in the market (e.g. minimum wage legislation) that distorts its efficient functioning. Shackleton (1985) finds involuntary unemployment to exist if individuals cannot obtain work even if they are prepared to accept lower real wage or poorer conditions than similar qualified workers who are currently in employment. Clearly, holding wages above the market clearing wage in compliance with minimum wage legislation creates surplus labour or unemployment. Additionally, and in contrast to the neoclassical claim of perfect market information, jobseekers

invest in job search due to imperfect information over one's best job opportunity while employers also search for availability of desired skill. The basis of this theory is premised on the assumption that individuals searching for jobs do not get them instantly and therefore must make time (remain unemployed) to search in order to get better jobs. At the same time, employers looking for a certain calibre of workers must also engage in the search 'trade'. As Farm (2012) argues, since hires are not instantaneous and are actually preceded by job vacancies, search theory should be the standard theory for explaining unemployment caused by job vacancies. Involuntary unemployment is also explained by efficiency wage theory within the institutional framework which posits that firms sometimes pay wages higher than the market clearing wage as an incentive to raise the efficiency of employees. Firms pay higher wages above the equilibrium to avert shirking behaviour of employees (see Shapiro and Stiglitz, *African Journal of Economic and Management Studies*, Vol. 6, Issue 4, 2015 Page 6 1984); or reduce labour turnover (see Salop, 1979 and Stiglitz, 1974); or avoid adverse selection of job applicants (see Akerlof, 1970); or as a gift of exchange for high productivity from workers (see Ankerlof, 1982). In such a situation, potential employees are kept out since the increased wage bills and rise in workers' productivity would not make it appealing for firms to engage more hands. Another theory of unemployment is the insider-outsider model of wage setting behaviour of firms (see Lindbeck and Snower, 1988) which only takes into account the interests of its employees (called insiders), without regard to the interests of those seeking to be employed (i.e. outsiders). The objective of the firm to reduce cost of labour turnover which constrains it from hiring outsiders tends to give some kind of protection to insiders even in the midst of their demand for higher wage. This tends to create limited avenues for outsiders to get employed. Even in times of economic recovery when more outsiders are expected to gain access

to employment, insiders set higher wages and prevent underbidding from outsiders causing unemployment to become permanently high after recession (see Blanchard and Summers, 1987).

3.4 JOB SEARCH THEORY

Jobseekers trying to find employment have a variety of choices in the job search process.

These choices include which methods of search to use, how much effort to devote to each method of search, which firms to contact first, how many offers to collect before making an acceptance decision, and a criterion for deciding what constitutes an acceptable offer. In summary, job search looks at the choice of search method(s) and intensity, the type of firm to contact, the optimal number of firms to contact before accepting an offer and the criterion for deciding on the definition of an acceptable offer (Blau and Robins, 1990). Search theory suggests that the amount of effort an individual devotes to job hunting and the likelihood of receiving an offer are positively correlated (McCall, 1970). A higher search effort is anticipated to increase the seeker's knowledge of unfilled job vacancies and in turn, raise the probability of exiting unemployment. Nyarko et al (2014) in their study found that, the use of multiple methods (search intensity) in the search process has a highly significant ($p < 0.001$) effect on the probability of entering employment.

According to the classical labour theory, the quantity of labour supplied is exactly equal to the amount of labour demanded by firms at the equilibrium wage- therefore; there is no unemployment. This has historically created the perception that unemployment being an involuntary phenomenon the concept of unemployment arises only as a result of a disequilibrium created in the market i.e. the demand for labour falls below the supply of labour or the supply of labour face exceeding that of demand. This situation usually results in a surplus of labour and is usually referred to as unemployment (Fitzgerald, 2008). This approach gave little improvements in understanding the factors that influence unemployment. According to Fitzgerald (2008), an

alternative approach which sought to explain other factors like the duration of unemployment spells; took place during the 1970s. This approach brings to light that finding a job involves a process of uncertainty which requires both time and money which is contrary to the classical model which assumes symmetric, perfect and full information. It also assumes no search cost in finding job opportunities for those actively searching. This alternative approach is referred to as the search theory of unemployment Fitzgerald T.J (2008). It looks to broaden the interpretation of unemployment in the context of optimizing the behavior of individuals giving rise to unemployment.

MaCall (1970) and Mortensen (1970) have been attributed as the originators of job search theory as a result of their seminal articles. Stigler (1961, 1962) also in 2 papers questioned the assumption of perfect information and laid some foundation to what was later developed in 1970 (Fitzgerald T.J 2008). The individual in both the Job search and Stigler's model had more than one earning the opportunity and had to select the best. The selection strategy however differing both models. In Stigler's model, the number of jobs to sample is the main decision made by the individual before settling on the best. According to Stigler, (1961) "sampling an extra job has an associated "search" marginal cost cover a given time period, and the decision variable is the sample size n representing the number of firms a job seeker will consider in their search". The neoclassical assumption of the cost c equals zero; this is because there exist perfect information. In job search models, the decision process is successive. Given that jobs are randomly sampled, there is no optimal sample size. One searches till they find the best out of the lot. "Hence, the number of jobs sampled depends on their sequence and the sample size itself is a random variable" (Mortensen 1986).

3.5 JOB SEARCH MODEL

Let us consider an individual who is unemployed and searching for a job. Though the individual has many likely job opportunities through his search, he has incomplete information as to where to derive the best payoff from his search. Thus, he must search using more time and resources with the hope of finding the best opportunity. In the event of finding a job in any week, the worker will receive a job offer at wage w . At this instance, the individual is to decide whether to accept the job offer found through the search this week at wage w and forego the possibility of finding a better job offer or continue to search hoping to actually find a better offer at a future date.

This scenario above is captured in a model of job search using the following assumptions.

First, each week the worker receives one wage offer.

1. In order to capture the uncertainty of job offers, we assume that this offer is drawn at random from an urn containing wage offers between \underline{w} and \overline{w} .
2. Draws from this urn are independent from week to week, so the size of next week's offer is not influenced by the size of this week's offer.
3. Draws can be interpreted as weekly wage rates, they can be thought of more generally as capturing the total desirability of a job, which could depend on hours, location, prestige, and so on.
4. For simplicity, assume that all jobs require the same number of hours and are of the same overall quality so that jobs differ only in terms of the wage.
5. Each week the unemployed worker must decide whether to accept the wage offer " w " or to reject the offer and wait for a better one. If she rejects the offer, the worker receives unemployment income of w_u cedis and draws a new wage offer the following week.

6. For simplicity, wage offers from previous weeks cannot be recalled and accepted, an assumption which has no impact on the worker's decision to accept or reject this week's offer.
7. If the worker accepts the wage offer, she continues to work at that wage until she is fired (assume that the worker cannot search for a better job during this time).
8. An employed worker faces a constant probability α of being fired at the end of each week. When an employed worker is fired, she becomes unemployed and begins searching for a new job the following week. Because an employed worker would never choose to quit her job in this model, I have omitted that possibility.
9. Unemployment income " wu " will be interpreted as being unemployment compensation, it may also include factors such as the pecuniary value of leisure and home production activities less the cost of searching.
10. Workers in the model are either employed or unemployed and actively searching for employment. No worker is out of the labour force (that is, not seeking employment). The expression below shows how a worker maximizes the expected value of their lifetime wage income:

(1) $E \sum \beta^t y_t$; where β is a discount factor between 0 and 1, and y_t denotes the worker's income in period t .

Note that ($y_t = wu$) if the worker is unemployed, and ($y_t = w$) if the worker is employed at wage w . The factor β determines the rate at which workers discount their future earnings and can also be written as $1/(1 + r)$, where r is a real rate of interest.

In trying to settle on a particular wage offer w , the worker compares the current offer to the other offers he is likely to receive. If the other offer stands a chance of being better than the current, the worker will reject the current offer with the expectation of a better in the near future. The cost of

rejecting the current offer is the current period's income less the amount the individual receives as compensation for unemployment w_u . To the worker, this week's loss should come as a higher gain next week which will also be received in the future, till he is fired. That is, the worker compares the expected present value of his income if he rejects the offer with the expected present value of her income if he accepts the wage offer. The value of the wage the worker will accept depends on the wage offer distribution, the probability of being fired, the level of unemployment compensation, and the rate at which the worker discounts future earnings.

In deciding on whether to accept a job offer or not, the unemployed worker must compare the expected lifetime income of accepting or rejecting a particular offer. With this let $v_{wait}(w)$ be the expected present value of lifetime income if she rejects a wage offer w and waits for a better offer; $v_{accept}(w)$ be the expected present value of lifetime income if she accepts w ; and $v_{offer}(w)$ be the expected present value of lifetime income upon drawing a wage offer w . Each of these three functions assumes that the unemployed worker will behave optimally (that is, makes the best decisions) in future periods so as to maximize expected lifetime income as given by (1).

First, consider the value of rejecting an offer and waiting for a better offer:

$$(2) v_{wait}(w) = w_u + \beta E v_{offer}, \text{ where } E v_{offer} \text{ is the expected value of } v_{offer}(w).$$

Where w_u = unemployment compensation which the worker receives this week, $\beta E v_{offer}$ = the discounted expected value of drawing a new wage offer next week, $v_{wait}(w)$ is a constant which is equal v_{wait} , since $E v_{offer}$ does not vary with w . This means that next week's wage offer is independent of this week's offer, so the value of rejecting an offer and waiting for a new offer is the same regardless of this week's offer.

$$(3) v_{accept}(w) = w + \beta \alpha E v_{offer} + \beta (1 - \alpha) v_{accept}(w).$$

W = wage this week. α denotes the probability of being fired this week associated with the discounted expected value of receiving a new offer next week. Should the worker continue on the job, he is faced with a probability $(1 - \alpha)$, in which case he receives the discounted value of accepting the same wage offer next week, $\beta v_{accept}(w)$. This equation can be rewritten

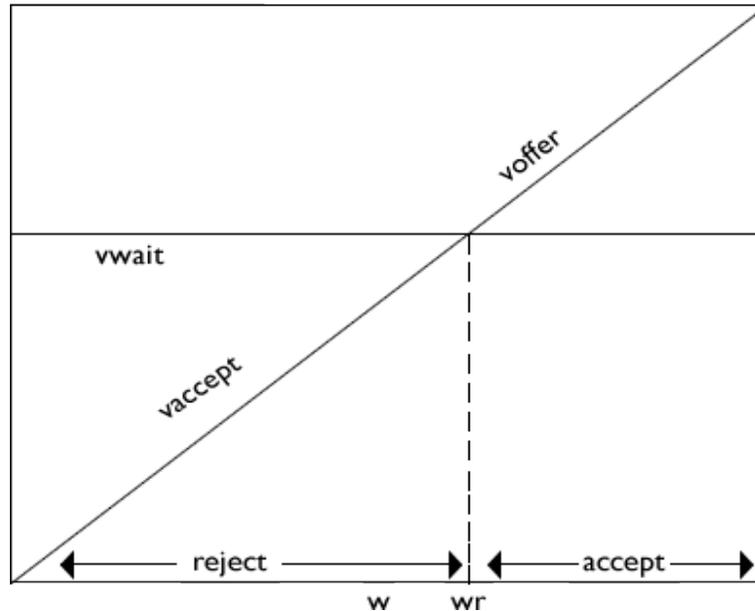
$$(3) v_{accept}(w) = \frac{w + \beta \alpha E v_{offer}}{1 - \beta(1 - \alpha)}$$

Notice that $v_{accept}(w)$ increases linearly with w . The problem for a worker with an offer w in hand is deciding whether to accept the offer, which has value v_{accept} , or reject the offer, which has value v_{wait} . The value of having an offer w in hand is given by

(5) $v_{offer}(w) = \max \{v_{accept}(w), v_{wait}\}$, which takes into account that offers will be accepted only when accepting is more beneficial than waiting.

A solution to this problem is characterized by functions $v_{offer}(w)$ and $v_{accept}(w)$, and a constant v_{wait} , that satisfy equations (2), (4), and (5). Associated with the function $v_{offer}(w)$ is a decision rule which indicates whether the worker accepts or rejects each wage offer w between \underline{w} and \bar{w} .

The function $v_{accept}(w)$ and the constant v_{wait} which define $v_{offer}(w)$ depend themselves on offer (w) through the term $E v_{offer}$. None of these elements can be solved independently.

Figure 5: Figure Life Time Earnings

Source: *An Introduction to the Search Theory of Unemployment*, Fitzgerald. J 1998.

The figure above (Figure 5) gives more insight into the decision of the unemployed worker. The decision to accept or reject each wage offer w depends on whether $v\text{ wait}$ is greater than or less than $v\text{ accept}(w)$. The figure shows that this decision takes a particularly simple form. For values of w less than w_r , $v\text{ wait}$ is greater than $v\text{ accept}(w)$, so the worker is better off rejecting the offer. For w greater than w_r , $v\text{ wait}$ is less than $v\text{ accept}(w)$, so the worker is better off accepting the offer. Notice that w_r will depend on the specific value of $v\text{ wait}$ and the function $v\text{ accept}(w)$, which themselves depend on $v\text{ offer}(w)$ through the term $E\text{ offer}$.

The wage w_r is called the reservation wage and represents the lowest wage offer that an unemployed worker will accept.

3.6 THE RESERVATION WAGES AND LABOUR SUPPLY

The reservation wage in labour economics is the lowest wage rate a worker would be willing to accept to supply themselves to the labour market (Killingsworth, 1983). This rate is however not

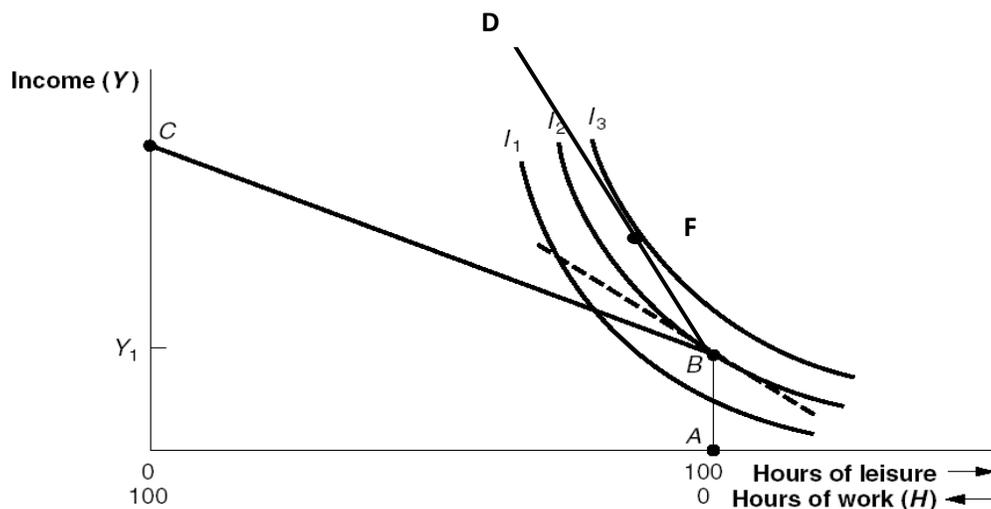
fixed. It is subject to changes depending on a number of different factors. These could be due to changes in the overall wealth of an individual, educational or professional qualifications, duration of unemployment, marital status and general living arrangements. Based on differences in the attractiveness of certain jobs, an individual may decide to fix a lower reservation wage or a higher reservation wage. This is in line with the theory of compensating wage differentials which argues that the differences in job characteristics are equalized by netting the attractiveness of a job by offering a wage above or equal to the reservation wage of a worker, such that they are willing and prepared to supply themselves for work.

Following Sapsford and Tzannatos (1993), it is assumed that prior to searching for a job, an individual decides on the minimum acceptable wage that he/she will work for. If this minimum acceptable wage is higher than the value of the income associated with the individual's present situation then he/she begins the process of search and only stops once a wage offer equal to or greater than the reservation wage is found. Thus, reservation wages are an important component of the search theory model that describes an individual's process of looking for a job. People formulate their reservation wage by taking into account a comparison of different value functions which describe the present discounted value of expected net benefits associated with being in different states in the labour market.

According to the Neo-Classical theory of labour supply, the participation decision of an individual and hours of work decision influences the supply of labour. In maximizing utility subject to the individual's budget constraint, the theory assumes that the individual derives satisfaction from consumption goods which informs their decision to supply themselves to the labour market. The individual determines the number of hours to supply to the market dependent on the prevailing

wage and time; A trade-off exists between work and leisure. Thus a rational individual will only work given that the utility derived is greater than that derived from leisure.

Given the worker's time budget constraint, the area ABY_1O represents the worker's nonlabour income. CB represents the wage which is the slope of the budget line and I_1, I_2, I_3 represent the indifference curves showing all possible combinations of consumption goods derived from the wage and leisure that yield the consumer the same amount of satisfaction. The consumer maximizes satisfaction when the marginal rate of substitution is equal to the slope of the budget line, i.e. the budget line is tangential to the indifference curve (as shown by the short dashed line); and from *Figure 6*, this occurs at point B on I_2 . I_3 and I_1 do not satisfy the equilibrium condition. Point B is known as the reservation wage where the worker is indifferent between working and not working. At point B the opportunity cost of working is higher than the opportunity cost of engaging in leisure making the worker reluctant in supplying himself to the labour market. Any wage below CB , the individual will not work since the opportunity cost for leisure is too low. This is because at I_1 the individual does more hours of work but receives the same wage compared to not working i.e. $H=0$. However, if the wage should increase as shown by DB the opportunity cost of working becomes greater than that of leisure forcing the worker to supply himself for work.

Figure 6: The Reservation Wage

Source: Composed by the Author

Given the nature of this model, if an individual without a job fixes a high reservation wage and does not lower it during the period of unemployment, re-joining the labour market becomes difficult because of human capital and skill decrease with the duration of unemployment. According to [Christensen B. \(1998\)](#), the reservation wage is influenced primarily by 4 main factors. They are; the mean probability distribution of wage offers, search cost, unemployment benefits and finally personal characteristics. A lower search cost and unemployment benefit will increase the reservation. Increasing the average probability distribution of wage offers also causes the reservation wage to rise.

The higher the alternative income is, the higher the reservation wage. The probability of a wage offer being received is determined by the general state of the labour market, by the personal characteristics such as the gender, skills, and age of the unemployed person, and by the unemployed person's search effort. The larger the probability of a suitable job offer being received is and the higher the expected wage offer, the higher the reservation wage becomes. In the optimum, the reservation wage and search intensity are chosen at a level where the expected return

from another period of search equals the expected cost. The duration of unemployment or the probability of a move into employment is determined by the probability of a job offer being received

and the probability of it being accepted. The probability of a person accepting a job depends on their reservation wage. An unemployed person will accept a job offer if the wage offered is higher than or equal to the reservation wage. The reservation wage may also change with the changes in alternative incomes. At the beginning of the unemployment spell, the unemployed do not know precisely about the distribution of market wages. As unemployment continues for longer they might learn more about the true wage distribution and adapt their reservation wages.

3.7 REVIEW OF EMPIRICAL LITERATURE

Given these theories, several studies have been undertaken to determine the relationship between the reservation wage and unemployment. Existing literature shows that the reservation wage plays an important role in determining unemployment and its duration. However, few studies have been carried in the West Africa Region, Ghana to be specific.

Based on the objectives of the paper, this section has been divided into three parts to identify studies with similar objectives over the years.

2.6.1 DETERMINANTS OF UNEMPLOYMENT (RESERVATION WAGE)

Jones (1988) in his paper investigated the relationship between reservation wages and a person's duration of unemployment. Using data on unemployed individuals in Great Britain, he found a positive relationship, where reservation wages "play a significant" role in the determination of unemployment duration. This finding is in line with the theory of stationary job search, which asserts that, given other characteristics, an individual who has been unemployed for some time is

likely to have a higher reservation wage than someone who has been unemployed for a shorter time. This is because no wage offer high enough has been made to induce the longer unemployed person into the labour force. From this evidence, Jones (1988) concluded that the unemployed do act in accordance with their stated reservation wage when evaluating prospective job offers.

Baah-Boateng, (2013) in his paper used three different nationally representative cross-sectional datasets from the first three rounds of the Ghana Living Standards Survey (GLSS). His estimation focused on members of the labour force (i.e. those employed and unemployed) aged 15 years and older. He found that the reservation wage of the job seeker had an increasing effect on the probability of the individual becoming unemployed based on the positive and statistically significant marginal effect of the log of reservation wage in all the three sample periods.

Aryeetey et al, (2014) studied the incidence and the duration of youth unemployment in Ghana found that education, urban-rural location, reservation wage, poverty status, and job seekers in government and large private sector are relevant in the determination of the duration of unemployment. With respect to reservation wages, they found that a high reservation wage is likely to result in the youth to transition from unemployment.

Brown and Taylor (2011) used panel data drawn from the British Household Panel Survey (BHPS) to explore the extent to which individuals in Britain had realistic reservation wages, given their human capital and the prevailing economic climate. While the study was not focussed on youth, they found that 18 to 24-year-olds were most likely to have reservation wages falling outside of their predicted market wage.

Nattrass and Walker (2005) performed a similar study using data from the 2000/2001 Khayelitsha/Mitchells Plain Survey (KMP) from Cape Town. The authors use a Heckman selection approach to predict wages for all respondents and compare this with their stated

reservation wage. The authors then examine whether individuals who have reservation wages higher than predicted wages are less likely to be employed. They find, similarly to Brown and Taylor (2011) that an excess of reservation wage over predicted wage was positively associated with finding employment and conclude that unrealistic reservation wages were not a contributing factor to unemployment.

2.6.2 DETERMINANTS OF RESERVATION WAGES

Feldstein and Poterba (1984) used the Current Population Survey 1976 of the United States to analyze the influence of unemployment insurance on the reservation wage and the unemployment duration. They find a positive effect of unemployment benefits on reservation wages and conclude that a reduction of net unemployment insurance benefits could significantly lower the duration of unemployment.

Hogan (1999) analyses the determinants of reservation wages from a macroeconomic point of view, i.e. the natural rate of unemployment, on the basis of the British Household Panel Survey from 1991 to 1997. He finds that the wage in a previous job and the expected future wage are important determinants of reservation wages and that unemployment rates and unemployment benefits have only small effects on reservation wages.

Gorter and Gorter (1993) use a stationary job-search model to analyze the relationship between unemployment benefits, reservation wages and search duration for the Netherlands for the period 1985 to 1987. They find a positive relationship between unemployment benefits and reservation wages but conclude that the job offer arrival rate is the most important variable and thus the level of unemployment benefits is not very important in ending a search spell.

Prasad (2000) used consecutive reservation wage observations and accepted wages that can be compared to reservation wages from previous years, from the German Socio-economic Panel (GSOEP) study, to examine whether reservation wage data resemble a relationship to actual economic behavior. Prasad (2000) used panel data, showed how a person's reservation wage changed over time in relation to the wage offers accepted.

Recent work by Boheim (2002) looked at whether the reported reservation wage was an indicator of a person's 'true' reservation wage - 'true' reservation wage is the minimum wage that an individual would accept to participate in the labour market. Boheim (2002:18) concluded that "men's reported reservation wages are an indicator of their "true" reservation wage." For women, the outcome is not as indicative, but Boheim (2002) notes that the number of women in the sample is low, which may influence the results.

Using cross-country data, Addison et al (2008) investigated the determinants of reservation wages and their course over the jobless spell. They found that higher unemployment benefits lead to higher reservation wages. Further, repeated observations on the same individual provide scant evidence of declining reservation wages.

Walker (2003) analyzed the difficulties in measuring reservation wages, the determinants of reservation wages, and compared reservation wages with predicted wages. The data was drawn from the Khayelitsha/Mitchell's Plain (KMP) survey. He found that certain factors (e.g. education, labour market status, household income, and duration of unemployment) were significant in explaining variation in reservation wages. According to Walker (2003), a person's position in the labour market is not as a result of his/her reservation wage. Rather, reservation wages are a function of his/her labour market status: while those in the wage-employment report a reservation, wage-based more on perceived labour market value, those in the unemployment report a reservation

wage influenced strongly by subsistence requirements. A probit analysis was conducted to analyze what groups of people are most likely to have a reservation wage higher than their predicted wage. Baah-Boateng (2015) analyzed the causes of unemployment in Ghana from labour demand and supply perspectives based on cross sectional data. A logit regression estimation technique is applied to two different household survey datasets of 2008 and 2013 to capture the effect of labour demand and supply on unemployment. Using education and age as capability variables to represent supply factors, unemployment is found to increase with education, and declines with age, confirming higher unemployment rate among the youth, than the old. The paper also observes a strong influence of demand factors on unemployment based on relatively higher incidence of unemployment fulltime jobseekers relative to part-time jobseekers and seekers of wage-employment and self-employment compared with those seeking any job. Other factors such as the individual's reservation wage, marital status, sex, and poverty status as well as their rural-urban location are also found to cause unemployment in Ghana.

2.6.3 RESERVATION WAGE OF THE YOUTH AGAINST PREDICTED WAGES

Nattrass and Walker (2005) analyze data from the Khayelitsha/Mitchell's Plain (KMP) survey conducted in 2000 2001, which sampled working-age adults from a Cape Town working-class district. They use a reservation wage report similar to that used in this paper and find that it is generally consistent with other reports of labour search behavior reported in the survey. Using a Heckman selection model to predict wages for their sample, they show that the vast majority have reservation wages below their predicted wages. They also find that the reservation/predicted wage ratio is significantly negatively correlated with unemployment, and conclude that elevated reservation wages are not a major contributor to adult unemployment in this Cape Town district. Though their construction of predicted wages is problematic due to the lack of valid exclusion

restrictions (they use gender and race), the results are nonetheless a provocative indication that the area's high unemployment may not be voluntary.

Lilenstein & Seekings, (2017) explored whether the youth in South Africa have reservation wages is in line with what they can expect to earn in the labour market. They compare reservation wages with predicted wages to determine whether the youth are holding unrealistic reservation wages and may be 'pricing' themselves out of the labour market.

3.8 THEORETICAL EXPLANATION OF THE CAUSES UNEMPLOYMENT

The phenomenon of unemployment has been explained from different perspectives of economic literature. There is substantial work on the magnitude and causes of youth unemployment globally. The level and variation of unemployment among younger people are directly proportional to that of adult unemployment (Blanchflower, 1999, O'Higgins, 2005). Infact Blanchflower (1999) suggests a rule of thumb – the unemployment rate of youth in developed countries is always twice as high as the rate for adults. Youth unemployment is, however, unevenly distributed across the youth cohort. Gender, ethnic origin, regional differences, and both skill and education levels all appear to have an effect on the probability of observing employment (O'Higgins, 2005). Rees (1986) provides several reasons why youth unemployment is greater than the corresponding rate for adults. Firstly, young people are more likely to exhibit seasonal employment patterns as they enter and exit the labour market between periods in which they would be otherwise engaged in education. Secondly, they are more likely to quit or get dismissed, from employment because they are less emotionally mature. Thirdly, they are less well equipped to compete with older workers. Fourthly, they are less risk-averse and may be less dependent on wage income since they are less likely to have families to support and may be receiving financial assistance from their own

families. These characteristics diminish the employment prospects of these young people particularly in situations when there is a general excess supply of labour, or when low aggregate demand in an economy leads to firm downsizing and reduction in the number of new vacancies.

One of the assumptions under the neoclassical framework is that the labour market is deemed to always clear on the basis of the assumption of flexible wages and perfect information. Any deviation from this by wage rigidity due to institutional (e.g. minimum wage legislation) will cause what is known as classical involuntary unemployment. This occurs if individuals are unable to obtain work even if they accept lower real wages or poor conditions of work.

According to the efficiency wage model unemployment also arises when firms decide to pay higher wages above the equilibrium wage as an incentive to increase the efficiency of employees. Wages are kept higher than the market-clearing wage with the view to averting shirking behavior of employees (see Shapiro and Stiglitz, 1984) or reducing labour turnover (see Salop, 1979 and Stiglitz, 1974). Within the efficiency wage framework, it becomes difficult for job seekers to secure employment since the increased wage bills and workers' high productivity would not make it appealing for firms to engage more hands, thus creating unemployment. (Baah-Boateng 2013)

The insider-outsider model of wage-setting behavior of firms also provides an institutional explanation of involuntary unemployment (Lindbeck and Snower, 1988). The model argues that unemployment arises when wages are determined by taking into account only the interests of those employed (insiders), without regard to the interests of those seeking to be employed referred to as the outsiders (see e.g. Bentolila et al., 2011). The effort of firms to reduce the cost of labour turnover which prevents them from hiring outsiders gives some kind of protection to insiders even in the midst of their higher wage demands, creating limited avenues for outsiders to get employed.

Besides, insiders may resist competition with outsiders by refusing to cooperate with or by harassing outsiders who try to underbid the wages of incumbent workers to escape unemployment. Lastly, from the Keynesian perspective, unemployment largely arises from deficiencies in aggregate demand over certain periods in the business cycle such that jobs created are not enough for everyone who wants to work (Keynes, 1936). This type of unemployment is cyclical and involuntary because the unemployed are constrained by limited job availability. Related to demand deficient unemployment is seasonal unemployment, created by predictable seasonal variation in demand associated with climatic seasons.

3.9 OTHER CAUSES OF UNEMPLOYMENT

Unemployment has been known to be caused by a number of factors, be it corporate downsizing, mergers, implementation of automation, economics instabilities amongst others. Whatever these causes may be; they border on the interactions amongst the forces of demand and supply of labour and the labour market intuitions which influence market outcomes i.e. high or low unemployment rates. Thus, the situations which lead to high demand for labour naturally cause low unemployment rates and vice versa. Also, a high supply of labour met with a market readily available to absorb skills and potential of the labour force result in low unemployment rates. In the absence of the conditions, unemployment prevails.

“The Ministry of Manpower, Youth and Employment (2000) have compiled the following as the causes of youth unemployment in Ghana.

- The introduction of the Junior Secondary School and Senior Secondary School system without adequate planning for integration into the trade/vocations and job placement;
- Education and training have no link to the needs of the important sectors of the economy;

- The near-collapse of Ghana’s industrial base due to ineffective management of the divestiture process which resulted in the closure of many factories without a structural transformation of the economy to generate alternative jobs for the people;
- The shrinking of public sector employment opportunities coupled with the relatively slow growth of the private sector; and
- The lack of coherent national employment policy and comprehensive strategy to deal with the unemployment problem.”

The other causes are as follows;

Rural-Urban Migration: Rural-urban migration is usually arising as a result of the push-pull factors. The pull factors based on the “bright light hypothesis” – states that city lights and the good nightlife tend to attract rural dwellers, particularly rural youth, to urban areas more than any other factor. In addition to this, there is a concentration of social amenities in the urban centers. This meant that rural areas are neglected in the allocation of social and economic opportunities. On the other hand, the push factors explained by harsh conditions in the rural areas (drought, civil conflict) that force people out of rural areas to the cities to seek temporary employment. They result from pressure such as man-land ratio in the rural areas and the existence of serious underemployment arising from the seasonal cycle of the lack of infrastructural facilities, which makes the rural life unattractive (Uddin, 2013)

Rapid Population Growth: The rapid growth in population in Sub Saharan Africa is another reason for the high rate of youthful unemployment. Looking at this from a basic economic point of view the rapidly expanding labour force seeking jobs had been growing at a rate exceeds the rate of job creation and employment in SSA. In other, words, the demand for jobs is greater than the supply of jobs. In order to solve this problem, the African youth in support with the government and other

agencies would have to come out with innovative ways of creating sustainable and sufficient employment in order to provide the ideal standards of living for themselves and families. In Ghana, this can be described as a situation of an imbalance between the demand and supply of labour in the labour market (Poku-Boansi and Afrane; 2011). The Ministry of Manpower, Youth and Employment (2006) show that over the last forty years, there has been a more than threefold increase in the youthful population. Out of about 230,000 people who seek to enter the labour market every year, the formal economy is able to offer jobs to about 2 percent or about 4,600 of them (ISSER, 2004). The remaining 98 percent of the job seekers are left to find employment in the informal economy where the levels of compliance with labour standards are non-existent or very low or remain unemployed.

Low Standard of Education and skills mismatch: Many have argued and raised concerns as to the nature of education received in most African countries. As a result of colonization, most of these economies inherited the education of clerks and administrators to help manage their regimes, but not to own and self-administer. This form of education has existed over the years and has left the region short of forward-thinking entrepreneurs. As a result, the average graduate is not employable and, therefore, does not possess the skills needed by the employers of labour for formal employment. After all, employers do not need people to pay or spend their money on but people that will help their organization grow and make more profit as the primary goal of every enterprise is to make a profit. The course contents of most tertiary education do not give the individual skills to survive and thrive in the labour market. The mismatch of relevant skills is one of the factors responsible for youth unemployment that affects young people everywhere (Peace Child International, 2015). There are millions of young people out of school and ready to work, but businesses need skills these young people never got. Young people end up experiencing a difficult

school-to-work transition, and businesses are unable to find suitable candidates for their positions. Similarly, young people who have advanced degrees find themselves overqualified for their jobs, and many young people are also underemployed, meaning they work fewer hours than they would prefer. This makes them unemployable in the formal labour market where the emphasis is on qualification and expertise. Where there is formal training for job seekers, there is a problem of the gap between academic training and industry requirements and all these together, have compounded the problem confronting the youth (Poku-Boansi and Afrane: 2011). The universities and other tertiary institutions are reported to churn out about 68,000 graduates yearly without the correspondingly high number of jobs being created to absorb them. Only recently, the Institute of Statistical, Social and Economic Research (ISSER) has indicated that about 50% of graduates from 2011 graduating year may have to wait up to 2014 without finding jobs. For Boateng and Ofori (2002), the issue of quality borders on the possession of some specific skills considered relevant to job performances. According to them, employers do not necessarily require certificates but the ability to perform and this has led to increasing demands for these qualities namely computer, analytical, managerial and technical skills to name a few. In 1995 only, 13.4 percent of jobs requiring university education also demanded computer skills; 0.4 percent also demanded communication skills 1.5 percent also demanded personal attributes. The demand increased in 2000 to 45.7 percent for computer skills, 38.6 percent and 41.8 percent for communication skills and personal attributes respectively (Boateng and Ofori; 2002). The private sector, government and education systems need to start collabourating to determine what knowledge and skills young people should be taught in order to find rewarding work. Considering businesses are suffering from the skills mismatch, too, they need to take a more active role in promoting appropriate education and skill-building for young people from an early age. (Peace Child International, 2015).

Corruption: Corruption, which has permeated the entire social structure most SSA, has robbed the region of developing a vibrant economic base. Funds meant for development projects have been misappropriated, diverted, or embezzled and stashed away in foreign banks, while some incompetent and corrupt bureaucrats and administrators in the public enterprise and have liquidated these organizations. The point being made here is that the collabouration of the political elites, local and foreign contractors in the inflation of contract fees have robbed most economies of jobs that could have been created with these funds that would have created jobs for the youths in various sectors of the economy. The constant abuse of position and power in these economies by political officials continues to cripple the economy and engendering and exacerbating unemployment which creates abject poverty, hunger, and frustration. ([Uddin, 2013](#))

Lack of adequate Career Counseling: The inadequate avenues for career counselling influences the ability of the youth to either find or pursue the right careers. Faced with these inadequacies, they either find themselves in careers they didn't choose which does not match with their personalities leading to a failure in their professional life.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.0 INTRODUCTION

This chapter presents the methodology used in achieving the objectives of the study. Doing so, in determining whether the reservation wage is a contributing factor to youth unemployment in Ghana, we apply a probit regression estimation technique to explore how each of the reservation wages influences the probability of an individual becoming unemployed. Secondly, to investigate the determinants of reservation wage among the youth in Ghana we employ an OLS regression model. Finally in determining whether the youth is overpricing themselves in the Ghanaian labour market, using an independent sample t-test to test for significant difference between the mean of unemployed youth's reservation wages and employed youth's actual wages. We first start by analyzing the methods for all three objectives, the data source of the study and the description of variables to be used.

4.1 ESTIMATION TECHNIQUE

4.1.1 DETERMINANTS OF UNEMPLOYMENT (RESERVATION WAGE)

Given that the state of employment is a dichotomous variable, a probit regression model will be used to determine how each of the explanatory variables influence the probability of an individual becoming unemployed. Unemployment U_i will be measured with a value 1 if the individual is unemployed and 0 if the individual is employed. In this context, an individual is unemployed if he or she has attained the age of 15 and during the last 7 days prior to the survey was jobless, but available for work and made effort to seek work. As seen below, the probit model explores how the explanatory variables influence unemployment.

$$Pr(U_i = 1|X_i) = Pr(U_i = 1|S_i, D_i, Z_i) \quad (1)$$

where U_i is the dependent variable and X_i represents a different set of explanatory variables that capture supply factors, S_i ; demand factors, D_i ; and other control variables, Z_i on the probability of the individual becoming unemployed. Assuming that the model is linear in the set of parameters, the estimated model of determinants of unemployment is specified as:

$$Pr(U_i = 1|X_i) = G(\alpha + S_i'\beta + D_i'\delta + Z_i'\Phi) = \alpha + S_i'\beta + D_i'\delta + Z_i'\Phi + e_i \quad (2)$$

where G is a function taking on values strictly between 0 and 1; and e_i denotes the disturbance term with mean zero and variance σ_e^2 . The disturbance term captures measurement errors and all unobserved factors.

An alternative estimation technique appropriate for estimating the determinants of unemployment is logit. The choice between logit and probit is usually with regards to the assumptions about the distribution of the error term. Though both yield similar results, the probit model assumes a normal distribution for the error term whereas the logit estimation technique assumes a logistic distribution. The probit model is chosen over the logit because it is fairly simple to understand in terms of interpreting its marginal effects.

4.2 SELECTED VARIABLE DESCRIPTION

Using this data set, key variables which will be taken into consideration are the reservation wage which is captured by the question “What is the lowest wage for which (NAME) is willing to work for someone?” under section 4D question 9 of the GLSS 6 (2014). This question gives numerical values to wages that induce an individual to work. Other variables include individual characteristics such as level of education (section 2B Q3), age, sex, marital status, number of

children with all fall under section A, unemployment (section 4D Q1) and duration of unemployment (section 4 DQ7). It also takes into consideration the general wage distribution of those in employment (S4Q23).

Question	Variable	Measurement	Expected Sign
S4dq2	Unemployment	Unemployed 1: employed 0	
S1q6	Married	Male 1: Female 0	+/-
S1q2	Male	Married 1: single 0	+/-
S4dq9a	Log of monthly reservation wage	Monthly reservation wage in logs	+
S2aq2a	Basic education	Basic education 1: otherwise 0	-

Table 4: Description and Coding of Variables

Source: Constructed by the Author.

Table 4 reports the measurement and expected signs of the coefficients of explanatory variables. The variables are categorized into supply-side factors, demand-side factors, and other factors. The selection of these variables based on the Classical and Keynesian theories of employment. In these theories, it is assumed that output is produced under the conditions of diminishing marginal returns to the scarce factors of production and constant returns to scale. The demand for labour is however derived from the production function (Meltzer, 1978). The supply of labour is based on individual decisions to give up other activities (leisure) and allocate time to labour. These relations yield a negatively sloped aggregate demand curve for labour relating offers of employment and the

relative price of labour, or real wage, and a positively sloped supply curve of labour. The intersection of the two curves determines the market-clearing real wage and the equilibrium level of employment. The outcome of the excess of labour hours supplied and the demand for labour at the prevailing wage is known as unemployment.

4.1.2 Supply-Side Factors

The age group of an individual, their educational level, stated reservation wages are the variables that will categorize the supply effects of unemployment.

Education: Four categorical dummies of basic, secondary and tertiary education with no education as a reference dummy measure education. Based on human capital theory, the skills acquired by an individual overtime plays an important role in determining the ability to securing a job based on the relevance of those skills to the labour market. Thus the inclusion of this dummy is in line Osberg et al. (1986) and Lindley (2005) among others. It is expected that individual with education have a negative marginal effect on unemployment. Since education, enhances the employability of individuals.

The reservation wage takes into consideration the stated wages expressed by individuals as the value perceived to correspond with their observed and unobserved characteristics. These are based on the assumptions that any offer below their reservation would cause them to leave the job. It is expected that those with higher reservation wages are more likely to be unemployed.

4.1.3 Demand-Side Factors

In arriving at the effect of demand factors on unemployment, the kind of jobs sought by job seekers are used in this analysis.

Employment-type Dummies: In determining the ability of the Ghanaian economy to absorb the needs of jobseekers, the dummy variables (private, government, self-employment, small-scale enterprises and any job as a reference dummy) representing the types of jobs being sought are employed.

It is expected that lower jobs opportunities in relation to the demand for jobs will increase the probability of individuals who seek for specific kinds of jobs than any other job to be unemployed.

Full-time job dummy: In addition to the type of jobs sought it is also important to determine the length of hours an individual is prepared to spend on a particular job. The full-time dummy is therefore used to determine the labour demand on unemployment. It is expected that in periods of economic growth and development, full-time job seekers will be less likely to be unemployed than part-time job seekers.

4.1.4 Other Factors

- Female dummy: The female dummy (female: 1 and male 0) reflects the gender effect on unemployment.
- Married dummy: The married dummy captures the effect of one's marital status on the probability of becoming unemployed (married including consensual union 1: single 0).

4.3 DETERMINANTS OF THE RESERVATION WAGE

Ordinary Least Squares (OLS) regression will form the basis of the analysis of what factors impact an individual's reservation wage. The regression equations will take the following form:

$$\text{"log (res wage) = } c + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i + \varepsilon\text{"}$$

The dependent variable will be the log of the individual's reservation wage and the explanatory variables (X_i) will be discussed below. Influenced by the theory of Job search discussed in the

earlier chapter, the availability of detailed individual and household-specific factors are relevant for the analysis of reservation wages since they are value costs assigned to an individual as a result of individual and institutional characteristics.

4.4 VARIABLE DESCRIPTION

- Household income (*hhold income*) comprises income from employment, agricultural and non-farm activities, rent, remittances, and income from other sources. The assumption is that the existence of no-labour income can have an influence on the individual's reservation wage. This is because if the prevailing wage is lower than the individual's non-labour income, the individual is better off consuming leisure than labour hours. Thus the wage(reservation wage) that will influence the individual to supply his hours for work would probably be higher than the prevailing wages. Also, an agent that benefits from a higher household income is likely to have a lower search cost. The existence of higher household income give agents within these households better access to financial instruments to insure against labour income risks and would, therefore, have a higher reservation wage.
- Education has also been identified as an important explanatory variable. The educational level of an individual will determine the value they might attach to themselves when deciding to accept a particular job offer. Also, years of education comes at a cost and will be factored into the individual's decision to recoup the educational cost. It is expected that individuals with education above the primary level will have a higher reservation wage.
- The age of an individual also forms another important variable in determining the reservation wage. The age category an individual may fall in might determine the reservation wage stated. The youth are perceived to have less experience with respect to the realities of the labour

market and would, therefore, be more likely to state higher reservation wages. This study takes into consideration individuals aged between 15 and 35.

- The gender of individuals within the age groupings chosen will also be analyzed to determine their effect on the reservation wage. The men are likely to have a higher reservation wage due to their perceived roles as family heads or breadwinners. Also given their percentage in the labour force, they are likely to have higher costs for job search which might influence their reservation wages.
- Marital status: - The status of an individual could determine the amount they will be willing to accept before entering the labour market. Married or single individuals could observe variations in their reservation wages based on their responsibilities, which would influence the wages they are willing to accept, or the composition of their expenses could also influence their reservation wage. Prasad (2000) came up with the findings that showed that individuals who were married, were inclined to have lower reservation wages. Secondly, the “household head” status had a positive relationship with the reservation wages. Alternate findings by Walker (2003) indicate that mean reservation wages for those married (R1297) were higher than those unmarried (R1068).
- Duration of unemployment: - The amount of time an individual spends being unemployed could have a direct relationship with the reservation wage. Jones (1988) discovered that individuals with relatively higher reservation wages were in a position to stay unemployed for a longer period because they could afford to do so until a better job offer was found. In this case, a person can control the decision to accept a job by evaluating different job opportunities. However, it is expected that the longer a person remains unemployed, the lower his/her

reservation wage falls as a result of human capital loss and increased desperation to find work. Prasad, (2000 pp 45) points out that “one would expect the reservation wage to decline over time on account of wealth effects and human capital depreciation” Standing (1978) mentions sociological research that has shown how “prolonged unemployment reduces a worker’s employability, morale, and capacity for work” (1978:233).

4.5 ESTIMATION PROCEDURE: ARE THE YOUTH OVERPRICING THEMSELVES IN THE GHANAIAN LABOUR MARKET.

This stage involves using the reservation wage measure to assess the extent to which youth are holding reservation wages in excess of what they can realistically expect to earn in the labour market. Following this, the relationship between the reservation wage of unemployed youths and the reported wages of the employment youth was assessed.

The study considered the t-test to test for significant difference between the observed wages of the employed youth and the reservation wages of the unemployed youth. The independent sample t-test is the efficient inferential statistics used when a study focuses on investigating a significant difference between mean values of independent samples assuming equal variance. The unrealistic reservation wages (in other words, reservation wages in excess of predicted wages) and employment status is assessed.

The decision rule for the t-test is that, when the p-value of the t-test statistics is less the significance level of 5%, the null hypothesis that there is no significant difference between the mean wage observed wages of employed youths and the mean reservation wage of the unemployed youth.

CHAPTER FIVE

PRESENTATION AND DISCUSSION OF RESULTS

5.1 INTRODUCTION

This chapter presents the classification and analysis of data obtained on the GLSS 6 from Ghana Statistical Service (GSS) in relation to determinants of unemployment and reservation wage among Ghanaian youth. The chapter further discusses the results on the subject of research objectives and incorporates and compare results with findings from theoretical and empirical literature discussed in chapter two and three. Meanwhile, for the purpose of clarity and easy understanding of the results, the data was summarized into tables of frequencies and percentages and cross-tabulation. Probit regression, OLS regression model and independent-sample t-test to explore the relationships between key variables under consideration and make statistical inferences.

The data presentation comprises summary descriptive statistics of research variables, probit regression analysis for determinants of unemployment, OLS regression for determinants of reservation wage and independent-sample t-test on the pricing of youth in the Ghanaian labour market.

5.2 SUMMARY STATISTIC

The variables for exploring the research questions and objectives include age, sex, marital status, level of education, unemployment, length of unemployment, kind of job seeking, type of employment, and reservation wage. The data contained information on all ages in the household including children (0-14), youth (15-35), adults (46-60) and aged (61+). Since the legal employment age is fifteen (15) years to sixty (60) years, the study limited the analysis of the

employment age group for meaningful conclusions and recommendations. The age distribution of the respondents in the survey data is depicted in Table 5, categorized under youth and adults.

Table 5: Age Distribution of Respondents

Variable	Obs	Percent	Mean	Std. Dev.	Min	Max
Youth (15-35)	9165	62.42%	23.94	6.11	15	35
Adults (36-60)	5518	37.58%	46.11	6.91	36	60

Source: Researcher's Computation

The result in Table 5 revealed that majority of the respondents were youth representing 62 percent while the remaining 38% were adults. The mean age of youth was 24 years old with a standard deviation of 6 years while the mean age of the Adults was 46 years with a standard deviation of approximately 7 years. The youth representation in the labour market of Ghana is vast as a greater proportion of the Ghanaian population falls within 15 to 45 years and just transited to the labour market.

Summary statistics indicating the percentage of respondents with respect to youth and adults are displayed in Table 6. It shows that among the adults' respondents, 47% are males while the remaining 53% percent are females. Again, 46% of the youth respondents are males and the remaining 54% are females. This can be attributed to the global and local facts on population distribution that more females exist than male and the result indicates that females dominate the youth population than the adult's population.

Table 6: Distribution of Summary Statistics of Respondents

Demographic Characteristic	Adults	Adults Percentage	Youth	Youth Percentage
Gender				

Male	2579	46.7%	4258	46.5%
Female	2939	53.3%	4907	53.5%
Total	5518	100%	9165	100%
Marital Status				
Married	3829	69.4%	2396	26.1%
Consensual Union	473	8.6%	893	9.7%
Separated	252	4.6%	157	1.7%
Divorced	423	7.7%	116	1.3%
Widowed	372	6.7%	41	0.4%
Never Married	169	3.1%	5561	60.7%
Total	5518	100%	9164	100%
Level of Education				
No education	44	0.8%	75	0.8%
Primary education	4080	73.9%	6688	73.0%
Secondary education	1339	24.3%	2297	25.1%
Tertiary education	55	1.0%	105	1.1%
Total	5518	100%	9165	100%
Seeking for Job				
Seeking for Job	108	35.6%	210	44.0%
Not seeking for job	195	64.4%	267	56.0%
Total	303	100%	477	100%
Kind of Job Seeking				
Full time	81	75.0%	180	85.7%
Part time	27	25.0%	30	14.3%
Total	108	100%	210	100%
Type of Employment mainly Seeking				
Government or state enterprise	11	10.2%	29	13.8%
Large Private Firm	10	9.3%	15	7.1%
SME	22	20.4%	33	15.7%
Self employment	24	22.2%	39	18.6%
Any Job	41	38.0%	94	44.8%
Total	108	100%	210	100%
How long seeking for work				

Less than 1 month	12	11.1%	24	7.8%
1 month but less than 3 months	15	13.9%	43	14.1%
3 months but less than 6 months	13	12.0%	42	13.7%
6 months but less than 12 months	18	16.7%	50	16.3%
12 months but less than 24 months	26	24.1%	73	23.9%
24 months	8	7.4%	29	9.5%
More than 24 months	16	14.8%	45	14.7%
Total	108	100%	306	100.0%

Parental Status

Parent	5514	99.9%	9158	99.9%
Not a Parent	4	0.1%	7	0.1%
Total	5518	100%	9165	100%

Source: Researcher's Computation

The marital status of the respondents also indicates that more adults (69%) are married than the youth (26%) while more youth (10%) are in consensual union than adults (9%), more adults (5%) are separated than youth (2%), more adults (8%) are divorced than youth (1%), more youth (61%) have never married than adults (3%) and 7% of adults are widows but no youth is a widow. Relating these results to real-life explains the natural phenomenon that marriages, divorce, widowed and separated increases with age. However, 99.9% of both adults and youths are parents with one or more children. This can be attributed to the fact that being a parent is only dependent on being married but even the singles, separated, divorced, widowed and consensual union have children nurturing.

Moreso, the level of education respondents show more basic education with an adult population representing 74% and youth population 73%. Adults with secondary education (24%) are slightly less than youth with secondary education (25%) while adults with tertiary education follow the same trend; 1% for adults and 1.2% for youth. Impliedly, approximately the distribution of adults

with respect to education is the same as their youth counterparts with a slight trend that the level of education for youth is higher than that of the adult population.

Some respondents in the age bracket for employment are employed and others unemployed, in school, in apprenticeship and incapacitated. Of the population who are neither in school, in apprenticeship and incapacitated and employed, 318 representing 41% made effort in the last seven days to search for a job while the remaining 59% relax. Table 6 shows that of the adults' population, 37% are classified unemployed with the remaining 64% are without a job but not searched for over 7 days now. In addition, the youth population shows 44% unemployment and 56% dormant populace not searching for a job. The youths available for work are more daring to secure job than the adult's counterparts.

Moreso, Table 6 shows that while 86% of youth job seekers are after full-time job, 14% are after part-time jobs and 75% of adults job seekers are after full-time job with 25% adults after part-time job. Again the job aggression to secure a permanent job is revealed here as adults maybe occupied with little jobs but require a top-up. Furthermore, youth job seekers are more interest in government and state enterprise jobs (45% against 38%) and any jobs (14% against 10%) than the adults' counterparts. Twenty-two percent (22%) of the adults' population seeks self-employment while 20% seeks SMEs employment and 9% seeks large private firm employment. The youth job seekers are interested in self-employment (19%), SMEs (16%) and large private firms (7%).

In furtherance, the length of time for job-seeking variable shows that more respondents have searched for a job for over 6 months (63% each for adults and youth job seekers). It is evident that respondents who have been searching for a month now are 11% adults and 9% youth while those searching for 1 month but less than 3 months are 14% each for adults and youth. Also, those

searching for 3 months but less than 6 months are 12% for adults and 14% for youth and those searching for 6 months but less than one year are 17% for adults and 16% for youth. Both the youth and adults have a similar trend in endurance in job search but the youth with more energy, efforts, and endurance level slightly have improved length of search.

5.2.1 Determinants of Unemployment

In order to ascertain the demand, supply and other variables that determine unemployment in Ghana, the probit regression was modeled for unemployed individuals on the explanatory variables. The explanatory variable included in the model includes gender, age, marital status, level of education, sector seeking for employment, type of job and reservation wage. Being a male or a female have been identified to determine unemployment among African populace and that necessitated the inclusion of the gender dummy in the model. Again, whether a person is married or not married can influence his or her chance of being employed since some job description requires the applicant to be married persons. Notwithstanding, the level of education, type of job and sector seeking a job at likely determine if a person can be employed or not. Finally, the least wage expected by unemployed is expected to determine unemployment. It is however notable that some employed individuals are seeking employment and therefore their responses on job seeking and type of employment. This necessitated the inclusion of this variable in the probit model which uses both employed and unemployed data. The output of the probit regression model specific to unveiling the determinants of unemployment with their marginal probability effects obtained as represented in Table 7.

It is obvious from Table 7 that the gender dummy was significant at 5 percent level with a positive sign for both sample sizes; all sample and youth sample. The result shows that the probability of

female being unemployed is 9.52 percentage points and 14.2 percentage points than their male counterparts for all sample and youth respectively. This posits the same level of gender inequality in the Ghanaian labour market which can be attributed to the risky nature of some job roles and hence considers more males for employment than females. This result is supported by the findings of Baah-Boateng (2013 and 2015) and Tangtipongkul and Wangmo (2017).

Again, it is evident from Table 7 that the youth are more probable to be unemployed than their older counterparts in the Ghanaian labour market. At 5 percent level of significance, the youth have 8.9 percentage points more chance of being unemployed than individuals aged 36 to 60. Thus, the older an individual in the labour force in Ghana becomes, their chance of being employed is higher. Findings from Msigwa and Kipsha (2013), Baah-Boateng (2013 and 2015) and Tangtipongkul and Wangmo (2017) confirms the assertion of youth unlikely to secure jobs as compared with the older counterparts. This can be related to the lack of experience and requisite length of employment in vacancy announcements, other skills required and lack adequate social connection established by youth in Ghana's labour market.

Table 7: Determinants of unemployment (Marginal Effect for all Samples and Youth Samples from Probit Regression Model)

Unemployed	All Sample (Ages 15-60 years)	Youth Sample (Ages 15-35 years)
Female	0.0952* (1.87)	0.142* (2.23)
Youth	0.0895* (1.64)	0 (.)
Married	0.0422 (0.81)	0.0187 (0.30)
Primary	0.312* (0.85)	0.150 (0.39)

Secondary	0.353* (0.95)	0.196 (0.49)
Tertiary	0.181* (0.41)	0.0112 (0.02)
Full time	0.124* (1.76)	0.269** (2.88)
Government	-0.0295* (-0.29)	-0.0249* (-0.20)
Large Private Firm	0.215* (1.86)	0.181* (1.21)
SMEs	0.503*** (6.32)	0.460*** (4.52)
Self-Employment	-0.105* (-1.66)	-0.170* (-2.16)
Log Reservation	0.254*** (9.35)	0.268*** (7.85)
_cons	-3.976*** (-9.67)	-3.919*** (-8.74)
<i>N</i>	14683	9165
Pseudo R^2	0.450	0.470
Log Likelihood	-1460.3	-949.8
Chi-Square	138.3	93.93
P-Value	1.32e-23	2.81e-15

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Researcher's Computations based on GLSS6

Moreso, the marital status dummy predicts that whether an individual is married or not. From Table 7, it is clear that the probability of being unemployed was not dependent on whether an individual was married or not at 5% level of significance. Thus, both the married and the unmarried have an approximately equal chance of being unemployed. Besides, this result conflicts with the

findings of Baah-Boateng (2015) and Tangtipongkul and Wangmo (2017) that the married less likely become unemployed than the singles.

It is also evident from Table 7 that individuals with some level of education are more likely to be unemployed than their counterparts without any level of educations. For all age groups in the labour market in Ghana, individuals with basic education are 31.2 percentage points more likely to be unemployed than those without education at 5% level of significance. However, youth with basic education does not significantly determine unemployment as evident in Table 7. In addition, individuals with secondary education are 35.3 percentage points more likely to be unemployed than those with no education at 5% level of significance. Again, the probability of individuals with tertiary education to be unemployed is 18.1 percentage points more than their counterparts without education. Meanwhile, none of the education variables are significant in the youth model. It can be noted that the percentage points of the probability of being unemployed decrease as individuals level of education change from basic/primary to tertiary and to secondary relative to no education. Thus, for all *sample* model, individual with a secondary level of education are more probable to be unemployed at 5% level of significance followed by basic education and then by tertiary education relative to no education. Ndjubo and Abessolo (2013), Aryeetey et al, (2014), Baah-Boateng (2013 and 2015) and Tangtipongkul and Wangmo (2017) reported similar findings in their studies.

Full-time job search relative to part-time job search has more chance of leading to unemployment at 5% level of significance for all sample and 1% level of significance for youth sample as displayed in Table 7. As observed in Table 6 some employed individuals were seeking for job and therefore the survey asked such individuals of the type of employment they were seeking for. Thus, the inclusion of the type of job seeking in a model with both employed and unemployed

individuals. Table 7 reveals that individuals seeking full-time employment stand 12.4 percentage points and 26.9 percentage points more chance of remaining unemployed for all sample and youth sample respectively than those seeking part-time employment.

Searching for government or public employment stands less chance of remaining unemployed than searching for any job at a 5% level of significance for all sample and statistically insignificant for youth sample as evident in Table 7. Thus, youth searching for government or public employment does not determine the probability of being unemployed. Choosing between a government job and any job among the youth of Ghana do not predict individual being unemployed. Large private firms' job search by individuals has 21.5 percentage points more chance of leading to unemployment than any job search at a 5% level of significance for all sample. Similarly, for youth sample, individuals searching for employment from large private firms have 18.1 percentage point chance of being unemployed than those searching for any job. In addition, general individuals searching for SMEs' employment have 50.3% more chance of remaining unemployed than those searching for any job at 0.1% level of significance as evident in Table 7. Youth searching for SMEs' employment has 46 percentage points more chance of remaining unemployed than those searching for any job at 0.1% level of significance. Finally, those who want to be self-employed have 10.5 percentage points and 17 percentage points less chance of being unemployed than those searching for any job for all sample and youth sample respectively. That is, youth is relatively prone to self-employment as compared to all sample which consequently reveals the less tendency of being unemployed.

Table 7 reveals that log of the reservation is statistically significant at 0.1% level of significance for all sample with a positive sign. Most studies including but not limited to Taylor (2011), Baah-Boateng (2013 and 2015) and Tangtipongkul and Wangmo (2017), concluded that the individuals

with reservation wage have more chance of being unemployed than their counterparts without reservation wage. This study equally reveals that individuals with log reservation wage have 25.4 percent more likely to be unemployed than those without for all sample and 26.8 percentage points for youth sample. Meanwhile, the job search theory postulates that unavailability of job vacancies with strict and competitive opening renders the job seeker with no choice of reservation wage to enable them to secure the job. Youth with reservation wage is more likely to remain unemployed than those in all the sample at 0.1% level of significance as such age group have reservation wage falling outside the predicted market wage (Brown & Taylor, 2011)

5.2.2 Determinants of Reservation Wage

Reservation wage has been noted to determine unemployment. However, reservation wage is influenced by some demographics of youth in labour market and job search factors. For the purpose of this study, the reservation wage variable includes the minimum amount the unemployed (narrowly unemployed) are ready to accept for a job. However, data on youth available for work but have not searched for a job in the past 7 days (broader definition of unemployment) and that of all youth sample was used for comparison purposes.

This section unveils whether age, educational level, female dummy, married dummy, parent dummy, length of unemployment and household income as determinants significantly determines reservation wage. The summary statistics for the determinants of reservation wage is presented in Table 8.

It is obvious from Table 8 that 477 youth were available for work but did not search for one within the past 7 days (broad unemployment) while 209 youth were available for work and searched for one within the past 7 days (narrow unemployment). The demographics of broad unemployed youth

include, 258 (54.1%) were females, 219 (45.9%) were males; 162 (34%) were married, 315 (66%) were not married, and 476 (99.8%) had at least one child as presented in Table 5.4. On the other hand, with respect to narrow unemployed youths, 121 (57.9%) were females, 88 (42.1%) were males; 78 (37.3%) were married, 131 (62.7%) were not married, and all youths had at least one child. Again, the majority of the narrow unemployed youth have a basic level of education (69.4%) followed by secondary education (26.8%), and then by tertiary education (1.1%).

In addition, Table 8 also reveals that the mean age of broad unemployed youths was 24 years with a standard deviation of 6 years, mean length of unemployment was 1.8 years with a standard deviation of 2 years and mean log household income was 4.45 cedis with a standard deviation of 1 cedi.

Table 8: Summary Statistics of Determinants of Reservation Wage

	Youth available for work		Unemployed Youth	
	Frequency	Percentage	Frequency	Percentage
Gender				
Male	219	45.9%	88	42.1%
Female	258	54.1%	121	57.9%
	477		209	
Marital Status				
Married	162	34.0%	78	37.3%
Not Married	315	66.0%	131	62.7%
Parental Status				
Parent	476	99.8%	209	100.0%
Not a Parent	1	0.2%	0	0.0%
Level of Education				

No education	3	0.6%	1	0.5%
Primary education	341	71.5%	145	69.4%
Secondary education	128	26.8%	61	29.2%
Tertiary education	5	1.0%	2	1.0%

	Mean	Std. Dev.	Mean	Std. Dev.
Age	24.06	6.23	24.36	6.27
Length of Unemployment	1.8	2.39	4.08	1.88
Household Income	4.45	1.06	4.5	1.01

Source: Researcher's Computations based on GLSS6

With respect to the unemployed youth (narrow unemployment), the mean age was 24 years with a standard deviation of 6 years, while the mean length of unemployment was 4 years with a standard deviation of 2 years and mean log household income was 4.5 cedis with a standard deviation of 1 cedi. Thus, for both samples, the mean age was 24 years but the length of unemployment for broad unemployed youths was less than that of narrow unemployed youths.

In examining the relationship and significant impact of the demographics on log reservation wage of youth in Ghana, the OLS regression model was fitted and marginal effects with their respective standard errors and p-values were obtained and result depicted in Table 9. The analysis was carried out by logging all income variables; reservation wage and household income to cater for scale effects resulting from a wide range of these variables. In carrying out the analysis, all youth population, youth available for work and youth unemployed were considered. The total youth population consists of youth in education, in apprenticeship, hospitalized, in employment and the unemployed youth.

It is clear from Table 9 that the age of youth significant for all the samples; total sample, youth available to work and youth unemployed at a 5% level of significance but the directions were

mixed. For overall youth sample and youth unemployed, higher age of respondents have a less likely probability of attracting higher reservation wage while the youth available have a high probability of attracting higher reservation wage as age increases. For example, unemployed youths with higher ages have 0.59% less probability of attracting a high reservation wage at 5% level of significance.

Moreso, the levels of education include basic, secondary, tertiary and no education. No education was labeled the least level of education, followed by basic/primary, then by secondary and the highest was tertiary education. From Table 9, it is clear that the level of education across all samples is statistically significant at 5% level of significance. Youth with a higher level of education have reservation wage 0.16% points and 0.17% points lower for all youth population and youth available for work but the unemployed youth have reservation wage 0.45% higher when their level of education increase from primary to tertiary. This is consistent with findings of that as the length of education for unemployed increases, their reservation wage also increases as a result of the increased total cost of education, knowledge, and competencies. On the other hand, the findings reveal that youth available for work but not actively seeking employment would accept any wage when offered employment. This stems from the assertion that they might search for a longer period and cost of searching becomes unbearable while frustration set and hence would accept any lower reservation wage to accept a job offer.

Table 9: Determinants of Reservation Wage, OLS Estimation

Log Reservation Wage	Youth Population	Youth Available for Work	Youth Unemployed
Age	-0.000753* (-0.83)	0.00259* (0.46)	-0.00588* (-0.64)
Level of Education	-0.00163* (-2.06)	-0.00173* (-0.34)	0.00451* (0.54)

Female	-0.00657* (-0.72)	-0.0982* (-1.65)	-0.103* (-1.07)
Married	0.00337* (0.29)	0.0535* (0.71)	0.104* (0.87)
Parent	-0.295 (-1.82)	-0.960 (-1.52)	0 (.)
Length of Unemployment	0.0811*** (12.29)	0.0195 (1.61)	-0.0530* (-2.10)
Log Household Income	0.497*** (127.87)	0.347*** (12.70)	0.297*** (6.48)
_cons	3.251*** (19.72)	4.856*** (7.45)	4.514*** (11.78)
<i>N</i>	9164	477	209
<i>R</i> ²	0.643	0.276	0.191
ll	-5193.2	-450.2	-208.5
p	0	1.38e-29	0.000000106

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Researcher's Computation based on GLSS 6

In addition, Table 9 reveals that gender is statistically significant with reservation wage at 5% level of significance with a negative sign for all samples under study. Females have lower reservation wage than males. It is evident that reservation wage for females youth is 0.66%, 9.8%, and 10.3% points lower than that of males counterparts for all youth sample, youth available for work and youth unemployed respectively. The percentage points for unemployed youth is relatively higher than that of youth available for work and all youth sample and this can be likened to role and responsibilities of a male in the society as major breadwinners for both the nuclear and extended families. These findings are consistent with the results of Malk (2014), Natrass and Walker (2005) and Prasad (2003).

Furthermore, the marital status of the youth statistically significantly affect the reservation wage and the effect is positive as evident in Figure 9. With a concentration on unemployed youth, married youth (married and consensual union) have 10.4% point high reservation wage than their unmarried or single and divorces youth. As noted by Malik (2014), married and cohabitating individuals tends to have higher reservation wage than the unmarried counterparts and this affirms the finding of this study. The reservation wage for married youth exceeds that of the single youth because the cost of catering for other spouse and family raises their expenditure and expectation so as to survive.

The parent variable presents whether the youth have a child or not. It is believed that youth with children would have more responsibility and therefore their reservation wage would be higher than those without children. The result in Table 9 indicates that parental status does not statistically significantly impact the reservation wage at 10% level of significance for all sample. This was evident since the p-values for the parent variable are all greater than 0.10 for all three models. Malik (2014) also reported that even though a number of children (being a parent or not) positively influence the reservation wage of the unemployed, the relationship is not statistically significant which is consistent with this finding. Thus, whether a youth is a parent or not do not influence the reservation wage.

Apparently, length of unemployment which depict the length of time in months the youth have been actively searching for work was significant for all samples at 0.1% level of significance and positive for all youth sample and youth available for work but negative for unemployed youth. Thus for those youth who are available for work but have not searched for work in the past 7 days, the reservation wage is 1.9% high as the length of unemployment increases. On the other hand, for unemployed youth as the length of unemployment increases, the reservation wage is 1.95% low.

Youth available for work and those employed are most likely to live for a longer period due to the fact that they have other sources of income that can cushion them for the length of time and therefore as the length of unemployment increases, they propose high reservation wage as affirmed by Natrass and Walker (2005). On the other hand, employed youth propose 5.3% points low reservation wage as the duration or length of unemployment increases. This finding contradicts that of Prasad (2003) which posit positive correlation between the reservation wage and length of unemployment but it is consistent with Malk (2014). Meanwhile, using the OLS estimation, the relationship was negative while the instrumental variable (IV) estimation resulted in a positive relationship.

Finally, the log of household income which is expected to influence the length of unemployment and consequently reservation wage as the excess or shortage of it can influence the eagerness to accept any job offer was investigated. The result from Table 9 reports a statistically significant relationship between the log household income and reservation wage for all the three models at 1% level of significance. Youth available for work will prefer 34.7% points high reservation wage when their household income increases and unemployed youth will prefer 29.7% high reservation wage under the same condition of higher household income. This is consistent with the findings of Natrass and Walker (2005) and Malk (2014) that youth with better-resourced households fell reluctant to accept any job as compared their poorer households, thus would prefer higher reservation wage. However, the youth available for work might be more resourced than those unemployed as some of those available for work are in employment which explains the higher percentage points of those available for work (34.7%) as compared to those unemployed youths (29.7%).

5.2.3 Pricing of Youth in Labour Market

The objective was achieved using independent sample t-test to test for significant difference between the mean of unemployed youth's reservation wages and employed youth's actual wages, and differences in reservation wage due to gender.

4.6 Comparison of Reservation Wage and Actual Wage among all youth

The objective was achieved using independent sample t-test to test for significant difference between the mean of unemployed youth's reservation wages and employed youth's actual wages. The result of the analysis comparing the mean reservation wage of all youth who did not receive any payment in the past month and employed youths' actual wage is shown in Table 10.

Table 10: Two-sample t-test with equal variance for all youth

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.Interval]	
ResWage	3394	139.5841	2.099318	122.3022	135.4681	143.7002
ActWage	5771	349.9853	7.795881	592.2304	334.7024	365.2681
combined	9165	272.0691	5.081971	486.5174	262.1073	282.0309
diff		-210.4011	10.29255		-230.5768	-190.2255
diff = mean (ResWage) - mean(ActWage)					t = -20.4421	
Ho: diff = 0		degrees of freedom =	9163			
Ha: diff < 0		Ha: diff != 0			Ha: diff > 0	
Pr(T < t) = 0		Pr(T > t) = 0.000			Pr(T > t) = 1.0000	

Source: Researcher's Computation based on GLSS 6

It is obvious from Table 10 that out of the 9165 youth in the dataset, 5771 are employed while 3394 did not receive any payment for a job done a month before the data collection. The employed youth receives wages daily, weekly, fortnightly, monthly, quarterly, semiannually and annually which is denoted as actual wage (ActWage). On the other hand, youth have the amount that will

accept for employment called reservation wage which is denoted by ResWage. The mean actual wage from the GH¢349.99 with a standard error of GH¢7.79 while the mean reservation wage was GH¢139.58 with a standard error of GH¢2.09. This gave a mean difference of GH¢10.29 standard error.

Table 10 also records p-value of 0.000 for the test that the difference between the means of reservation wage and actual wage is zero (0). This implies that there is a significant difference between the mean reservation and mean actual wage at 5% level of significance. The mean difference of GH¢210.04 between reservation wage and actual wage is statistically significant at 5% level of significance. It further implies that the youth in the labour market of Ghana who did not receive any payments over the past month of data collection expects less pay than their counterparts in employment.

5.3 COMPARISON OF RESERVATION WAGE AND ACTUAL WAGE AMONG UNEMPLOYED YOUTH

Furthermore, the analysis was restricted to the reservation wages of unemployed youths and the actual wages employed youths. Table 11 shows the output from the independent sample t-test of significant difference between mean reservation wages of unemployed youth and reported wages of the employed youth. It is evident from Table 11 that the mean reservation wages of unemployed youths (209 youths) were GH¢260.35 with a standard error of GH¢18.14. The mean actual wage of the employed youths was GH¢349.98 with a standard error of GH¢7.79. This implies that on average, employed youth received more wages than what unemployed youths were readily available to accept for any form of employment.

Table 11: Two-sample t-test with equal variance for employed and unemployed youth

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
ResWage	209	260.351	18.14353	262.2979	224.5822	296.1198
ActWage	5771	349.9853	7.795881	592.2304	334.7024	365.2681
combined	5980	346.8526	7.552947	584.0729	332.0461	361.6591
diff		-89.63427	41.11333		-170.2312	-9.037303

diff = mean(ResWage)-mean(ActWage)

t = -2.1802

Ho: diff = 0

degrees of freedom = 5978

Ha: diff < 0

Ha: diff != 0

Ha: diff > 0

Pr(T < t) = 0.0146

Pr(|T| > |t|) = 0.0293

Pr(T > t) = 0.9854

Source: Researcher's Computations based on GLSS6

It was, therefore, relevant to assess the statistical significance of the mean difference between a reservation and actual wages. It is clear from Table 11 that the p-value for the t-test for the null hypothesis of zero(0) mean difference was 0.0293. Since the p-value was less than the significance level of 0.05, the null hypothesis was not accepted and it was concluded that there is a statistically significant difference between the mean reservation wage and actual wages. This implies also that the youth in employed earn more wages than their unemployed counterparts expect or are ready to receive as wages when employed. The finding is supported by the conclusion of Natrass and Walker (2005:507), “unemployed youth adjust their reservation wages downwards relative to their employed counterparts”.

5.4 COMPARISON OF RESERVATION WAGES BETWEEN MALE AND FEMALE

The reservation wage of the males was found to be more than that of females as discussed in under Table 6. However, how significant the difference between the reservation wage of the unemployed

male youth and that of their female counterparts were determined using the sample t-test and the result depicted in Table 11. It is evident from Table 11 that mean reservation wage of the unemployed female youth was GH¢243.55 while that of the male was GH¢287.05. Test of significant difference between these reservation wages gave a p-value of 0.2486 which is greater than the significance level of 5 percent.

Table 12: Two-sample t-test with equal variance for comparison of reservation wage with respect to gender

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
Female	122	243.5515	17.09241	188.7919	209.7125	277.3904
Male	87	286.0485	36.31531	338.7267	213.8561	358.241
combined	209	261.2416	18.11896	261.9428	225.5213	296.962
diff	-	42.49703	36.7271		-114.9041	29.91008
diff = mean(Female)-mean(Male)			t = -1.1571			
Ho: diff = 0			degrees of freedom = 207			
Ha: diff < 0		Ha: diff != 0		Ha: diff > 0		
Pr(T < t) = 0.1243		Pr(T > t) = 0.2486		Pr(T > t) = 0.8757		

Source: Researcher's computations based on GLSS6

This lead to the failure to reject the null hypothesis under the test at 5% level of significance and concluded therefore that there is no significant difference between the reservation wage of male unemployed youths and female unemployed youth. Thus, even though the mean reservation wages of the males was greater than that of the female counterparts, the difference between the two reservation wages was not statistically significant. The finding further emphasized that gender as a determinant of reservation wage as reported by Malk (2014) and Natrass and Walker (2005) cannot singularly determine reservation wage among unemployed youths in Ghana.

CHAPTER SIX

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 INTRODUCTION

The study sought to ascertain the pattern of youth unemployment in SSA and investigate if the youth in Ghana are over-pricing themselves in the labour market. The study specifically established the determinants of unemployment and reservation wage and the relation between them. The study utilized secondary data on determinants of unemployment and reservation wage obtained from the Ghana Statistical Service on GLSS 6. To obtain descriptive statistic, frequencies, and percentages presented in a tabular manner, while inferential statistic will be obtained using the probit regression model and independent sample t-test.

5.2 SUMMARY OF MAIN FINDINGS

The findings on the demographic characteristics of the respondents indicated that out of the 14,683 respondents, 62 percent were youth (15-35 years) while the remaining 38 percent were adults age 36 to 60 years as this constitute the working age in Ghana. On the gender decomposition, female dominance was recorded as 53 percent were females while 47 percent were male. Again, the majority of the job seekers sought after full-time employment (86% for youth and 75% for adults) while a few sought after part-time employment. More so, they sought after government or state enterprises as it comes with job security relative to the private sector. However, few job seekers prefer self-employment relative to white-colored jobs. Finally, respondents who were unemployed has spent more than 6 months at home were more than 63 percent. All these factors and others were considered in investigating the determinants of unemployment and reservation wages among both adults and youth in Ghana.

6.2.1 Determinants Of Unemployment

The main findings on the determinants of unemployment were that while gender, age, marital status, education level, job-seeking for any kind of job seeking for and reservation wage determines unemployment among labour force in Ghana, marital status did not significantly impact unemployment. Considering only the youth sample, gender, job-seeking for, nature of jobs and reservation wage impact unemployment while marital status and education levels did not significantly determine unemployment at 5 percent level of significance. Reservation wage and employment in SMEs, among the two categories of respondents (all population and youth sample) significantly determines unemployment at 1 percent level of significance. The summary of findings on the determinants of unemployment among youth include the following:

- Youths' unemployment among female is 14.3 percent more probable than their male counterparts;
- Youths have 8.9 percent more chance of being unemployed as compared to the adults (36-60);
- Youth seeking full-time employment is 26.9 percent more likely to be unemployed than those seeking part-time employment;
- Youth seeking for employment in large private companies have 18.1 percent chance of being unemployed relative to youth seeking for any job. Again, youth seeking for SMEs employment have a 50.3 percent chance of being unemployed than their counterparts seeking for any job;
- Moreso, those youth interested in self-employment have a 17 percent chance of being unemployed than those interest in any job;
- Youths with reservation wage have 26.8 percent chance of being unemployed.

6.2.2 Determinants Of Reservation Wage

Determinants of reservation wage among the youth in Ghana's labour market was assessed using the OLS regression model to estimate marginal effect of parameters and determine level of significance of age, level of education, gender, marital status, parental status, length of unemployment and log household income as independent variables and log reservation wage as dependent variable. The findings indicate that age, level of education, gender, marital status, length of unemployment and household income significantly determine reservation among Ghanaian unemployed youth at 5 percent level of significance. The summary of the findings include:

- Older unemployed youth have 0.59 percent less probability of attracting high reservation wage ;
- Unemployed youth with higher levels of education have 0.45 percent more chance of having higher reservation wages than those with lower levels of education;
- Reservation wage for unemployed young females are 10.3 percent lower than reservation wage of their male counterparts;
- Married unemployed youth have a 10.4 percent chance of attracting higher reservation wage than their single counterparts;
- Log reservation wage decreases by 1.95 percent as the length of unemployment increases;
- Unemployed youths with higher household income have 29.7 percent of attracting higher reservation wage.

6.2.3 Are The Youth Overpricing Themselves In Ghana Labour Market?

In determining whether or not youth in Ghana are overpricing themselves, the sample t-test inferential statistic is employed and the findings indicate that youth in Ghana are far from overpricing themselves. The summary of the findings include:

- At 5 percent level of significance, mean youth reservation wages (GH¢139.58) among all youth sample was significantly lower than their mean actual wage (GH¢349.99);
- Out of 209 unemployed youth, mean reservation wage was significantly lower than the mean actual wage at 5 percent level of significance.
- Mean reservation wage for unemployed youth (GH¢260.35) was higher than the mean reservation for all youth (GH¢139.58).
- Mean reservation wage for female unemployed youth (GH¢243.55) was lower than that of the male counterparts (GH¢286.05) but the difference was not significant.

5.3 CONCLUSIONS

The main objective of the study was to assess the pattern of youth unemployment in Ghana and specifically indicate whether or their level of unemployment is as a result of the fact that they are overpricing themselves in the labour market. As a result, both probit regression model, OLS linear regression model, and independent-sample t-test were used to investigate the significance of relationship and impact of unemployment determinants, reservation wage determinants and pricing of youths in labour market in Ghana. Based on the summary of the findings and discussion of results, it is concluded that a relatively low level of unemployment exists among Ghanaian youth as the majority are in apprenticeship training and schools.

Considering the determinants of unemployment, it is concluded that, among youth in Ghana labour market, females, full-time type of employment seekers, large private firms' job seekers and SMEs' job seekers are likely to remain unemployed for a longer period alongside youth with higher reservation wage. On the other hand, youth seeking for government or public jobs and self-employment are less likely to remain unemployed. Moreover, the level of education among youth do not warrant unemployment since the majority of youth will accept any job or prefer to be self-employed which is not dependent on the level of education of the youth.

With respect to determinants of reservation wage, unemployed youth with higher levels of education, married, and youths with higher household incomes price themselves higher while upper aged youths, females, and youths with a lengthy period of unemployment price themselves lower.

Finally, as the findings on the pricing of unemployed youths in Ghana recorded that mean reservation wage is lower than mean actual wage, it is concluded that unemployed youths in Ghana labour market will accept job offers at wages below the current actual wages of their counterparts under same work conditions. With respect to gender and levels of education, statistically equal reservation wage is expected by the unemployed youths in Ghana. Ultimately, it is concluded that Ghanaian youths are far from overpricing themselves in the labour market and therefore on average, reservation wages marginally determine unemployment.

5.4 RECOMMENDATIONS

The study makes some policy recommendations that would empower economies in SSA especially Ghana to focus on key determinants of reservation wage and their causal effect on youth unemployment. Based on the summary of findings and conclusions, it is recommended that

government and policymakers should focus on employment among females and the youth and formulate policies that mandate their employment and curb inequalities in the labour market. Also, the strict implementation of infrastructural policies which affect the setting of the reservation wage of individuals should be reinforced to further reduce costs taken into consideration when an individual is setting their reservation wage. For example, an individual might consider the cost of transport and availability to good health facilities when fixing their expected wages. When these facilities are provided by government, they go a long way to reduce these costs and hence the reservation wage of the individual. As stated by Nyarko et al 2014, it must be noted that the transition to employment is not without cost. Monetary and time costs are incurred by prospective job seekers while the expected wage and psychic utility from employment are the yield from the job search. Thus better infrastructural facilities will lead to a lower cost and a relatively lower duration of unemployment with all other variables held constant.

Moreover, as self-employment significantly affects unemployment, it implies that even though the youth are willing to remain self-employed, some peculiar hindrances affect their decision and hence they remain unemployed. It is therefore recommended that government and other stakeholders should provide free or minimal cost artisan training programs for youth to absorb them and be empowered with kits after graduation to reduce unemployment in Ghana.

Finally, the youths should be educated on minimum wage regulations so as to price themselves appropriately to enhance their standard of living. It is obvious that education creates awareness and enlightens both the employed and unemployed on issues pertaining to employment and the labour market as a whole. It is therefore recommended that youth should develop an interest in national policies on employment issues.

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