



**SCHOOL OF GRADUATE STUDIES**

**THE ECONOMIC IMPACT OF URBAN YOUTH UNEMPLOYMENT  
THE CASE OF WOLKITE TOWN, CENTRAL ETHIOPIA**

**MSc. RESEARCH THESIS**

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**The Case of Wolkite Town, Central Ethiopia**

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## **DECLARATION**

I, Wondimu Berhanu, hereby declare that this MSc thesis entitled “The Economic Impact of urban youth unemployment the case of Wolkite town,” is my original work and has not been presented for a degree in any other university, and all sources of material used for this thesis have been duly acknowledged.

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## **ABBREVIATION AND ACRONYMS**

CIA	central intelligence Agency
GDP	Gross Domestic Product
ILO	International Labor Organization
MoY	Ministry of Youth
NGO	Non-Governmental Organization
SNNPR	Southern Nations Nationalities and Peoples Region
TVET	Technical and Vocational Education Training
UN	United Nations
UNDP	United Nations Development Program
UNSNA	United Nation System of National Accounts

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## Abstract

*The objective of this study is Economic impact of urban youth unemployment the case of Wolkite town, central Ethiopia. A multi-stage sampling technique was used to select 350 respondents and purposive sampling techniques were used. This study used both primary and secondary data and quantitative data obtained in addition, key informants interview were used for qualitative information. Both descriptive and econometric models were used to analyze the collected data. For the econometric analysis binary logit model were used to identify determinates of employment status and .to address the effect unemployment. The survey results show that 54.3% and 45.7% respondents were unemployed and employed respondents respectively. The Propensity score matching method was applied to address the economic impact of youth unemployment. Furthermore, based on the results of logit model, sex of respondents, educational in status, marital status respondents, migration status, access to training, access to credit, access to job opportunities, access to land, are significant and they affect the unemployment status of respondents. Causes of unemployment in study area; rural-urban migrants, poor education system, urban-urban migration ,high population growth, and, lack of training and skill, lack of investment in the town and lack of industrial establishment, and preferring better job. The consequence of the unemployment are impacts on consumption expenditure, Therefore, the future intervention should focus to decrease unemployment in the study area government giving awareness to active age population and female how to create self-employment and, giving training access, and increasing investment activity in the town and technical and vocational training programs should focus on producing qualified graduates with market demanded skills and government provide the access to land for youth they invest in the land .*

**Key words:** PSM, consumption expenditure, binary logit.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Back ground of study

Unemployment is one of the major challenges that developing countries, particularly Sub-Saharan Africa are facing today. The rapid population growth with increased poverty has a significant impact on economic growth. Unemployment of productive labor force in an economy is a waste of economic resources which is an obstacle for the sustainable economic growth of an economy. It causes both private and social problems in the society such as increased crimes, suicides, poverty, alcoholism, and reduces the productivity, declined GDP, heavy costs and payment lowered tax revenue at the national level (Rafik et al., 2010).

In the Ethiopian case, the World Bank (2007) indicates that the potential causes of urban unemployment include the increasing number of the youth labor force, the rising internal migration and literacy rate. Another study by Haile (2003), states that some of the most important causes in developing countries especially in Ethiopia are the rapidly growing size of the labor force, poor to modest macroeconomic performance, low level of job creation and low level of aggregate demand in the economy.

According to Rafik et al. (2010) unemployment has been the most consistent problem in both advanced and poor countries. According to Dao and Loungani (2010) there were about 200 million unemployed people in the world in 2010, 75% of which came from the advanced economies and the rest from emerging economies, and the number has increased substantially since 2007. However, though still high, unemployment in the low income countries declined during the recent crisis. Ethiopia is a poor agrarian country with per capita income of USD350 (World Bank, 2011). Recently, however, the country has been achieving a promising economic growth. According to The Economist (January 6, 2011), the country had the 5<sup>th</sup> fastest growing economy in the world during the periods 2001-2010 at an average annual GDP growth rate of 8.4% and the 3<sup>rd</sup> with a forecast of 8.1% during the periods 2011-2015. Despite such improvements, unemployment is high and is one of the socio economic problems in the country. (Central Intelligence Agency, 2011) Currently the growing unemployment, particularly youth

unemployment is a great challenge to Ethiopia; the country faces growing youth landlessness in rural areas and insignificant urban job creation. Most of the educated labor force is concentrated around cities in search of better opportunities and infrastructure, and the rural agricultural sector employs relatively unskilled labor force.

Urban unemployment is more serious than rural unemployment for example in creating political instability. For instance, the recent uprising in the Middle East especially in Egypt and Tunisia which toppled the respective regimes is motivated by major socioeconomic problems such as rising unemployment (Behr and Aaltola, 2011). It is also vital that the obstacles for productivity (which unemployment can be one) should be studied not only in the agricultural sector but also in the urban non-agricultural sector so as for both to contribute for growth and job creation. Urban poverty stood at 37% and rural poverty at 45% in 2005 (World Bank, 2005). Growth, unemployment and job creation in urban areas therefore require equal attention for poverty alleviation.

Serneels (2004) conduct the study the nature of youth unemployment and analyzes incidence and duration and the found shows that youth unemployment for males stands high at 50% in 1994 and mean duration is about 4 years. Duration is shorter for those aspiring for high paying public sector jobs and for those with their fathers are civil servants. Haile (2003), using data from the 1994 and 2000 waves of the Ethiopian Urban Socio Economic Survey, studies the incidence of youth unemployment in Ethiopia with special focus on the urban youth and finds that youth unemployment was high at more than 50%. According to Haile (2008), the determinants of self-employment in urban Ethiopia and concludes that self-employment was less among the young, the educated and those who migrated to urban areas recently. According to FENAPD (2009), United Nations has also declared standard rules on the equalization of opportunities for persons with disabilities. Moreover, especially in recent years Wolkite town and the country at large are implementing issues of youth unemployment strategic plans to achieve Millennium Development Goals, eradicate poverty, and to eradicating poverty the first one achieve employment, men, women and youth and to become a middle income society. In the study area unemployment was the main macroeconomic variable. Therefore this study, they identify the impacts of unemployment in the study area.

## **1.2 Statement problem of study**

Youth unemployment is so a severe problem in Africa especially in Sub-Saharan regions. The rate of youth unemployment is increasing from time to time due to increasing the change of youths who are unemployed over the change of total active population. According to ILO, figures, sub-Sahara Africa region has the highest rate of youth unemployment (18.4%) after the Middle East and North Africa (21.3%). Currently, urban unemployment is higher in youth population who graduated in higher institution. Urban Youth unemployment problem is one of the major problems of Ethiopia. Even though, there are different programs designed by the government in order to alleviate this problem, it is not sufficiently solved. Youth issues have recently gained worldwide attention as the united nation set their improvement on the youth unemployment situation as one of the targets of Millennium development goals. One of the MDGs in developing Countries ensures decent and productive work for youth. Most of unemployed youth populations in the town spend their work time by playing pools, watching films, and sport review, chewing chat and others. Long time unemployment in leads the youth population fosters drug addiction; illegal migration, civil conflict, contribute to crime and violence and commercial sex workers for youth girls. It also causes family crises, dependency, depression, poverty and inequality World Bank (2011).

High level of unemployment shows that the failure of the country's economy to use its labor resources effectively. Thus, the urban unemployment has been considered as one of the most challenging economic problems facing the policy makers in current developing countries and it will have performing substantial effect on human capital, in addition to brings impact on the region's economic potential (Berhanu et.al, 2005). The rate of unemployment is higher for females than males in the age groups ranging from 15-29. According to (CSA, 2011) general unemployment rate as a country is 18 percent and specifically for the female 25 .3 percent and for male 11.4 percent.

Youth unemployment has increasingly come to be recognized as one of the critical development challenges of many countries in the continent (Curtain, 2004). It is also still a severe problem not only in sub-Saharan African countries but also in all countries in the world. To strengthen this, (Bell and Blanchfl, 2010), currently, youth unemployment is a critical concern to almost every

country in the world. It is one of the most pressing economic and social problems confronting developing countries whose labor market have weakened substantially. The prevailing unemployment also comes up with high dependency ratio which had to low economic welfare. In relation to unemployment problems many social, economic and political problems were began to appear in wolkite town such as higher depression, anxiety, mental health issues, beggars, wastage of human labor, increase in number of criminals and crime rate.

However, to the best of my knowledge, no studies were conducted on the economic impact of youth unemployment in the town and were receiving the study attention. Therefore, the aim of this study was to examine the determinants and the economic impact of youth unemployment status in urban Ethiopia with a special emphasis on wolkite town that help to formulate proper policy to take action in reducing unemployment.

### **1.3 Objective of study**

#### **The general objective of study**

- The general objective of the study is to assess the economic impact of youth unemployment in Wolkite town

#### **1.3.2 The specific objective of study**

- The specific objectives of the study are stated as follows:
  - To identify the major factors those which predominantly contribute for high youth unemployment.
  - To investigate the economic impact of youth unemployment.
  - To assess unemployment situation

### **1.4 Research question**

- The study tries to answer the following research question.
  - What are the causes of unemployment in study region?
  - What are the economic consequences of the youth unemployment?

## **1.5 Significance of study**

Youths are the major part of human capital which has influence on social, political and economic development of any country in the world. This study was providing empirical evidence with respect to the determinant of youth unemployment by assessing the specific situation in Gurage zone urban region. The study also was give information about the major economic impact of youth unemployment for stakeholders or concerned bodies for designing programs in order to reduce urban youth unemployment in wolkite town urban region.

## **1.6 Scope of the study**

The study was conducted in wolkite town. The main aim of this study is to identify the cause unemployment in study area and the economic impact of unemployment. This study concluded that without a high-power distance between Ethiopian regulators, the ministry of youth, sport, and microfinance institutions the important solution could not be achieved. Therefore, the further study considers extending this study by expanding the study area and conducting comparisons among different countries.

## **1.7 limitation of the study**

It may be difficult to collect each respondents information due to respondents not committed.

It may not ensure that the indicated results for youth unemployment in the national level.

## **1.8 Organization of study**

The research organizes into five chapters. The first chapter includes background of the study, statement of the problem, objective of the study, research questions, and significance of the study, scope of the study and organization of the paper. The second chapter is the literature review, in which the review of both theoretical and empirical literatures, beside it reviewed overall benefits and determinant of youth unemployment. The theoretical literature includes the review of different theories regarding urban youth unemployment, the empirical review part containing literature of developing countries and Ethiopia regarding determinants of youth unemployment and its impact on consumption expenditure. This is followed by methodology part, which is chapter three of the paper. Chapter four was includes result and discussions part. The last part is chapter five which was includes conclusion and recommendation.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Theoretical Literature**

##### **2.1.1. Concepts and Definitions**

###### **Employed Labor Force**

The employed populations are defined as persons above specified age who perform some work for wage, salary, profit or family gain in cash or in kind during the reference period. More generally, employed persons are those people who are engaged in economic activity to produce goods and services as defined by (ILO, 2011).

###### **Unemployed Labor Force**

According to (ILO, 2011) definition, it is a person of working age (15 or above) who being without employment, available for work and actively looked for a job in the previous month. Based on this definition it is calculated by taking the difference between economically active labor forces and employed labor force.

###### **Youth labor force**

Consists of people between 15 and 34 years' old who are either working or actively looking for work, excluding youth who are economically inactive (MOY, 2004).

##### **2.1.2. Types of unemployment**

Several types of unemployment may be experienced in an economy such as that of Ethiopia and they include: frictional, seasonal, cyclical and structural unemployment.

###### **2.1.2.1. Structural. Unemployment**

Structural Unemployment, one types of unemployment, is associated with the mismatch of jobs and workers due to the lack of skills or simply the wrong area desired for work. Workers who find themselves in this situation find that they need to acquire new skills in order to obtain a new job (ILO, 2010). In other words Structural unemployment is unemployment which is the

outcome of absence of demand for the workers that are available. There are major reasons that cause absence of demand for workers in a particular industry:

### **1. Changes in Technology**

As personal computers replaced typewriters, typewriter factories shut down. Workers in typewriter factories became unemployed and had to find other industries to be employed in.

### **2. Changes in Tastes**

If bagpipes become unpopular, bagpipe companies will go bankrupt and their workers will be unemployed.

#### **2.1.2.2 Frictional Unemployment**

Frictional Unemployment is always present in the economy, resulting from temporary transitions made by workers and employers or from workers and employers having inconsistent or incomplete information. This type of unemployment is also caused by failing firms, poor job performance, or obsolete skills. This may also be caused by workers who will quit their jobs in order to move to different parts of the country. Frictional unemployment can be seen as a transaction cost of trying to find a new job; it is the result of imperfect information on available jobs. For instance, a case of frictional unemployment would be a college student quitting their fast-food restaurant job to get ready to find a job in their field after graduation. Unlike structural unemployment this process would not be long due to skills the college graduate has to offer a potential firm (ILO, 2010). Sources of frictional unemployment are People entering the workforce from school, People re-entering the workforce after raising children, People changing employment due to quitting or being fired (for reasons beyond structural ones), People changing careers due to changing interests and People moving to a new city (for non-structural reasons) and being unemployed when they arrive.

#### **2.1.2.3. Cyclical Unemployment**

Unemployment that is attributed to economic contraction is called cyclical unemployment. The economy has the capacity to create jobs which increases economic growth. Therefore, an expanding economy typically has lower levels of unemployment. On the other hand, according to cyclical unemployment an economy that is in a recession faces higher levels of unemployment.

When this happens there are more unemployed workers than job openings due to the breakdown of the economy. This type of unemployment is heavily concentrated on the activity in the economy. To understand this better take a look at our Business Cycles section. For instance, advances in technology and changes in market conditions often turn many skills obsolete; this typically increases the unemployment rate. For example, laborers who worked on cotton fields found their jobs obsolete with Eli Whitney's patenting of the cotton gin. Similarly, with the rise of computers, many jobs in manual book keeping have been replaced by highly efficient (ILO, 2009).

#### **2.1.2.4. Seasonal unemployment**

It arises when workers are laid off during off seasons. This type of unemployment is common in sectors such as agriculture. Other concepts related to unemployment are long-term unemployment and hidden unemployment.

#### **Long-term Unemployment:**

Long-term unemployment in European Union statistics, defined as unemployment lasting for longer than one year.

#### **Disguised (hidden) Unemployment**

Disguised occurs when people do not have full time employment, but are not counted in the official unemployment statistics. This may include People on sickness / disability benefits (but, would be able to do some jobs), People doing part time work and People forced to take early retirement and redundancy

## **2.2 Causes of Unemployment in Developed and Developing Countries**

The causes of unemployment are among the extensively debated issues by economists. Keynesian economics stresses on the inadequate aggregate demand in the economy as the major cause. Real wage rigidities and/or real interest rates cause low output and high unemployment. Real wage rigidity, "the failure of wages to adjust until labor supply equals labor demand" according to Mankiw (2002), can cause unemployment.

In the real world, wages are set at a higher level than the equilibrium wage rate and the reasons for this can be grouped into three broad views. Efficiency wages theory assumes that higher wages give incentive for workers to exert more effort and reduce shirking. Hence, firms pay

higher wages. "The insider-outsider theory" asserts that firms are prevented from cutting wages by labor unions and contracts (Romer, 2005 and Olsson, 2009). The major assumption of this model is that labor unions try to maximize the interests of only their members (the insiders) who are already employed and do not care about non-members (the outsiders). In doing so, firms and the insiders bargain to knock the outsiders out of the job market and thereby create unemployment. Another explanation for higher than equilibrium wages is the search and matching model which emphasizes on the heterogeneity of workers and jobs as the cause for unemployment. Heterogeneity of workers in skills and preferences, information asymmetry and heterogeneity of jobs in their attributes all make it difficult to find the right person for the right job-hence, unemployment.

According to Krugman (1994), the welfare system in developed countries particularly in Europe can have an impact on unemployment. Krugman also argues that productivity growth may not come with good employment performance or the vice versa. Instead, increased productivity and employment creation are features of competitiveness and unemployment is part of a decline in economic performance. On technology and unemployment, he asserts that the rapid information and communication technology growth has increased skills premium and possibly played a role in unemployment problem in Europe.

Another study by Bassanin and Duval (2006) on unemployment in OECD countries shows that among the determining factors for rising unemployment are high and continuous unemployment benefits, "high tax wedges", and "stringent and anticompetitive product market regulations". According to Stiglitz (1974), unemployment in developing countries like those in East Africa is a result of rural to urban migration motivated by the high wage differential. Noveria (1997), on the other hand, states that the major causes of rising unemployment in urban areas in LDCs are education expansion, urbanization which results in rural to urban migration, population growth and job aspiration.

In the Ethiopian case, the World Bank (2007) indicates that the potential causes of urban unemployment include the increasing number of the youth labor force, the rising internal migration and literacy rate. Another study by Haile (2003) states that some of the most important causes in developing countries especially in Ethiopia are the rapidly growing size of the labor

force, poor to modest macroeconomic performance, low level of job creation and low level of aggregate demand in the economy.

Kingdon and Knight (2004) analyze unemployment in South Africa and they show that unemployment is determined by education, race, age, gender, home ownership and location among others. Echibiri (2005) investigates unemployment in Nigeria using data from 220 randomly selected youths in the city of Umuahia and finds that unemployment is influenced by age, marital status, dependency ratio, education, current income and employment preference (paid or self-employment). Eita and Ashipala (2010) study the determinants of unemployment in Namibia for the periods 1971-2007 and conclude that unemployment is positively correlated with investment, wage increase and with an output level below the potential output. They also found that unemployment is negatively related to inflation. Another study by Alhawarin and Kreishan (2010) on long term unemployment in Jordan indicates that age, gender, marital status, region, work experience and education are the major determinants.

### **2.2.1 Costs of Unemployment**

Unemployment comes up with costs. According to Feldstein (1997), one who wants to analyze the costs of unemployment should start by disaggregation. The costs of unemployment can be classified broadly as private and social. The private costs of unemployment are those costs borne by the unemployed themselves. The social costs on the other hand refer to those costs to the nation at large and can be the cumulative result of private costs. In this approach, the cost of unemployment can be seen as the opportunity cost of unemployment to the nation i.e., the cost is the national income forgone (Feldstein, 1997 and Haile, 2003). Unemployment results in a waste of economic resources such as the productive labor force and thereby affect the long run growth potential of the economy. It gives rise to increased crimes, suicides, poverty rates, alcoholism and prostitution (Rafik et al., 2010 and Eita et al, 2010. These evils in turn come up with a cost (cost of crime prevention) and channel resources to their prevention which rather could have been used for other developmental purposes. Unemployment may also have a scary effect. Previous spell in unemployment has a discouraging effect on future participation in the labor force, earnings and welfare in general (Haile, 2003). Children are affected by the unemployment situation of their parents. According to Dao and Longani (2010), children of jobless parents tend to perform less in their education in the short run. In the long run, a parent's lost income due to unemployment reduces the child's earning prospect. Unemployment has an

adverse effect on health and mortality via its economic, social and psychological effect on the unemployed.

## **2.3 Outcomes of Youth Unemployment**

### **Economic consequences**

There are no positive aspects of unemployment it really bad for the production of the economy. Unemployment is an economic problem because it represents waste of valuable resources when unemployment rate go up. The economy is an effective thawing away the goods and services that the unemployed workers could have produced the economic less during the periods of high unemployment means that the economy would be producing less than its production capacity (ILO, 2006).

### **Social consequences**

youth unemployment is a major social problem because it causes enormous suffering as unemployed workers struggle with reduced incomes. It is a well-known facts that unemployment, a direct relationship with some social problem or anti-social activities, like increase poverty, social unrest, theft, robberies, violence potential psychological harm, loss of motivation and increase in crime rates. If people do not have as much disposable income as before than it is very likely that crime level with the economy will be increased.(Kinfe,2018)

## **2.4 Empirical Review**

The relationship between a job and an individual is expressed by different researchers. This section reviews some of the empirics that express the existing empirical or actual relationship between job and individual or job-individual relationships.

Studies addressing unemployment in Ethiopia are relatively few and most of those surveyed in this paper concentrate on youth unemployment. Krishnan (1996) studies the role of family background and education on employment in urban Ethiopia and finds that family background strongly affects entry to public sector employment but it is not significant in determining entry to lower status private employment. Entry to public sector employment is also affected positively by education while age (being older) positively affects being in the labor force. Dendir (2006) studies unemployment duration in urban Ethiopia and finds that the mean duration is 3 years for completed spells and 4.7 years for incomplete spells. Haile (2003), using data from the Ethiopian Urban Socio Economic Survey from 1994 to 2000, finds high urban youth unemployment in Ethiopia with more than 50% of the youth unemployed. Between the periods 1994-2000 teen age

youth unemployment increased and was higher for women. Those from families of at least secondary school education are found to be affected less according to this study.

Serneels (2004), using the 1994 Ethiopian Urban Socio Economic Survey, studies the incidence and duration of unemployment in urban Ethiopia emphasizing on the youth. According to this study, in the year 1994 Ethiopia's urban unemployment rate was one of the highest in the world with male unemployment standing at 34% and the urban youth unemployment rate was even higher at 50%. Serneels indicates that mean duration of unemployment is 4 years and those youth whose parents are civil servants have shorter durations. It is also indicated that public sector was the top employer hiring one third of the adult men. A negative relationship is found between unemployment incidence and duration, and household welfare. There is evidence that households reduce their savings and consumption to cope with unemployment. With regard to job aspirations, well-educated first time job seekers who aspire to well-paying jobs are more affected. On family background, Serneels concludes that mother's education may play a role but father's education has a strong effect for labor market performance in urban Ethiopia.

According to Amanuel (2011), and his research report summery said that migration from rural to urban areas , lack of access of job opportunity puts on the urban labor force and most casual workers in the towns comes from rural to urban areas in search of better opportunities.

This is also the main problem of the study area i.e in Wolkite town there is huge amount of migration from rural to urban expecting more job opportunities in town but the reality is not as expected. Amanuel also reported that unemployment affects health,consumption expenditure, household income, government revenue and GDP and development at large.

Unemployed rate is the number of unemployed people as the labor force, the labor force consists of those who are either working or looking for work. Unemployment rate rise because people are laid off and new jobs are difficult to find. Though the above suggestion on the cause of unemployment by the different authors are more or less acceptable, educational system, non-work status of the society inadequate attention to agricultural and growing rural-urban migration are some from the major causes of the problem in less developing countries. This unemployment problem is not matter of absolute lack of useful things that might be done but also a shortage of modern jobs in relation to the number of jobseekers.

## 2.5. Conceptual Framework

The following conceptual framework is formulated to explain the relationship of the independent variables that were age, sex, and educational level, marital status, credit accessibility, access to job information, family income, youth's membership of cooperatives, participation on technical training, skill mismatch and job preference and dependent variable of the study will urban youth unemployment status.

### **Educational level**

By creating jobs and educational opportunities urban areas can increase their attractiveness to young workers and reduce unemployment (World Bank, 2010). Therefore, it has negative impact on urban youth unemployment. Under this study it is categorized as primary level, secondary level, college diploma and degree & above.

**Credit Service:** Lack of access to credit service for small and microenterprises is another important barrier for urban youth to have job. It hampers the rise in the productivity of their activities and the general development of their business (ILO, 2013).

**Information:** Information accessibility was also considered as an important factor that influences the urban youth unemployment status.

**Training:** Providing technical and vocational training for rural youth was contextualized as an important variable to influence rural youth unemployment status because it equips them with different technical skills to create and have their own job.

**Cooperatives:** Membership of cooperatives was also another important variable to influence the rural youth unemployment status. By bringing their knowledge, skills and available limited capital from different sources together, urban youth can have their own job.

**Family income:** Household income has an influence on urban youth unemployment status. Youth from poorer family have no excessive income, lacks startup capital and can be out of job.

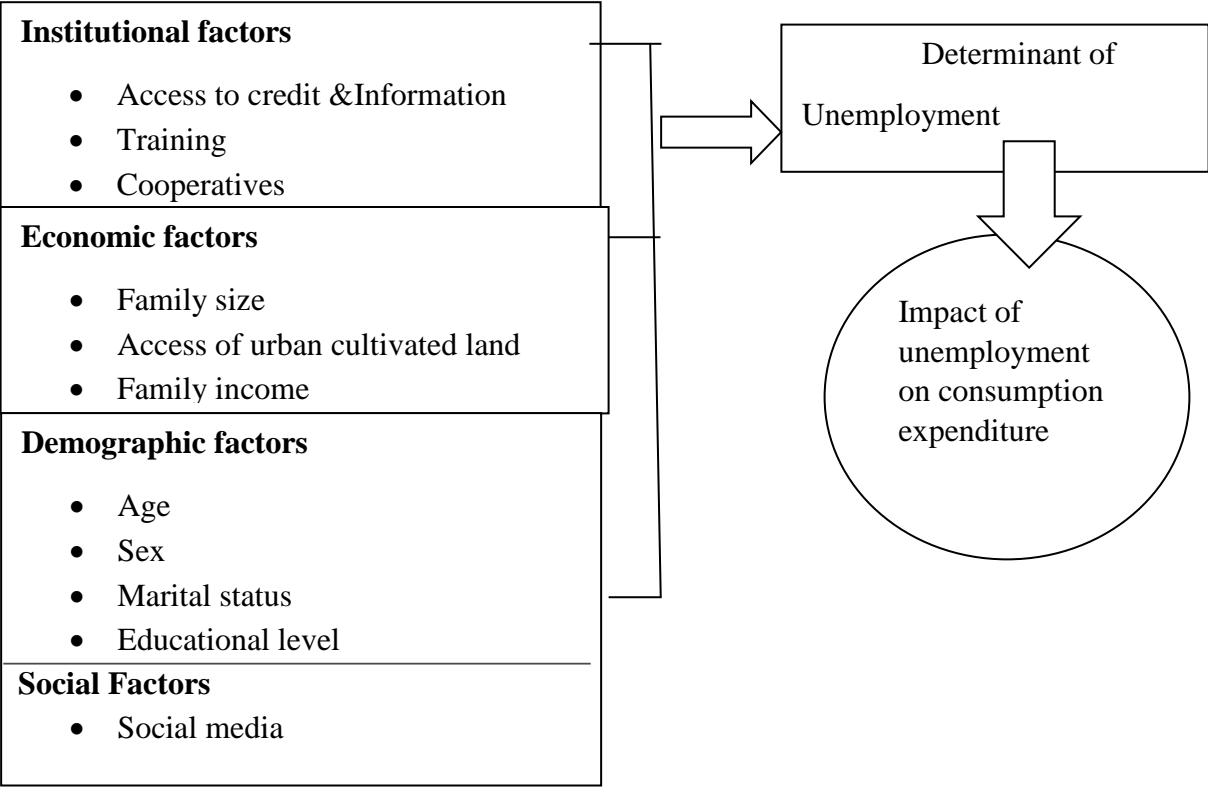


Figure 1: Conceptual framework

Source: Own complications from empirical literature (2023).

# CHAPTER THREE

## RESEARCH METHODOLOGY

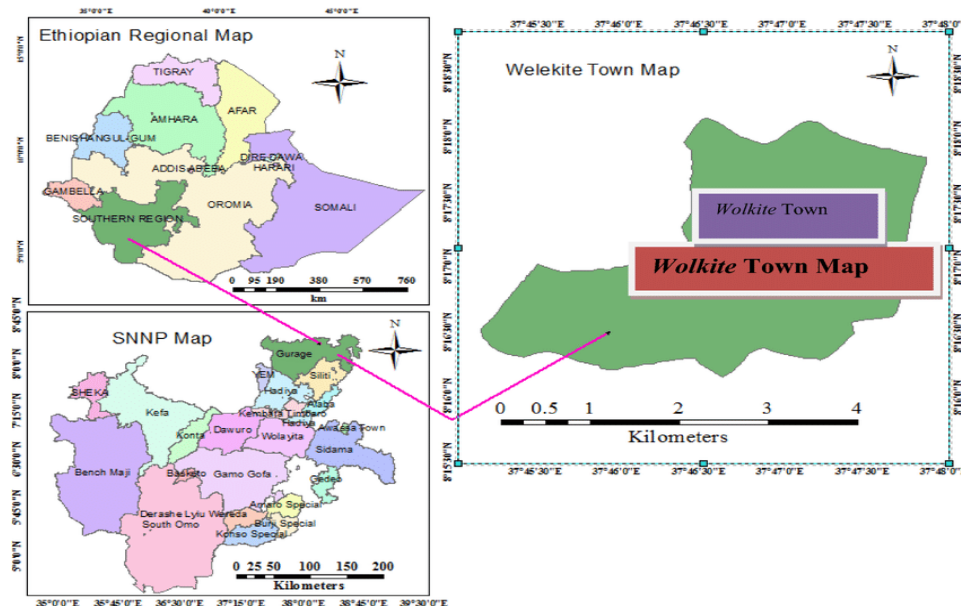
### 3.1 Introduction

In conducting study, the specific methods have to be clearly identified. This was help to pre-visualize and easily draw the skeleton of the study. The study methodology includes study design, data sources, sampling techniques, datacollection methods and data analysis. These elements determine the study activities and direction throughout the study

### 3.2 Description of study area

The study was conducted in the wolkite town; Southern EthiopiaWolkite is the capital town of Gurage zone and also 158 km from Addis Ababa on the main road of Jimma and 430 km through southern nation's nationalities and peoples, regional state (SNNPRS) Hawass. This means that it could be reach from Addis Ababa to or via Hawass. It also Gubre sub-city is located in Estern Gurage zone district 14km western direction of Wolkite town

Figure 2: Map of the study area



Source: CSA(2014)

### **3.3 Data types and collection technique**

The study was conducted based on quantitative and qualitative data for data collection, the study was using structured questionnaires and interview.

### **3.4 Data Sources**

The study was used both secondary and primary data source. The secondary data from published and unpublished materials, and the secondary data will collect from Wolkite town development and planning office, Wolkite town youth and sport office, Wolkite town trade and industries office while the primary data was collect from the respondents of the study area, they follow to their own personal circumstance, registered unemployed youth in town, municipal officials and youths sport office, youth in Wolkite town different part of entertainment place, and from news vacancy job announcement board place.

### **3.5 Sampling Techniques**

Under sampling technique, different points such as population, sampling frame, sampling units, sampling plan and size of the sample were identified below.

#### **3.5.1 Population**

According to Wolkite town plan and development data (2022) youth age from 15 - 34 total numbers of youth Wolkite Town is 52769. For the purpose of research in Wolkite town three kebele were purposively selected. Gubre, Menaharia, Edgetber.

#### **3.5.2 Sampling Frame:**

The sample frame from which the sample has been drawn contains the name of all items of the total population. The sample frame of in this study was taken from kebele labor and social affairs office document list of the town.

#### **3.5.3 Sampling Units:**

The sampling unit was draw from the sample frame. The sampling unit of this study was the employed and unemployed youth in Wolkite town

### 3.5.4 Sampling:

A four-stage sampling technique was employed to select respondents. The first stage three sub cities have selected purposively because most unemployed population exist. In the second stage from each sub cities one kebeles was selected from each sub cities in Wolkite town purposively, because based on the unemployment population. In the third stage from each sub-city stratified the respondents in to employed and non-employed group and in fourth stage from each stratification sample respondents was selected by simple random method by using lottery method.

### 3.5.5 Size of Sample

The size of the sample was made to fulfill the requirement of efficiency. To determine the sample size from given population in Wolkite town according (Taro Yamane, 1967) to determine sample size from a given population  $\text{Total population/sample size} = n^{\text{th}}$ ,  $N = \text{Total population}$ ,  $n = \text{required sample size}$  (see table below 1).

Where,  $n = \text{sample size}$ ,  $N = \text{Total population (2852)}$

$e = \text{error of margin (0.05)}$

Where,  $n = \text{sample size}$ ,  $N = \text{Total population (2852)}$

$e = \text{error of margin (0.05)}$

=

= = = = 350

Table 1 : List of sample selected kebeles (proportion)

Name of kebeles	Total number of respondents in the kebeles	Number of respondents selected from each kebeles	
		Unemployed	Employed
Edget ber	154	83	71
Menahariya	142	69	73
Gubre	54	38	16
Total	350	190	160

Source: own survey 2023

### 3.7. Data Analysis

After collection of raw data, data edition, coding, classification and tabulation activities was starts using different statistical techniques where applicable, to process and come up with meaningful interpretations. In this section, two models were specified for analyzing the research questions. First, a binary choice model (probit) estimation technique will be used. To investigate the economic impact of un employment, a second psm model, OLS regression technique was be employed. The statistical tools that were applied to this study are tables, bar graphs, line graphs, descriptive and pie charts by using excel. Whereas, other techniques such as percentages have been used to facilitate the analysis and interpretation of data to come up with the meaningful interpretation.

#### 3.8.1 Econometric Model Specification

It is used to assess the factors that affect youth. The dependent variable is youth unemployment Status. The response variable is dichotomous. If the individual is unemployed, the response variable ( $Y_i$ ) takes the value 0 and if employed, it takes the value 1. The main variable of interest is unemployment, a latent variable, where the individual may be classified as either employed or unemployed.

$Y_i$

Following Gujarati (2004) the logistic model has been written in terms of the odds ratio and log of odds ratio, which enable one to understand the interpretation of the coefficients. the odds ratio is the ratio of the probability that the youth have been unemployed ( $P_i$ ) to the probability that he/she have been employed ( $1-P_i$ )

$$P_i = \frac{f_i}{f} = \frac{e^{\alpha + \beta X_i}}{1 + e^{\alpha + \beta X_i}} \quad (1)$$

Since  $Z_i = \frac{f_i}{f}$  the above formula can be rewrite as shown below for easily understanding

$$1 - P_i = \frac{1}{1 + e^{\alpha + \beta X_i}} \quad (2)$$

$$\ln \left( \frac{1 - P_i}{P_i} \right) = -\alpha - \beta X_i \quad (3)$$

Therefore,  $\ln \left( \frac{1 - P_i}{P_i} \right) = -\alpha - \beta X_i$  (4)

Taking natural logarithm of equation (4)

$$Y_i = \ln \left( \frac{1 - P_i}{P_i} \right) = -\alpha - \beta X_i + \mu_i \quad (5)$$

Where:  $K$ =the number of explanatory variables;  $X_i$ = vector of independent demographic and socio-economic variables of individuals,  $\mu$  = the error term,  $\alpha$  = is the intercept  $P_i/1 - P_i$  when  $X$  or explanatory variable is zero, and  $\beta$  = measures the change in  $L$  (logit) for a unit change in explanatory variables ( $X$ ).

The dependent variable was dichotomies or dummy variable: where it represents (1) when the urban youth in the study area was employed and (0) when the urban youth in the study area was unemployed.

### 3.8.2. Propensity score matching model (PSM)

To address the second study objective, the Propensity score matching method was applied. In an experimental design, randomization distribution of all relevant characteristics between treatment and control group, because of this, the difference in mean outcomes correctly estimates the impact of the intervention. In the absence of randomization, however, the groups may differ not only in their treatment status, but also in their values of socioeconomic characteristics. In this case, it is necessary to account for these differences to avoid potential biases. Therefore, to avoid this potential bias PSM were applied and this method allows creating the comparable unemployed or counterfactuals to employed (Heinrich, 2010). The counterfactual was identified by matching employed with non-employed who has similar pre-intervention characteristics; it is equally valid to match on the propensity score. The method measures the impact of the intervention as the difference between the potential outcome in case of treatment and the potential outcome in the absence of treatment (Heinrich, 2010). For this study, the outcomes variables are welfare expenditure. According (Heinrich, 2010) apply the PSM for estimating the impacts of the intervention, in this case employment for consumption expenditure.

**Estimating the propensity score** Estimating the propensity score and making that the balancing condition satisfied the first step in propensity score matching was based on observed urban employment status of youth characteristics. The degree of a propensity score ranges between 1 and 0; the larger the propensity score, the more likely employed is to participate. Variables were used in propensity score estimation are: sex of youth, age (in years), educational level (years of schooling), marital status, access of urban land access of credit, access of information, migration status, family education background, political stability, private employer, job opportunity, access of training. Prior to running the model, a test of multi-collinearity and heteroscedasticity problem was checked. In estimating the propensity score, the dependent variable was used youth employment status and let  $P_i$  denotes the employment status equaling 1 with probability of  $q$  if the engaged in employed and 0 with unemployed of  $1 - q$  otherwise. Let  $X$  denotes a vector of observed household's characteristics was used as conditioning variables. Thus, in the model, a propensity score ranges was coded between 1 and 0 with the value 1 to indicate that youth employed and zero otherwise.

**I. Generating propensity scores  $p(x)$**

The propensity score is estimated using various socio-demographic characteristics of urban youth. These scores are probabilities that represent the urban youth welfare expenditure characteristics ( $X$ ). The probability of participation summarizes all the relevant information contained in the  $X$  variables and as it allows for matching on a single variable (the propensity score) instead of on the entire set of covariates. According to , the propensity score matching was generated using logit model and the model mathematically specified as follows:

$$P_i = \frac{1}{1 + \exp(-\beta_0 - \beta_1 X_i)} \quad (1)$$

$$P_i = \frac{1}{1 + \exp(-\beta_0 - \beta_1 X_i)} \quad (2)$$

$$P_i = \frac{1}{1 + \exp(-\beta_0 - \beta_1 X_i)} \quad (3)$$

$$P_i = \frac{1}{1 + \exp(-\beta_0 - \beta_1 X_i)} \quad (4)$$

Where,  $p$  is the probability  $i = 1, 2, 3 \dots n$  (number of observations)

$\beta_0$  = the intercept

$\beta_i$  = the slope of regression coefficients to be estimated

$x_i$  = intervention characteristic of urban youth

$\mu_i$  = disturbance term or error term or stochastic variable the probability

$$1-P_i = \text{-----} \quad (5)$$

## II. Matching algorithm:

The first step in propensity score matching techniques to estimate the ATT of the outcomes of interest is estimation of the propensity scores and making sure that the balancing condition is satisfied. In order to estimate the ATT based on propensity score, there are various matching estimators were used separately.

The idea of matching is identifying control and treated individuals with the same or similar propensity score. Once an estimated propensity score is obtained, different matching algorithm was used to match comparison units with treated units. The most commonly employed matching algorithms are the nearest neighbor, kernel matching, caliper matching and radius matching. For this study, the PSM of treated youth (employed) was matched with counterfactual youth (unemployed) using the nearest neighbor, kernel, caliper and Radius matching estimator methods. To do the matching, three important tasks should be done first. The first task is, generating propensity score (probability of participation) based on the selected covariates. The second task is imposing the common support condition on the propensity score distribution of the sample youth. The common support region is region between the higher value of the minimum and the lower value of maximum propensity score of the treated or control groups. The last task before matching discarding observations whose propensity score is outside common support region.

**Nearest neighbor matching** - one of the most straightforward matching procedures. An individual from the comparison group is chosen as a match for a treated individual in terms of the closest propensity score (or the case most similar in terms of observed characteristics). The nearest neighbor matching with replacement methods was used to match untreated individual more than once as a match. Using nearest neighbor ensure the use of the most similar observation to construct the counterfactual.

**Kernel matching** - compare the outcome of each treated person to a weighted average of the outcomes of all the untreated persons with the highest weight being placed on those with scores closest to the treated individual. One major advantage of this approach is the lower variance, which is achieved because more information is used.

**Radius matching** -specifies a “caliper” or maximum propensity score distance by which a match can be made. It uses all of the comparison group members within the caliper.

According to .to estimate the impact of a program correctly; PSM requires two main conditions, the conditional independence assumption and the common support condition.

**Conditional independence assumption:** The assumption assesses the quality of matching to perform tests that check whether the propensity score adequately balances characteristics between the treatment and comparison group units. It verifies the treatment is independent of unit characteristics after conditioning on observed characteristics:  $D \perp X \mid p(X)$ . After the application of matching, there would not be statistically significant differences between covariate means of the treatment and comparison units. The inclusion of the variables is based on the conditional independence assumptions. Relevant variables related to the intervention and outcome was considered in the propensity score function . According to , the inclusion of non-significant variables would not bias the estimates or make them inconsistent. On the other hand, including the full set of covariates in small samples might cause problems in terms of higher variance, since either some treated have to be discarded from the analysis or control units have to be used more than once.

**The common support condition assumption:** It helps to investigate the validity or performance of the propensity score matching estimation to verify the common support or overlap condition. The assumption is critical to estimation, as it ensures that units with the same  $X$  values have a positive probability of being both participants and nonparticipants:  $0 < P(D = 1 \mid X) < 1$ .

Checking of the overlap or region of common support between treatment and comparison groups was done by using visual inspection of histograms or density-distribution plots of propensity scores before and after matching for both groups.

**Testing the matching quality:** The basic idea of all approaches is to compare the situation before and after matching and check if there remain any deference after conditioning on the

propensity score. In impact estimation using propensity score matching, we do not condition on all explanatory variables rather on the propensity score. Hence before proceeding to impact estimation we have to check if the matching procedure is able to balance the distribution of the relevant variables in both the control and treatment group. The main purposes of PSM are comparing welfare outcome variables between adequately balanced PS of treated and control groups. Therefore, the matching algorithm quality is measured with the balancing power of all covariates and PS. After identifying the common support region using different matching algorithm, matching was done between employed and unemployed. For this matching, nearest neighbor, kernel, radius and caliper matching algorithm were used. Balancing test, pseudo  $R^2$  and the size of matched sample are the criterion to decide the final choice of matching estimator. According to , matching estimator which balanced all covariates of the two groups, bears low pseudo- $R^2$  and large matched sample size is the most preferable.

**Matching quality:** The propensity score is the individual probability of receiving the treatment given the observed covariates:  $p(X)=P(D = 1|X)$ . If the potential outcome  $Y_0$  is independent of treatment assignment conditional on  $X$ , it is also independent of treatment assignment conditional on  $p(X)$ . The propensity score was used as a unvaried summary of all observable variables. As a consequence, if  $p(X)$  is known. The ATT was consistently estimated as:  $E(Y_1 - Y_0) = E(Y_1 | p(X)) - E(Y_0 | p(X))$

In practice,  $p(X)$  is usually unknown and has to be estimated through some probabilistic model (e.g., probit or logit). Such a model should include all the pre-treatment observable variables that influence both the selection into treatment and the outcome. Higher-order or interaction terms should be included in the specification of the model only if they served to make the estimated propensity score satisfy the balancing property, i.e., to have that within each cell of the propensity score the treated and control units have the same distribution of observable covariates.

### III. Estimate the average treatment effect (ATT)

The main aim here is to compare the youth consumption expenditure between employed urban youth and unemployed urban youth. Let  $Y_i = 1$  and  $Y_i = 0$  be the impact on consumption expenditure for treatment group (employed youth) and control group (unemployed youth) respectively.

The impact of a treatment for an individual is the difference between the potential outcome in case of treatment and the potential outcome in absence of treatment.

$$\Delta I = Y_{1i} - Y_{0i} \dots\dots\dots (2.4)$$

Where,  $\Delta I$  is impact of treatment for  $i$ th urban youth,

$Y_{1i}$  is outcome of the  $i$ th treated urban youth

$Y_{0i}$  is outcome of the  $i$ th untreated urban youth

The mean impact of the intervention is obtained by averaging the impact across all the individuals in the sample population. This parameter is known as average treatment effect (ATE):

$$= (\Delta I) = E(Y_{1i} - Y_{0i}) \dots\dots\dots (2.5)$$

Average Treatment Effect on the Treated (ATT) measures the impact of the program on participant urban youth.

$$= E(Y_{1i} - Y_{0i} | D=1) \dots\dots\dots (2.6)$$

The Average Treatment Effect on the Untreated (ATU) measures the impact that the intervention for untreated urban youth if they would have treated (participated).

$$= E(Y_{1i} - Y_{0i} | D=0) \dots\dots\dots (2.7)$$

$E(Y_{0i} | D=1)$  is average outcome of treated individuals obtained in the absence of treatment, which is not observed.  $E(Y_{0i} | D=0)$  is the average outcome of untreated individual obtained without treatment.

### 3.9 Variables of the Study

#### 3.9.1 Dependent Variable

The Dependent variables of the study is youth unemployment status. During the regression analysis if the respondents are unemployed it was coded as 0 otherwise 1 if he/she was employed during the survey period.

Table 2 Dependent variables summary and hypothesis

Dependent variables Unit	Description
1. Employment status	<b>Dummy</b>
	1 if urban youth employed; 0 urban youth not employed.
2. Impact of unemployment	Impact on consumption expenditure

Source: own survey 2023

### 3.9.2 Independent Variables

Based on the reviewed literatures, some of the common Socio-economic and demographic predictors which are expected to influence the employment status in study area used under this study. Independent Variables of this study are sex, sex of youth, age (in years), educational level (years of schooling), marital status, access of urban land access of credit, access of information, migration status, family education background, political stability, private employer, job opportunity, access of training.

## Explanatory variables;

Table 3 Independent Variables and their Expected Sign

Variable Code	Description
Sex of respondent	Dummy variable, (1=male and 0 female)
Age of the respondents	Continuous variable, age of the respondents in years
Educational level	Categorical variable, educational level of the respondents in years
Marital status	Categorical variable, value of status
Family education background	Dummy variable, (1= educated and 0 non educated)
Migration status	Dummy variable, (1=migrants and 0 non migrant)
Access of Job opportunity	Dummy variable, 1 =opportunity and 0 non opportunity
Access to credit	
	Dummy variable 1 = get credit 0 otherwise
Access of vocational training	Dummy variable, 1=participate in job training and 0 otherwise.
Private investors	Dummy variable, 1=private investor and 0 otherwise.
<b>Access of Urban land to invest</b>	Dummy variable, 1=own land to invest and 0 other wise
<b>Political stability</b>	Dummy variable, 1=stable and 0 non stable
<b>Access of job information</b>	Dummy variable 1=get information and 0 non stable

## CHAPTER FOUR

### 4. RESULTS AND DISCUSSION

The result of descriptive statistics and econometric model results and discussions are presented in this chapter in two sections. In the first section descriptive statistical results and main survey observation are presented and explained. In this second section, econometric model results are presented and explained. In descriptive analysis statistical measures such as mean, standard deviation, and percentage are used. The econometric analysis was also conducted in order to identify the determinant and factors affecting youth employment by using the logit model and the impact of unemployment on the economy by comparing the consumption expenditure was analysed by using propensity score matching.

#### 4.1 Descriptive analysis' for Explanatory Variables

This subsection has been discussed by using descriptive and inferential statistics outputs.

They are important tools to present research results clearly and concisely. They can also help one to have a clear picture of the characteristics of sample units. By applying descriptive statistics such as mean, standard deviation, percentages, frequency and the sample respondents were compared and contrasted with respect to socio-economic, institutional and demographic characteristics so as to draw some important conclusion.

##### 4.1.1 Sex of respondents with the unemployment status

The survey results in below table show that 42.8% of overall sampled respondents were male headed and 57.8% of overall sampled respondents were female headed in the study area. 43.2% of employed respondents and 56.8% were unemployed respondents. Accordingly employed youth, female had better opportunity than male. There is statistically significant proportion difference between employed respondents and unemployed respondents in terms of sex. Thus, the result shows that there is great disparity of unemployed status due to sex difference among the respondents.

Table 4 Sex of respondents with the unemployment status

Sex	Employed respondents		Unemployed respondents		Total respondents		Odds ration	Std.Err
	N= 105	%	N= 245	%	N=350	%		
Female	83	23.8	117	33.4	200	57.2%	4.2720	2.5010
Male	68	19.4	82	23.4	150	42.8%		

Source: Own computation, based on respondents data, 2023

#### 4.1.2 Age of respondents with unemployment status

The following table below shows that the average age of respondents were with a range expressed of maximum age of respondent was 34 and minimum age of respondent 18. The mean age was identified to be 28.65 with standard deviation of 3.527 it was found that majority of both groups found in inactive age group for employed and unemployed respondents respectively. The higher the age measured, the lower will be employed status of the in the study area. Therefore, the distribution of sample respondents with regard to respondent's age shows a statistical difference between employed respondents and unemployed respondents.

Table 5 Age of respondents

variable	Obs	Mean	St.dev	Min	Max
Age	350	28.65	3.527	18	34

Source: Own computation, based on respondents data, 2023

#### 4.1.3 Marital status of respondents with the unemployment status

The survey results in below table show that 31% of overall sampled respondents were married respondents and 63.19% of overall sampled respondents were single, 5% divorced respondents and widowed were 0.85% in the study area. 30.5% of employed respondents and 56% were unemployed respondents are single and 8% were employed are single respondents.

Table 6 Marital status of respondents with the unemployment status

Marital status	Employed respondent		Unemployed respondents		Total respondents		Odd rasion	Std.Err
	N= 105	%	N= 245	%	N=350	%		
Married	65	18.5%	44	12.5%	109	31%	2.537	1.129
Single	27	8%	198	56%	225	63.19%		
Divorced	13	4%	3	1%	16	5%		
Widowed	1	0.28%	2	0.57		0.85%		

Source: Own computation, based on respondents data, 2023

#### 4.1.4 Education status of respondents with the unemployment status

The below table shows that the education status in year of schooling of respondents University and above (9.42%) Illiterate, (34.5%) Primary, (23.7%) Secondary school, (15.42%) Collage certificate (8%) and Diploma, (8.85%). The Percent expressed education Status University and above number of respondent less than illiterate, primary, secondary and college. The status of schooling for employed and unemployed respondents respectively. Therefore, the distribution of sample respondents with regard to respondent's year of schooling size shows a statistical difference between employed respondents and unemployed respondents.

Table 7 Education status of respondents with Employ status

Education	Employ status		Total	
	Employed	Unemployed		
Illiterate	69	52	121	34.5%
Primary	42	41	83	23.7%
Secondary school	36	18	54	15.42%
Collage certificate	16	12	28	8%
Diploma	19	12	31	8.85%
University and				9.42%

above	17	16	33	
Total	199	151	350	100%

Source: Source: Own survey data, 2023

#### 4.1.5 Migration status of respondents with the unemployment status

The survey results in below table show that 54% of overall sampled respondents were non-resident respondents and 46% of overall sampled respondents were resident in the town in the study area. 53% of employed respondents and 54% were unemployed respondents nonresident and 47% of employed and 46% were unemployed are being resident respondents. There is statistically significant proportion difference between employed respondents and unemployed respondents in terms of residence status.

Table 8 Migration status of respondents with the unemployment status

Migration Status	Employed respondent		Unemployed respondent		Total respondents		Odds ration	Std.Err
	N= 105	%	N= 245	%	N=350	%		
migrant	68	53%	125	54%	208	54%	4.6022	2.615
Non migrant	37	47%	120	46%	177	46%		

Source: Own computation, based on respondents data, 2023

#### 4.1.6 Job opportunity status of respondents

The survey results in below table show that 81% of overall sampled respondents were no-job opportunity respondents and 19% of overall sampled respondents have job opportunity in the town in the study area. 80% of employed respondents and 80% were unemployed respondents have no job opportunity and 20% of employed and 20% were unemployed have job opportunity respondents. There is no statistically significant proportion difference between employed respondents and unemployed respondents in terms of job opportunity.

Table 9 Job opportunity status of respondents

Job opportunity	Employed respondents		Unemployed respondents		Total respondents		Odds ration	Std.Err
	N= 105	%	N= 245	%	N=350	%		
No	90	80%	195	80%	285	81%	0.243	0.1278
Yes	15	20%	50	20%	65	19%		

Source: Own computation, based on respondents data, 2023

#### 4.1.7 Access to training of respondents with the unemployment status

The survey results in below table show that 67% of overall sampled respondents were not get access to training and 33% of overall sampled respondents get access to training in the study area. 39% of employed respondents and 90% were unemployed respondents were not get access to training and 61% of employed and 10% were unemployed were get access to training. There is statistically significant proportion difference between employed respondents and unemployed respondents in terms of access to training. It is significant at less than 1% significance level.

Table 10 Access to training of respondents with the unemployment status

Access to training	Employed respondents		Unemployed respondents		Total respondents	
	N= 105	%	N= 245	%	N=350	%
No	45	49%	198	90%	243	67%
Yes	60	51%	47	10%	97	33%

Source: Own computation, based on respondents data, 2023

#### 4.1.8 Land access of respondents with the unemployment status

The survey results in below table show that 75 % of overall sampled respondents were no access to land and 25% of overall sampled respondents were access to land in the study area. 52% of employed respondents and 92% were unemployed respondents were no access to land and 48% of employed and 8% were unemployed were access to land. There is statistically significant proportion difference between employed respondents and unemployed respondents in terms of access to land.

Table 11 Land access of respondents with the unemployment status

Land access	Employed respondents		Unemployed respondents		Total respondents		Odds ration	Std.Err
	N= 105	%	N= 245	%	N=350	%		
No	86	52%	205	92%	291	75%	20.08	11.83
Yes	79	48%	15	8%	94	25%		

Source: Own computation, based on respondents data, 2023

#### 4.2 The Main Causes of Unemployment in Wolikite Town

**Rural-urban migration(17%):** One of the most decisive factors to contributing to unemployment various increasing the supply of labor beyond the absorption capacity of the town. In the town's most people migrated from rural area to get the income or daily wage, this leads to increase the unemployment in towns that cannot give the better job opportunity to town people. Earlier, migration from agriculture sector was considered as a means of supplying urban labor.

**Poor education system (13.99%):** This indicates the student graduated from college and universities are not qualified with practical education. For example engineers. The educational system is criticized that it is more theoretical and the number of vocational and training schools is limited so that it could not provide the student with employable skills. Education is a means for enhancing the productivity and employability of a country's labor force as it has a positive influence on occupational type: more-educated workers are much more likely to be in wage employment and much less likely to be in unpaid work than their less educated counterparts.

**Urban-urban migration (5%):** On the town, migration is viewed as major contributor factor to urban surplus labor force, which continues to accelerate the already serious urban unemployment problem. The factors that influence the decision of an individual to migrate are various and complex may be the life quality and wage difference between rural and urban area, the expectation of people for the opportunities they will face in urban are optimize both terms of availability of job opportunities and the income.

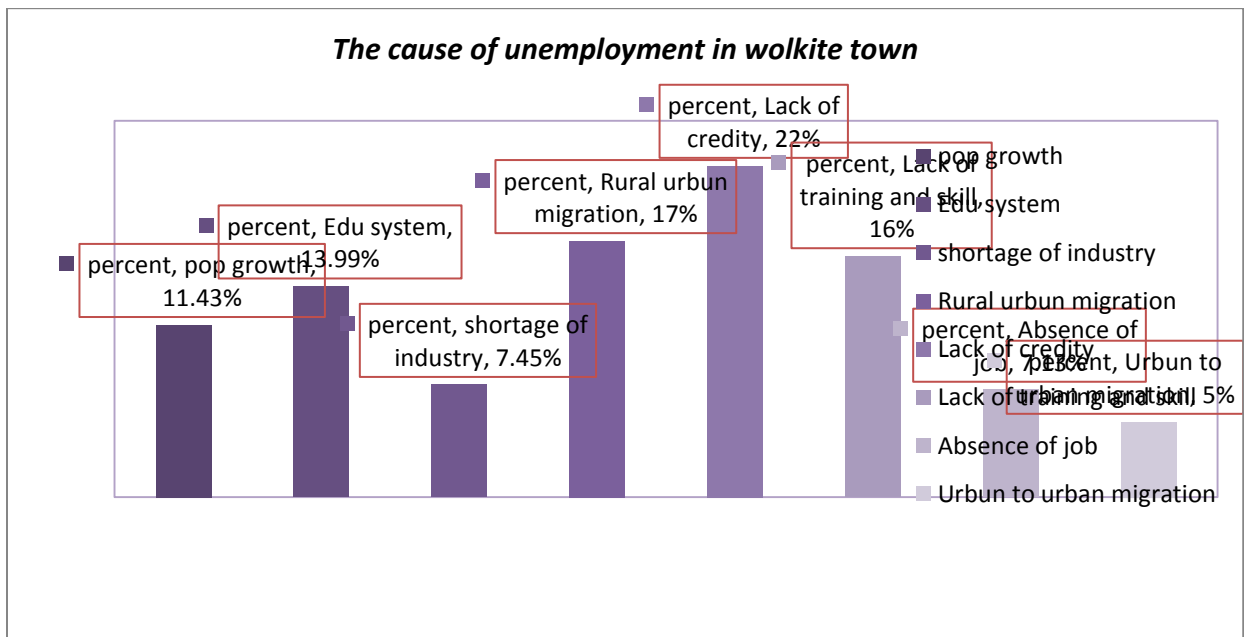
**High population growth(11.43%):** The increasing rate of population growth is another factor affecting scarcity of job opportunities in the study area. The demand for labor has a slower growth rate than the growing population rate.

**Lack of training and skill (16 %):** Participating in vocational training increases the probability of being employed. However, the quality of training and its impact on the trainees in actually equipping them with the necessary skills is low. The survey, indicate the private sector and some training institutions emphasized and agreed on the low quality of the training that is being provided. In addition, lack of entrepreneurial motivation, lack of vision/ innovation and inability to produce good business plans or feasibility studies are all part of the problem youth are facing in starting their own businesses. Moreover, mismatch of education and training skills with the requirements of the labor market is another reason for the high level of unemployment.

**Lack credit (22%):** credit was the most important factor to create the job in the study area, but most the time credit was given to employ person that limit the job access in the study area.

**Shortage of industry (7.45%):** in the study area their shortage of industry that limit the job.

Figure 3main causes of unemployment



Source own survey 2023

### 4.3. Econometric Results

#### 4.3.1 Determinants of employment status

An econometric model, binary logistic regression was employed to identify the determinants of unemployment status in the study area. Among the total of 13 explanatory variables included in the model, were found to be statistically significant in influencing the unemployment status with the expected sign as shown in the table below.

Prior to parameter estimation of logit model, tests for Multicollinearity using variance inflation factor for continuous variable, contingency coefficient for dummy variables and also link test for model specification were performed for validation of the estimated model. Since the computed values of VIF (1.38) were small and all of the values were less than 10. Therefore, there was no serious problem of Multicollinearity among continuous explanatory variables of the model so that the explanatory variables were retained within logistic regression model for analysis. Variables with contingency coefficient below 0.75 shows weak association and value above it indicates strong association. The contingency coefficient for dummy variables was less than 0.75 so Multicollinearity was not serious problem.

Another diagnostic test performed is model specification using link test. After the regression command, link test uses the linear predicted value ( $\hat{y}$ ) and linear predicted value squared ( $\hat{y}^2$ ) as the predictors to rebuild the model. The variable  $\hat{y}$  should be a statistically significant predictor, since it is the predicted value from the model. This will be the case unless the model is completely misspecified. On the other hand, if our model is properly specified, variable  $\hat{y}^2$  shouldn't have much predictive power except by chance. Therefore, if  $\hat{y}^2$  is significant, then the link test is significant. This usually means that we have omitted relevant variable(s). Since in our model  $\hat{y}$  is significant (0.000) and  $\hat{y}^2$  (0.801) is insignificant as a result, all the relevant variables were included in the model and hence the model is correctly specified. Also heteroscedasticity problem was checked by Breusch-Pagan test from this test the alternative hypothesis was significant this indicates that see appendix 7 ( $\text{prob} > \chi^2 = 0.2718$ ) their constant variance.

Estimates of the parameters of the variables expected to determine the respondent's unemployment status are displayed below table the goodness-of-fit Appendix (9) was tested by the Log likelihood ratio (LR) test. The model output shows the chi-square of 241.94 and p-value of zero. This indicates that  $\chi^2$  is statistically significant and Pseudo R<sup>2</sup> of the model is also 99 %

this indicates that displays a good fit. Thirteen explanatory variables are statistically significant influencing unemployment status. Among factors which had significantly influence on unemployment are sex of respondents, marital status, migration status, access to training, and access to credit, access to job opportunity, access to private investor, statistically significant at 1% probability. And access to land size was statistically significant at 5% probability level

To determine the best predictors the dependent variable were included in the model to estimate the parameters of all the variables using binary logistic regression analysis. The inclusion of these variables was come into ground based on theoretical expectations and empirical studies done before. And hence, all the variables deemed to determine determinates of unemployed status were entered into STATA and a binary logistic regression model was run to identify the key determining factors unemployment status in the study area. The model used  $P_i$  (unemployed status of respondents) as a dichotomous dependent variable having the value of 0 if the respondents is unemployed, 1 employed.

Since interpreting the result directly is not possible, hence a more appealing interpretation of parameter estimates in a logit model is explaining the marginal effect of each exogenous variable. Thus the marginal effect and interpretation of significant variables was presented below.

Table 12 Estimate of the determinant's youth (n=350)

<b>Variables</b>	<b>Coff</b>	<b>Odd ration</b>	<b>Robust Std.Err</b>	<b>P- value</b>	<b>Marginal effect</b>
<b>Sex</b>	1.7127	4.272	.4687	0.006	.396357
<b>Age</b>	.1988476	1.199	.07145	0.036	.0475724
<b>Education</b>	-.426866	.7122	.16499	0.012	-.1021238
<b>Marta ~s</b>	1.254362	2.537	.45069	0.003	.300944
<b>Migrat~s*</b>	1.624802	4.6022	.51290	0.005	.3700944

<b>Access~n*</b>	3.009839	12.347	.50598	0.000	.6186657
<b>Access~it*</b>	2.753104	14.458	.57255	0.000	.5933092
<b>Access~g*</b>	5.042933	184.648	1.778	0.000	.7842902
<b>Politi~e*</b>	-1.41139	.21132	.7808	0.034	-.3119922
<b>ACCES~Y*</b>	-1.41139	.24379	.52665	0.006	-.3435689
<b>Family~d*</b>	2.7349	12.7194	.54890	0.000	.5908824
<b>Privat~s</b>	1.738383	6.3184	1.7037	0.004	.3904197
<b>Accest~d*</b>	3.203638	20.082	.67572	0.000	.663768
<b>_cons</b>	-10.9476	.000018	1.86919	0.000	

Source: Source: Own households survey data, 2023

**Sex of respondents (SEX):** This variable is significant at less than 5% probability level and positively related with unemployment status. Male-headed youth have more access to occupation as compared to female respondents to search job access. All other things constant, the male youth employment more likely than female odd ratio 39.63% percent this may be explained by the fact that as one being male respondents to female respondents. Women respondents have to search the job were limited with society.

**Marital status (MARSTAT):** The coefficient of this variable is positive and significant at less than 5% probability level and positively related with unemployment status. Married respondents have more likely employed than compared to the single respondents because due to the married respondents have more reasonability than that of that of single respondents have depend on the family income source. All other things constant, being employment was increase by 30.0% percent this may be explained by the fact that as one being married –respondents to single respondents.

**Education status (EDUSTAT):**The coefficient of this variable is negative and significant at less than 5percent probability level. Educated respondents they create there employment accesses than respondents that have not get education. Education is negative coefficient, all other things constant, as the education increase by one year of schooling the probability of being employment was decreased by 10.2%

**Migration status (MIG):** Thisvariable is significant at less than 5% probability level with employment status. Migrant respondents have more unemployed than those non-migrant respondents, because the migrant respondents from the other place have the have no basic need before they start the job access. All other things constant, the probability of being Unemployment was increase by 37.00% percent this may be explained by the fact that as once being non-migrant –respondents to migrant respondents.

**Access to training (ACCTRAIN):** The coefficient of this variable is positive and significant at less than 1 percent probability level.Respondents that get access to training was become employed because they diversify the job access and create job opportunity. All other things constant, the probability of being employment was increase by 78.4% percent.

**Access to land (LAND):**The coefficient of this variable is positive and significant at less than 1percent probability level.Respondents that get access to land was become employed because they diversify the job access and create job opportunity. The respondents that have access to land they invest in the land and create job opportunity.All other things constant, the probability of being employment was increase by 66.3% percent this may be explained by the fact that as one being access to land.

#### **4.4. Impact of unemployment on consumption expenditure**

##### **Econometric results: Propensity score matching (PSM)**

**Estimation of propensity scores:**The logit regression model was used to estimate propensity scores to be used for matching urban youth employed with unemployed. An important step in estimation of propensity score is selection of covariates. Imbens and Wooldridge (2009) argue that literature is inadequate in this respect, except for notices about including covariates that are themselves influenced by treatment. In other words, there is no theoretical origin for how to select covariates to please the knowing assumptions. It is noted that covariates should normally

be those which influence impact of urban youth employed on consumption. The dependent variable is dummy indicating urban youth employed with a score equal to 1 or 0, otherwise. It is worth noting that aim of propensity score estimation is not to acquire accurate forecast of selection for the treatment, but rather to balance the distributions of covariates in treated and control groups. The logit model estimates result for the intended matching exercise. The pseudo  $R^2=0.7670$  shows that competing youth do not have many distinct characteristics. Overall, finding a good match between treated and non-treated are becomes easier. The estimated coefficients further reveal that variables such as access to land, access to training, access to credit, sex and access to job information are found to affect the impact of urban youth consumption positively and significantly.

Table 13 the estimation of factor that affect youth unemployment

<b>Variables</b>	<b>Coef.</b>	<b>Std. Err.</b>	<b>Z</b>	<b>P&gt;z</b>
<b>Sex</b>	.9738	2.63673	2.59	0.004
<b>Age</b>	.1158	.0399228	2.03	0.018
<b>Education</b>	-.2346033	.1618579	-2.24	0.009
<b>Marstatus</b>	.6741448	.235905	2.01	0.003
<b>Family education back ground</b>	.1878939	.1120438	4.16	0.000
<b>Access to land</b>	1.672055	.4924771	6.14	0.000
<b>Access toTVE training</b>	2.57044	.7837036	4.20	0.000
<b>Access to credit</b>	1.561747	.4311056	5.32	0.000
<b>Political stability</b>	.2261856	.1542467	-2.18	0.060
<b>Job opportunity</b>	-.6307351	.4921071	-2.73	0.006
<b>Private employ</b>	1.143031	.5018945	2.91	0.002
<b>Migration</b>	.8764	.4744169	2.79	0.004

<b>Access to job information</b>	2.244866	.4937201	4.55	0.000
<b>_cons</b>	-7.036607	1.678869	-4.19	0.000
Logistic regression		Number of obs = 350		
Prob > chi2 = 0.0000				
LR chi2(13) = 367.07				
Pseudo R2 = 0.7670				
Log likelihood = -55.764				

\*\*\*, \*\* and \* means significant at 1%,5% and 10% respectively.

Source: Own survey results (2023)

ii) **Choosing matching algorithms:**The alternative matching estimator (algorithms) more searched in matching treated and control group in common support region. In this study the nearest-neighbor matching, caliper matching, and kernel matching estimators were used for the evaluating the impact of urban youth unemployment on the consumption. The main command was used psmatch2 of Leuven and Sianesi (2003). Accordingly, the nearest-neighbor matching with replacement was directed in this study, so that each treated was matched with nearest neighbors. This is because of nearest neighbors matching with replacement in multiply treatment evaluation needs to rely on matching algorithms that use single observation more than once. Therefore, in this case, the number of comparison observations to be larger than the number of treated does not make much sense Lechner (1999).Guo and Fraser (2010) revealed that the size of the caliper is often determined by researcher. The size of calipers used in this study was from 0.01 to 0.5. So that the total bias after matching should usually be lower than the critical value of 20%. With this size, the matching can remove about 80% of the biases (Cochran and Rubin 1973). This size is however at a reasonable level compared to the values often used in the other study. For example, Wu *et al.*, (2010) used a value of 0.5 and stated that their results were not biased.

Under kernel matching method all treated are matched with a weighted average of all untreated with weights that are inversely proportional to the distance between propensity scores of treated and untreated. This method includes all respondents of the essential sample of control group and weight more distant observed characteristics among both control and treated (Smith and Todd, 2005).

In this study a kernel bandwidth from 0.01 to 0.5 was employed for matching treated and control group as a result for evaluating impact of consumption. The final choice of matching estimators was guided by different criteria such as the equal mean test referred to as the balancing test, bearing a low pseudo  $R^2$  value, results in large matched sample size and large number of insignificant mean differences between two groups (Caliendo and Kopeinig, 2008). Kernel (bw 0.01) matching estimator was the best estimator satisfying all the above pre-conditions. Hence, the Kernel (bw 0.01) was used to estimate the average treatment effect on the treated of the consumption on outcome variables.

Table 14 Performance of different algorithms

Matching estimator	Performance criteria			
	Number of insignificant variables	Pseudo- $R^2$	Mean Bias	Matched sample size
Nearest neighbor				
Nearest Neighbor(1)	3	0.351	45.2	342
Nearest Neighbor(2)	2	0.304	40.2	342
Nearest Neighbor (3)	3	0.297	38.7	342

Nearest Neighbor (4)	2	0.307	42.6	342
Nearest Neighbor (5)	4	0.293	40.6	342
<hr/>				
Caliper				
Caliper 0.01	10	0.120	23.4	342
Caliper 0.1	2	0.351	45.2	342
Caliper 0.25	2	0.351	45.2	342
Caliper 0.5	2	0.351	45.2	342
<hr/>				
Kernel				
Kernel (bw0.01)	10	0.091	20.2	342
Kernel(bw0.1)	2	0.289	37.9	342
Kernel(bw0.25)	4	0.277	37.8	342
Kernel(bw0.5)	6	0.231	30.1	342

Source: Own survey results (2023)

iii) **Matching quality:** Common support region is one of an essential step in studying the performance of the PSM estimation. It is necessary to check for overlap and to decide the basic help locale. By definition, this locale incorporates just those estimations of propensity scores that include a positive density within both the treatment and control groups' circulations. The expected support region is supposed that the likelihood of interest in, contingent on the noticed qualities, lies somewhere in the range of 0 and 1 (implying participation isn't effectively anticipated, that is,  $0 < P(D=1/X) < 1$ ). This supposition is important to the assessment, as it guarantees that family units with similar x qualities have an optimistic likelihood of being either employed or unemployed (Caliendo and Kopeinig, 2008). In this investigation, observations that had propensity scores the base or higher than the greatest on the contrary group were detached from the impact as technique's examination. The

propensity scores comparison; controlled group means unemployed youth respondent and treated group means employed youth respondent.

The graphic investigation of the propensity score's thickness circulation between two groups was utilized to confirm the common support region. It was evident from the Figure 3 shows that there was that a typical help region between the treated and control groups. However, according to Dehejia and Wahba (2002) confirmed that when there is significant overlap in the circulation of propensity scores among treated and control groups, matching procedures is performed only of common support region. This can typically give a decent, starting perusing of the degree to which there is a common support area in groups' propensity scores. The graphic demonstrates that the regular help condition is fulfilled as there is overlap in the circulation of the assessed propensity scores for the two groups. The matching system is just accomplished in the locale of basic help.

Table 15 matching Common support

Treatment assignment	Common support		total
	On support	off support	
Untreated	199	0	199
Treated	49	102	151
Total	248	102	350

Source: Own survey results (2023)

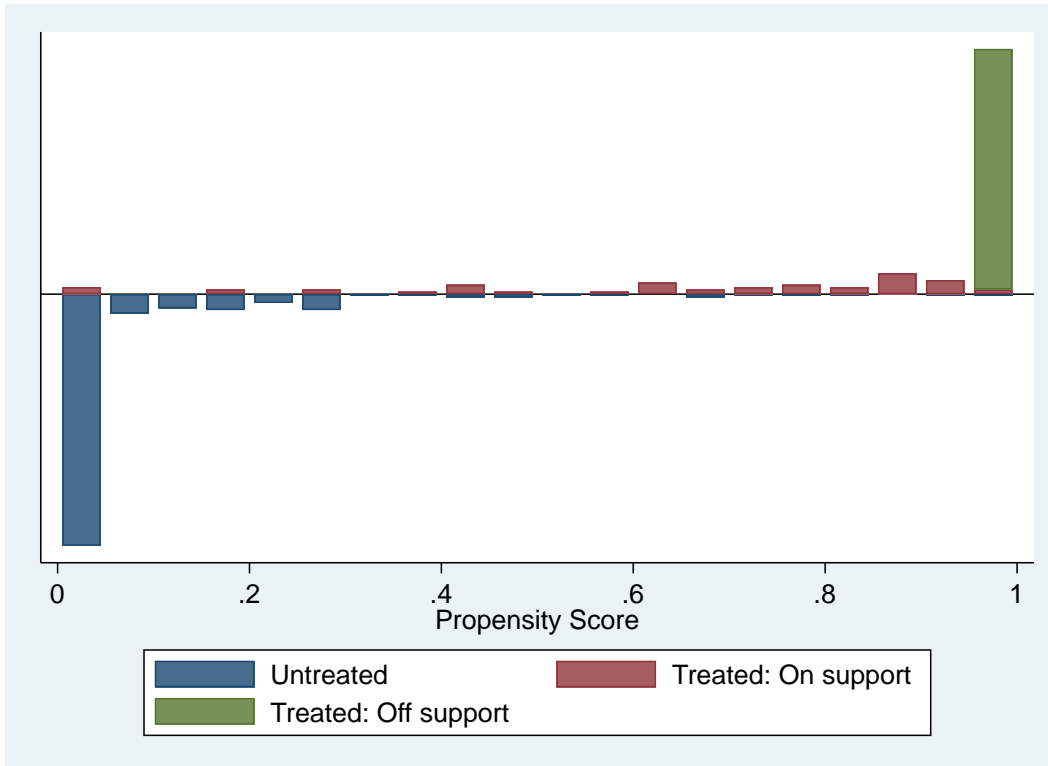


Figure 4: Distribution of common support region for propensity score

The checking the balancing of propensity score and covariates was employed using the selected matching algorithm (in this case Kernel (bw 0.01)).As indicated earlier, the main purpose of the propensity score estimation is not to obtain an accurate forecast of choice into treatment, but rather to balance the distributions of relevant variables in both groups. Even though there are numerous matching quality estimation approaches, the balancing power of the estimation is established by the bias reduction in mean standardized bias between the matched and unmatched households (Rosenbaum and Rubin, 1985). The present study also used mean standard bias to check the matching quality of the treated and controlled groups.

Results introduced in Table 16 showed that matching quality accomplished was properly acceptable. The mean, the standard bias was diminished from 63.8 % prior to matching to 20.2% in the wake of matching, which implies that matching quality with 63.8 % predisposition decrease. The mean predisposition subsequent to matching is inside the satisfactory scope of 3-5% for the excess inclination in the wake of matching (Caliendo and Kopeinig, 2008). It is recommended that a basic degree of 20.2% is by all accounts worthy of

matching quality (Rosenbaum and Rubin, 1985). Along these lines; the consequence of mean inclination is acceptable for the way toward matching in this study. Pseudo-R<sup>2</sup> indicates how well the regressors' covariates clarify the likelihood of support (Lee, 2008). In the wake of matching, the pseudo-R<sup>2</sup> should be generally low, suggesting no systematic contrasts in the dissemination of covariates between the treated and control groups. This study shows that the pseudo-R<sup>2</sup> before matching was 0.636 while after the matching was 0.091, which suggests that there was no problem in the process of matching urban employed with unemployed youth.

Table 16 Distribution of matching quality results

Group	Mean bias		%SB/ reduction	Pseudo-R <sup>2</sup>	
	Before	After		Before	After
Employed /non-employed	63.8	20.2	78.8	0.636	0.091

Source: Survey results (2023)

Balancing test was utilized to check if the mean of the covariates differs fundamentally among treated and control groups. The basic assumption of this method is that prior to matching, both the treated and control groups can be distinctive in covariates however subsequent to matching the thing that matters should be measurably immaterial factors, as the covariates should be adjusted in the two groups by the matching estimator (Caliendo and Kopeinig, 2008). This study's result in Table 16 indicated that the balancing test values in the logit model of propensity score assessment when matching. This shows that employed and unemployed youth were significantly altogether unique regarding explicit pre-treatment attributes prior to matching; nonetheless, these distinctions were separated in the wake of matching. This is because contrasting the unparalleled must be dodged; that is, just the subset of the comparison group that is tantamount to the treatment group should be utilized in the investigation (Dehejia and Wahba, 2002). In general, the combination of the three indicators (mean bias, pseudo R<sup>2</sup> and balancing test) allowed this study to generalize that there was no important difference in distribution of covariates after matching.

**IV Average treatment effect on the treated:** Consumption/ expenditure on the food and non-food items was used as an indicator in order to examine whether there is a change in consumption due to the urban development in the study area. In this study,  $Y_i^1$  is used for outcome after treatment and  $Y_i^0$  is employed for the outcome without treatment. Assume that  $Z_i \in \{0, 1\}$  represents the treatment indicators for every one of them  $i$  treatment, where  $Y_i = 1$  if a youth gets treatment  $i$  and  $Y_i = 0$  in any case. It is expected that every youth gets precisely one of the treatments  $i$ . In concurrence with our observational work, let treatment  $i=0$  as no treatment, for example, the reference point. For this situation, counterfactual eludes to what would have happened to the result of urban development members had they not participated (Rosenbaum and Rubin, 1985). With this regard, employing the counterfactual is the focal issue for impact assessment. Therefore, the effect of urban development on consumption was evaluated utilizing a propensity score coordinating model to assess counterfactual results for employed. This makes statistical comparison between treatment and control groups by matching comparative estimations of the propensity score.

Below Table 17 unveiled that prior to matching the average total expenditure per month revealed by treated was Birr 7209.89796 while that for controlled was Birr 4455.8241 which was 2435.46065 Birr lower than that of treated youth in the wake of matching. This shows that those employed youth have spent relatively more expenditure on consumption than unemployed, which implies that the consumption of youth was higher than that of unemployed. The study also presented that after matching the average total expenditure of the employed and unemployed youth was 7209.89796 and 4319.04082 Birr per adult per annum respectively with difference of 2890.85714. This finding indicated that employed considerable higher average total expenditure could be due to participation in the employment. In general, results stated that participation in employment enables youth to earn income for consumption. The findings of study by Peter (2014) are following the after effects of this investigation. His investigation guaranteed that youth who have participated in employment ventures spent their income from business exercises for household needs, for example, for food, dress, medical services, and family unit resources. Likewise, this investigation's discoveries correspond with Christiana's aftereffects (2012) on poverty. He expressed that participation in employment endeavors diminishes likelihood of youth being poor. Likewise, this outcome is in accordance with Auduet *al.*, (2018) discoveries that

employment exercises drawn by youth were found significant and positive. This implies that a youth who committed in employment had a lower probability of being for low consumption. In heart, youth participation in employment increases their income and invariably their consumption power, thereby making it possible to meet their basic needs

Table 17 Average treatment effect on the treated (ATET)

Outcome Variable	Sample	Treated	Controls	Difference	S.E.	T-stat
Consumption	Unmatched	6891.28477	2435.46065	2435.46065	276.3916	8.81
	ATET	7209.8979	4319.04082	2890.8571	696.831612	4.15

Source: Computed from survey results (2023)

v) Sensitivity analysis: According to the Caliendo and Kopeinig (2005), determining the appropriate variables which should be involved in a statistical model is one of the unexplained and likely most arguable issues in an observational study. The unobserved variables in the matching employed with unemployed with cause bias in the outcome of the intervention. This is on the grounds that sensitivity examination for negligible impacts is not important and just for measurably huge treatment impacts. To check for unobservable inclinations, the Rosenbaum adjusting approach was actualized on result factors of this investigation regarding deviation from restrictive freedom supposition (Caliendo and Kopeinig, 2005). The sensitivity analysis was conducted for outcome variables such as consumption of the youth. Show the basic degree of  $e\gamma=1$  (first row), over which the causal induction of massive results must be inspected. The first column indicates those result factors which allow significant factual contrasts among employed and unemployed in effect assessment. The remainder of the qualities that identity with each line of the huge result factors is p-basic qualities (the upper bound of noteworthiness level (Sig+) at an alternate basic estimation of  $e\gamma$  (Rosenbaum, 2002). Table 18 revealed that inference for the impact of youth participation in employment does not change, despite the employed and unemployed endorsed to vary in their chances of being treated up  $e\gamma=1.5$  in terms of unobserved covariates (Rosenbaum, 2002). The surreptitious factor would need to build the odds ratio of the chances of participation in

employment before it would deny the estimated impact. In this case, outcome variables allow significant statistical differences between the treated impact estimates and control youths. Thus, it is likely to conclude that the normal treatment impact on the treated result factors was insensitive to unobserved selection bias.

Table 18 Result of sensitivity analysis using Rosenbaum bounding approach

Outcome variable	$e^\gamma = 1$	$e^\gamma = 1.1$	$e^\gamma = 1.2$	$e^\gamma = 1.3$	$e^\gamma = 1.4$	$e^\gamma = 1.5$
Consumption	<b>.056211</b>	<b>.03178</b>	<b>.017722</b>	<b>.009772</b>	<b>.005342</b>	<b>.0029</b>

$e^\gamma$  (Gamma)= log odds of differential due to unobserved factor

Source: Survey results (2023)

## CHAPTER FIVE

### 5. CONCLUSION AND RECOMMENDATION

#### 5.1 Conclusion

Unemployment is a big macroeconomic problem both in developed and less developed countries Ethiopia has the highest unemployment rates know. This study was undertaken in Wolkite Town Gurage Zone of Southern Ethiopia with objective of the economic impact of urban youth unemployment in study area.

Descriptive analysis and econometric methods such as, binary logistic regression were used for the data analysis. Binary logistic regression model was used to identify the determinants of unemployment status in the study area. The main causes of unemployment study area; rural-urban migration, poor education system, high population growth, lack of training, lack of access of credit, lack of access of job opportunity and political instability where the most decisive factor for unemployment increment in the study area.

The study used the propensity score matching approach to examine the impact of impact of unemployment on consumption expenditure. The study revealed that before matching, there were significant differences between treated and untreated in terms of some explanatory variables hypothesized to predict employment impacts. After matching, however, there were no significant mean and proportion differences between employed and unemployed in terms of all the explanatory variables assumed to affect impacts of consumption. Additionally, findings of study indicated that there was a significant 78.8% bias reduction in the mean standardized bias after matching which implies that there were no particular biases in participants' selection within the group of likely participants and hence the differences are only due to program participation. Findings of this study in general confirmed that after controlling for all pre-intervention youth characteristics there were differences between employed and unemployed youth in terms of total expenditures. Study results indicated that employed were found to be better than unemployed in terms of total expenditures. It seems that participation in employment due to employed youth might have high proportion of expenditure. Overall, the study concluded that participation in employment can play a great impact in improving the consumption of youth. In other words,

youth participation in employment may be used as a starting point to help the poor to make the first step out of consumption problem.

## **5.2 Recommendation**

Inspiring income generating strategies which consider the unemployed youth should be enhanced by continuous training and advising which would result in sustainable consumption. Low consumption was higher among unemployed rather employed youths. Hence, governmental and other concerned bodies should give high focuses they should provide the credit access to unemployed respondents to create job access. To alleviate the social, economic, and psychological problem the government creates jobs without any type of corruption. Technical and vocational training programs should focus on producing qualified graduates with market demanded skills and competent in the market with practical education. It is also suggested that awareness and skills acquisition training programme specially for the unemployed youths should be established at the bottom level by the integration of trade and industry development office, women, children and youth office and town administrative authority.



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## APPENDICES

### Appendix 1 Research questionnaire's

A Research Questionnaire's for the Fulfillment of the Requirements for the Degree of Masters of Science in Development Economics

Survey Questionnaire economic impact of youth unemployment the Case of wolkite town

#### **Dear Respondent:**

The main objective of this survey questionnaire is collect data in order to analysis the economic impact of youth unemployment the case of Wolkite town. The data will used in the study to fulfill the partial requirement of (MSc) in Development Economics. Your cooperation in responding to the questions is very important for the success of the study. Therefore; politely request your cooperation to respond to the questions appropriately. And also I would like to ensure that the data you provide were kept confidential and were not being used for another purpose other than the intended objectives of the study.

Name of Sub City ----- Date of Interview-----

Name of Keble -----

Respondents Name-----

Signature-----

#### **PART 1: Personal Information**

**Tick the most appropriate answer based on the given information**

1. Sex: A/ Male  B/ Female
2. Age .....
3. Are you resident A/ urban  B/ rural
4. Marital status A/ Married  B/ Single  C/ Divorced  D/ Widowed

5. Educational level: A/ Who can't read and write  B/ primary  C/ secondary   
D/ college certificate  E/ diploma  F/ university degree and above

6. Are you employed? A/ Yes  B  / No

7. If your answer is number 6 is No Where you live know A/ with family

B/ on streets  C/ independent

8. If your answer is number 6 is yes, how much you expense within a month?

-----

9. What are you doing during unemployed time?

A/ Search for job opportunities  B/ participating volunteer local organization

C/ Create an online portfolio for creative work  D/ chewing khat

E / drinking alcohol

F /others explain.....

10. If your answer for question number 6 above is no from where you get pocket money and  
How much you expense within a month?

A/ from participating local youth memberships  B/ participating voluntary activity

c/ from family d / if other source explain.....

10.1 explain how much you expense within a month -----

## **PART 2: Cause of unemployment**

11. What do you think the cause of unemployment in town?

A) Population growth  B) Poor education system

C) Shortage of industry  D) rural- urban migration

E) Urban –Urban migrating  F) Absence of job opportunity

G) Lack of training and skill  H) Lack of the credit

12. Do you have access to Internet and Media around your residence?

A/ Yes  B/ No

13. Do you have access to job information? A/ Yes  B/ No

14. If your answer for question number 13 above is yes, what are possible sources?

A/ Notice board  B/ internet  C/ Newspaper  D/ Friends

15. Have you access to credit in your surrounding? A/ Yes  B/ No

16. If your answer for question number 15 above is yes, from which institution?

A/ Banks B/ Micro Finance Institutions C / Membership of youth saving and Cooperatives

D/ Specify if other -----

17. What was the purpose of credit? A/ For creation of Employment  B/ social obligation

18. If no you said a que 15 what main reason you don't take credit? A/ High interest rate

B/ Lack of asset for collateral  C/ Fear of ability to pay  4) No one to give credit

19. Do you have access to training TVT A/ No  B Yes

20. Do you think that there is political stability or peace and security in your country or neighbor or Town?

A/ yes  B/ No

21. If your answer is question above number 20 is no how does affect political instability the society's economy in your neighbor or town?

A/ labor market disruption  B/ reduce physical and human capital accumulation

C/ disruption of productive economy  D/unequal distribution of environmental resources

22. What has been the main obstacle in finding a job? A/ Absence of education

B/ Unsuitable vocational work  C/ Absence of suitable training opportunities

D/ Lack of work

23 Do your family educated?

A/ yes  b/ No

24 how many children in your family?

A/ 1-3  B/ 4-6  C/ 7-9  D/ the other number.....

25. is there private employers or investors in your surrounding?

A/ Yes  B/ No

26. If your answer is yes for question number 25 what you think the role of private employers in society economic improvement? A/labor disruption  B/ capital formation

C/ generating income  D/if the other explain.....

27. do you have urban land to invest ?

A/ Yes  B/ No

### **PART 3: The effect of unemployment**

28, what would happen if someone was not employed?

A/ People will die from either starvation or exposure  B / Homelessness increases when people can't pay rent  C/ Supply exceed demand  D/ Higher risk depression, anxiety, mental health issues

29, what you assume the consequences of unemployment?

A/ instability in the economy  B/ high crime rates  C/ decrees welfare level

D/ increased poverty loss of income

E/ other please explain.....

30. What you think the social and economic burden to individual due to unemployment?

A/ lost income  B/ mental depression  C/ rising crime

D explain if the other-----

31. What you think the economic burdens to the society due to unemployment?

A/ los of national output  B/widening inequality of wealth and income

C/ lower life expectancy

32. What do you feel for been job less ness? A/Distress  B/ dislike  C/ isolation   
D/ Inferiority  E/ if the others\_\_\_\_\_

33. Does unemployment leads you to healthy problems? Ayes  no

34. Do you think unemployment forced you to drug addiction? A/ Ayes  B/no

35. Would you blame unemployment for the rising cases of social problem such as theft and other crimes in this area? A/ Yes  B/No  If “Yes”, Please explain.....  
.....

36. Any other views you would like to express regarding economic effect of Youth Unemployment  
.....  
.....

## Appendix 2 Binary logistic regression result

```
. logistic Employ Sex Age Education MaritaStatus migrationstatus Accesstojobinformation Access
> tocredit AccesstoTVEttraining Politicalstabilitypeace Accesofjobopportunity familyeducation
> background PrivateemployersInvestors Acesstoland, coef
```

```
Logistic regression                Number of obs    =          350
                                   LR chi2(13)       =          367.07
                                   Prob > chi2       =          0.0000
Log likelihood = -55.76438          Pseudo R2      =          0.7670
```

Employ	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
Sex	1.712777	.6224558	2.75	0.006	.4927857	2.932768
Age	.1988476	.0948584	2.10	0.036	.0129285	.3847667
Education	-.4268665	.1696944	-2.52	0.012	-.7594613	-.0942716
MaritaStatus	1.254362	.4167482	3.01	0.003	.43755	2.071173
migrationstatus	1.624802	.5789669	2.81	0.005	.4900476	2.759556
Accesstojobinformation	3.009839	.7088751	4.25	0.000	1.62047	4.399209
Accesstocredit	2.753104	.6437792	4.28	0.000	1.49132	4.014888
AccesstoTVEttraining	5.042933	1.43987	3.50	0.000	2.22084	7.865025
Politicalstabilitypeace	-1.411399	.6666345	-2.12	0.034	-2.717978	-.104819
Accesofjobopportunity	-1.500487	.5410763	-2.77	0.006	-2.560977	-.439972
familyeducationbackground	2.734966	.6632763	4.12	0.000	1.434968	4.034963
PrivateemployersInvestors	1.738383	.6068534	2.86	0.004	.5489719	2.927793
Acesstoland	3.203638	.6292243	5.09	0.000	1.970381	4.436895
_cons	-11.90835	2.581217	-4.61	0.000	-16.96744	-6.849257

## Appendix 3 Mfx value

```
. mfx
```

```
Marginal effects after logistic
y = Pr(Employ) (predict)
= .39627317
```

variable	dy/dx	Std. Err.	z	P> z	[ 95% C.I. ]		X
Sex*	.3963577	.13042	3.04	0.002	.140745	.65197	.428571
Age	.0475724	.02318	2.05	0.040	.002146	.092999	22.0371
Educat~n	-.1021238	.04128	-2.47	0.013	-.183039	-.021208	1.61143
Marita~s	.3000944	.099	3.03	0.002	.106054	.494135	.354286
migrat~s*	.3700994	.12149	3.05	0.002	.13198	.608219	.508571
Access~n*	.6186657	.10205	6.06	0.000	.418652	.818679	.505714
Acces~it*	.5933092	.10655	5.57	0.000	.384475	.802143	.417143
Access~g*	.7842902	.0657	11.94	0.000	.655526	.913054	.205714
Politi~e*	-.3119922	.13558	-2.30	0.021	-.577732	-.046252	.362857
Acceso~y*	-.3435689	.11374	-3.02	0.003	-.566497	-.120641	.485714
family~d*	.5908824	.10846	5.45	0.000	.378307	.803458	.411429
Privat~s*	.3904197	.12645	3.09	0.002	.142586	.638253	.531429
Acesst~d*	.6637686	.08761	7.58	0.000	.492052	.835485	.397143

## Appendix4Odd ratio of catagorical variable

```
. logistic Employ Sex Age i.Education i.MaritaStatus migrationstatus Accesstojobinformation A
> ccesstocredit AccesstoTVETtraining Politicalstabilitypeace ACCESOFJOBOPPORTUNITY familyeduca
> tionbackground PrivateemployersInvestors Acesstoland
```

```
Logistic regression                               Number of obs   =       350
                                                    LR chi2(19)     =       377.18
                                                    Prob > chi2     =       0.0000
Log likelihood = -50.708299                       Pseudo R2       =       0.7881
```

Employ	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
Sex	7.539972	5.302366	2.87	0.004	1.900097	29.92015
Age	1.229596	.1319303	1.93	0.054	.9963963	1.517374
Education						
primary	.2639605	.200317	-1.76	0.079	.0596445	1.168174
secondary school	.1160421	.1164879	-2.15	0.032	.0162235	.8300167
collage certiicate	.2069308	.2452913	-1.33	0.184	.0202689	2.112618
diploma	.382877	.4177768	-0.88	0.379	.0451096	3.249744
university and above	.0578475	.0626129	-2.63	0.008	.0069337	.4826217
MaritaStatus						
married	4.513183	3.411402	1.99	0.046	1.025843	19.85569
divoced	.2402487	.5182384	-0.66	0.509	.0035038	16.47329
window	270.6845	533.9438	2.84	0.005	5.667742	12927.57
migrationstatus	4.218989	2.630199	2.31	0.021	1.243234	14.31739
Accesstojobinformation	32.36837	25.2502	4.46	0.000	7.016298	149.3254
Accesstocredit	25.74052	18.75781	4.46	0.000	6.170551	107.3769
AccesstoTVETtraining	138.5563	209.8817	3.26	0.001	7.116173	2697.777
Politicalstabilitypeace	.2428342	.1708291	-2.01	0.044	.0611655	.9640807
ACCESOFJOBOPPORTUNITY	.2996298	.1710963	-2.11	0.035	.0978424	.9175779
familyeducationbackground	17.97406	12.83834	4.04	0.000	4.432599	72.88432
PrivateemployersInvestors	5.589402	3.73533	2.58	0.010	1.508404	20.71157
Acesstoland	30.47918	20.72306	5.03	0.000	8.040146	115.5427
_cons	3.72e-06	.0000108	-4.33	0.000	1.30e-08	.0010702

Note: \_cons estimates baseline odds.

## Appendix 5 Robust value after the model

```
. logit Employ Sex Age Education MaritaStatus migrationstatus Accesstojobinformation Accesstoc
> redit AccesstoTVETtraining Politicalstabilitypeace Accesofjobopportunity familyeducationback
> ground PrivateemployersInvestors Acesstoland
```

```
Iteration 0: log likelihood = -239.29969
Iteration 1: log likelihood = -68.724992
Iteration 2: log likelihood = -58.334247
Iteration 3: log likelihood = -55.792988
Iteration 4: log likelihood = -55.764388
Iteration 5: log likelihood = -55.76438
Iteration 6: log likelihood = -55.76438
```

```
Logistic regression                               Number of obs   =       350
                                                    LR chi2(13)    =      367.07
                                                    Prob > chi2    =      0.0000
Log likelihood = -55.76438                        Pseudo R2      =      0.7670
```

Employ	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
Sex	1.712777	.6224558	2.75	0.006	.4927857	2.932768
Age	.1988476	.0948584	2.10	0.036	.0129285	.3847667
Education	-.4268665	.1696944	-2.52	0.012	-.7594613	-.0942716
MaritaStatus	1.254362	.4167482	3.01	0.003	.43755	2.071173
migrationstatus	1.624802	.5789669	2.81	0.005	.4900476	2.759556
Accesstojobinformation	3.009839	.7088751	4.25	0.000	1.62047	4.399209
Accesstocredit	2.753104	.6437792	4.28	0.000	1.49132	4.014888
AccesstoTVETtraining	5.042933	1.43987	3.50	0.000	2.22084	7.865025
Politicalstabilitypeace	-1.411399	.6666345	-2.12	0.034	-2.717978	-.104819
Accesofjobopportunity	-1.500487	.5410763	-2.77	0.006	-2.560977	-.4399972
familyeducationbackground	2.734966	.6632763	4.12	0.000	1.434968	4.034963
PrivateemployersInvestors	1.738383	.6068534	2.86	0.004	.5489719	2.927793
Acesstoland	3.203638	.6292243	5.09	0.000	1.970381	4.436895
_cons	-11.90835	2.581217	-4.61	0.000	-16.96744	-6.849257

## Appendix6Model Diagnosticreg

```
. reg Employed Age Education MaritalStatus
```

Source	SS	df	MS	Number of obs	=	350
Model	6.35064498	3	2.11688166	F(3, 346)	=	9.21
Residual	79.5036407	346	.229779308	Prob > F	=	0.0000
Total	85.8542857	349	.246000819	R-squared	=	0.0740
				Adj R-squared	=	0.0659
				Root MSE	=	.47935

Employed	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
Age	.015644	.0074113	2.11	0.036	.0010671	.0302208
Education	-.0036294	.0155949	-0.23	0.816	-.0343022	.0270435
MaritalStatus	.2400694	.0500507	4.80	0.000	.1416275	.3385112
_cons	.0163616	.164501	0.10	0.921	-.3071862	.3399095

## Appendix7Variance inflation factor for variables and breusch –pagan test

```
. vif
```

Variable	VIF	1/VIF
AccesstoTV~g	2.14	0.467518
Accesstocr~t	1.99	0.502142
Accesstojo~n	1.63	0.615364
Politicals~e	1.60	0.624494
Acesstoland	1.45	0.689252
Privateemp~s	1.32	0.759833
familyeduc~d	1.31	0.766093
MaritalSta~s	1.18	0.850213
gender	1.11	0.903959
migrations~s	1.06	0.940515
ACCESOFJOB~Y	1.06	0.942117
Age	1.06	0.942872
Education	1.05	0.949307
Mean VIF	1.38	

```
. hettest
```

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of Employ

chi2(1) = 1.21

Prob > chi2 = 0.2718

## Appendix 8 Contingency coefficient value for dummy variables

```
. pwcorr Sex migrationstatus Accesstojobinformation Accesstocredit AccesstoTVETtraining family
> educationbackground ACCESOFJOBOPPORTUNITY Acesstoland Politicalstabilitypeace Privateemployer
> sInvestors
```

	Sex	migrat~s	Access~n	Acces~it	Access~g	family~d	ACCESO~Y
Sex	1.0000						
migrations~s	-0.0148	1.0000					
Accesstojo~n	-0.1831	0.0455	1.0000				
Accesstocr~t	0.0050	0.1362	0.4655	1.0000			
AccesstoTV~g	-0.0694	-0.0229	0.4042	0.5156	1.0000		
familyeduc~d	0.0855	0.0786	0.0137	0.2582	0.3214	1.0000	
ACCESOFJOB~Y	-0.0099	-0.0967	-0.0111	-0.0106	-0.0844	0.0007	1.0000
Acesstoland	0.1702	0.0153	0.1834	0.4502	0.1070	0.1758	0.0524
Political~e	0.1149	-0.0545	-0.0265	0.1931	0.4686	0.2868	0.0156
Privateemp~s	0.0393	0.0384	0.2145	0.2249	0.1447	0.2608	-0.0262

	Acesst~d	Politi~e	Privat~s
Acesstoland	1.0000		
Political~e	0.0554	1.0000	
Privateemp~s	0.3049	0.2802	1.0000

.

## Appendix 9 Goodnes Fit

```
. estat gof
```

### Logistic model for Employ, goodness-of-fit test

```
number of observations =      350
number of covariate patterns =    337
Pearson chi2(323) =      241.94
Prob > chi2 =              0.9997
```

## Appendix 10 norimality

```
. alpha Employ Sex Age Education migrationstatus Accesstojobinformation Accesstocredit Accesst
> oTVETtraining Politicalstabilitypeace ACCESOFJOBOPPORTUNITY familyeducationbackground Privat
> eemployersInvestors Acesstoland
```

```
Test scale = mean(unstandardized items)
Reversed item: ACCESOFJOBOPPORTUNITY
```

```
Average interitem covariance:      .0457053
Number of items in the scale:      13
Scale reliability coefficient:      0.3124
```

## Appendix 11 Chi –square test for dummy variable

. tab Education Employ,chi2

Education	Employ		Total
	unemploye	employed	
illitrate	69	52	121
primary	42	41	83
secondary school	36	18	54
collage certiicate	16	12	28
dipploma	19	12	31
university and above	17	16	33
Total	199	151	350

. tab Sex Employ,chi2

Sex	Employ		Total
	unemploye	employed	
female	117	83	200
male	82	68	150
Total	199	151	350

Pearson chi2(1) = 0.5135 Pr = 0.474

. tab MaritaStatus Employ,chi2

Marita Status	Employ		Total
	unemploye	employed	
single	161	79	240
married	31	70	101
divoced	5	1	6
window	2	1	3
Total	199	151	350

Pearson chi2(3) = 40.2502 Pr = 0.000

```
. tab migrationstatus Employ,chi2
```

migration status	Employ		Total
	unemploye	employed	
non migrant	111	61	172
migrant	88	90	178
Total	199	151	350

Pearson chi2(1) = 8.1274 Pr = 0.004

```
. tab Accesstojobinformation Employ,chi2
```

Access to job informatio n	Employ		Total
	unemploye	employed	
0	142	31	173
1	57	120	177
Total	199	151	350

Pearson chi2(1) = 88.7294 Pr = 0.000

```
. tab Accesstocredit Employ,chi2
```

Access to credit	Employ		Total
	unemploye	employed	
NO	177	27	204
YES	22	124	146
Total	199	151	350

Pearson chi2(1) = 178.3255 Pr = 0.000

. tab AccesstoTVETtraining Employ,chi2

Access toTVET training	Employ		Total
	unemploye	employed	
NO	195	83	278
YES	4	68	72
Total	199	151	350

Pearson chi2(1) = 97.2576 Pr = 0.000

. tab ACCESOFJOBOPPORTUNITY Employ,chi2

ACCES OF job OPPORTUNITY	Employ		Total
	unemploye	employed	
NO OPPORTUNITY	95	85	180
OTHER	104	66	170
Total	199	151	350

Pearson chi2(1) = 2.5141 Pr = 0.113

. tab familyeducationbackground Employ,chi2

family education background	Employ		Total
	unemploye	employed	
UNEDUCATED	148	58	206
EDUCATED	51	93	144
Total	199	151	350

Pearson chi2(1) = 45.8499 Pr = 0.000

. tab Politicalstabilitypeace Employ,chi2

Political stability/ peace	Employ		Total
	unemploye	employed	
NO	141	82	223
YES	58	69	127
Total	199	151	350

Pearson chi2(1) = 10.1711 Pr = 0.001

```
. tab Acesstoland Employ,chi2
```

Access to land	Employ		Total
	unemploye	employed	
NO	165	46	211
YES	34	105	139
Total	199	151	350

Pearson chi2(1) = 98.6525 Pr = 0.000

```
. tab PrivateemployersInvestors Employ,chi2
```

Private employers/I nvestors	Employ		Total
	unemploye	employed	
NO	125	39	164
YES	74	112	186
Total	199	151	350

Pearson chi2(1) = 47.1652 Pr = 0.000

## Appendix 12 Model test

### Link test

```
. linktest
```

```
Iteration 0: log likelihood = -239.29969
Iteration 1: log likelihood = -63.016181
Iteration 2: log likelihood = -59.352847
Iteration 3: log likelihood = -59.298407
Iteration 4: log likelihood = -59.29823
Iteration 5: log likelihood = -59.29823
```

```
Logistic regression                Number of obs   =       350
                                   LR chi2(2)         =       360.00
                                   Prob > chi2        =       0.0000
Log likelihood = -59.29823         Pseudo R2      =       0.7522
```

Employ	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
_hat	1.006482	.128037	7.86	0.000	.7555337	1.25743
_hatsq	.0102029	.0404562	0.25	0.801	-.0690897	.0894956
_cons	-.0370238	.2829319	-0.13	0.896	-.5915601	.5175125

```
.
```

## Appendix 13 Appendix Common support

Note: 0 failures and 13 successes completely determined.

Variable	Sample	Treated	Controls	Difference	S.E.	T-stat
ConsumptionExp~e	Unmatched	6891.28477	4455.82412	2435.46065	276.391697	8.81
	ATT	7209.89796	4319.04082	2890.85714	696.831612	4.15

Note: S.E. does not take into account that the propensity score is estimated.

psmatch2: Treatment assignment	psmatch2: Common support		Total
	Off suppo	On suppor	
Untreated	0	199	199
Treated	102	49	151
Total	102	248	350