Socio-Demographic Determinants of Urban Unemployment: The Case of Addis Ababa

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Abstract

This article examines the association between socio-demographic variables and unemployment in urban Ethiopia with a special emphasis on Addis Ababa using data taken from CSA's National Labor Force Surveys of 1999 and 2005. Differences in the labor market outcomes are observed due to variations in socio-demographic characteristics among the working-age population. The overall findings imply that women and the youth, particularly those below tertiary level of education, are, at any rate, the foremost victims of unemployment who require due emphasis and special attention. Accordingly, some recommendations such as focusing on training & skill formation and stimulating employment opportunities are put forward.

Keywords: urban unemployment, socio-demographic variable, unemployment rate, activity status, participation rate

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Introduction

Excessive unemployment, as per the economics literature, is an indication of the failure of the economy to utilize the available human resource. Mankiw (2001:155) argues that higher unemployment is one of the most serious macroeconomic problems that affect a society directly and indirectly; and this is why it is a frequent topic of political debate and politicians often claim that their proposed policies would help create jobs. As stated in an economic report (ECA, 2005:12), a spatial perspective of Africa's labor market outcomes witnesses higher rates of unemployment in urban areas than in rural ones. Consequently, the report added, shortages of basic social infrastructure and facilities such as housing, schooling, water, and health are aggravated in the urban areas.

The Ethiopian labor market is characterized by a substantial difference between rural and urban areas. In support of this argument, Guracello and Rosati (2007:13) have suggested that open unemployment rate in rural areas is generally low although there is a high level of underemployment or disguised unemployment, and fewer chances of employment in the formal sector of the economy. In urban areas, on the other hand, although the youth face better prospects in terms of income and employment quality, finding a job is difficult and hence unemployment, especially youth unemployment rate, is higher. Similarly, Berhanu *et al.* (2005:14) have argued that open unemployment, especially youth unemployment, is a typical urban phenomenon.

Urban areas are closely related with the modern sector, industrialization, which the country's main development strategy, Agricultural Development-Led Industrialization (ADLI), is aiming at. According to MoFED (2006:161), although a pro-poor development in the Ethiopian context should focus mainly on rural areas, urban areas will have a greater role in the next phase of Ethiopia's development than they had been in the past. The rationale for this argument can be, according to the document, relates to the concentration of people, infrastructure, and services in urban areas

which are essential ingredients of modern sector development and economic activity. Furthermore, urban areas provide essential market and demand for rural production, and they are important sources of skills, services, innovation and investment that need to spread out to rural areas.

Despite their central position in the economy, urban areas in Ethiopia, however, are characterized by growing unemployment and income inequality. Guracello and Rosati (2007:1) insist that failure to respond timely to create employment opportunities for the growing labor force, particularly for the youth, persists intergenerational cycles of poverty, which could reinforce the already existing and not well addressed problems of HIV/AIDS and food insecurity.

However, recognizing the growing urban unemployment and poverty, the government has taken several measures and is still striving to address the problem, placing it at the center of the development agendas of the country. As stated in MoFED (2005:161-62), the commitment of the government to address the problem can, among other things, be witnessed by the establishment of the Ministry of Work and Urban Development and the approval of the National Urban Development Policy in 2005. Major on-going programs of urban government reform and public investments in various sectors are among the deliberate and integrated efforts so as to address urban unemployment.

Regardless of the reasonably improving performance of the economy over the past six years coupled with the deliberate policy measures and efforts, however, some argue that the problem of unemployment in urban Ethiopia is still worrying. Although there are some empirical studies conducted on urban unemployment in Ethiopia; yet most of them relied on data on or before 2001. Given the very dynamic nature of urban areas on the one hand, and the inadequacy and limitation of data, on the other hand, some of the studies conducted so far might relatively be too old to show the recent changes in the labor market.

Furthermore, the government has recently been claiming that there has been an encouraging achievement in creating employment opportunities, particularly for the urban youth through its special programs such as Urban

Housing Development program and development of micro and small enterprises (MSEs). Hence, this could be an inviting research area for those who are interested to study the challenges and prospects of employment in Ethiopia and to evaluate whether or not the government's intervention has achieved the desired outcome.

For now, given the existing timely and reliable data constraints, the general objective of this study is to examine the overall characteristics and determinants of urban labor market outcomes, particularly to see how socio-demographic characteristics affect unemployment status in urban Ethiopia with a special emphasis on Addis Ababa.

The specific objectives include:

- To observe the effects of variations in socio-demographic characteristics on activity status of individuals in Addis Ababa;
- To estimate the city's labor market outcomes, particularly the rates of participation, employment-to-population ratios and unemployment rates;
- To forward some policy implications meant to address the issue of urban unemployment.

To this end, the study used data taken from the Central Statistical Authority's National Labor Force Surveys of 1999 and 2005. The remaining part of the study is presented in four sections. The second section reviews theoretical and empirical literature while the third one describes the data and methodology of the study. The fourth section discusses the findings of the study, and finally the fifth section concludes and sets forth some recommendations.

Literature Review

The Concept and Definition of Unemployment and Related Terms

From the human element point of view, unemployment refers to the presence of individuals in the labor forces who are currently without work but are available and actively looking for work. The unemployment rate is the proportion of the economically active population that is not employed (Henderson & Poole 1991:715; ILO 1999b, cited in Ghai 2003: 117, EEA 2007: 255; and Sapsford & Tzannatos 1993:385). The basis for the common definition of unemployment, as cited in many related literature, is the ILO Resolution concerning statistics of the economically active population, employment and unemployment, adopted by the Thirteenth International Conference of Labor Statisticians (13th ICL) (ILO 1982).

ILO's standard definition of unemployment, as stated in CSA (2006:43), requires three criteria to be satisfied simultaneously. Accordingly, the "unemployed" comprise all persons above the age specified for measuring the economically active population who during the reference period were: (a) "without work", i.e. neither in paid employment nor self-employed; (b) "currently available for work", i.e. given the opportunity, a person would be ready and able to work; and (c) "seeking work", i.e. had taken specific steps in a specified reference period to seeking paid employment or self-employment.

The "without work" criterion draws the distinction between employment and non employment; and, hence, should be interpreted as total lack of work or, more precisely, as not having been employed during the reference period. The purpose of the "availability" criterion is to exclude those who are not ready, or who cannot (or do not want to) take up work during the reference period. Therefore, a person without work should also be available for work during the reference period if he/she is to be treated as unemployed. The "seeking work" criterion can be interpreted as having taken specific steps or efforts such as registration with labor exchanges,

sending applications, attending vacancies through different media, and so forth undertaken during the reference period or prior to it in order to find paid employment or self employment. Seeking work covers any type of work considered as an economic activity by the international standards.

A distinction is sometimes made between voluntary and involuntary unemployment. It follows that merely joblessness per se cannot qualify a person to be counted officially as an unemployed. If a person without a job is neither available and nor willing to be employed at the going wage rate, he is considered as voluntarily unemployed as he has dissociated himself from the labor force. According to Sapsford & Tzannatos (1993), voluntary unemployment refers to those who are thought to be capable of taking a job but prefer to remain unemployed, perhaps to search for a better-paid or otherwise more desirable job than those currently on offer. On the other hand, if the wage rate in a particular labor market is for some reason above the market-clearing level, there will be an excess of labor supply over labor demand, and the workers furnishing this excess supply are said to be involuntarily unemployed, because they are seeking but unable to be employed at the going wages (Sapsford & Tzannatos, 1993; Bosworth *et al.*, 1996, as cited in EEA/EEPRI, 2007). In practice, however, it is usually argued that the distinction between voluntary and involuntary unemployment is hard to draw.

Employment, as per the ILO's standard definition, refers to paid employment and self-employment. Paid employment covers persons who during the reference period performed some work for wage or salary, in cash or in kind as well as persons with a formal attachment to their job but temporarily not at work. Self employment covers persons who during the reference period performed some work for profit or family gain, in cash or in kind, and persons with an enterprise but temporarily not at work. The employment rate is, thus, the proportion of the labor force that is employed.

The Economically Active Population or simply the Labor Force comprises all persons of either sex above the age specified who fulfill the requirements for inclusion among the employed or the unemployed. Conventionally, those in the working age population, either working or actively searching

for work, constitute the total labor force and hence the maximum labor supply of the economy in terms of head counts (EEA/EEPRI, 2007; Henderson & Poole, 1991). On the other hand, *Population Not Economically Active or Not in the Labor Force* refers to all persons, irrespective of age, including those below the age specified for measuring the economically active population, who were neither working nor at the same time seeking and available for work during the reference period. The persons under this category include students, those engaged in domestic/household duties, pensioners, recipients of remittances, infirm or disabled, too young or too old, etc.

The working age population refers to all persons above the age set by countries (usually above 15 or 16 years) for the measurement of economic characteristics. *Activity Status* indicates the position of individuals separated based on their economic activity. Those who are in the working age range are categorized in to three mutually exclusive categories: the employed, the unemployed, and the inactive. *Participation rate, also known as Economic activity rate*, is an analytical concept that relates the labor force to the working-age population. It is defined as the ratio of the labor force to the total working age population (EEA, 2007:133). *Employment-to-Population Ratio* measures the proportion of the working age population that is employed. One of its advantages is that it gives information both on the number and proportion of all categories of workers in the working-age population engaged in productive activities. However, it does not provide information on hours spent on work and on the quality of jobs (Ghai 2003:116).

In the field of Economics, distinction is often made among the various types and states of unemployment. As Henderson & Poole (1991:717) argued, unemployment may arise for a number of reasons; and, hence, identifying the different causes is important so as to treat the problem effectively. Although there are various types of unemployment categories, only the four most frequently stated classifications are briefly described below as reviewed from different sources (EEA 2007:256-9; Henderson & Poole 1991:717-8; Sapsford & Tzannatos 1993:386-7; and Wikipedia.com). *Cyclical / Demand deficient / Keynesian unemployment* arises from the business cycle as a result of insufficient aggregate demand; and thus its cure

lies in policies that succeed in increasing the level of aggregate demand. *Frictional /Search unemployment* is transitional unemployment that occurs because a person may take time to find a new job after losing or quitting a job, or after entering or re-entering the labor force. It usually occurs due to imperfect information in the labor market. *Structural unemployment* refers to a mismatch between job vacancies and the supply of labor available. It is caused by long-run changes in the structure of the economy. Because structural unemployment lasts longer, demand management instruments alone cannot be effective remedies to the problem. Rather, facilitation and implementation of training programs, subsidization of mobility of workers are also required. *Seasonal unemployment* arises as employment condition changes over the season of the year. It may be related to both supply side and demand side seasonality.

Costs and Consequences of Unemployment

Higher unemployment is one of the most serious macroeconomic problems that directly and indirectly affect a society. It is due to this fact that unemployment is becoming a frequent topic of political debate and that politicians often claim that their proposed policies would help create jobs (Mankiw, 2001:155). Unemployment has social as well as economic consequences and entails some cost to the unemployed person, to the family of the unemployed and the society at large (ECA, 2005:168; Getnet, 2003:10). The problem gets worse among the youth and, particularly in developing countries where social security and unemployment benefits are poor or nonexistent. In the economics literature, a distinction is sometimes made among the possible adverse effects of unemployment in terms of economic, social and even political costs, albeit they are not mutually exclusive. Therefore, in the subsequent discussion, an attempt is made to identify some of the economic and social costs of unemployment.

The economic cost of unemployment, as ECA (2005:168) and Getnet (2003:10) noted, can be viewed in terms of the forgone output that the unemployed scarce resource could have produced. Consequently, high level of unemployment entails lost revenue to the government in terms of direct

and indirect taxes and other revenue that it would have raised had more people been working. Because most of the unemployed people face with lack of financial resources and social responsibilities, they may unwillingly decide to take jobs that do not fit their skills; leading to underemployment which in turn results in the lowering of the economy's efficiency (Wikipedia.com). Besides, during a long period of unemployment, workers can lose their skills; causing a loss of human capital to the nation at large. In this regard, it is worth noting the argument of the famous economist (Stiglitz, 2002:17) in explaining how excessive unemployment aggravated poverty and further resulted in job destruction through the vicious cycle effect in Russia in the 1990s. It is for this reason that the incidence of high unemployment is said to have an adverse economic consequence not only to the unemployed individuals themselves and the immediate family, but also to the society that fails to efficiently utilize its scarce resources.

From the social point of view, higher level of unemployment in general and youth unemployment in particular has adverse social consequences. The longer the duration of unemployment is, the more the resulting problem will be. It is often argued that unemployment increases individuals' vulnerability to malnutrition, illness, mental stress, loss of self-esteem, and leads to depression. Hence, as the economics literature argues, unemployment can be regarded as an element of a vicious circle with poverty, low education, poor health, and social and political marginality.

Young people, particularly those experiencing long period of unemployment, are likely to have unstable personal relationships, postpone marriage, and/or put off accepting responsibility for children. In attempting to overcome financial insecurity, unemployed young people tend to engage in illegal activities and antisocial behavior such as drug trafficking, violent crime or gang warfare and unsafe sex practices, which exacerbates the rate of spread of HIV/AIDS. Particularly, the problem is critical in sub Saharan Africa. The increasing annual medical cost of HIV/AIDS coupled with the high cost of crime prevention as well as the high cost of doing business has made the sub continent less attractive to foreign direct investment, which in turn hinders potential employment opportunities (ECA, 2005:168; Getnet, 2003:10; UN 2003:67).

Characteristics of Labor Markets and Unemployment in Ethiopia

According to USAID (2006:9), many poor countries have dualistic labor markets, in which a small fraction of workers have regular formal sector jobs; while a majority, especially women, work in the informal sector. Like many sub Saharan Africa countries, employment in Ethiopia is also characterized by a heavily segmented labor market situation. As EEA (2007:132) reported, it can be divided among different segments, with a considerable difference between formal and informal employment, private and public employment, wage and self-employment, urban and rural employment, and so on. Guracello & Rosati (2007:16-19) argued that open unemployment rate is generally lower in rural areas while it is larger in urban areas of the country. Although the subsistence agriculture is estimated to absorb more than 80 per cent of the total labor force, a significant proportion is argued to be underemployed. Furthermore, a substantial proportion of the population in urban areas, regardless of the higher unemployment and underemployment, is involved in the informal sector of the economy. As a result, they added, the overall open unemployment rate reported at a national level is often lower, and may imply a fairly overestimated employment-to-population ratio.

In fact, the official unemployment rate is sometimes criticized for overestimating effective labor utilization. Ghai (2003:118) has argued that the official unemployment rates, particularly in low-income countries, can give a seriously misleading picture of work opportunities. According to him, unlike the situation in rich countries, in most developing countries the unemployment rates are generally low; mainly because people in poor countries cannot afford to stay unemployed. Here, it is worth quoting the idea of the UN in its Report of the MDGs arguing how higher employment-to-population ratios could point to an abundance of low quality jobs.

> *The proportion of the working-age population that is employed is a good indicator of the ability of an economy to generate jobs. In most countries, that proportion is in the range of 55 per cent to 75 per cent. Nevertheless, employment-to-population ratios and poverty indicators can both be high because people must work to survive,*

> *regardless of the quality of their job. This is the case in sub-Saharan Africa, which has the second highest adult employment-to-population ratio among all regions (about 74 %), but the lowest levels of labor productivity. More than half of those employed in this region were among the extreme working poor, and more than three quarters of workers were engaged in vulnerable employment (UN, 2009:9).*

Ghai (2003:118-9) further insisted that in most low income countries, even if the labor force participation rates are high and the unemployment rates low, earnings are inadequate to support a minimum standard of living. He therefore argued that the proportion of the working population earning incomes below the poverty line could be a better indicator of employment opportunities relative to the aforementioned usual measures.

Causes and Determinants of Unemployment

According to the conventional economics explanation, slower economic growth arises from low economic activity and low investment rates. As a result, it is unable to generate enough additional job opportunities. Consequently, the economy enters a vicious cycle of low investment and low employment; thereby unemployment persists, which is a typical feature of many African economies.

A number of studies, such as Berhanu et al. 2005:26, Okojie 2003:6, UN 2003:61, and Getnet 2003:4, reported that both supply and demand factors are to blame for impacting unemployment and underemployment in developing countries. According to these studies, the supply side factors include demographic factors (such as rapid population growth & rural-urban migration), and education & training policies (such as inappropriate school curricula and poor quality education & training). On the other hand, the demand factors are mainly explained in terms of poor economic performance and hence low labor absorptive capacity as a result of low investment rate and small private sector.

Labor market outcomes vary among individuals pertaining to demographic, geographic, and other socio-economic variations. As Leibbrandt & Mlatsheni (2004:8) stated, the general situation of African labor markets, in

terms of location and age show that urban participation rates in comparison with rural are relatively low while unemployment rates are high. In addition, the proportion of urban youth unemployed is greater than that of adults; implying youth are worse off in urban areas with regard to employment.

Gender is one of the important factors responsible for variations in the position of individuals in the labor market. In a review of youth unemployment surveys in 97 countries, UN (2003:63) stated that females tend to be far more vulnerable to unemployment than males. In explaining the determinants of excessive youth unemployment rates in urban Ethiopia, Getnet (2003:12-13) also argued that the rapidly increasing labor supply and educational attainment are the most important in determining the position of the youth in the labor market. This author also notes that although it is not the most important factor,, rural-urban migration does have a role in the excessively high level of youth unemployment in urban areas.

Survey of Empirical Literature on Unemployment

There are quite a number of empirical studies that are conducted in relation to the different aspects of the labor market all over the world. However, an attempt is made to review only few of them that are assumed to be more relevant for this study focusing mainly on the supply side factors of the labor market.

Banerjee *et al.* (2007:31-33) attempted to study the reasons behind the sustained increased unemployment in South Africa since the transition in 1994. They employed a multinomial logit approach to see the factors that determine the employment status of workers controlling for gender, race, age, education, location (urban/rural) and whether the individual has held a job before. They found that Urban residents are more likely to be unemployed or in the formal sector, and less likely to be in the informal sector than are rural residents. In terms of race, Africans are more likely to be unemployed or in the informal sector than the other population groups, and less likely to be in the formal sector. With regard to education, those

with post-matric education are 11 percentage points less likely to be unemployed and 8 percentage points less likely to be in the informal sector. Individuals who have never before held a job are 35 percentage points more likely to be unemployed than are workers who have worked before.

Echebiri (2005:23-24) carried out an analysis of the causal influence of socio-economic variables on youth employment status in Umuahia town, Nigeria, using primary cross sectional data. His findings from a binary Logit model showed that Age of respondent was very significant and inversely related with the probability of being unemployed while marital status, years of formal education and job preference (wage employment) were found to be significant and positively related to unemployment.

In Ethiopia, some studies such as Guarcello & Rosati (2007), Berhanu *et al.* (2005), Getnet 2003, Serneels (2007) and Krishnan et al. (1998) have looked at different aspects of the labor market in general and the urban labor market in particular. Findings from these studies indicate that there is a very high level of unemployment in urban Ethiopia.

Guarcello & Rosati (2007:39-44), in their study aimed at examining the challenges of child labor and youth employment in Ethiopia, looked specifically at the labor market outcomes of young people and key factors influencing these outcomes by analyzing a set of youth employment indicators drawn primarily from the 2001 Ethiopia Labor Force Survey. The multinomial logit regression indicated that the probability of a girl being in employment is 14%–22% lower than that of a boy; but this gender bias in employment is lower for the less educated and for the most educated youth. The level of income or wealth as estimated by the expenditure dummy variables is significant for the less educated youth and the probability of employment decreases as the level of education increases. Furthermore, the local labor market condition (estimated by the regional adult employment ratio) is significant for all groups considered. An increase of 10 percentage points in the adult employment ratio generates an increase in the probability of finding employment by 10–25 percentage points. This effect is stronger for youth that never attended school and smaller for the other groups. Serneels (2007:174-175) examined the effects of individual characteristics on urban youth unemployment in Ethiopia using a Probit model. He found a

positive relationship between age and unemployment, implying that the relatively older young men are more likely to be unemployed. Education, especially junior and senior secondary level, has a positive effect on unemployment although tertiary education is insignificant indicating that having a university degree could no longer guarantee employment. Besides, ethnic origin has no significant influence while father's profession has strong effect on the probability of urban youth unemployment. In his descriptive analysis, he also reported that in 1994 urban Ethiopia has one of the highest unemployment rates in the world standing at 34 per cent of the male workforce and 50 per cent of men below 30 years of age. Moreover, Krishnan et al. (1998), using the first and third wave data of the EUSES, found urban unemployment for the 15 – 29 age group to be in excess of 50 per cent.

Furthermore, Getnet (2003:17-18), focusing on urban youth unemployment, reported that the unemployment rate between 1994 and 2000 has gone up for the teenage youth group while it has decreased for the adult youth group. Using multinomial logit, he analyzed the effects of some socio-demographic variables on the activity status of the youth. He found that relative to the 25–29 age group, the teenage and adult youth are more likely to be in NILF and female are more likely to be in NILF and casual/domestic activity than their counterparts. Furthermore, compared with married youth, singles are more likely to be in unemployment and casual/domestic work. With regard to educational attainment, those with just elementary level education are more likely to be in casual/domestic and self-employment types of activities as compared to those youth that have some type of tertiary level education. Those that completed secondary education are more likely to be unemployed and less likely to be in NILF.

Description of the Data and Methodology

Description of the Data

The study used only secondary type of data. The data were taken entirely from the 1999 and 2005 National Labor Force Surveys conducted in Ethiopia by the Central Statistical Agency (CSA). The 1999 and 2005 National Labor Force Surveys are unique in that they provide comprehensive national labor force data representing both urban and rural areas of all regions of the country. The Labor Force Survey is mainly aimed at providing information on the economic characteristics of the population aged 10 years and over. The two national surveys produced cross-sectional data on the activity status, employment, and unemployment situation as well as fairly detailed socio-demographic information.

Although the surveys encompassed all age groups, for the purpose of this study however, only those in the conventional working age population are considered. Hence from now on, through out this paper, the working-age population refers to those in the sample whose age is between 15 and 64 years, inclusive. Accordingly, for the descriptive statistics only 8387 individuals in 1999 and 18355 in 2005 were considered. In the same way, in the regression analysis, only 6378 individuals in 1999 and 11594 in 2005, which were economically active (in the labor force) and net of missing values, were included.

Method of Data Analysis and Specification of the Model

The relevant data were analyzed using two approaches. First, simple descriptive statistical analysis was employed to evaluate the activity status of the working age population and the local labor market outcomes by interacting them with various socio-demographic variables. In doing so, frequency distributions, cross-tabulations and ratios and /or percentages were extensively used. Secondly, to complement the descriptive statistics and examine the effects of socio-demographic characteristics on the probability of being unemployed, the Logit model was also employed. As is

often suggested in many econometric and related literature, to specify the relationship between a qualitative (dichotomous) dependent variable and a set of relevant explanatory variables, binary outcomes models are recommended to be appropriate (Wooldridge, 2002). The typical and widely used binary outcome models are the Logit and the Probit models. They specify different functional forms; and particularly, they differ in the specification of the distribution of the error term (Cameron and Trivedi, 2005).

Empirically however, either Logit or Probit can be used. There is often little difference between the predicted probabilities from Probit and Logit models. The difference is greatest in the tails where probabilities are close to 0 or 1. The difference is much less if interest lies only in marginal effects averaged over the sample rather than for each individual (Cameron and Trivedi, 2005 and Madala, 1992). Therefore, for the purpose of this study, the logit model was chosen to predict the probability of being unemployed, which is treated as a dichotomous dependent variable taking a value 1 if unemployed and 0 otherwise, given the values of the explanatory variables.

On the basis of the reviewed literature, it is assumed that the unemployment status of an individual (the probability of being unemployed) is significantly influenced by a number of socio-demographic variables. With this prior hypothesis, an attempt is made to summarize the explanatory variables to be included in the model and their expected functional relation with the dependent variable in Table A1 (Appendix A).

Discussion of Findings

The available literature suggests that labor market outcomes are generally determined by the supply and demand side factors of the labor market. Among the supply side factors, social and demographic variables are supposed to be the most important ones influencing the labor market outcomes of the working age population. Accordingly, this study hypothesized that socio-demographic characteristics, namely, age, gender, migration status, marital status, educational attainment and training status, are important determinants of the activity and unemployment statuses of individuals in Addis Ababa. Therefore, in line with the study objectives, an attempt is made to summarize the distributions of some selected socio-demographic characteristics and their relation with the relevant outcomes of the local labor market in 1999 and 2005. Furthermore, the socio-demographic variables are regressed to examine how their influence is statistically significant on the probability of being unemployed.

Socio-demographic Characteristics of the Target Population

In order to have a clear picture of the demographic and social characteristics of the target population, it would be appropriate to start with a brief description of the relevant socio-demographic characteristics in the two survey periods. As summarized in Table A2 (Appendix B), women constituted about 54.9 % and 54.2 % of the working age population in 1999 and 2005, respectively. Segregating the sample in to different age groups validates the existing situation of the country in general and of Addis Ababa, in particular, where the youth population dominates. The first three age groups (15 to 29 years), by which the youth population is defined in the Ethiopian context, constituted almost 59 % of the working age population in the sample.

In terms of marital status, only 32.9 % in 1999 and 33.4 % in 2005 of the working age population were married. With regard to migration status, out of the total working-age population, in 1999 about 8.8 % and in 2005 about 8.3 % of them were recently migrated who lived less than five years, of

which most of them have rural origin. Perhaps, such proportion of migrants in the city labor market may seem understated as compared to the seemingly large number of migrants flooding to the metropolis. However, when the early migrants who relatively lived longer (5-9 years) were added, the proportion of migrants rose to 20.44 % in 1999, and 17.45 % in 2005.

In terms of training status, the proportion of the working-age population that is trained is lower; and only about a fifth of the population has received some sort of training in both surveys, of which women were worse off relative to men. Regarding level of education, about 15 % of the working-age population in 1999 and 16 % in 2005 were illiterates; while about 38 % of them had only lower education ranging from non formal (basic) to junior level during the same period. Likewise, the proportion of the working age population categorized in the secondary level education (9 – 12 grades) was 36.3 % in 1999 and 33.5 % in 2005. Those with tertiary level education constitute relatively smaller proportion of the working age population, about 10.3 % in 1999 and 12.5 % in 2005.

Activity Status in Terms of Selected Socio-demographic Variables

In this study, the activity status of individuals is defined based on the completely relaxed definition of CSA, in which only the 'without work' and 'available for work' criteria are enough to consider a person as unemployed yet economically active. Among the working age population, the proportions of the employed, the unemployed, and not in the labor force (NILF) were 46.78 %, 29.36 % and 23.86 %, respectively in 1999 while they were 50.68 %, 23.49 %, and 25.83 %, in that order in 2005. When we examine the changes between 1999 and 2005, the proportion of the employed and the inactive increased nearly by 4 % and 2 %, whereas that of the unemployed went down by about 6 %. However, considerable variations were observed across gender, age, marital & migration statuses, and training & education levels. Therefore, in the following section an attempt is made to discuss these variations in terms of the relevant socio-demographic variables. The gender wise activity status clearly illustrates the disadvantaged position of women (Table 1). Despite their dominant position in the working age population, their proportion in the employed population

was only 42.2 % in 1999 and 44.1 % in 2005. On the other hand, their proportion in the unemployed and inactive population was disproportionately high. They constituted about 63.7 % in 1999 and 64.6 % in 2005 of the unemployed and 68.7 % in 1999 and 64.5 % in 2005 of the inactive (NILF). Yet again, a further look at the activity status within the domain of each sex group suggests a similar bias against females. For instance, out of the total working age population of females, only 36 % in 1999 and 41.2 % in 2005 were employed, which is significantly lower as compared to the 59.9 % and 61.8 % of their male counterparts in the same period. Such wide variation in the activity status between the two sexes could mainly be accounted for by the domestic work burden of females in the household and related cultural issues against them in general, and the poor access that they have to education and training in particular.

Table 1. Activity status by gender

Sex	Year	Employed		Unemployed		Inactive		Total (working age population)	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
Male	1999	2264 (57.7)	59.88	892 (36.27)	23.59	625 (31.27)	16.53	3781 (45.14)	100.0
	2005	5200 (55.9)	61.82	1528 (35.44)	18.16	1684 (35.51)	20.02	8412 (45.83)	100.0
Female	1999	1655 (42.23)	36.01	1567 (63.73)	34.09	1374 (68.73)	29.90	4596 (54.86)	100.0
	2005	4101 (44.09)	41.24	2784 (64.56)	28.0	3058 (64.49)	30.76	9943 (54.17)	100.0
Total	1999	3919 (100)	46.78	2459 (100)	29.36	1999 (100)	23.86	8377 (100)	100.0
	2005	9301 (100)	50.68	4312 (100)	23.49	4742 (100)	25.83	18355 (100)	100.0

Figures in parentheses are the proportion of the two sexes in each activity status.

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005.

Age wise, the 30-39 age group of the sample was found to have the highest employment rate; about 65 % in 1999 and 67.5 % in 2005 were employed. On the other hand, the 20-24 age group ranked first in the proportion of the unemployed, 42.75 % in 1999 and 33.2 % in 2005 (Appendix B, Table A3). With regard to the inactive proportion, the teenage group stood first as most of them in this age group were likely to be school attendants. Out of the total population in this age group, about 53.1 % in 1999 and 57.8 % in 2005 were not in the labor force, most probably due to the consistently increasing school enrollment ratio.

In terms of marital status, among those married individuals, 57.7 % in 1999 and 59.8 % in 2005 were employed, which is greater than that of the unmarried (41.4 and 46.1 %) in the same period. On the other hand, the proportion of those unemployed and inactive population was relatively smaller for those married individuals as compared to those who did not (Appendix B, Table A4).

In terms of migration, the proportion of the employed is relatively higher for migrants than for the non-migrants, about 10.6 % and 7.3 % difference in 1999 and 2005, respectively (Appendix B, Table A5). Conversely, the proportion of the unemployed is relatively greater for the non-migrants (about 4 to 5 percentage points higher) compared with the migrants in the same period. Perhaps, this might be because most of the recent migrants could have had weaker interaction with the non-migrants; they were less likely to stay unemployed and rather would tend to accept any kind of job, regardless of the wage rate and the quality.

Training and education is among the key factors in the supply side of the labor market that determines the activity status of individuals. Obviously, the survey results indicate the significant variations in the activity status of individuals due to their difference in training status. Among those who received training, about 68 % in 1999 and 70.1 % in 2005 were employed, which is considerably higher compared with the 42 % and 45.4 % of those who did not receive training in the same period. In the same way, they were also relatively in a better position with regard to the remaining two activity statuses (Appendix B, Table A6). The proportion of the unemployed and the

inactive for those who received training was relatively lower than for those who did not.

Similar to training, education also matters. However, the descriptive statistics indicates that the desirable impact of education on employment becomes meaningful only after a certain level of education, particularly above secondary school education. The proportion of the unemployed and the inactive seem to have almost an inverse relationship with the level of education. But, the proportion of the unemployed was disproportionately higher for those in the secondary education category, about 37 % in 1999 and 30.2 % in 2005 (Appendix B, Table A7). It is for those who had secured higher level of education that unemployment rate was significantly lower. This might be attributable to the poor quality of the education system that made individuals with only junior or secondary education and not received any training to be incapable of making jobs. Besides, it could also be because the available jobs require specialized training for which secondary school complete youth are not fit.

Participation, Employment-to-Population and Unemployment Rates

The labor market outcomes of an economy, with both supply of and demand for labor considered, can best be explained by these three basic indicators. The overall participation rates of Addis Ababa in 1999 and 2005 were 76.14% and 74.16%, respectively, which is in contrast to the increasing trend of the national average from 72 % in 1999 to 79 % in 2005. The declining trend may be considered, at least partially, as a good indicator of the increase in the school enrollment ratio of the city. The employment-to-population ratio of the city was 46.8 % in 1999 and 50.7 % in 2005, which is significantly lower as compared to the 80 % national average. On the other hand, the overall unemployment rate, as per the completely relaxed definition, was as high as 38.5 % in 1999 and 31.7 % in 2005, but with a promising declining trend. These three basic indicators of the labor market outcomes are summarized in terms of age, gender, education level and training status (Appendix B, Tables A8, A9, and A10). Age wise, the two age groups, the 25-29 and 30-39, experienced the highest participation rates (above 90 %) in both survey years. On the other hand, the teenagers' activity rate was the lowest, only 46.9 % in 1999 and 42.2 % in 2005 were active,

for most of them are likely to be school attendants. Regarding the employment-to-population ratios, only those in the 30-39 age group were found to enjoy relatively higher ratios, 65 % in 1999 and 67.2 % in 2005. Looking at the changes between the two periods, however, the increase in the rate of employment among the youth population was encouraging. The unemployment rate was disproportionately higher for the youth population in both survey years. In 1999, the rates of unemployment in the first three age groups (15-19, 20-24, and 25-29) were 51.8 %, 42.7 % and 39 %, respectively. Similarly, in 2005, it was 38 %, 41.5 %, and 32.3 %, in that order for the same age groups.

Gender wise, the participation rates for females were relatively lower as compared to their male counterparts in both periods (Table 2). It was 70.1 % for women compared to 83.5 % for men in 1999 and 69.2 % compared to 79.8 % for men in 2005. There is a large difference in the employment to population ratio between the two sexes. Again, females' employment to population ratio was found to be disproportionately lower in both periods. It was only 36 % in 1999 and 41.2 % in 2005 as compared to 59.9 and 61.8 % for males during the same periods. Conversely, the unemployment rate was excessively high for women. It was 48.6 % in 1999 and 40.4 % in 2005 for women while it was 28.26 % in 1999 and 22.7 % in 2005 for men. The possible reasons for such wider variations, among other things, could be the lower level of women's education & training and discrimination against hiring of women by employers.

Table 2. Participation, employment to population, and unemployment rates by gender

Indicators	1999			2005		
	Male	Female	Total	Male	Female	Total
Participation rates (%)	83.47	70.10	76.14	79.78	69.24	74.16
Employment-to-population Ratios (%)	59.88	36.01	46.78	61.82	41.24	50.67
Unemployment rates (%)	28.26	48.63	38.55	22.71	40.43	31.67

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005

In terms of education, it was generally higher for those with lower levels of education and relatively lower for those with higher levels of education. Those with secondary school education levels were found to be the most unemployed (about 48.2 % in 1999 and 39.9 % in 2005), followed by those with junior level or less education levels (38.4 % in 1999 and 30.15 % in 2005). On the other hand, for those with certificate/ diploma and degree/beyond, the unemployment rates were 21 % and 12.7 % in 1999 and 23.7 % and 6 % in 2005, respectively. Not surprisingly, the unemployment rates for the illiterate group were relatively lower than for the secondary and junior/below education groups in both survey periods.

With regard to training, despite the variations among the different types of training, it was generally found to have the desirable impact on unemployment. Considerable differences were observed in unemployment rates between those trained and untrained, 15 % in 1999 and 11 % in 2005. Hence, the differences in the unemployment rates between the two groups witnessed the unquestionable positive impact of training in reducing unemployment.

Econometric Analysis of the Determinants of Unemployment

So as to further examine the effects of the selected socio-demographic variables on the probability of being unemployed, the study made use of a binary Logit model supported by STATA version 10 statistical software. The direction of the change in the probability of being unemployed vis-à-vis the change in the explanatory variables is explained by the sign of the marginal effects and/or the regression coefficients. As can be seen from the regression result (Table 3), among the ten explanatory variables included in the model, seven of them in the 1999 sample and about nine of them in the 2005 sample were found to be statistically significant. The results obtained were more or less similar to other studies that looked in to the characteristics of individuals to explain labor market outcomes. Furthermore, the regression result supports the story that the descriptive statistics put in the previous section. A simple test made to see whether there is correlation among the explanatory variables proved that there is no as such a serious problem observed. In addition, the problem of heteroskedasticity was addressed by using robust standard errors estimation. The discussions of the regression results are briefly presented as follows.

Sex (male): Undoubtedly, gender difference was found to be an important explanatory factor the unemployment status of individuals. Sex was statistically significant at 1 % level of significance in both the 1999 and 2005 samples. Holding the influence of other factors constant, the implied marginal effects in the two survey periods showed that a male was about 21.4 % in 1999 and about 17.7 % in 2005 less likely to be unemployed than a female. The negative sign of the coefficients and /or the marginal effects in the two survey years support the observed gender wise differences explained in terms of various labor outcomes in the descriptive section. Indeed, the result is in line with a priori expectation and with earlier related studies such as Guarcello & Rosati (2007), Berhanu *et al.* (2005), Kolev (2005), UN (2003), and Krishnan *et al* (1998). However, it differs from Leibbrandt & Mlatsheni (2004) who argued that the participation and unemployment rates between young women and men are fairly similar in urban labor markets. It also contradicts with the finding reported by Getinet

(2003), who argued that females are less likely to be in the unemployment than males in the 1994 data set.

MARS (married): Although it is statistically less significant in the 1999 data, it is highly significant in 2005. The estimated marginal effects imply that compared with singles/divorced, married persons were about 2.2 % and 3.2 % less likely to be unemployed in 1999 and 2005, respectively. Its negative association with the dependent variable implies that, the more married people in the sample the lower the level of unemployment. The reason is straightforward: married people would relatively be more responsible for their household and strive to earn to finance the basic needs of their family. Hence, unlike singles, married people are less likely to be choosy and to wait for the desired 'better job'. The result is in agreement with the findings of Getinet (2003) and Krishnan *et al* (1998).

Age: Age was also found to be negatively related with the probability of being unemployed, implying the youth are more exposed to unemployment than adults. It was statistically significant at 1% level of significance in both survey periods. The result is strongly supported by the descriptive data and agrees with earlier empirical studies. More specifically, it is similar to the findings of Kolev (2005), Getnet (2003), and Echebiri (2005).

Migration status: In this study, migration status was explained by dummies representing the duration of continuous residence (DCR) in the study area (Addis Ababa). The first dummy (DCR1) denotes the relatively new migrants to the city who lived less than five years (< 5 years). The other one (DCR2) represents those migrants who stayed relatively longer (5 – 9 years). Those who lived ten years and above were treated as non-migrants and thus included in the reference dummy with the natives who lived since birth. As the regression result indicated, both DCR1 and DCR2 were inversely related to the dependent variable and statistically significant at 1 % level of significance in both survey periods. The resulting marginal effects imply that a newly migrated person was about 16 % in 1999 and 6.4 % in 2005 less likely to be unemployed than a non-migrant. Similarly, the probability of being unemployed for a migrant who relatively lived longer (5–9 years) was lower by about 6.7 % in 1999 and 8.4 % in 2005 than a non-migrant.

The unexpected negative relation between migration and unemployment might be attributed to the substantial proportion of females (almost 2/3), most of whom were illiterate or had had at most junior education. Given the city's relatively higher demand for domestic and casual labor, the female migrants were more likely to be employed as domestic workers in residential houses and in small restaurants or cafes, for which the non-migrants were less interested. Hence, due to their poor educational level and relatively weak social link that they would have with the non-migrants, especially the recent migrants were less choosy and tend to accept whatever kind of job (even those often perceived as 'bad' jobs by the natives) to win their daily bread. This result is consistent with an earlier finding by Krishna (2001) cited in Getnet(2003:13). It is also consistent with the findings of Berhanu et al. (2005:33), in which a migrant is said to have relatively more chance to be employed than a non-migrant. However, the result was different from that reported by Cattaneo (2008:22), who argued that the difference between migrants and non-migrants is quite frail with regard to unemployment.

Education: Obviously, educational attainment is one of the important factors that best describes the position of individuals in the labor market. For the purpose of this study, educational attainment of individuals was categorized in to five and as a result four education dummies were included in the estimation. The first dummy (EDUC1) denoted the lower level of education, ranging from non-formal to at most junior education (1-8). The second one (EDUC2) was for secondary education, both old and new curricula for 2005, ranging from 9-12. The third dummy (EDUC3) captured above secondary education and below first degree i.e. certificate, diploma, and degree &/ or diploma not completed. EDUC4 represented first degree and beyond. The reference dummy represented the illiterate category.

The regression result indicated that, unlike the other covariates, the effect of education on unemployment greatly varied between the two periods. The first three education dummies were found to have direct relationship with the dependent variable in the 1999 data set. On the other hand, the regression result for the 2005 data suggests that all the four education dummies are negatively related to unemployment. In the 1999 data set,

EDUC1 was statistically significant at 1 % level of significance and the estimated marginal effect implies that, all else equal, a person in the lower level of education category (junior or below) is about 10.5 % more likely to be unemployed than an illiterate. Likewise, EDUC2 was statistically significant at 1 % level of significance. In 1999, individuals in the secondary education category were about 20.6 % more likely to be unemployed than those with no education at all, ceteris paribus. EDUC3 and EDUC4 were highly insignificant, except that the latter had an inverse relation with the dependent variable.

The higher incidence of unemployment for the first two education variables (EDUC1 and EDUC2) in 1999 could be attributed to the poor labor absorptive capacity of the economy at that time. More importantly, a mismatch between the type of education provided at the stated levels of education, which is highly theoretical and academic with no or limited practical skills, and the labor market demand could be the main possible factor for the excessive unemployment. The other reason probably is that those with secondary education consider themselves educated with the result that they tend to look down on self-employment in micro enterprises and choose to wait for white-collar jobs, which are hard to find. The 1999 result is more or less similar to earlier studies such as Getnet (2003), Berhanu *et al.* (2005), and Krishnan *et al* (1998).

Regarding the effects of the same education variables in 2005, interestingly they had all negative signs but with different statistical significance. EDUC1 was statistically significant at 10 % level of significance. The associated marginal effect implies that for individuals with education level ranging between non-formal and junior, the marginal probability of being unemployed declined by 13.4 % as compared to those illiterates. Similarly, EDUC3 was statistically significant at 10 % level and the implied marginal effect suggests that individuals with higher education involving diploma and certificate were about 11.8 % less likely to be unemployed than illiterates. EDUC4 was significant at 1 % level. The marginal probability of being unemployed was lower by about 24.5 % for those who had secured degree and above than those illiterates.

Table 3. Results of the estimated Binary Logit Model on the effects of the socio-demographic variables on unemployment in Addis Ababa (dependent variable: probability of being unemployed)

Variabls	1999					2005				
	Coef.	Roust Std.Err.	Z-ratio	P-value	Marginal effects	Coef.	Roust Std.Err.	Z-ratio	P-value	Marginal effects
SEX	-.9355	.0571	-16.39	0.000	-.214 ***	-.8329	.0421	-19.80	0.000	-.177 ***
MARS	-.0961	.0681	-1.41	0.158	-.022	-.1537	.0504	-3.05	0.002	-.032 ***
TRA	-.4900	.0879	-5.58	0.000	-.109 ***	-.4257	.0602	-7.07	0.000	-.087 ***
EDUC1	.4466	.0922	4.85	0.000	.105 ***	-.6506	.3405	-1.91	0.056	-.134 *
EDUC2	.8755	.0968	9.05	0.000	.206 ***	-.1864	.3407	-0.55	0.584	-.039
EDUC3	.0190	.1523	0.12	0.901	.004	-.6173	.3467	-1.78	0.075	-.118 *
EDUC4	-.0589	.2878	-0.20	0.838	-.014	-1.810	.4132	-4.38	0.000	-.245 ***
AGE	-.0243	.0035	-7.01	0.000	-.006 ***	-.1384	.0138	-10.05	0.000	-.029 ***
DCR1	-.7719	.1082	-7.13	0.000	-.160 ***	-.3211	.0877	-3.66	0.000	-.064 ***

Table 3... cont'd

DCR2	-.2993	.0842	-3.55	0.000	-.067 ***	-.4306	.0788	-5.46	0.000	-.084 ***
_cons	.4312	.1369	3.15	0.002		.8650	.3508	2.47	0.014	
Number of obs = 6378						Number of obs = 11594				
Wald chi2(10) = 594.76						Wald chi2(10) = 909.41				
Prob > chi2 = 0.0000						Prob > chi2 = 0.0000				
Pseudo R2 = 0.0900						Pseudo R2 = 0.0768				
Log pseudo likelihood = -3869.6084						Log pseudo likelihood = -6744.0509				

*** Significant at 1%; * significant at 10 %

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005

The observed radical change in the sign of the coefficients of the first three education dummies in 2005 relative to 1999 suggests that some basic changes might have occurred in the supply and/ or demand sides. In fact there have been undeniable changes in both demand and supply sides after 1999. On the supply side, a substantial increase in the enrollment ratio at all levels coupled with the expansion of TVET aimed at improving the excessively academic mode of education to skill oriented might contributed to the decline in unemployment. Besides, the government policy in favor of micro and small enterprises and the associated all encompassing support for the youth is supposed to have substantially stimulated self-employment of individuals with different level of education since the early 2000s. On the demand side, the recovery of the economy's performance following the end of the Ethio-Eritrea war and the increase in the rate of investment, especially the construction boom in the city can be some of the factors that are assumed to contribute to increased demand for labor.

Training: This is another strategy individuals adopt to improve their skills and grow professionally in order to adjust themselves to the market demand and thereby get rid of unemployment and even ensuring decent employment. As expected, it was found to have negative impact on unemployment. It was statistically significant at 1 % level of significance in both periods. The estimated marginal effects for the two survey years suggest that a person who had received some sort of training was 10.9 % and 8.7 % less likely to be unemployed in 1999 and 2005, respectively compared with a person who did not.

Conclusions and Recommendations

Conclusions

The gender and age wise distribution of the working age population by activity status indicates relatively higher proportions of women and the youth in the unemployed categories than their counterparts in both survey years. In terms of marital and migration status, the proportion of the unemployed is relatively lower among married and among migrants. Differences are also observed in activity statuses due to variations in education and training. Particularly, the proportions of the unemployed in all education levels except in the degree or above are greater or equal to that of the illiterate category. Training was found to have positive effects on employment status of individuals. In general, however, some encouraging improvements are observed in the activity status between the two periods, about 4 % increase in the proportion of the employed and about 6 % drop in the proportion of the unemployed.

In addition to the activity statuses, the three common indicators of the labor market outcomes were also assessed in terms of the stated socio-demographic variables. The overall participation rates were higher but declining, which has to do with the increase in the school enrollment ratio. The employment-to-population ratios were generally low in both periods but an increasing trend has been observed. Although declining, the

unemployment rates are incomparably high in both periods. In all the three indicators, age wise the youth and gender wise women were found to be disproportionately worse off in both survey periods. Particularly, the disadvantaged position of women can be accounted for by the relatively lower level of women's education and training as well as the existing socio-cultural influences and discrimination against hiring of women.

The unemployment rate was observed to be higher among those who attained some junior or secondary level of education. It was found to be lower than the illiterates only for those who attained some tertiary level of education. Unemployment rate was lower among those who have some sort of training than the untrained. The implication is that training, especially if demand-oriented, has strong positive effect on employment than simple academic education below tertiary level, ceteris paribus.

Consistent with the descriptive findings, the econometric analysis has also confirmed that sex and age are statistically significant and have negative relationship with the dependent variable, signifying the inherent problem of unemployment among women and the youth. Regarding migration status, in spite of the type of job, a migrant is more likely to be employed than a non-migrant. This result can be an indication of the obvious fact that there is unmet demand for domestic and casual labor in the city, a pull factor for the rural poor and marginalized youth, particularly women. Thus, given the existing push and pull factors from rural areas and the unmet labor demand in urban centers; the migrants' supply of labor would be mutually beneficial to both the urban as well as the rural communities. Nevertheless, the current rural-focused efforts of the government will have positive impact on reducing rural-urban migration, at least in the long run and also as evidenced by a 3 % drop between 1999 and 2005.

Education was found to have different impacts in the two survey years. In the 1999 data analysis, the first three education dummies had a positive sign while all of them were negatively related to the dependent variable in the 2005 data analysis. In fact, it would be erroneous to rashly conclude that education has no impact or may aggravate unemployment. Rather, it reminds us of the need for further research to carefully investigate the

factors that may contribute to the situation. On the other hand, the 2005 negative signs of the education dummies could be an indication of the improvement of the supply and demand factors in favor of reducing unemployment, although much is remaining.

Training was, unquestionably, found to have a negative impact on unemployment and to be statistically significant in both periods. The implication is that training could be an important strategy to reduce unemployment if expanded among the youth, particularly among those with only secondary or junior education who constitute the larger proportion of the unemployed in the city.

Recommendations

On the basis of the findings, an attempt has been made to put forward some policy implications and recommendations that are supposed to be relevant for policy design and formulation pertaining to the issue. The overall findings of the study indicate that the city's working-age population is characterized by a young age structure and also that women and the youth are, at any rate, the foremost victims of unemployment in any measures of the labor market outcomes. The implication is straightforward; these segments of the society need due emphasis and special treatment. Indeed, this study appreciates the so far efforts of the government through women and youth specific policies and strategies. Nevertheless, the outreach and impact of these programs and strategies are limited and should not by themselves be considered as panacea for the excessive unemployment prevailing in the city. Therefore, along with the existing endeavors:

- Market oriented further investment in special training and skill formation activities that run parallel with the broader education expansion efforts, is needed to improve the employment prospects of the less educated or uneducated youth in general and women in particular.
- The government should encourage the private sector to invest more in industries with high employment creation capacity

through joint venture with those requiring huge investment albeit highly labor intensive, such as the manufacturing and tourism sectors.

- Besides, incorporating entrepreneurship courses in the curricula, starting from lower levels, would help to encourage self employment and develop risk taking behavior of the youth.
- More integrated efforts needs to be exerted in promoting women related institutions and affirmative actions to enhance active participation and empowerment of women in the labor markets.

References

Banerjee, S., Galiani, J., Levinsohn, Z., McLaren, and Woolard, I. 2007. Why has Unemployment Risen in the New South Africa? Working Paper 13167, National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138 NBER Working Paper Series.

Bekele Hundie. 2003. The Role of Agriculture as a Buffer in Times of Crises. Paper prepared for the Roles of Agriculture International Conference 20-22 October, 2003 – Rome, Italy, Agricultural and Development Economics Division (ESA), Food and Agriculture Organization of the United Nations.

Bello, T. 2003. Attacking Unemployment Hurdles in the Fragile Economies of the Sub-Saharan Africa: The Experience of Nigeria. Paper Presented at The Economics For The Future – Conference; On The Occasion of The Celebration of 100 Years of Cambridge Economics, Cambridge, United Kingdom.

Berhanu Denu, Abraham Tekeste and Hannah van der Deijl. 2005. Employment Strategy Papers: Characteristics and Determinants of Youth Unemployment, Underemployment and Inadequate Employment in Ethiopia. Employment Policies Unit, Employment Strategy Department, International Labor Office, Geneva.

Brewer, L. 2004. Youth at Risk: The Role of Skills Development in Facilitating the Transition to Work. In Focus Program on Skills, Knowledge and Employability, International Labor Office, Geneva, Skills Working Paper No. 19.

Cameron, C. and Trivedi, P. 2005. Micro econometrics Methods and Applications. New York: Cambridge University Press.

Cattaneo, C. 2008, The Determinants of Actual Migration and the Role of Wages and Unemployment in Albania: An Empirical Analysis. *The European Journal of Comparative Economics,* 5.1: 3-32.

Central Statistical Agency. 2006. Report on the 2005 National Labor Force Survey. Statistical Bulletin, 365. Addis Ababa.

Daniel, P. 2006. Youth Labor Market in Burkina Faso: Recent Trends. SP Discussion Paper No. 0607, The World Bank.

Echebiri, R. 2005. Characteristics and Determinants of Urban Youth Unemployment in Umuahia, Nigeria: Implications for Rural Development and Alternative Labor Market Variables. Paper presented at ISSER/Cornell/World Bank Conference on "Shared Growth in Africa", 21-22 July, Accra, Ghana.

Economic Commission for Africa. 2005. Economic Report on Africa 2005 Meeting the Challenges of Unemployment and Poverty in Africa.

Ethiopian Economic Association. 2007, Report on the Ethiopian economy, Volume V 2005/06. Addis Ababa: Ethiopian Economic Association.

Fields, G. 2005. A Guide to Multi-sector Labor Market Models. Social Protection Unit, Human Development Network, The World Bank.

Fields, G. 2009. Segmented Labor Market Models in Developing Countries. ILR Collection, Articles and Chapters, ILR School, Cornell University.

Getinet Haile. 2003. The Incidence of Youth Unemployment in Urban Ethiopia. Paper presented at the 2nd EAF International Symposium on Contemporary Development Issues in Ethiopia, 11-13 July, Addis Ababa, Ethiopia.

Ghai, D. 2003. Decent Work: Concept and Indicators. *International Labor Review*, 142, 2: 113-145.

Guarcello, L. and Rosati, F. 2007. Child Labor and Youth Employment: Ethiopia Country Study. SP Discussion Paper No. 0704, The World Bank.

Gyimah-Brempong, K. 1990. Dualistic Development Models and Urban Unemployment in LDCs: Theory and Evidence from Tropical Africa. *Journal of Economic Development*, 15, 1.

Henderson, V. and Poole, W. 1991. Principles of Economics. D.C. Heath and Company.

ILO. 2009. Guide to the New Millennium Development Goals Employment Indicators, including the full set of Decent Work Indicators. International Labor Office, Employment Sector, Geneva.

ILO. 2004. Ethiopia Country Profile, Employment of People with Disabilities: The Impact of Legislation (East Africa). Prepared by the ILO InFocus Program on Skills, Knowledge and Employability in the framework of a project funded by Development Cooperation Ireland (DCI), International Labor Office, Geneva.

Kelly, G.M. 2000. Employment and Concepts of Work in the New Global Economy. *International Labor Review*, 139, 1: 5-32.

Kolev, A. 2005. Unemployment, Job Quality and Poverty: A case study of Bulgaria. *International Labor Review*, 144, 1: 85-114.

Kondylis, F. and Manacorda, M. 2006. Youth in the Labor Market and the Transition from School to Work in Tanzania. SP Discussion Paper No, 0606, The World Bank.

Krishnan, P., Tesfaye Gebreselassie and Dercon, S. 1998. The Urban Labor Market During Structural Adjustment: Ethiopia 1990–1997. WPS/98-9, Centre for the Study of African Economies, Institute of Economics and Statistics, University of Oxford.

Leibbrandt, M. and Mlatsheni, C. 2004. Youth in Sub-Saharan Labor Markets. Paper for the DPRU/TIPS Conference: "African Development and Poverty reduction: The Macro-micro linkage", Southern Africa Labor and Development Research Unit, University of Cape Town, South Africa.

Madala, G. 1992. Introduction to Econometrics, Second Edition. USA: Macmillan Publishing Company.

Mankiw, G. 2001. Macroeconomics, 5th Edition. USA: Worth Publishers. Ministry of Youth, Sport and Culture (MoYSC). 2004. The Federal Democratic Republic of Ethiopia National Youth Policy, Addis Ababa, Ethiopia.

MoFED. 2006. Ethiopia: Building on Progress A Plan for Accelerated and Sustained Development to End Poverty (2005/06-2009/10), Volume I: Main Text, Ministry of Finance and Economic Development (MoFED), Addis Ababa.

O'Higgins, N. 1997. The Challenge of Youth Unemployment, Action Program on Youth Unemployment, Employment and Training Department, International Labor Office, Geneva.

O'Higgins, N. 2003. Trends in the Youth Labor Market in Developing and Transition Countries, Social Protection Discussion Paper Series, No. 0321, Social Protection Unit, Human Development Network, The World Bank.

Okojie, C. 2003. Employment Creation for Youth in Africa: The Gender Dimension. Department of Economics and Statistics, University of Benin, Nigeria; Expert Group Meeting on Jobs for Youth: National Strategies for Employment Promotion,15-16 January 2003, Geneva, Switzerland.

Sapsford, D. and Tzannatos, Z. 1993. The Economics of the Labor Market. England: The Macmillan Press.

Serneels, P. 2007. The Nature of Unemployment among Young Men in Urban Ethiopia. *Review of Development Economics*, 11, 1:170-186.

Stiglitz, J. 2002. Employment, social justice and societal well-being. *International Labor Review*, 141, 1: 9-29.

United Nations. 2009. The Millennium Development Goals Report 2009. New York United Nations.

United Nations. 2003. World YOUTH Report 2003: The Global Situation of Young People. Department of Economic and Social Affairs, United Nations.

United States Agency for International Development (USAID). 2006. Developing Country Labor Market Adjustments to Trade Reform: An Overview and Resource Guide, Nathan Associates Inc.Wikipedia.com, the free encyclopedia. Retrieved 16 May 2010 from http:// www.wikipedia.org/ .

Wooldridge, J. 2002. Econometric Analysis of Cross Section and Panel Data. Cambridge, Massachusetts: The MIT Press.

World Bank. 2005. Well-Being and Poverty in Ethiopia: The Role of Agriculture and Agency, Poverty Reduction and Economic Management 2 (AFTP2), Country Department for Ethiopia, Africa Region, Report No. 29468-ET, Document of the World Bank. .2006. Development and The Next Generation. World Development Report, Washington DC, The World Bank.

Appendices

Appendix A

Table A1. Summary of specification of the explanatory variables

	Variable	Definition	Specification	Expected Sign
1	Sex	Gender of the individual	A dummy variable: 1= male; 0= female	Negative
2	Age	Age of the individual	Continuous variable: Age in years from birth	Negative
3	MARS	Marital status of the individual	A dummy variable: 1=married; 0=otherwise	Negative
4	TRA	Training status of individual	A dummy variable:1=training received; 0=otherwise	Negative
5	Migration status	Individual's year of continuous residence in the city	Three Dummies, the reference being those lived since birth and above 9 years	
5.1	DCR1	Duration of continuous residence (migrated recently)	A dummy variable: 1= recent migrant (0-4 years); 0= otherwise	Positive
5.2	DCR2	Duration of continuous residence (migrated earlier)	A dummy variable: 1= early migrant (5-9 years); 0=otherwise	Indeterminate
6	Education Categories	Highest educational attainment of individual	Five Dummies with illiterate the reference category	
6.1	EDUC1	Education category ranging from basic to junior level	A dummy variable: 1=basic to Junior level; 0=otherwise	Negative
6.2	EDUC2	Secondary education ranging from 9-12 grade	A dummy variable: 1= secondary education; 0= otherwise	Negative
6.3	EDUC3	Higher education category ranging from Certificate to Diploma level	A dummy variable: 1=Certificate to Diploma; 0=otherwise	Negative
6.4	EDUC4	Higher education category; Degree and above	A dummy variable; 1= Degree and above 0=otherwise	Negative

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005

Appendix B

Table A2. Distribution of the socio-demographic characteristics of the target population

		1999		2005	
	Indicators	Freq.	percent	Freq.	Percent
1	Gender				
	Male	4603	54.88	9943	54.17
	Female	3784	45.12	8412	45.83
2	Age Category				
	15 - 19	1974	3.54	3930	21.41
	20 - 24	1690	20.35	3725	20.29
	25 - 29	1316	15.69	3126	17.04
	30 - 39	1519	18.11	3457	18.83
	40 - 64	1888	22.51	4117	22.43
3	Marital status				
	Married	2759	32.9	6135	33.42
	Unmarried	5628	67.1	12220	66.58
4	Migration status				
	Recent migrant (≤4 years)	739	8.81	1512	8.31
	Early migrant (5-9 years)	975	11.63	1678	9.14
	Non-migrant	6673	79.56	15151	82.55
5	Training status				
	Training received	1527	18.21	3880	21.14
	Training not received	6860	81.79	14475	78.86
6	Education level				
	Illiterate category	1250	15.02	2936	16
	Basic to Junior	3175	37.86	6983	38.04
	Secondary (9 – 12)	3089	36.83	6141	33.46
	Certificate to Diploma	700	8.35	1924	10.48
	Degree and above	163	1.94	371	2.02

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005

Table A3. Activity status by age group

Activity status	Age category												
	15 - 19			20 - 24		25 - 29		30 - 39	40 - 64			Total	
	1999		2005	1999	2005	1999	2005	1999	2005	1999	2005	1999	2005
Employed	Freq.	446	1028	675	1743	738	1875	986	2335	1074	2320	3919	9301
	%	22,62	26.16	39.96	46.79	56.16	59.98	65.0	67.54	56.98	56.35	46.78	50.67
Unemployed	Freq.	479	631	722	1237	471	941	396	787	391	716	2459	4312
	%	24.29	16.05	42.75	33.21	35,84	30.10	26.10	22.77	20.74	17.39	29.36	23.49
Inactive	Freq.	1047	2271	292	745	105	310	135	335	420	1081	1999	4742
	%	53.09	57.79	17.29	20.0	8.0	9.92	8.90	9.69	22.28	26.26	23.86	25.84
Total	Freq.	1972	3930	1689	3725	1314	3126	1517	3457	1885	4117	8377	18355
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005

Table A4. Activity status in terms of marital status

Activity Status		Marital Status			
		Married		Not married	
		1999	2005	1999	2005
Employed	Freq.	1593	3669	2330	5632
	%	57.74	59.80	41.40	46.09
Unemployed	Freq	706	1400	1759	2912
	%	25.59	22.82	31.25	23.83
Inactive (Not in the labor force)	Freq	460	1066	1539	3676
	%	16.67	17.38	27.35	30.08
Total	Freq	2759	6135	5628	12220
	%	100.0	100.0	100.0	100.0

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005

Table A5. Activity status in terms of migration status

Migration status		Employed		Unemployed		Inactive (NILF)	
		1999	2005	1999	2005	1999	2005
Migrants	Freq.	946	1818	439	652	329	734
	%	55.2	56.75	25.6	20.35	19.2	22.9
Non-migrants	Freq.	2973	7483	2020	3660	1672	4008
	%	44.6	49.4	30.3	24.15	25.1	26.45

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005

Table A6. Activity status in terms of training status

Training Status	Year	Employed		unemployed		Inactive		Total	
		Freq	%	Freq.	%	Freq.	%	Freq.	%
Training received	1999	1038	68.02	381	24.97	107	7.01	1526	100.0
	2005	2722	70.15	848	21.86	310	7.99	3880	100.0
Training not received	1999	2881	42.05	2078	30.33	1892	27.62	6851	100.0
	2005	6579	45.45	3464	23.93	4432	30.62	14,475	100.0
Total	1999 2005	3919 9301		2459 4312		1999 4742		8387 18,355	

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005

Table A7. Activity status by education level

Education Category	Year	Employed		Unemployed		Inactive		Total	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
Illiterate	1999	642	51.36	278	22.24	330	26.40	1250	100.0
	2005	1505	51.26	566	19.28	865	29.46	2936	100.0
Junior and below, including basic education	1999	1424	44.85	888	27.97	863	27.18	3175	100.0
	2005	3445	49.34	1487	21.29	2051	29.37	6983	100.0
Secondary (9 – 12 grade)	1999	1227	39.72	1143	37.0	719	23.28	3089	100.0
	2005	2798	45.56	1858	30.26	1485	24.18	6141	100.0
Certificate & Diploma	1999	489	69.86	130	18.57	81	11,57	700	100.0
	2005	1224	63.62	380	19.75	320	11.63	1924	100.0
Degree and above	1999	137	84.05	20	12.27	6	3.68	163	100.0
	2005	329	88.68	21	5.66	21	5.66	371	100.0
Total	1999	3919		2459		1999		8377	
	2005	9301		4312		4742		18355	

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005

Table A8. Age wise participation rate, employment to population ratio, and unemployment rate

No.	Indicators		Age category					
			15- 19	20 – 24	25 - 29	30 - 39	40 - 64	Total
1	Participation rate (%)	1999	46.91	82.71	92.01	91.10	77.72	76.14
		2005	42.21	80.0	93.28	90.31	71.31	74.16
2	Employment-to-population Ratio (%)	1999	22.62	39.96	56.16	65.0	56.98	46.78
		2005	26.16	46.8	59.98	67.25	56.59	50.67
3	Unemployment rate (%)	1999	51.78	42.75	38.96	28.65	26.69	38.55
		2005	38.03	41.51	32.27	25.21	24.39	31.67

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005

Table A9. Unemployment rates by level of education

Education Category	Unemployment Rates (%)	
	1999	2005
Illiterate	30.22	27.33
Junior and below, including basic education	38.41	30.15
Secondary level (9 – 12 grades)	48.23	39.90
Certificate & Diploma level	21.0	23.69
Degree and above	12.74	6.0

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005

Table A10. Unemployment rates by training status and type of training

Types of Training	Unemployment Rates (%)	
	1999	2005
Health related	12.50	16.0
Social sciences, business related	15.79	19.34
Engineering & technology related	32.03	29.69
Natural sciences and teaching related	11.11	12.94
Technical & vocational related	32.88	25.84
Law, Police and Military related	22.03	11.40
Total Those who received Training	26.85	23.75
No training received	41.90	34.50

Source: Compiled from National Labor Force Survey of CSA, 1999 and 2005