

**WORK PARTICIPATION IN ETHIOPIA: TRENDS,
PATTERNS AND DETERMINANTS**

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Declaration

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Dedicated to
My mother Askale Reda Gebru

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CHAPTER ONE

INTRODUCTION

1.1. BACKGROUND AND STATEMENT OF THE PROBLEM

Ethiopia is one of the poorest countries in the world and its economy is among the most vulnerable in sub-Saharan Africa with per capita of only US\$100. About 45 per cent of the country's GDP originates from agriculture, which has suffered from recurrent droughts and extreme fluctuations of output. Small farm households depend for their survival on agricultural production (Mulat and et.al, 2006).

Over the past decade however Ethiopia has made significant progress on a number of fronts. The economy recovered strongly following a severe drought in 2002/03 yet overall performance remains sluggish, even in the more dynamic urban sectors. Rural productivity is particularly low in agriculture, where 80 percent of the labour force works yet only 45 percent of GDP is generated (Bigsten, et al. 2003. Moreover, agriculture has not been a dynamic source of rural job creation and its low productivity is associated with persistent poverty in rural areas and the growing attractiveness of towns and cities. While performing better than agriculture the secondary and tertiary sectors contribution to total growth were only about 60 percent, much less than the African average of about 80 percent.

Although the economy of Ethiopia achieved modest growth recently, the result of that growth has not translated into poverty reduction. And a primary reason for that was that the rate of employment growth compared to output growth was rather low.

According to World Bank report, the employment rate remained steady at around 55 percent with some underlying changes. Similarly, participation rates in Ethiopia remained stable at around 65percent, with rises for women offset by declines for men (World Bank, 2007).

According to CSA (2005), in terms of activity rate, total activity rate appears to follow an increasing trend during the last five years; however, rural activity rate increment is higher than the counterparts. According to the 1994 Population and Housing census result, activity rate of urban Ethiopia reveals the lowest as compared to other surveys i.e., 50%, 66%, 58%, 55.2%,and 63.2 for 1994, 1999,2003, 2004 and 2005 respectively . That is to say that there is an increasing trend of activity rate during the last 10 years. However, according to the latest population and housing census report conducted in 2007, activity rate appears to shows a declining trend for the country as well as for both urban and rural areas comparing to the previous surveys and even with the earlier 1994 census (CSA, 2008).

Looking at the employment profile of Ethiopia in terms of employment to population ratio the country has registered 76.7 percent. This means about 77.0 percent of the total population of the country aged 10 years and above were working during the reference period. The employment to population ratio (male) is 84.7 percent, which is substantially higher than the ratio for females (69 percent). The proportion employed in rural areas (82 percent) is substantially higher than urban areas (50.2 percent). The illiterate had higher working population (81.4 percent) as compared to literate population (68.7 percent), (CSA, 2005).

In terms of sector, government is the most skill intensive sector. Services, both public and private, have been driving net employment creation in urban areas, with strong growth in the “public administration” and “other household

services". Manufacturing has continued to add jobs, albeit at a reduced pace in the last five years. Within the services category financial services grew spectacularly (by more than 300 percent) since 1994, though from a very low base (World Bank, 2007).

Looking at the change and composition of employment between the two censuses (1994 and 2007) as well as between the two labour force surveys (1999 and 2005) there is no as such significant shift. Urban employment is still dominated by self-employment, with government employees a distant second, followed closely by private organizations. While in rural areas agriculture/unpaid family workers are the dominant. In terms of industry, agriculture, hunting and fishing is the dominant in rural while in urban areas service sector (those in whole sale and retail trade). While in terms of occupational distribution, skilled agriculture and fishery in rural areas and crafts and related trades as well as service, shop and market sales workers are the dominant in urban areas.

Being Ethiopia is among the countries with a rapidly growing population with a still backward agriculture based economy, the capacity of the country's economy in absorbing the potential labour force is very low. Hence, the problem of unemployment is getting worse mainly due to the unbalanced relationship between the rate of economic development and the rapid population growth. Moreover, recent urbanization is aggravating the problem because of the urban migration of people with scarce or nil real working prospects, which therefore often slip into some form of underemployment or remain idle for productive work

Lack of employment opportunities for Ethiopian young people is among the critical development challenges facing the country and a key barrier to national efforts toward the Millennium development Goals in recent decades. Past

demographic growth is now translating into increasing numbers of young job seekers, which is in turn sorely testing the absorptive capacities of labor markets. The increased standard of living and participation in higher education, due to recent social and economic change, mean that young people might not have to move directly into work from primary or secondary school as their parents previously did. Moreover, this generation of new entrants is more educated than previous generations, but they are finding it hard to capitalize on their education in an increasingly privatized job market.

Not too long ago, a secondary education was an assured way to obtain a stable, lifetime job in government or in state-owned enterprises. This is no longer the case. With the gradual suspension of the public employment guarantee to graduates in the early 1990s, the ranks of the educated unemployed have swelled.

The rate of unemployment in the current status approach for urban areas of the country is 20.6 percent. Unemployment rate for rural areas is only 2.6 percent. Unemployment rate for the male and female are 13.7 percent and 27.2 percent, respectively, indicating unemployment is significantly greater for females than males. Further looking the spatial distribution of unemployment in Ethiopia the results show that the unemployment rate is highest in Addis Ababa City Administration (31.2 percent) The lowest unemployment figures are found in the SNNP, Amhara and Oromia regions (CSA, 2005).

In the 1994 Population and Housing Census, the urban unemployment rate was 22 percent; it has increased to 26.4 percent by 1999 (CSA, 1997, 2000). The unemployment rate as registered in the Urban Biannual Employment and Unemployment surveys of October 2003 and April 2004 were 26.2 percent and 22.9 percent, respectively. In the March 2005 NLFS (National Labour Force Survey, 2005), the rate declined to 20.6 %, and further declined to 17.6 percent in

2007 census either due to the creation of jobs or to a shift from unemployment to inactive status (CSA, 2005, 2008).

Despite government efforts in job creation, underemployment in rural areas and unemployment, especially in urban areas of Ethiopia and among the youth and females remain serious challenges. In 2004/05 the working age population (labour force) made up 54 percent of the population. It is growing by about 1.2 million people per year. The pressure on the labor market comes directly from the supply of labour, which in turn is induced by the growth rate of the population.

In terms of sector, government is the most skill intensive sector. Services, both public and private, have been driving net employment creation in urban areas, with strong growth in the “public administration” and “other household services”. Manufacturing has continued to add jobs, albeit at a reduced pace in the last five years. Within the services category financial services grew spectacularly (by more than 300 percent) since 1994, though from a very low base (World Bank, 2007).

Generally, several factors are to blame for sad state of affair, declining work participation and or activity rate, little or no change in the type of employment, occupational structure, industry and composition of sectors and more or less high and stable unemployment and underemployment in Ethiopia. To start with, there is the unprecedented rate of growth of the (urban) population., lack of growth and job creation performance of the economy, mismatch between the skill requirements of the labour market on the one hand and the education/training skills of the youth and women on the other, minimal support of the private sector contribute for the persistent levels of unemployment and underemployment in the urban centers.

Yet, despite a growing awareness in the literature (World Bank, 2007), Tassew and et.al (2005), Mulat and et.al (2006), Klugman(2005) and others related to the major factors behind the decline in work and labour force participation and more or less high and unchanging or stable unemployment rate (especially in urban areas), such concerns have yet to be translated into an in-depth analysis of the levels, trends and patterns of work participation as well as specific factors affecting and determining it in Ethiopia.

According to my knowledge, there is no specific study to date that try to see work participation in Ethiopia in a comprehensive manner. Although a few study by World Bank (2007), Tassew and et.al (2005), Mulat and et.al (2006), Bizuneh and et.al (2001), Krishnan and et.al (1998), Sermeels (2004), Klugman(2005) and others try to see the labour force or work participation in Ethiopia their analysis was not based on individual/unit level and missed the major socio-economic issues as well as household related factors affecting work participation in the country.

Moreover, most of the previous works either focusing on a specific area (only on urban centers) or specific age group (youth). On top most of the study neglected the existence of spatial variation in work participation between regions as well as urban-rural. Even though CSA (2005) data try to highlights the extent of inter regional variation in work participation, the factors underlying such differences are yet to be explored. To sum up, a few of the study made so far did not see the trends and the major determinants of work participation in Ethiopia. Therefore, this study will fill the gap by focusing mainly on the trends, patterns, change in the structure of employment as well as determinants that are major hurdles for work participation in the Ethiopian using the two national population and household censuses (1994 and 2007) and National Labour Force Survey data conducted by Central Statistical Agency of Ethiopia during 1999 and 2005.

1.2. Research Objectives

The main objective of the study is to study trends and patterns as well as the major determinants of work participation in Ethiopia. More specifically, the study is driven by the following objectives:

1. To determine the size and distribution of the labour force as well as to show levels, trends, patterns and characteristics of work participation by age groups, gender, across regions and selected urban centers;
2. to estimate and assess the levels, trends, patterns and characteristics of the unemployed population;
3. to show employment situation disaggregated by branches of economic activities, occupations and status of employment and to examine if there any change in the structure and composition;
4. to illustrate the relationship between work participation and socio-demographic factors and to identify the major socio-economic and demographic determinants affecting work participation;
5. to draw policy conclusions and consider implications for policy direction.

1.3. Hypotheses

The following are used as hypotheses of the study:

1. Work participation varies by residence (rural-urban), gender and by age groups. People residing in rural areas are more likely to participate in work than urban areas. In case of gender, it is expected, females are less likely to participate in work than males. There are chances of lower work participation for both at younger and old age groups than for people of the other age groups;

2. With higher level of education and skill development (vocational) training there will be higher chances of participation on work;
3. Irrespective of gender, chances of work participation increase for those who are head of the household than others. Marriage among females leads to lower work participation while the reverse is true for males. For females, higher number of children leads to lower work participation;
4. Recent migrants have lower chances of work participation comparing to long time migrants. Differences are important by gender (lower probability of participation for male recent migrants comparing to females) and by location (lower probability of participation for urban male recent migrants and higher probability of participation for long time migrants).

1.4. Research Questions

Specifically, the following research questions are addressed:

Question for sub-objective 1

- ❖ Is there any change in the size and trends of labour force? Is there any shift in activity status of population?
- ❖ Is there a change in the trends in work participation between different periods? Does the trends in work participation rate showing an increase or a decline?
- ❖ Are there any differences in work participation rates between sexes, age groups, across localities and regions? If so why?

Question for sub-objective 2

- ❖ Does the trends in unemployment rate showing an increase or a decline?
- ❖ Are there disparity between and with in urban and rural dwellers, age groups (includes between youth and adults), regions and also between males and females regarding unemployment rate? If so, what are the explanations for the existing differences?
- ❖ Are there any disparities in terms of unemployment rate across different educational groups? Which groups of educational status most affected by unemployment?

Question for sub-objective 3

- ❖ Is there any change in the structure and composition of employment?
- ❖ Are there contrasts between urban and rural residents, age groups, gender and also between regions regarding the employment status, occupation and industry?

Question for sub-objective 4

- ❖ What are the major socio-demographic factors affecting work participation? Does the impact of these factors on work participation vary between sexes, age groups, different educational levels and other socio-demographic variables as well as across localities and regions?

1.5. Data Source and Description

- ❖ *National Population and Household Census of Ethiopia for 1994 and 2007*
- ❖ *1999 National Labour Force Survey (LFS) conducted in March 1999 by the Central Statistical Agency (CSA).* The survey was nationally representative and covers all zones except 6 in the Somali region and 2 in Afar. The data are representative at the national, urban, rural and regional level. The survey covers the population aged 10 and over, recording their labour market status as well as a variety of socio-demographic variable such as age, gender, migration status and education. The survey did not collect wage data. The survey covers 31,859 households in urban areas and 49,614 in rural areas.
- ❖ *2005 National Labour Force Survey (LFS) conducted in March 2005 by the CSA.* The survey was nationally representative and covers all zones except Gambella region (with the exception of Gambella town) and 6 zones in the Somali region and 3 in Afar, mostly inhabited by pastoralists. The data are representative at the national, urban, rural and regional level. The survey covers the population aged 10 and over, recording their labour market status as well as a variety of socio demographic variables such as age, gender, migration status and education. The survey instrument has been updated with respect to the 1999 version, the most notable change being that it includes wage data. Other changes, including an updating of the statistical sampling frame and a more precise characterization of urban areas which allows a break down of major urban and other urban areas have also been made. The survey covers 29,623 households in urban areas, 21,420 in major urban areas and 24, 861 in rural areas.

1.6. Method of Data Analysis

Depending on the particular objective being addressed, specific methodologies were applied. The methodology for *objective one*, assessing the labour market condition in Ethiopia was done through reviewing some literatures and secondary sources while the methodology for *objective two to eight* analyzed through use of graphical representations/charts to show trends over time coupled with verbal descriptions adducing reasons for the prevailing trends and maps for depicting spatial variations in work participation and statistical tools like Cross-tabulations, average and frequency distributions were used. Moreover, to analyze and identify the main determinants of work participation in Ethiopia probit model was used. A probit models are particularly useful because the main variables of interest (dependent variable) – work participation – is binary (*i.e.* the dependent variable takes a value of “1” if an individual has participated in any productive work and “0” otherwise) and may therefore be expressed in terms of probabilities. The specific methodology used including model specifications as well as the main variables used for the regression analysis in the study is indicated in detail in chapter four Sections 4.2.

1.7. Significance of the Study

The findings of this research may contribute to human resources development planning and policy formulation. It will help provide the basis for monitoring current trends and changes in the labour market and employment situation, which may be analyzed in connection with other economic and social phenomena so as to evaluate some policies. The unemployment rate may also be used to indicate an overall current performance of a nation's economy. The output of this research may also be an essential base for the design and evaluation of government programmes geared to employment creation, vocational training, income maintenance, poverty reduction and similar

objectives. The measurement of the relationships between employment, and other socioeconomic characteristics provides information on the adequacy of employment of different subgroups of the population, the income-generating capacity of different types of economic activities, and the number and characteristics of persons unable to ensure their economic well being on the basis of the employment opportunities available to them. Information on employment or work disaggregated by branches of economic activity, occupations and socio-demographic characteristics, is needed for collective bargaining, for assessment of the effects of poverty reduction policies on different subgroups of the population, and for the analysis of gender or age inequalities in work opportunities and participation and their changes over time.

1.8. Limitations of the Study

Differences in data collection approaches for measuring activity status between 1994 census and the two labour force surveys create difficulty in making comparisons in the urban and rural areas with in the census year as well as between census and the two labour force survey. In 1994 census the two economic activity status data collection approaches, that is, the *'current'* and *'usual'* status approaches were used. However, their application in the urban and rural areas was different. In the urban areas the *'current status'* approach was used, while in the rural areas the *'usual status'* approach was used. The 1999 and 2005 national labour force survey has overcome the drawbacks observed in the population and housing censuses, since both the *'usual'* and *'current'* status approaches were employed in the urban and rural areas. Hence, separate reports for the *'usual'* and *'current'* economically active population and its component sizes were given for the national level as well as the regions by summing up the respective estimates of urban and rural areas.

Furthermore, the depth of the enquiry in the censuses and the survey was quite different. In the survey more probing and filtering questions were included, which have an impact on the quality of the data.

Also, absence of any earnings variable, one of the most pertinent variables for analyzing work participation behavior clearly poses a serious problem while trying to analyze the determinants of work participation. Specially, lack of income data for self-employment is limitation of this study as the currently available techniques developed by CSA for measuring income from self-employment are not refined and yet ambiguous. Similarly, variables like ethnicity, religion and language were not included in this study due to the fact that the number of cases obtained in this specific sample size was not found to be sufficient in order to provide reliable information.

1.9. Organization of the Study

The present work has been organized in to five *chapters*. The *first chapter* contains introduction, background and statement of the problem, objectives of the study, hypotheses, research questions, data sources and description, methodology, significance of the study and limitation of the study. The *second chapter* deals with literature review relevant to the study. *Chapter three* and *four* presents the main findings of the research. *Chapter three* presents the trends and patterns in activity status as well as work participation, the structure and distribution of employment by industry, occupation, status of employment and their variations over the years and the unemployment situation in Ethiopia. While *chapter four* discuss the possible connections between some of socio-demographic factors and work participation using both descriptive and econometric techniques. Finally, conclusions and policy implications are discussed in *chapter five*.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Several topics that have received the most attention in the literature on work participation, employment and labor markets in Ethiopia are related to urban employment and unemployment, labor markets, youth and child labour, work status etc. There was also a wave of interest on poverty which addressed the link between poverty and employment. Therefore, this chapter will try to review related literatures that have so far been done related to the topic in Ethiopia. Moreover, attempt is being made to highlight the over all macroeconomic, demographic and labor market characteristics of the country.

2.1. Employment and Unemployment in Ethiopia

Recent analysis by World Bank (2007) estimated urban unemployment rates in Ethiopia at around 13.5 percent, but also identified great heterogeneity in its concentration both geographically and across groups of people. Larger towns, including Addis Ababa, are characterized by lower employment rates and higher unemployment. Further, women and young people face particular challenges in terms of labour market success. Despite some positive trends, which are at least partly related to increases in secondary school enrolment, Ethiopian unemployment levels remain high relative to international comparators (World Bank, 2009). Moreover, the relative share of the unemployed, who completed higher grades (especially Grade 12), increased, while the share of illiterate unemployed declined during the two census periods, indicating that unemployment has been creeping up the education ladder (Mulat, Fantu and Tadele, 2006).

Survey done by CSA (2005) reveals that the rate of unemployment in the current status approach for urban areas of the country is 20.6 percent. While the rate for rural areas are only 2.6 percent. Comparing this figure with that of the 1994 Population and Housing Census (22 percent) and 1999 survey (26.4) the current figure has shown a decline due to creation of jobs or shift from unemployment to inactive status (CSA,2005).

However, according to World Bank (2007) the decline in unemployment appears to have been driven by a drop in youth unemployment and lower unemployment for older males. Unemployment rate disaggregated by gender showed that the rate for the male and female are 13.7 and 27.2 percent, respectively indicating unemployment is more of a problem for females than males. Unemployment rate by age group is relatively found to be higher for the age groups 15-49 years, ranging from 1.8 percent to 7.7 percent. The youth population aged 15-24 years recorded the highest unemployment rate (7.7 percent) during the reference period. The rates for females are higher than that of males at all age groups. Moreover, the overall unemployment rate for literate persons (7.8 percent) is higher than that of illiterate (3.5 percent) (CSA, 2006).

Similarly, between 1994 and 1997, it was observed a large reduction in participation by young men and an increase in participation for women confined to older cohort. The increased participation by women translated into increased self-employment. This influx of older women in self-employment is explained as the result of more incentives for entrepreneurial activities after adjustment but more likely is an added worker effect: the need for more family income to tide families over the period of adjustment and the reduced ability by women to wait for formal sector wage employment (Krishnan P., Selassie T. and S. Dercon, 1998).

Serneels (2008) in his study on unemployment duration, job search and labour market segmentation in Ethiopia tried to examine the common theoretical assumption that the chances to find a job fall with time in unemployment, which was not systematically confirmed by empirical evidence for developing countries. Using unique data for urban Ethiopia and using a standard job search model he try to test the two common explanations why we may observe non-negative duration dependence while genuine duration dependence is negative: financial support of the unemployed over time and changes in the economy that affect the vacancy rate. He also considers a third explanation, namely segmentation of the labour market in good and bad jobs. Finally, the finding of his study showed that the observed hazard does not fall with time in unemployment for the majority of spells after controlling for unobserved heterogeneity and that labour market segmentation explains observed non-negative duration dependence, as searching for bad job lifts the hazard over time. His findings further underline the potential importance of labour market segmentation, especially for developing countries, and in particular in the presence of a large public sector.

According to CSA (2006) the total labour force of the country as measured using current status approach is estimated to be 33.1 million. This gives an activity rate of 80.7 percent. As in the case of usual approach, economic participation rate of the males is higher (86.8 percent) than that of the females (74.9 percent). Regarding the relationship between broad age group and activity rate, the data shows low participation rate at lower age groups (10-19 years) and old age group (65 and over) and high participation rate in the productive age group (25-64 years). Higher proportion of male than females tends to join the labour force at all age groups. The higher involvement of females in the housekeeping activities, which is considered to be non-productive, may be accountable for the lesser activity rates among them.

As in case of usual status approach, higher current activity rate is reported for rural areas the highest (84.2 percent) compared to that of urban areas (63.2 percent). Again, the illiterates have higher participation ratio (84.4) percent than the literate population (74.5 percent). Non- migrants reported to have higher activity rates (81.5 percent) than the migrants (69.5 percent). In all urban centers, an activity rate among the males is higher than that of the males (ibid).

Comparing the current total activity rate with that of the 1994 Population and Housing census result, activity rate of urban Ethiopia appears to follow an increasing trend during the last five years though rural activity rate increment is higher than the counterparts. That is to say that there is an increasing trend of activity rate during the last decades in both urban and rural areas of Ethiopia.

According to CSA (2006) the activity rate of Ethiopia, which is 80.7 percent is one of the highest as compared to the rates observed in countries like Ghana and Kenya registered participation rates of 81.9 percent and 81.7 percent, respectively in 1995.

Maria Sabrina De Gobbi (2006) from their study on labour market flexibility and employment and income security in Ethiopia found that the trends in urban rural labour force between 1984 -2004 showed that women are joining the labour force at a higher rate than men both in urban and in rural areas. Factors accounting for increasing women's labour force participation are rising female education, delayed marriage, lower birth rates, and work-related migration. They further noted that the labour force has been increasing faster in urban than in rural areas between the two years, probably because of high levels of rural-urban migration. However, the labour force participation rate remained rather stable in rural area.

According to CSA 2005 EDHS¹ the proportion currently employed is much higher among men than women. The majority of men (86 percent) were employed at the time of survey. The majority of employed men are in rural areas as the EDHS data collection took place during the peak agricultural season while most men in rural areas are likely to be engaged in farm work. However, the finding showed that the level of female employment is lower in 2005 (29 percent) than in 2000 (57 percent), the patterns for men are very similar. The marked difference in the percentage of women currently employed attributed to the difference in the way the data on current employment were collected for women in the two DHS surveys. There was no difference in the wording of the question on current employment for men between the two surveys.

2.2. Determinants of labour force participation/ employment and unemployment/

Various literatures on determinates or factors on labor force participation and or employment showed that a range of socio-demographic, economic and environmental factors. However, the impact of these factors mostly varies by gender and other related factors.

Accordingly, ILO (1994) study identified that a number of factors have been determining the involvement of women in the labour markets in Africa. Among these are the traditional factors like access to factors of production, credit, information technology and training, the international economic environment and introduction of new technologies as well as changes in the political and social landscape.

Lanot and Muller (1997), from their study on the participation process for the different activities find that married women participate less in different activities. Age and education of husbands are important for participation by women, with

¹ *Ethiopian Demographic and Household Survey*

the age of husbands being higher for non working women while husband's education is lower for women in the informal sector. The presence of children lowers participation in the formal sector. Married women participate less in the different activities. They conclude that labour supply and activity choices are likely to be distorted by the existence of labour market imperfections.

Maglad (1998) identifies a number of factors responsible for women entering the labour market. Looking at female labour supply, he emphasises the importance of human capital in increasing female labour force participation and shows that expected own wage, spouse's earnings, the number of children and age were important in determining participation in the labour market. Assets however affect work decisions and hours negatively. Spouse's expected wages affected both participation and labour supply negatively. The presence of pre-school children also has a negative effect on participation. Education has been found to affect the probability of female labour market participation positively. Also important are post-schooling experience, wage of the household head, household head and presence of school going children.

The above study conforms to other studies which show that income and experience are significant for female participation, but not for males. However, the income of other household members is significant for males, showing that pressure to work for males reduces if other household members earn income, while for females', participation is more dependent on rewards they get in the labour market (Bigsten and Horton 1997). These studies also show that household heads are more likely to participate in the labour market than non heads.

Job tenure and experience have also been found to influence labour force participation. Mackenon (1993) argues that experience and the nature of the labour market itself leads to differences in labour market participation by

gender. Demographic and social barriers also affect women's participation in the labour market. Differences in labour supply usually arise from differences in productivity endowments, including demographic variables like age, sex and marital status. Lack of assets also leads to lower participation by women. However, Appleton (1990) also argues that asset incomes have a negative impact on work decisions and participation rates. Similarly, Lanot and Muller (1997) found that experience is important for those women in the formal sector but not those in the informal or non participants.

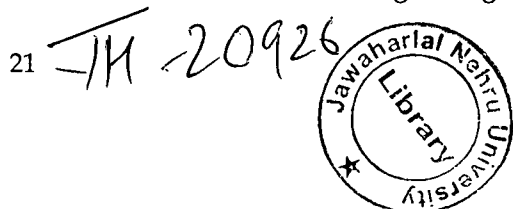
Literatures from Ethiopia, Guarcello and Rosati (2007) try to study the specific factors affecting youth employment in Ethiopia by analyzing a set of youth employment indicators drawn primarily from the 2001 Ethiopia Labor Force Survey. Their study looks specifically at the labor market outcomes of young people and key factors influencing these outcomes, including early labor market entry and human capital accumulation. It also examines the process of labor market entry, and, for those who attended school, the duration of the transition from school to work. They used both descriptive and econometric analysis. Finally they conclude that a dual labor market situation characterizes youth employment and employment generally in Ethiopia. Where in rural areas, where the large majority of population resides rural youth start to work at very early ages, endowed with an extremely low level of human capital, and face underemployment in largely subsistence farming, low incomes, and few chances to be employed in the formal sector of the economy while in urban areas youth face better prospects in terms of income and employment quality but difficulties in finding a job. Their econometric analysis further confirms the effects of household background and of local labor markets.

Bizuneh et al. (2001) in their research on work status and unemployment in urban Ethiopia highlighting the possible connections between some

demographic and socio-economic factors and the labour-force participation or the unemployment were highlighted through an in-depth, one-by-one analysis of some socio-economic characteristics of the workers (marital status, kinship relation to the head of the household, ethnic group, religion, education, migration status, and household economic status). Their research was on the population living in urban areas. Their finding showed that socio-economic variables like marital status, education, migration and household economic status were the most important variables affecting labour force participation and unemployment.

Similarly, DHS of Ethiopia (2005) using simple cross tabulation method try to see the relation between activity rate with some back ground variables like age group, gender, number of children, place of residence and region, level of education and wealth. Finally, the result showed that current employment generally increases with increasing age and women who are divorced, separated, or widowed are more likely to be employed than other women. Women who have four or less children are more likely to be employed than those with five or more children. There are also notable variations in the proportion currently employed by place of residence. Urban women are more likely to be currently employed than rural women, current employment increases with an increase in level of education; the proportion of employed women increases from 27 percent among uneducated women to 38 percent among those with some secondary education. There is also an increase in the percentage of employed persons by wealth quintile, with those in the highest quintile much more likely to be employed than those in the other four quintiles. A marked difference was also observed in the level of employment by gender where male have higher participation rates compared to females.

CSA (1999) in its findings from National Labour Force Survey showed that literate has slightly lower activity rate than the illiterate. Regarding the



relationship between activity rate and marital status, the finding showed no significant difference among the married and divorced. The never married and the widowed, however, exhibited relatively lower activity rates. However, the marital status pattern of economic participation rate shows variation between sexes. Among the females, the separated took the leading position followed by the divorced and the married group. Activity rate by migration status categories showed that at country level, migrants seem to have slightly higher activity rates than the non-migrants. CSA (2006) from 2005 National Labour Force Survey also showed similar results where the illiterate had higher working population as compared to literate population although the results for activity rate by migration status was different from 1999 results, the non-migrant reported significant proportion than that of migrant population.

Likewise, World Bank (2007) tries to investigate the correlates of employment with some socio-demographic variables using regression analysis. Their findings showed that adult women are less likely to be employed than men particularly in Addis Ababa. Moreover, their study depicted that interaction of gender with other correlates of employment reveal strong reduction in the probability of employment for women with younger children aged less than 10 and having some education (grade 5-8) lowers employment probability with respect to having no education (World Bank, 2007).

Getinet (2008) undertakes an empirical investigation into the determinants of self-employment and the nature of self-employment using data from a unique panel data set, the Ethiopian Urban Socio-Economic Survey. Findings his study showed that self-employment is largely a route out of unemployment rather than being something driven by entrepreneurship. He also finds a declining trend in the patterns of self-employment over the study period in Ethiopia.

Related to unemployment, Mulat, Fantu and Tadele (2006) in their study mentioned that unemployment is a youth phenomenon in Ethiopia where unemployment rate is highest in the age group 15-19 years, when secondary school leavers join the workforce, followed by the age group 20-24 years, when tertiary education graduates enter the labor market. They further noted that look at the distribution of unemployed population by educational status, illiterate people accounted for a larger share of the unemployed population 29.1 percent in 1984 and 22.6 percent in 1994 and they found a striking result that the relative share of unemployed who have attained/completed higher grades (especially grade 12) increased, from 20 percent in 1984 to 28.3 percent in 1994, while the share of illiterate declined during the two census periods. Their result is further confirmed by CSA 1999 and 2005 Labor Force Survey that the highest unemployment rate was recorded in groups that have completed Grade 12 and attended Grades 9-11.

Similarly, Krishnan, Selassie and Dercon (1998), analyzing a longer period (1990-1997) by means of survey data in urban Ethiopia, point out that «... having at least secondary education increases the marginal probability of being unemployed ...» [1998: 17]. They connect this fact to the hypothesis that «Education is clearly linked with an intention to work: secondary education has a strong negative effect on being out of the labour force» [ibid]. In fact, they did not find higher labour-force participation rates of more educated people but for women older than 24 years.

The World Bank (2007) tried to analyze the determinants of unemployment in urban Ethiopia. They try to identify some of the key individual and household characteristics associated with unemployment. Their result showed that other things being equal, women are more likely than men to be unemployed and being educated increases their chances of being unemployed. Furthermore,

having children age less than 10 in the household also increases women chances of being unemployed (ibid).

Serneels (2004) examined the nature of unemployment among young men in urban Ethiopia. He analyzed the determinants of incidence and duration and find that most variables have the same effect on both. Unemployment is concentrated among relatively well-educated first time job seekers who come from the middle classes. Mean duration of unemployment is close to four years and is higher for those aspiring to a public sector job. His findings further showed that father working as a civil servant have shorter durations, suggesting that this provides an information advantage. The medium of job search also has a strong effect indicating that information is costly. Social networks only help after one has become unemployed. Bizuneh et al. (2001), Getinet (2003), Serneels (2001) and Krishnan et al. (1998), Klugman(2005) and (Denu, Tekeste, and van der Deijil 2005) are also some of the studies dwelling on the labour market situation of the youth/'young' in Ethiopia.

2.3. Labour market and poverty

Related to labour market Krishnan et al. (1998) examines the response of the labour market to a period of structural adjustment. Since 1992, Ethiopia has undertaken a programme of reform and structural adjustment. They try to investigate what the effect has been on the allocation of the labour force in different sectors, on the response of real wages and on returns to education. They use a combination of cross-section and panel data based on three surveys conducted in 1990, 1994 and 1997. Their findings suggest that little has changed and that the labour market has been unresponsive to the pressures of reform. However, they do find that the public sector has contracted over this period; there is evidence of a large reallocation of labour out of the public sector between 1990 and 1994, and an increase in unemployment. Finally they concluded that the

labour market in Ethiopia has remained rigid and unresponsive to the pressures of reform. Similarly, World Bank (2007) data show a largely unchanged labor market situation between 1999 and 2005, with the notable exception of improvements in unemployment.

It is quite evident that as societies and countries have embarked on their war on poverty, three things have become quite clear - sustained economic growth is crucial for poverty reduction; economic growth has to be pro-poor, if it has to make a dent on poverty; and productive employment is essential for pro-poor growth. Accordingly, synthesis work has been done by ILO/SIDA country studies in which Ethiopia is the one. The result of the study showed that although the economy of the country achieved modest growth during the 1990s, the results of that growth were not translated into poverty reduction. And a primary reason for that was that the rate of employment growth compared to output growth was rather low. Looking further at the degree of employment intensity of growth was poor in Ethiopia. Thus in Ethiopia, the low employment elasticity of growth was reinforced by less than robust economic growth and inadequate incentives, resulting in low levels of employment (ILO, 2006).

Alemayehu and Alem (2006) in their study try to see the impacts of liberalization programs in Ethiopia on poverty and inequality using Ethiopian urban household survey data for the year 1994 and 2000. They used both data exploratory analysis as well as earning and occupational choice modeling, together with counterfactual simulation, to investigate this issue. Their study hypothesized that macro policies had an effect on poverty and inequality and further considered that the effect of liberalization policies could be inferred from the change in the structure of labour market as it is one of the most important channels through which macro policies may affect poverty and inequality. Finally they conclude that the level and distribution of household incomes is found to

depend on the structure of returns to labour and on the occupational choice the households made. Thus, policy effectiveness of poverty reduction policies could be achieved if we understand the workings of the labour market and how it affects both level and distribution of income across different categories of income and sector.

Mulat, Fantu and Tadele (2006) try to examine the relationship between labor market conditions, sectoral growth, and poverty in the Ethiopian context. They used various types of analysis, including a descriptive and econometric analysis of cross-section and time series data, and employment decomposition approach. Their findings showed that growth alone does not have much impact on poverty reduction in Ethiopia; the pattern and employment content of growth is crucial for poverty reduction. They further argued that the multiple aspects of vulnerability in the labour market, in particular the large overlap between work and poverty, have important implications for the design of a comprehensive national poverty reduction strategy. Finally they suggested that there should be more pro-poor growth policies aimed at creating productive employment and at the same time addressing the main constraints of the different sectors where the poor are concentrated.

2.4. Changes in the economic structure and composition

The allocation of labour within the sectors and reallocation between different sectors can be seen as a central feature of economic transformation in Africa mainly because of the nature of these economies. Most manufacturing activities are urban based but generally, the urban areas account for most of the formal employment in secondary and tertiary sectors (Bigsten and Horton 1997).

Mwabu and Evenson (1997) studied occupational patterns in rural Kenya using data from a 1981-1982 cross-section rural farm household survey in Kenya.

Assuming a fixed set of occupational categories, as self-employment and non-market occupations, they model the occupational choice process of individuals, for both male and female participation and concluded that education and proximities to market centres is a key in transforming occupational structures in rural Kenya. People with some schooling expect to benefit relatively more by not choosing the general labour occupation, and benefit more from professional occupations. Education is therefore a key factor in determining occupational choice in Kenya. Their results conform to earlier work, which show that education is the most important determinant of labour market participation.

Glick and Sahn (1997) examine the impact of gender and schooling on employment and earnings in the private sector, public sector, and self-employment in Guinea. Thomas and Vallee (1996) examine earnings in the informal sector, formal and regulated sectors within manufacturing in Cameroon. Both of these studies have assumed the existence of multiple choices in the labour market.

Krishnan, Sellasie and Dercon (1998) have modelled the factors explaining the allocation into work in Ethiopia for the period 1990-1997. They used both cross-section and panel data from pre- and post reform periods 1990 and 1994/1997. They assume multiple choices in the labour market and estimate the multinomial logit model of selection into work in the public and private sectors, self-employment, unemployment, and being out of the labour force. The explanatory variables are taken as personal characteristics, parental characteristics, human capital variables and variables related to assets. They test whether the regression can be pooled over time to test for changes in the factors determining labour market allocation. Their results show that the allocation into work especially in the public sector has changed over time, with education having a substantial effect on allocation.

Krishnan et al. (1998) further tried to show sectoral allocation and reallocation of labour by further breakdown of employment by sector for the year 1994 to 1997. Accordingly manufacturing and food processing firms, probably most readily defined as tradable sectors in Ethiopia, register a slight fall in employment over this period with the increase in employment coming from increased activity in construction and in local government. The public sector remains the single most important sector of employment in urban Ethiopia, with more than 40 percent of those in work. There has been little structural change here in this period, despite the talk of reform.

Bizuneh et al. (2001) from their study on urban Ethiopia tried to show changes in the economic structure of the workforce. Based on their result, the majority of the male labour force in the country is self-employed workers, while in the female workforce the unpaid family workers largely prevail. This is connected to the overwhelming economic primary activity performed in farms self-conducted by the household.

CSA, based on the data from the national DHS survey (2005), try to show the status of employed women and men by occupation. The result showed that most employed persons are engaged in the agricultural sector. Sales and service is an important occupation category, especially for women, employing nearly a third of the women and about 7 percent of the men. Six percent of employed women are skilled manual workers, while 5 percent are engaged as unskilled manual workers. Only 4 percent of employed women work in the professional, technical, and managerial fields. Women participation in the professional, technical, and managerial sector is somewhat low compared with men.

Further analysis by occupation and background characteristics suggests that the proportion of women with jobs in sales and services decreases as age increases and that married women are more likely to be employed in agricultural work

than other women. Never-married women, on the other hand, are more likely to be employed in sales and services and in clerical work. Moreover, the type of occupation by residence status showed that two-thirds of employed women and 94 percent of employed men in rural areas are engaged in agricultural work. Most educated women are employed in sales and services and professional, technical, and managerial occupations, whereas women with little or no education tend to be employed in the agricultural sector. Agriculture is by far the most important occupation for working women in the lower wealth quintiles. Employment outside the agricultural sector is greatest among men with secondary or higher education and men in the highest wealth quintile (ibid).

World Bank (2007) in their study from urban Ethiopia between the year 1999 and 2005 on structure of employment by type of employer showed that self employment is the main source of employment with government employees a distant second followed closely by private organizations. Further looking at gender wise, women are more likely than men to be self-employed, and domestic employees and unpaid family labour represent more than one-fourth of female employment. Men are much more likely than women to work for the Government and private organizations.

World Bank (2007) in their analysis also tried to see the difference in type of employment between the youth and adult cohorts, and by gender. Accordingly their study showed that adults are much more likely to have formal jobs, and to be self-employed, while youth are frequently unpaid family or domestic employees. Adults are about three times as likely as youth to have government or parastatal jobs². Within the adult population, men are much more likely than women to have a public sector job, but the likelihood for youth is broadly gender neutral. Private employment (which includes both formal and informal wage

² *Government parastatals are public companies or organizations*

jobs) is somewhat more common among youth than adults, though more so for men than women in both age groups. Young women dominate the category of employment as a domestic worker. About the same percentage of youth and adults work in the informal sector, but the composition of employment varies dramatically. Their result is similar with that of Denu, Tekeste, and van der Deijl (2005) conducted on Ethiopia related to characteristics and determinants of youth unemployment and underemployment.

Krishnan, Sellasie and Dercon (1998) from their study found that although overall the public sector remains the largest sector of employment in Ethiopia for those in work for the younger cohort this has changed: a fall from about 65 percent of men in public sector work in 1990 to about 30 percent in 1997, and a similar decline for women. The change in government and the large reduction in public sector activity in the first few years of the reforms hit the young in different ways: retrenchment, a large reduction in new hires and a removal of job guarantees graduates of tertiary education. Some of the job losses in the public sector appear to have been compensated by increases in private sector wage employment for men and self-employment for both men and women.

World Bank (2007) further in their study in urban Ethiopia tried to see the changes in the composition of employment. Their result showed that despite a relatively stable employment rate, some sectors have grown, in importance in terms of their share of employment. Employment has grown most (in percentage terms) in construction, financial and business services and other services. Electricity, gas and water supply and hotel and restaurants registered the highest percentage drops. Women account for almost all of the decline in the hotel/restaurants category, and most of the increase in education, health and social work.

Thus, quite a few of studies have already been undertaken on labour force participation, employment and labor markets in Ethiopia that are related to urban employment and unemployment, labor markets, youth and child labour, work status research which addressed the link between poverty and employment. But no study has been undertaken so far in detail and in comprehensive manner regarding the trends, patterns and determinants of work participation in Ethiopia using unit level data. The present study is a humble attempt in this regard.

The next section will try to gives a general overview, presenting data on the economy and population, as well as on the labour market situation in Ethiopia with some key labour market indicators.

2.5. Macroeconomics

Ethiopia remains one of the world's poorest countries with a per capita income of just US\$344 in 2009, or approximately US\$848 at purchasing power parity. The economy is predominantly agricultural, as the agricultural sector accounts for about 80 per cent of employment, and about 47 per cent of GDP (World Bank, 2010).

Ethiopia's experienced diverse economic systems over the last half a century. The economic system shifted from being market-oriented during the imperial (pre-1974) period to a socialist system during the military *Derg* regime (1974-1991) and then back to a market orientation under the current government. During the 1980s, the Ethiopian economy was characterized by a strict control regime. This had been established in the aftermath of the fall of the Emperor in 1974. The government (usually referred to as the *Derg*), implemented a highly regulated and controlled economy, on the early Soviet model. By the late 1970s, free trade of agricultural commodities was severely restricted and taxed, while in urban areas nationalization and controls limited the activities of the private sector.

Private sector investment dropped and labour markets subjected to considerable controls. In principle, formal sector labour allocation in both government and parastatal companies occurred via a labour exchange, an administrative procedure controlled by a government ministry. Job guarantees were established for all university graduates.

By 1990, the economic, fiscal and military position of the *Derg* became untenable after the collapse in the aid-flows from the Soviet and other friendly governments. A reform plan to establish a 'mixed' economy was approved, in which private sector involvement was encouraged with liberalization in some agricultural and non-agricultural sectors of the economy. By 1991, however, the *Derg* was defeated by the rebel and the new government set out the Economic Recovery and Reconstruction programme to rehabilitate the economy. The new market-oriented government that took power in May 1991 formally adopted a stabilization and structural adjustment programme supported by the IMF and the World Bank in 1991/92.³ Strategies of the current government to ease the problem of unemployment include the deepening of the market-oriented economic reforms, improving the productivity of the agricultural sector, and promoting the private sector as a means of achieving off-farm employment and as an engine for economic growth. The emphasis has been on encouraging and enhancing the role of the private sector. The state has gradually been allowing domestic private capital to play a more dominant role in trade and other activities (MOFED, 2002).

Regarding the performance of the economy, Ethiopia has witnessed high but erratic output growth in the period following the end of the civil war in 1991. Growth in these years has been among the fastest in Africa, averaging about 6

³ *World Bank 1989, Abegaz 1999, Degefe and Nega, 2000, ECA 2002, IMF 1999, MEDaC, 1999*

percent per year. Year-to year fluctuations in economic performance, however, have been large. The year-to-year growth rate ranged from 10 percent to 1 percent in the period between 1991/92 and 1997/98 (Easterly, 2002). Highly volatile GDP growth for example reaching 11.6 per cent for 2004⁴ but contracting by 2 per cent for 2003 due to drought. The main sources of growth have been nonagricultural, led by the services and industrial sectors, despite the government's commitment to agriculture-led development. Growth in the agriculture sector has averaged about 2.1 percent per annum since 1992, while services have grown at about 9 percent per year over the same period. Industry, though much smaller in size relative to agriculture, contributed as much as agriculture to growth between 1992 and 2000 (ibid).

Levels of poverty run very high in Ethiopia, even when viewed from within the context of the Sub-Saharan Africa region. On simple rankings of per capita GDP (USD PPP basis), while Ethiopia's per capita income has risen (in PPP terms) from \$450 in 1990 to \$574 in 2000 and \$1055 in 2007, it remains at roughly the 10 percent income level of average world per capita income.

⁴ CIA world fact book

Table 2.1. Ethiopia: Main Macroeconomic Indicators, FY 2000-2008

	1990/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Economic Activity and prices									
Real GDP Growth (%)	-8	7.4	1.6	-2.1	11.7	12.6	11.5	11.5	11.6
By Sector									
Agriculture (%)	3.1	9.6	-1.9	-10.5	16.9	13.5	10.9	9.4	7.5
Industry (%)	5.3	5.1	8.3	6.5	11.6	9.4	10.2	10.2	10.4
Service (%)	10.4	5.2	3.3	6.0	6.3	12.8	13.3	14.3	17.0
GDP at current market prices(USD millions)	8,188	8,166	7,794	8,559	10,042	12,306	15,164	19,539	26,567
GDP per capita (USD)	131	127	118	126	143	171	205	257	340
Nominal Birr per capital income(Index FY=100)	100	99	94	101	116	139	167	212	295
Real Birr per capital income (Index FY00=100)	100	105	107	100	106	118	127	139	154
Gross domestic investment (%GDP)	15.3	17.8	20.5	22.7	21.3	23.0	24.2	25.0	21.2
Public investment (%GDP)	5.3	8.5	11.5	8.8	9.1	14.7	16.7	18.2	15.3
Private investment (% GDP)	9.9	9.3	9.0	14.0	12.1	8.3	7.6	6.7	5.9
Consumer Prices (moving-average in %)	6.2	-5.2	-7.2	15.1	8.6	6.8	12.3	17.8	25.3
Consumer Prices (Year-on-year in %)	0.3	-11.4	-1.0	23.5	1.7	13.0	11.6	17.7	55.2
Money and Exchange Rates									
	(in percent change, unless otherwise noted)								
Broad money (M3)	14.0	9.5	12.3	10.9	14.7	19.6	17.4	19.7	22.7
Credit to the public sector(Govt & SOEs)		-0.6	3.6	8.6	15.7	31.5	16.7	21.1	35.7
Credit to the private sector		7.9	-7.4	-4.2	3.7	31.5	28.3	27.3	22.0
Savings deposit rates (average)	6.0	6.0	3.1	3.1	3.1	3.1	3.1	3.1	4.1
Lending rates (average)	12	12.8	12.8	10.5	10.5	10.5	10.5	10.5	11.5
Exchange rate(Birr per USD, year average)	8.14	8.33	8.54	8.58	8.63	8.65	8.68	8.79	9.24
Real effective exchange rate	-1.2	-12.3	-1.2	5.9	-4.6	8.2	6.0	3.8	24.2
Balance of payment									
	(US dollar Millions, unless otherwise noted)								
Exports, f.o.b.	486	463.182	452	483	600	847.335	1,001	1,189	1,466
Coffee	262	128	163	165	223	512	354	424	525
Non coffee	223	281	289	318	377	3633	647	765	941
Imports, C.I.f	1,611	1,557	1,696	1,856	2,587	669	4,593	5,128	6,811
Fuel	250	293	268	289	311	8.0	861	895	1621
Terms of trade(percent change)	-33.9	-3.6	-11.1	-6.5	-14.6	-6.3	4.4	-1.6	2.5
Current account, after grants (% GDP)	-5.3	-3.6	-5.7	-2.2	-4.0	1.2	-9.1	-4.5	-5.3
Foreign direct investment	62.5	53.2	0	123.3	150	150	365.1	482	814.6
External borrowing (% GDP)	1.7	3.8	9.5	5.7	3.9	48.9	0.5	1.2	2.8
External debt (% GDP)	85.7	82.4	97.4	85.4	73.3	5.8	37.3	11.8	13.3
External debt-Service ratio (% exports) (%)	52.2	22.7	17.0	7.8	6.7	1581	5.1	3.7	1.2
Gross official international reserves (in months of imports of goods & Service)	349	337	664	931	1352	1581 3.4	1158	132	1323 1.9
	2.2	2.0	3.3	3.7	3.7		2.2	6	
								2.0	
Non-monetary capital	139.6	259.9	506.4	400	512.4	585.1	632.5	798.5	968.1
Government finances									
	(in percent of GDP)								
Revenue	14.4	15.1	16.5	15.2	16.1	14.6	14.8	12.7	12.1
Tax revenue	9.7	10.9	11.9	11.2	12.6	11.6	107.2	10.1	10.0
Non-tax revenue	4.5	4.0	7.2	4.0	8.6	3.0	4.1	2.6	3.6
Grants	2.6	3.9	3.6	6.2	4.6	4.3	2.8	4.4	4.3
Expenditure and net lending	26.1	23.4	32.6	27.9	23.7	19.3	22.3	20.8	19.1
Current expenditure	20.6	15.3	15.9	18.4	13.8	12.4	11.6	10.0	10.1
Capital expenditure	5.2	7.4	9.2	8.6	9.5	10.7	10.7	10.7	11.3
Overall fiscal balance, including grants	-8.9	-4.4	-7.2	-6.5	-3.0	-4.4	-4.6	-3.6	-3.5
External financing of the deficit	1.3	3.0	7.4	5.3	2.8	2.2	1.1	1.1	1.4
Domestic financing of the deficit	7.5	0.1	0.5	2.3	2.5	3.3	2.1	3.6	1.8
Others and residuals/statistical discrepancy	-0.8	0.7	-0.7	-1.0	-2.3	-1.2	1.4	-1.1	-1.1
Domestic debt	25.4	21.4	23.2	25.6	26.6	22.2	20.1	17.6	15.6

Source: The Ethiopia Macroeconomic Handbook: 2009

However, moving beyond a purely income based measure, a somewhat better record is seen in terms of its level on the UNDP's Human Development Index, which shows Ethiopia rising from ranking at just 28 percent of the highest rated

nation to ranking at 40 percent of the highest rated nation (World Bank,2009) (see table below). Almost one-half (44 percent) of the population lived below the poverty line in 2000 (the official poverty line in \$US1.50 in 1993 purchasing power parity) (World Development Indicators 2000 data, as cited in Getachew and Kallaur, 2005). World Bank poverty assessments point to a rise in urban poverty over the last decade and to only a marginal decline in rural poverty over the same period (Ibid, 2009).

Table 2.2. Development Indicator Ranking

Per Capita Income	1990	2000	2007 or latest
Ethiopia (USD basis)	450	574	1055
World average (USD PPP basis)	4110	6526	9543
Ethiopia Vs World Average	11%	9%	11%
Human Development Index			
Ethiopian Level (Index)	0.282	0.309	0.406
Global Level Average(Index)	0.714	0.712	0.743
Ethiopian Vs Global Average Level	39%	43%	55%
Ethiopian Vs Highest Ranking Nations	28%	31%	41%

Source: World Bank and UNDP Human Development Report, 2009

Despite notable progress, many improvements registered in recent years show more modest gains when seen in per capita terms (nearly 30 million Ethiopians have been born since the current government came into power in 1992), relative to GDP, or in comparison to the record of some of Africa's 'star reformers'. Food security remains a challenge. Recently, the inability to control inflation has been a major weakness of monetary policy⁵; the failure to build adequate national

⁵ The average annual rate of inflation was 4 per cent over the period 1993 to 1998, and was estimated at 2.4 per cent for 2004 and 8.5 during the year 2009.

buffers – in terms of food stocks or foreign exchange reserves – during the period of high growth was a missed opportunity (World Bank, 2010).

2.6. Demographic characteristics

Ethiopia has witnessed rapid population growth in recent decades. Ethiopia's population is now the second largest in Africa and 16th largest in the world. According to the recent Population and Housing census, 2007 the population of the country was 73.9 million. Of these, 37.2 million (50.5%) were males and 36.6 million (49.5%) were females. Comparing with the 2007 the population of the country in the previous censuses of 1984 and 1994 were 39.8 and 53.5 million respectively. Urbanization has grown over the past two decades, as the proportion of the population living in urban areas increased from about 11 per cent in 1984 to 16 per cent in 2005. The literacy rate is less than 40 percent (CSA, 2008).

Each successive Population and Housing Census demonstrates that national population size increased in steady increments of significant proportions. For instance, a comparison of the 2007 census results with those from 1994 shows that the population of the country increased by more than 20 million persons over the last 12 years. Similarly, in the previous decade (1984 to 1994), the population of the country increased by 13.2 million people. Population growth has resulted in an annual addition of about 2 million members to the labour force. The absolute size of the national labour force was estimated at 12.9 million people in 1984. Over the subsequent decade the size of the labour force increased, reaching an estimated 32.2 million people in 2005, with an annual average increase of 3.2 per cent. Unless the demand for labour concomitantly expands, such fast growth in the supply of labour force exacerbates the inadequate employment situation in the country.

The Ethiopian population is predominantly “young” age cohorts; child and young people (0 to 24 year-olds) make-up well over half of the total population. Persons aged 65 years and older, on the other hand, represent just 3.2 % of the total population, owing to Ethiopia’s low life expectancy of just 44 years (CSA, 2008). Youth have grown from about 14 percent of the population in 1984 to about 20 percent currently. According to Central Statistical Authority (CSA) projections, this proportion is expected to remain roughly constant as the youth population grows in absolute numbers from about 15 million in 2005 to 26 million in 2030. In rural areas, 45 percent of the population is under 14 years; the proportion in urban areas is smaller, but still over a third of the population (35 percent). Youth account for a slightly larger percent of the population in urban (23 percent) than in rural (20 percent) areas. The population pyramids below illustrate that a significant proportion of the national population is below age 15 (Figure 2.1), a pattern also observed in 1994 census (Figure 2.2).

Figure 2.1. Population pyramid of Ethiopia: 2007

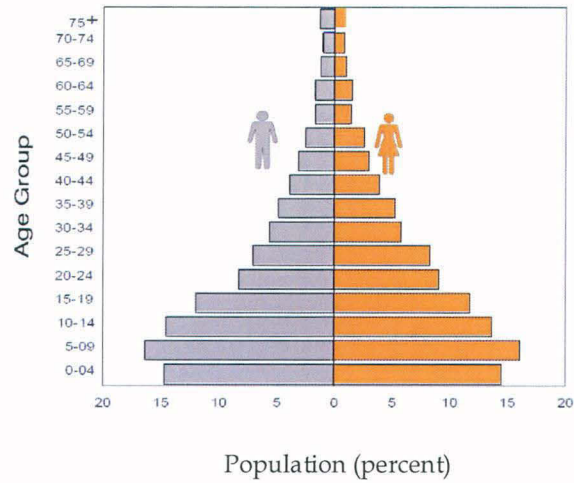
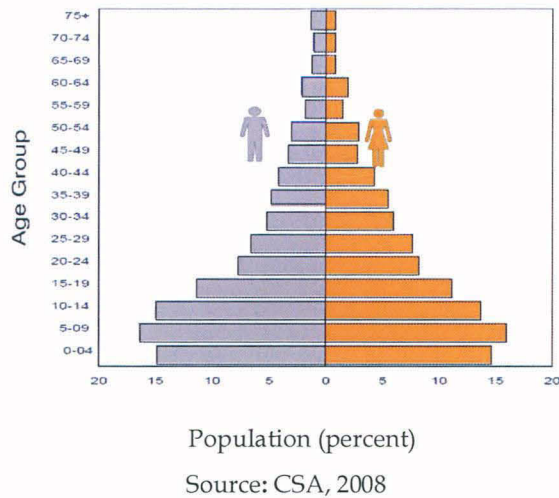


Figure 2.2. Population pyramid of Ethiopia: 1994



2.7. Labor Market Characteristics

In developing countries, especially in low-income economies, the labour market is characterized by large proportions of unpaid family work and self-employment and a very low share of waged employment. Since regulation does not affect much employment with similar features, labour markets tend to be rather flexible and workers' protection is often neglected. Hence, the notion of

“flexicurity” needs to be adapted from the one used for advanced economies which mainly focuses on regulated waged employment.

In other words, the situation of the labour markets in poor countries present opposite characteristics compared to those of industrialized economies. A largely prevailing informal economy, a predominating agricultural sector employing most of the labour force, self-subsistence activities and a very small State budget are among the principal features of poor economies. In particular, the large size of the informal economy and of agricultural labour determines a high level of flexibility through the provision of occasional work and irregular incomes, which is not compensated by measures targeting workers’ protection.

Lanot and Muller (1997) noted that labour markets in developing countries are characterized by dualism and imperfections as opposed to perfect competition. According to this line of argument, this dualism is characterized by the existence of activities with diminishing returns to labour in the traditional sector, and entry costs in the modern sector.

As in most developing countries, the labor market in Ethiopia is mainly composed of sizable proportions of unpaid family work and self-employment and a very low share of waged employment. Since rules and regulations do not have much influence on these types of employment, labor markets tend to be rather flexible and workers’ protection is often neglected. A largely prevailing informal economy employing most of the labor force and self-subsistence activities are among the characteristics of the Ethiopian economy. In particular, the large size of the informal economy determines a high level of flexibility through the provision of occasional work and irregular incomes, which is not compensated by measures targeting workers’ protection. The informal sector represents an important part of the economy and certainly of the labor market in Ethiopia, and thus plays a major role in employment creation, production and

income generation. The informal sector absorbs most of the expanding labor force in the urban areas. In Ethiopia, informal sector employment is a necessary survival strategy because of lack of social safety nets such as unemployment insurance or where wages - especially in the public sector - and pensions are low (Denu, Tekeste, and van der Deijil 2005).

Rapid population growth during recent decades has resulted in a large parallel growth in the labor force. The absolute size of the national labor force was an estimated 32.2 million people in 2005, up from an estimated 12.9 million people in 1984. The total labor force is projected to double again in the next 25 years, which will place a huge strain on the labor market even under the most optimistic growth scenario. More than 80% of the labor force is employed in subsistence agriculture, with little difference in labor force composition between young people and. Most employed persons cannot read or write, and most are informal sector casual workers (Central Statistical Authority, as cited in Denu, Tekeste, and van der Deijil, 2005).

When we see the rural dimension of labour markets in Ethiopia, as elsewhere in Africa, require the consideration of broader forms of labour exchange. These range from labour exchange (e.g. sharecropping), non-market based exchanges (such as tributary labour), to adjustments to family size (including adding wives, children or extended family) (White et al. 2006). Most Ethiopians working in agriculture are self-employed, although land pressures and other factors suggest that hired labour might be on the rise. In some areas, cultural practices and local technology result in some households without adult males hiring labour, leasing land or entering into share-cropping arrangements. Rural productivity is particularly low in agriculture, where 80 percent of the labour force works yet only 45 percent of GDP is generated (Bigsten, et al. 2003). Open unemployment is low, but underemployment is pervasive.

Off-farm opportunities, which will be key to poverty reduction, are presently limited. There is little formal sector employment, though decentralization and increases in service delivery are creating public sector opportunities in small rural towns. While households with more diversified income sources are better off, for many there are serious barriers to diversification, for example: fear of losing access to land (MOFED, 2005); isolation for those living some distance from towns and access to credit and skills. (Dercon and Krishnan 1996, Woldehana and Oskam 2001. An important source of diversification is internal circular migration, as workers follow differences in cropping seasons and climate across agro-ecological zones. This suggests that labour markets have a very local and seasonal nature.

If we see sector wise different sectors of the Ethiopian labour market have seen quite different development over the last decades. In general, the following distinctions can be made:

Despite recurrent efforts by the Government, the agricultural sector seems to be in long-term decline, with its poor performance explaining most of the overall loss of employment in the post-reform period. Its performance in that period is characterized notably by negative growth in both productivity and employment.

The manufacturing (industrial) sector is expanding, albeit in a limited and uneven manner, and overall, employment growth in this sector is insufficient to keep up with overall population growth (1.8% for the former against 2.9 percent for the latter). Growth in manufacturing employment is far from being equally distributed. Certain sectors are expanding strongly (such as food and beverages, chemicals and vehicles), whereas others (notably wood production and textiles) show falling employment. On the positive side, the overall output (value-added) growth in the manufacturing sector is clearly outpacing employment growth in this sector, implying an elasticity of less than unity and hence a "healthy"

expansion inasmuch as this implies the potential for future job creation. And the service sector has seen relatively high productivity growth in the post-reform period.

Generally according to the International Labor Organization (ILO)⁶, a good balance between labor market flexibility, employment and income security, acceptable to both employers and workers is achieved when labor input can be easily and quickly adjusted to the needs of labor demand. However, a reasonable level of protection for workers should also be guaranteed. This balance is obtained through the interaction of several factors like *an appropriate legal framework, sound social dialogue, well-functioning labor market institutions, effective labor market policies, risk management mechanisms*.

Regarding labour legislation, a new labour proclamation was issued in 2003, repealing the 1993 text. Ethiopia also ratified a large number of international treaties. The 1993 Labour Law⁷ itself was a drastic revision made after the end of the *Derg* regime. In contrast to the previous labour law, the new labour law provides market-oriented and decentralized recruitment and employment procedures, allows free mobility of labour, and introduces flexibility in cancellation and modification of contracts of sector employment guarantee system for college and university graduates in 1993.

Areas of regulation in the 2003 Law include employment relations; wages; hours of work; regulations on taking leave; occupational safety; health and working environment. Moreover, relations between trade unions and employer associations are regulated, as well as labour disputes. Finally, there is a specific section on the working conditions of women and young workers.⁸ Several provisions are of importance to this study. In accordance with international

⁶ Maria Sabrina De Gobbi. 2006

⁷ TGE 1993

⁸ *Labour Proclamation No. 377/2003*.

conventions on working hours, the labour code specifies that individuals are allowed to work up to 48 hours a week; the hours should be distributed evenly (Buckley, Casale and Fashoyin 2004, p. 29). Any extra work is considered overtime and is allowed up to two hours a day. For young workers, normal hours of work should not exceed seven hours a day.⁹ Furthermore, Ethiopian law states that it is illegal for those below 14 years of age to work, despite their high participation rate.

Ethiopia's Labour Law Proclamation No. 42/93 (1993) provides for the establishment of trade unions and employers associations. There are several regional trade union confederations and nine trade unions and one employer's federation at the federal level. However, in Ethiopia, since the formal sector is dominated by the public sector, the role of the trade unions in determining labour market outcomes is minimal. Also, due to difficulties with enforcement, the impact of the minimum wage legislation on the employment decisions of employers is limited. Innovations in the 2003 labour law include several measures to enhance social dialogue, such as the abolishment of a trade union monopoly.

During the period of economic command system between 1974 and 1991, recruitment in the formal sector (which was largely government owned) was highly centralized. Job seekers were required to register with the Employment Exchange Offices while employers were expected to inform the Offices about any vacancies they might have. With the transition to a market-oriented economic system the service was supposed to be enhanced. The employment guarantee system for graduates of higher education was put to an end. In practice, however, the incentive to register with the employment exchange office vanished. In the absence of these services young job applicants could experience

⁹ Article 90 of Labour Proclamation No. 377

difficulties obtaining information about employment opportunities. The disadvantaged groups among youth, e.g. the poor, the uneducated, the disabled, etc., are likely to be more affected by the absence of a well-functioning national employment service.

CHAPTER THREE

3.1. Trends and patterns of Activity Status and Work participation in Ethiopia

In this chapter attempt is made to highlight the trends and patterns in the activity status of working age population: the trends and patterns in activity status, the size and composition of labour force, and the changes taking place therein over the years. Trends and patterns of work participation are given amore detail emphasis here. Moreover, analysis on the structure and distribution of employment (by broad industry and occupational division) and status of employment and their variations over the years is also the theme of chapter. Finally an overview of the unemployment situation in Ethiopia is discussed.

3.1.1. Trends and patterns in Activity Status of working age population

3.1.1. 1. Economically Active and Inactive Population

The working-age population in Ethiopia includes all persons aged ten years and over. In the two censuses (1994 and 2007) as well as the 1999 and 2005 work force survey made by Central Statistical Agency (CSA) the minimum age for the study of the economically active population and its components was fixed at ten years. It is well known that in Ethiopia a substantial number of children less than ten years of age are engaged in economic activities, especially in the rural agricultural sector. On the other hand, in the two censuses as well as work force surveys, no maximum age limit was fixed that shows the exit of individuals from the work market. Hence, economic activity and employment information was always collected from all individuals aged 10 years and over.

According to the definition given by CSA all persons aged ten years and over is divided in terms of their activity status into economically active and inactive categories¹⁰.

Based on the above concepts and definitions of economic activity status, the results indicate that the population of Ethiopia aged ten years and over was found to be 50,978,968 persons in 2007 census among which, 9,411,142 or 18.5 percent were residing in the urban areas, while the great majority of the population (41,567,826 or 81.5 percent) were rural residents (See Table 3.1 and Table 1.1 in the appendix part). The trend in terms of the percentage of working age population living in rural and urban areas has shown a decline. The percentage of people living in rural areas declined from 84.9 in 1994 to 84.4, 83.3 and 81.5 percent for the year 1999, 2005 and 2007 respectively. While in urban areas it has increased from 15 percent in 1994 to 15.6, 16.7 and 18.5 percent for the year 1999, 2005 and 2007 respectively.

Among the population aged ten years and over 35,327,499 or 69.3 percent were reported to be economically active and 15,651,469 or 30.7 percent are economically inactive in 2007 (See Table 1.1 in the appendix part). The trends for economically active showed an increasing trend for all years except a sharp drop in the year 1999 due to the war with Eritrea. However, when we look at the trends for inactive population it shows declining trends till the year 2005 and a huge jump in the year 2007 i.e., from 20.3 percent in 2005 to 31 percent for the year 2007. This may be due to the high school enrollment rate in the recent years.

¹⁰ In both the urban and rural areas, all persons aged ten years and over who were productively engaged or available to be engaged during the reference period were included as economically active persons. In other words, the economically active population comprises all persons age ten years and over who were employed or unemployed in the reference period. The complements, i.e., those who were neither engaged nor furnish their labour constitute the economically inactive population.

The distribution of the economically active population by residence/urban and rural/ and sex showed that in urban areas among the male population aged ten years and over, 61.8 percent were found to be economically active, while in the case of females it was 48.1 percent in the year 2007 whereas in rural area the figure was 78.1 and 67 percent for both male and female respectively in the same year. The trends also revealed that in all the years the percent economically active males were relatively higher than the females in both urban and rural areas. This is true mainly because housewives are mostly engaged in activities that are not considered economic.

It may be observed from the table also that for all years (except for the year 1994 and 2007 where more inactive females were reported than the active ones in urban areas) in all the urban and rural areas of the country more active persons were reported compared to the inactive ones for both males and females (See Table 3.1). Considering the urban part, the balance between the active and inactive females was slightly reversed, (39.1 percent active against 61 percent inactive and 48.1 active and 52 percent for 1994 and 2007 respectively). This could happen because, unlike the rural areas, where the housewives are usually engaged in some form of agricultural activities during the year, in the urban part, unless they have some type of regular job, most housewives stay at home and are mainly engaged in housework activities(See Table 3.1).

Table 3.1. Distribution of Population aged ten years and over by Sex and Activity status: Ethiopia 1994-2007

Year	Place of Residence	Economically Active			Economically Inactive			Total		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1994	Urban	62.03	39.05	49.97	37.97	60.95	50.03	2643469	2919973	5563442
	Rural	85.49	67.37	76.53	14.51	32.63	23.47	15761479	15411952	31173431
1999	Urban	70.39	61.47	65.51	29.61	38.53	34.49	2537973	3066423	5604396
	Rural	83.28	64.95	74.03	16.72	35.05	25.97	15063901	15346272	30410173
2005	Urban	67.05	60.09	63.31	32.95	39.91	36.69	3178285	3676836	6855121
	Rural	88.73	77.47	82.98	11.27	22.53	17.02	16704634	17410517	34115151
2007	Urban	61.80	48.07	54.88	38.20	51.93	45.12	4663232	4747910	9411142
	Rural	78.07	66.96	72.56	21.93	33.04	27.44	20967898	20599928	41567826

Source: Owen computation of CSA data

3.1.1. 2. Over all Trends and patterns in Size and Composition of Labour Force

A person in the working-age population is classified as employed, unemployed or inactive (not in the work force). Those persons that are employed or unemployed are counted as labour force participants.

The size and growth of labour force by residence and sex is given in Table 1.2 in the appendix and the corresponding percentage shares are given in Table 3.2. The total labour force in 1994 census was about 26,638,365 and declined to 26,184,205 in 1999 and then it has increased to about 32,650,328 and 35,327,499 in 2005 and 2007 respectively. When we look at the net addition to the labour force from 1994 to 1999 it was showing a decline over a period of five year, 454,160 (or an average annual decline of 90,832), while during the period of 6 years from 1999- 2005 it was showing increment, it was about 6,466,123 (or an average annual addition of 1,077,687). During the last period, 2005-2007 the net addition has shown further slight increment to 6,692,928 (or an average annual addition of 1,338,586 persons). The decline in total labour force during the first period i.e. 1994-1999 may be explained transition period after the previous military

government was overthrown after a long civil war and the war the country had emerged during 1999 with Eritria.

Looking at further the trends of the annual addition of the labour force by residence status the average annual addition to labour force during 2005 to 2007 in urban areas has been much higher than in the previous years except for the year 1999-2005. It has increased from 178,311 during 1994-1999 to 412,095 in 2005-2007. Although the annual addition of labour force in rural areas has shown increment during 1999-2005 comparing to the previous period, it has shown a slight decline in the recent period i.e. from 966,244 during 1994-1999 to 926,491 during 2005-2007. The decline in the labour force during the recent period in rural areas probably is explained by rural-urban migration.

In terms gender, except for the first period, 2005-2007, annual addition of the Female labour force is higher than that of the male labour force. Comparing in terms of residence status except for the first period (1994-1999) annual addition of labour force for females in urban area is lower than their male counterpart. In the rural area except for the last period (2005-2007) male annual addition is lower than females.

Observing the distribution of the labour force in urban and rural areas there are two kinds of characteristics in the distribution of Ethiopia's labour force. First, rural labour is still predominant. In 1994 close to 89.6 percent of the labour force belonged to rural areas (Table 3.2). However it reduced to 86 percent during 1999 and 2005 and further to 85 percent in 2007. The average annual decrease was about 0.32 percentage points for the whole period, implying that the impact of urbanization in the rural labour force has been minimal. This may be primarily because of the large size of rural labour force and low base of urban population. It is thus clear that a pragmatic employment strategy to alleviate poverty and

vulnerability needs to have a significant focus on rural employment and its quality.

The second characteristic is the relatively higher percentage share of men in the labour force. Males constituted more than females in the total labour force in the country (54.49 and 45.51 percent for males and females respectively in 2007). The share of females in the labourforce has slightly increased while that of the males has correspondingly decreased between 1994 and 2007. While the share of rural males in 1994 was 50.6 percent, it declined to 46 percent in 2007. The share of rural females has remained stable during the period, from 38.9 percent to 39.04 percent. While in urban areas growth in both male and female labour force improved slightly between the two periods (1994-2007).

Table 3.2. Percentage Shares of Labour Force aged 10 years and over by Residence Status and Sex

Residence	Gender	Percentage shares ¹¹				Average Annual Change (percentage points)			
		1994	1999	2005	2007	1994- 1999	1999- 2005	2005- 2007	1994- 2007
Urban	Male.	6.16	6.82	6.53	8.16	0.13	-0.05	0.82	0.15
	Female.	4.28	7.20	6.77	6.46	0.58	-0.07	-0.15	0.17
	Total.	10.44	14.02	13.29	14.62	0.72	-0.12	0.66	0.32
Rural	Male.	50.58	47.91	45.40	46.34	-0.53	-0.42	0.47	-0.33
	Female.	38.98	38.07	41.31	39.04	-0.18	0.54	-1.13	0.00
	Total.	89.56	85.98	86.71	85.38	-0.72	0.12	-0.66	-0.32
Total	Male.	56.74	54.74	51.92	54.49	-0.40	-0.47	1.29	-0.17
	Female.	43.26	45.26	48.08	45.51	0.40	0.47	-1.29	0.17
	Total.	100	100	100	100				

Source: Owen elaboration of CSA data

¹¹ The proportion is computed based on the total labour force

3.1.1. 3. Trends and patterns in Employed and Unemployed Population

Based on the definition given in the previous sections those whose ages is 10 years and above and economically active people further split in to those who are employed¹² and unemployed¹³ which together make the labour force. Among the working age population of Ethiopia the employed and unemployed population was reported to be 67 percent and 2.6 percent, respectively in 2007 (See Table 3.3 and appendix Table 1.3). This figure has more or less shown a declining trends comparing to previous years, except for the year 2005, because of an increase in the number of non active population in the same year (2007).

Looking at the patterns of activity status by gender and residence, employed male for urban areas was 54 percent for the year 2007 which is declined by 4 percentage point comparing to the previous years except for the year 1994. While for females in urban areas it has shown an increasing trend except for the year 2007 because of the rise in the number of inactive population in the same year. While in the rural areas the percentage of employed male has shown a declining trend except for the year 2005 and for females it shows more or less a stable condition except a sharp rise in the figure to 73.3 percent in the year 2005.

When we observe the unemployed situation in urban areas the trends for male has shown a sharp decline in recent years while for females although there is a decline in percentage of unemployed females it is still showing higher figure comparing their male counter parts in different years. In rural areas the trend in unemployed showed a stable condition for male and a decline in percentage (3

¹² Those who were engaged in productive activities during the reference period (seven days prior to the date of the interview in case of current status approach and during most of the previous twelve months in the case of usual status) were classified as employed.

¹³ Those who were not working during the reference period and were actively looking for work or were discouraged job seekers (those who were not actively looking for work but were ready and willing to take up a job if one was available) comprised the unemployed population.

percent) comparing to the year 2005 and has made slight change in comparison to the year 1994 and 1999.

Generally speaking the above patterns for employed and unemployed show that for the urban and rural areas of Ethiopia difference in rate was observed, where a very small number of unemployed persons were reported in the rural areas compared to the urban areas (10.95, 17.27, 13.02 and 9.66 percent urban unemployed against 0.53, 0.23, 2.83 and 1.04 percent rural unemployed for the year 1994, 1999, 2005 and 2007 respectively). The percentage unemployed females were consistently higher than the unemployed males in urban areas of Ethiopia except for the year 1994 where there is a slight difference in the figure. This difference between genders in urban areas could be because of the fact that more females than males were engaged in non-income generating activities (like housekeeping and other related activities), which resulted in a higher female unemployment rate compared to male.

Table 3.3. Trends in the Distribution of Population aged 10 years and above by Activity status (%): *

Sex	Activity Status	1994		1999		2005		2007	
		Rural	urban	Rural	urban	Rural	urban	Rural	urban
Total	Employed	75.87	38.76	73.80	48.15	80.07	50.18	71.52	45.21
	Unemployed	0.53	10.95	0.23	17.27	2.83	13.02	1.04	9.66
	Inactive	23.43	49.77	25.97	34.44	17.00	36.62	27.44	45.12
	All	99.83	99.47	100.00	99.86	99.89	99.83	100.00	100.00
Male	Employed	84.95	49.30	83.05	57.48	87.19	57.84	76.86	53.72
	Unemployed	0.54	12.73	0.23	12.91	1.54	9.21	1.21	8.09
	Inactive	14.51	37.97	16.72	29.61	11.27	32.95	21.93	38.20
	All	100	100	100	100	100	100	100	100
Female	Employed	66.84	29.60	64.71	40.56	73.39	43.73	66.09	36.86
	Unemployed	0.53	9.46	0.23	20.92	4.07	16.36	0.86	11.21
	Inactive	32.63	60.95	35.05	38.53	22.53	39.91	33.04	51.93
	All	100	100	100	100	100	100	100	100

* Percent may not add up in to 100 due to the existence of non stated cases

Source: Owen elaboration of CSA data

Table 3.4 below show labour force status by age group in rural and urban areas of Ethiopia¹⁴. Percentage of employed were found to increase rapidly with age for both rural and urban areas. These percentage remain high for age group 25 and above for both urban and rural. Especially in the rural areas rural persons spend all their lives working their percentage is higher comparing to urban areas.

In addition, the trend further showed that in the urban areas, the proportion of those employed has increased between the two censuses (1994 and 2007) as well as the 1999 and 2005 labour force surveys. However, the trends observed in the rural areas showed the reverse where between the two censuses a decrease in the percentage of those people aged 10-14 and 15-24 although there is a slight increase in percentage between the two labour force surveys. Much difference in the proportion of children employed has occurred between the 1994 census and the 1999 survey¹⁵.

Percentage of employed children was observed to start rather early in Ethiopia especially among the rural children where there is higher proportion of this group. The same higher proportion of youth employed is also observed in rural comparing to urban areas. A major factor that explains these facts i.e. the difference between urban and rural areas is educational participation; with relatively little opportunities for education in rural areas, the rural children and youth are more likely to become active in the labor force. Urban children and youth seem to benefit most from this factor. The higher level of poverty in rural areas leads rural youth to participate in the labour force.

¹⁴ For the purpose of this indicator, the term "children" refers to those whose ages are between 10-14 while "youth" covers persons aged 15 to 24 years, and thus the term "adult" refers to those aged 25 and over

¹⁵ This is due to differences in the definition of children who were working while attending school, in the usual status approach. In the 1999 survey children who are working while attending formal education, even if working most of the year, were considered students. However, in the 1994 census children in such a situation were treated as working children. In any case, the proportion of children aged 10-14 engaged in economic activity is large.

Generally, Significant differences in the proportion of employed exist across area of residence, as well as between youth and adults. The employed percentage of rural youth and children is much higher than that of the urban youth in all years. Moreover, little difference can be observed between rural youth and rural adults. However, urban youth have much lower employed proportion than their older counterparts. An increase in the enrollment of children in primary and secondary education has happened very recently that may eventually lead to a decline in the proportion of employed youth. This is further evidenced by a much higher increase in the proportion of in active population (aged 10-24) in recent year both in urban and rural areas comparing to previous.

Looking the trends in the proportion of unemployed, unemployment disproportionately affects the youth population in Ethiopia. In each of the four periods, the youth unemployed proportion was higher than for all other age groups in both urban and rural areas. However, crucial differences across rural and urban areas exist. Like the entire population, the majority of youth live in rural areas. . Open youth unemployment appears to be characteristic of urban centers, where there is more proportion of youth unemployed than adult compared to rural areas.

Table 3.4. Trends in the Distribution of Population by age group and Activity status (%): Urban and Rural

Activity Status	Urban											
	1994			1999			2005			2007		
	10-14	15-24	25+	10-14	15-24	25+	10-14	15-24	25+	10-14	15-24	25+
Employed	7.52	28.74	56.97	15.11	39.43	66.11	17.86	40.63	67.60	15.05	34.30	62.46
Unemployed	3.08	17.86	9.55	6.74	24.57	16.26	2.70	16.41	14.01	4.15	10.24	10.88
Inactive	89.40	53.40	33.48	77.98	35.88	17.50	79.17	42.82	18.23	80.80	55.47	26.67
All	100.00	100.00	100.00	99.84	99.88	99.87	99.73	99.86	99.84	100.00	100.00	100.00
	Rural											
	1994			1999			2005			2007		
	10-14	15-24	25+	10-14	15-24	25+	10-14	15-24	25+	10-14	15-24	25+
Employed	56.68	77.30	82.75	50.63	78.36	80.34	64.94	79.55	85.66	52.96	68.22	81.44
Unemployed	0.49	0.98	0.31	0.11	0.44	0.17	3.22	3.89	2.16	0.99	1.45	0.83
Inactive	42.82	21.73	16.94	49.25	21.20	19.49	31.73	16.49	12.06	46.06	30.33	17.73
All	100.00	100.00	100.00	100.00	100.00	100.00	99.88	99.93	99.88	100.00	100.00	100.00

* Percent may not add up in to 100 due to the existence of non stated cases

Source: Owen elaboration of CSA data

3.1.2 Trends and patterns of work participation in Ethiopia

The overall work participation rate¹⁶ in Ethiopia has gone down from around 70 per cent in 1994 to nearly 67 per cent in 2007 (See figure 3.1 in the appendix). The rural work participation rate has all along been higher than that in the urban areas. Work participation rates are higher in rural areas where most persons are self-employed in their farms or other activity than in the urban areas where some specialized skills are required for access to employment. Moreover, the lower work participation in urban areas compared to rural areas is perhaps a manifestation of the higher proportion of youth attending educational and training courses in the former. This may *inter alia* indicate a less desperate urban situation to be in the work force at an early age (more discussion will be made in the subsequent sections). The work participation figure showed the disparity between urban and rural respectively as: 39 percent against 76 percent in 1994 to 45 against 71 percent in 2007 (See Table 3.5).

There is a decline in both female and male work participation rate in rural areas in 2007 comparing to previous years. Comparing the rate of participation rate for the year 2007 in rural areas there is a decline in the rate for both male and females although a rising trend was registered between 1999 and 2005 labour force surveys (see also Table 3.6). However, it should be noted that when comparisons is made between the two censuses (i.e. 1994 and 2007) female rate of participation has shown more or less stable condition , 67 and 66 percent between 1994 and 2007 respectively. Though the figure for urban areas between the year 1994 -2007 showed a declining trend for both male and female it has shown some improvement comparing to the 1994 census year.

¹⁶ Work participation rate is calculated as a percentage of total employment to that of the total working age population. And note that unless and otherwise mentioned in the tables or figures work participation rate for urban area refers to 'current status' and 'usual status' used for rural areas.

The gap between male and female work participation rates had been increasing during 1994-1999 but starting from recent years it has declined. Urban disparities in work participation rate according to sex are relatively wider than in the rural areas. The female work participation rates have been very low in the urban areas, although it has shown a rise from 29 per cent in 1994 to 37 per cent in 2007. We may also note that the urban female work participation has remained markedly lower than the rural. This difference partly reflects the greater difficulty of combining 'work' with household duties in urban areas instead of in villages where work on the family farm or in the family enterprise tends to be the predominant activity. In general, Ethiopian men were found to be more participated in work than the women (73 percent against 61 percent) (See Table 3.5 and Figure 3.1 in the appendix).

In general, work participation rate has declined in Ethiopia in recent year in both urban and rural areas and irrespective of gender despite the marginal increase in the number of employed people in absolute terms between 1994 and 2007 (refer to appendix Table 1.3 of the previous section on the number of employed population).

Table 3.5: Trends in Work participation rate of population aged 10 and above in Ethiopia: 1994-2007

Year	Urban			Rural		
	Total	Male	Female	Total	Male	Female
1994	38.76	48.99	29.47	75.87	84.80	66.73
1999	48.15	57.41	40.50	73.80	83.05	64.71
2005	50.18	57.70	43.67	80.07	87.10	73.32
2007	45.2	53.7	36.9	71.52	76.86	66.09

Source: Owen computation from CSA data

Table 3.6. Work Participation Rates in Ethiopia: 1999 and 2005

year	U+R(Current Status)			Urban(Current Status)			Rural (Current Status)		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1999	69.11	80.19	58.53	48.15	57.41	40.50	72.98	84.03	62.13
2005	76.64	84.69	69.04	50.18	57.70	43.67	81.96	89.83	74.40
	Urban+Rural (Usual)			Urban (usual)			Rural (usual)		
year	Total	Male	Female	Total	Male	Female	Total	Male	Female
1999	69.74	79.28	60.62	47.75	56.95	40.13	73.80	83.05	64.71
2005	74.55	81.96	67.56	47.11	54.97	40.31	80.07	87.10	73.32

Source: Owen computation of CSA data

3.1.2.1. Trends in Age-Specific Work Participation rate

The data in Figure 3.2, Figure 3.3 and Table 1.4 and Table 1.5 in the appendix exhibit curvilinear relationship between broad age and work participation rates in Ethiopia. That is, low participation rate at lower age groups (10-19 years) and old age group (65 and over) and high participation rate in the productive age group (25-64 years). There is also higher proportion of male than females tends to join the workforce at all age groups. Moreover, the data revealed that in all age groups, for all years, the work participation rates for the rural area were higher than the urban.

Looking at the trends in work participation by age group in rural areas for different years showing declining trend of varying magnitudes in work participation rates up to the age group 20- 24 persisted in the rural areas while comparison is made between the two censuses and yet showed increasing trends between the two labour force surveys. While the declining trend over the years was minimal for the age group of 10-14, it was sharp for the age group 15-19 and was moderate in the age group 20-24 between 1994 and 2007 census. The participation rate reached the peak of more than 84 percent in the age group 30-34 and remained almost at that level in the age groups 35-39 and 45-49 for all

years. In the age groups of 25-29, 50-54 and 55-59 the participation rates were about 81.6, 82 and 83 percent respectively in 2007. In all the age groups from 25-29 to 55-59, the participation rates were more than 82 percent except for the year of 1999. In the age group 60-64 and 64 and above, declining trend in work participation rate was visible in the case of rural areas, from 80 and 68 percent in 1994 to 71 and 49 percent in 1999¹⁷ and 78 and 58 percent in 2005. However the rate has become more or less stable during 2007 at 78 and 68 percent.

The distribution of the work participation rate by age for both males and females were almost common except that the peak participation rates of males were much higher than those of females. The average peak participation rate for rural males was about 97.2 percent in the age group 35-39. While for females the rate starts to reach its peak at an early age (25-29 age group) and remaining high and stable up to 40-44 years and then decline slowly thereafter. The peak level of participation rate was about 74.5 percent in the age group 35-39 for the year 2007. In the case of those aged 60-64 and above the trend showing an increasing trend comparing between the two labour force surveys and censuses though a huge decline occurred for the year 1999. In general, in the rural areas the rate of participation drops gently at older ages because of high rate of engagement in farm activities by old people (Table 1.4 in the appendix).

¹⁷Older ages suffered an important decline in work participation in this year (1999) hence more problems arise in interpreting the 1994-1999 declines in older ages, which apparently occurs for both men and women, but only in the rural environment: a statistical change in considering the elderly contribution to rural activities may be the principal cause for that.

In the case of urban population, the overall work participation rates were much lower than those of the rural population in all the age groups. The age pattern of the work participation rates in the urban areas is relatively lower at early ages than rural areas. Specifically in the age group 10-14 years the difference is much more wider, where the work participation rate was 15.1 percent in urban areas and 53 percent in the rural areas in 2007 census year. For the age group 15-19 the trend showed a slight increase from 21 percent in 1994 to 25 percent in 2007 and remained stable at 32 percent between 1999 and 2005. In the age group 20-24, though the participation rate increased from 39 percent in 1994 to 50 and 53 percent in 1999 and 2005 respectively it again declined to 47 percent in 2007. The peak level of participation rate which was 64.8 percent in 1994 in the age group 40-44 also changed to 70.7 percent in the age group 35-39 by 2007. Work participation was over 55 percent in the age groups 25-29 to 55-59 in 2007. There was, however a marginal decline in the participation rates of those in the age group 60-64 and above.

Urban female participation rates exhibit a strong age pattern, with participation starts to peak at about age 25-29 and the peak becomes high at the age of 35-39 and start declining thereafter. The pattern shows that some urban females continue to have very high participation rates, well into their fifties, but the majority drop out of the labor force when they reach the age of marriage. For females in the age groups 15-19, though the work participation declined in 2007 (to 25 percent), it marginally increased from 20 percent in 1994 to 32 percent in 2005. The peak level of participation rate was about 56 percent in the age group 35-39 in the year 2007. There was in fact a gradual increase in the work participation of those in the age groups 20-24 to 35-39 except for the year 2007 where there is a slight decline was shown. In the case of those in the age groups 55-59 and 60-64 and above, there was a declining trend in the work of urban

females. Thus, the women in urban areas have been improving their share in the work force over the years.

The lower urban participation rates noted above compared to rural areas can be seen to be primarily due to a slower increase in participation before age 20 (where in urban areas children start schooling relatively at an early age and as a result the participation rate is more lower than rural areas) and a much more rapid decline in participation after age 50. The latter trend is probably due to the larger fraction of urban jobs covered by retirement pensions that allow both male and females in the urban areas to withdraw from the labor force after age 50 (See Table 1.5 in the appendix).

Further aggregating the age group in to three categories i.e., children (age 10-14), youth (age 15-24) and adults (age 25 and above) attempt was made to compare and see the trends in work participation among the division. Accordingly, the trends in work participation rate for children aged 10-14 in urban area was 7.5 in 1994 and a further increased in to 15 percent and 18 percent in 1999 and 2005 then declined to 15 in 2007. There is a slight difference in work participation rate, for all periods, between male and female in the child age group in urban areas. For age group 15 - 24 the rate was 29 per cent in 1994, to 39 per cent in 1999, 41 percent in 2005 and then to 34 per cent in 2007. The participation rate of youth in the labour market increased significantly between 1994 and 1999 and slightly increased in 2005 whereas it showed a decline by 7 percentage point in 2007. For the adult group participation rate exhibit an increasing trend till 2005 but declined by 7 percentage points in the recent year. In the rural area the trends in participation rate shows a mixed trend where there is a decline in 1999 comparing to 1994 census for all ages and again a rise in some percentage but recently the rate shows a decline(See Table 3.7).

Generally the following salient features are observed in the relationship between age group and work participation rates in Ethiopia:

-child labour is still dominant in both urban and rural Ethiopia. However, the intensity is much severe in the rural area (15 percent against 53 percent in 2007 in urban and rural areas respectively),

-The participation rate of men exceeds that of women for all age groups both in rural and urban areas. This gap may be attributed to underreporting of female participation in the work force and the large proportion of women that marry at a young age. Moreover, discrimination against hiring of women may contribute to this situation.

- Like the majority of other countries, the work force participation rate in Ethiopia tends to rise with age. Moreover, significant differences in the participation rates exist across area of residence, as well as between youth and young adults for all years. The participation rate of rural youth in 2007 for instance was (68.22 per cent) is much higher than that of the urban youth (34.3 per cent).

-Moreover, little difference can be observed between rural youth and rural young adults for both male and females (especially little difference is more pronounced between rural female youth and rural young female adults). However, urban youth have much lower participation rates than their older counterparts (although comparing between male and female youth with that of young adult the difference in the rate of participation is lower between female youth and young adults in urban areas). A major factor that explains these facts is educational participation; with relatively little opportunities for education in rural areas, the rural youth are more likely to become active in the labour force. Urban child and youth seem to benefit most from this factor. The higher level of

poverty in rural areas leads rural children and youth to participate in the labour force.

- The participation rate of youth is showing a downward trend recently mainly due to increases in the educational participation of young people. An increase in the enrolment of children in primary and secondary education has happened very recently. This may eventually lead to a decline in the participation rate of youth.

Figure 3.2. Comparison of trends in Age specific Work participation rate by sex and residence status 1994 – 2007 : Ethiopia

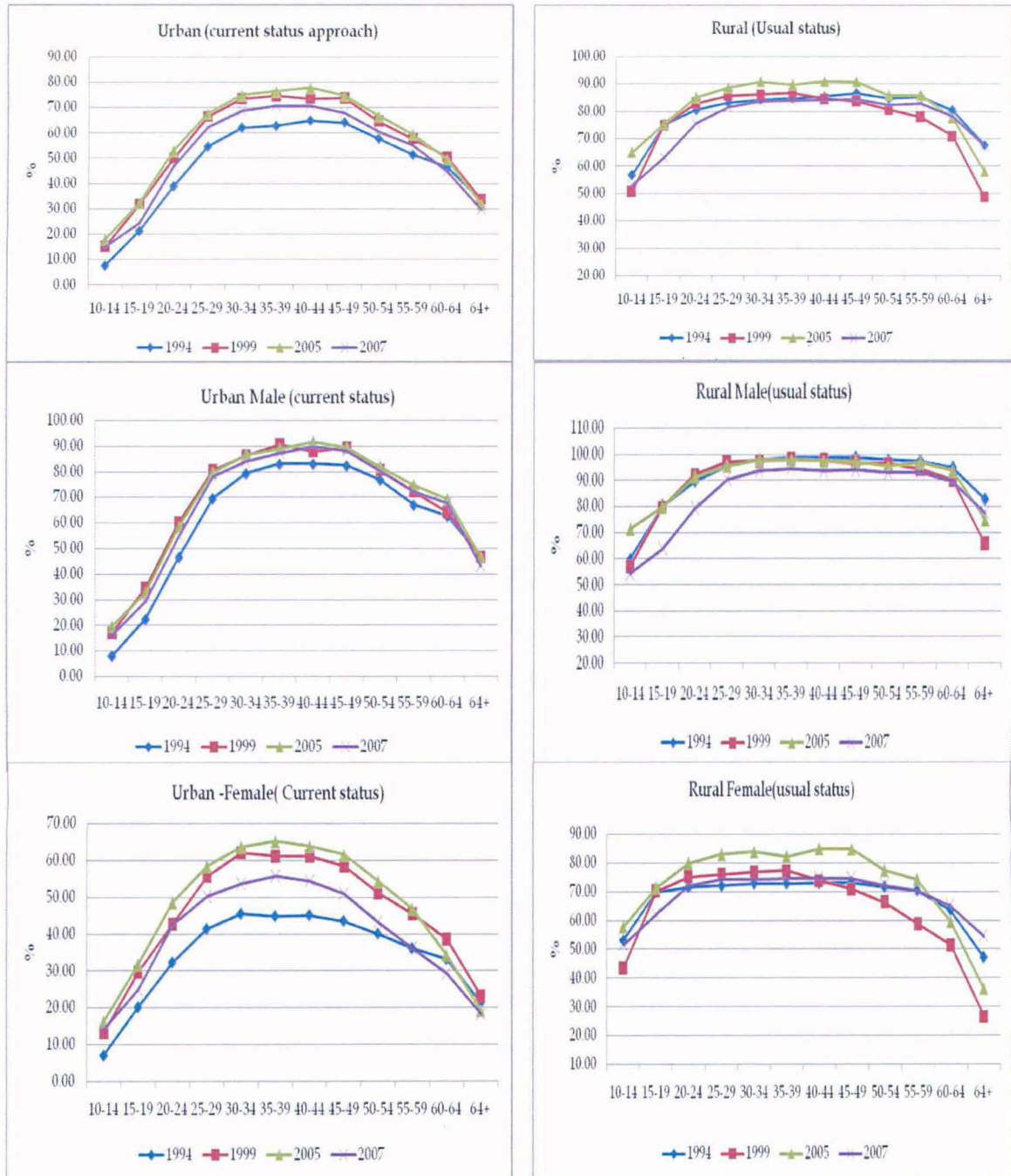


Table 3.7. Trends in Work participation rate by age group, sex and residence status in Ethiopia, 1994-2007

Age group	Urban (percent)											
	1994			1999			2005			2007		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
10-14	7.52	8.01	7.05	15.11	17.02	13.35	17.86	19.60	16.26	15.05	16.03	14.14
15-24	28.74	32.84	25.31	39.43	44.92	35.29	40.63	42.82	38.75	34.30	36.33	32.36
25_+	56.97	74.33	40.71	66.11	80.70	53.75	67.60	81.39	55.85	62.46	77.06	47.51
Age group	Rural (percent)											
	1994			1999			2005			2007		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
10-14	56.68	59.85	53.13	50.63	57.20	43.35	64.9	71.46	57.70	52.96	54.31	51.45
15-24	77.30	84.00	70.51	78.36	84.67	72.23	79.56	84.53	75.14	68.22	70.09	66.34
25_+	82.75	95.81	69.97	80.34	92.94	68.48	85.7	94.28	77.46	81.44	91.05	71.95

Source: Owen computation of CSA data

3.1.2.2. Trends in Spatial distribution of work participation

The inter-regional variations in work participation rates have been presented in Table 3.8 and Table 3.9. Looking at the spatial distribution of work participation between urban and rural areas in urban areas the highest and the lowest work participation observed in Affar region¹⁸ (53.57 percent) and Harari (32.89) in 1994, Oromiya (54.87 percent) and Addis Ababa (40.25 percent) in 1999, Benishangul-Gumuz (61.87 percent) and Gambella(38.12) in 2005 and 52 per cent in Benishangul-gumuz region to 39 per cent in Tigray region in 2007 in that order. In terms of rural work participation the highest and the lowest work participation recorded in Benishangul -Gumuz region (85.72 percent) and Addis Ababa (61.77 percent) in 1994, Amhara (78.64) and Harari (58.35 percent) in 1999, Amhara (83.17 percent) and Addis Ababa (69.80 percent) in 2005 and Gambella (81.32 percent) and Somali regions (52.31 percent) in 2007 are at the top and the bottom respectively in that order.

¹⁸ Ethiopia is administratively sub-divided into nine regional states and two city administrations

So far as the disparity of work participation by gender between regions are concerned the top and bottom in female work participation rates are recorded in Benishangul-Gumuz (39.72 percent) and Gambella (22.63 percent) in 1994, Oromiya (47.30 percent) and Addis Ababa (31.04 percent) in 1999, Benishangul-Gumuz (52.16 percent) and Gambella (31.76 percent) in 2005 and Somali region(45.3 percent) and Dire Dawa (31.5 percent) in 2007 had the highest and the lowest female work participation in urban areas in that order. In case of rural female work participation rates, which are significantly higher than those in urban areas in all the regions, Benishangul-Gumuz (84.03 percent) in 1994, Dire Dawa (70.64 percent) in 1999, Benishangul-Gumuz (77.08 percent) in 2005 and Gambella (78.93) were at the top while Addis Ababa 1994-2005 and Somali region in 2007 has the lowest value.

In the case of male work participation in urban areas the highest and the lowest rate was recorded in Affar (68.40 percent) and Harari (41.31 percent) in 1994 and Benishangul-Gumuz (61.3 percent) and Amhara (46.7 percent) in the year 2007 in that order. While in the rural area the highest and the lowest male work participation rate recorded in Affar (93.01percent) and Addis Ababa (74.32 percent) in 1994 and Gambella (83.62 percent) and Somali region (55.59 percent) in 2007.

Looking at gender gap in work participation, the gap between male and female is considerably lower in rural than in urban areas. For instance, if we take the 2007 census figure the average gap in work participation was 17 percent for urban and 10.4 percent in rural areas. Further comparing the figure regional wise, Harari (20.44 percent), followed by Dire-Dawa (18.7) has the highest gender gap in rural work participation while Gambella (4.7 percent) and Benishangul-Gumuz (5.6 percent) have the lowest gender gap in 2007. Gender gap in work participation is significant in urban areas - it is highest in Affar (22.4 percent) and Addis Ababa

(22.3 percent) and lowest in Somali (7.8 percent) and followed by Amhara regions (11.8 percent).

With the exception of Affar, Amhara and Benishangul-Gumuz almost all regions show an increment in work participation rates in urban areas between the two censuses (1994 and 2007). The highest increment in work participation rates in terms of percentage points was observed in Harari (16.18) followed by Addis Ababa (15.06) and Somali region (14.65). In the case of rural areas, increment in work participation between the two censuses was observed in two regions only i.e. Gambella (12.5) and SNNP (8.5) in terms of percentage points. While there is a decline in participation rate for most of the regions between the two census periods however the decline in participation rate was sever in Affar (23.4) and Somali regions (19.5)¹⁹.

¹⁹ *The rural parts of Affar and Somali regions are inhabited by pastoralists where their main livelihood depends on herding of animals like camel, cattle and goats. Hence, the lowest participation rates in 2007 census year as well as between the two census observed in these regions may have been due to disparities in the appraisal of the concept of "work" within the reference period by pastoralist*

Table 3.8. Trends in Work participation rate by region: Rural Ethiopia 1994-2007

Regions	1994			1999			2005			2007		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Tigray	79.94	68.26	74.01	81.16	66.01	73.25	84.19	71.56	77.63	72.66	61.20	66.85
Affar	93.01	67.06	81.88	89.97	58.43	75.29	87.02	64.14	76.01	63.73	51.78	58.51
Amhara	90.22	77.12	83.77	87.65	69.55	78.64	90.31	76.10	83.17	78.80	65.94	72.42
Oromiya	85.98	70.20	78.10	82.06	62.33	72.08	86.28	71.93	79.02	81.33	70.73	76.04
Somali	84.56	55.49	71.45	88.81	65.43	77.38	89.84	66.70	78.24	55.59	47.48	52.01
Benishangul-Gumuz	87.39	84.03	85.72	73.41	67.95	70.63	82.29	77.08	79.56	78.81	73.19	76.03
S.N.N.P	76.04	49.66	62.70	79.65	62.84	71.10	85.36	73.11	78.91	76.80	65.75	71.17
Gambella	76.60	60.66	68.79	73.25	52.77	62.96	-	-	-	83.62	78.93	81.32
Harari	83.21	60.00	71.82	76.76	40.64	58.35	83.37	62.08	72.65	78.81	58.37	68.67
Addis Ababa	74.32	48.22	61.77	85.12	35.09	61.09	82.17	57.68	69.80	-	-	-
Dire Dawa	82.81	56.73	70.37	81.98	70.64	76.37	86.98	72.28	79.73	75.23	56.58	66.08
Total	84.80	66.73	75.87	83.05	64.71	73.80	87.10	73.32	80.07	76.86	66.09	71.52

Source: Owen computation of CSA data

- Data not available

Table 3.9. Trends in Work participation rate by region: Urban Ethiopia 1994-2007

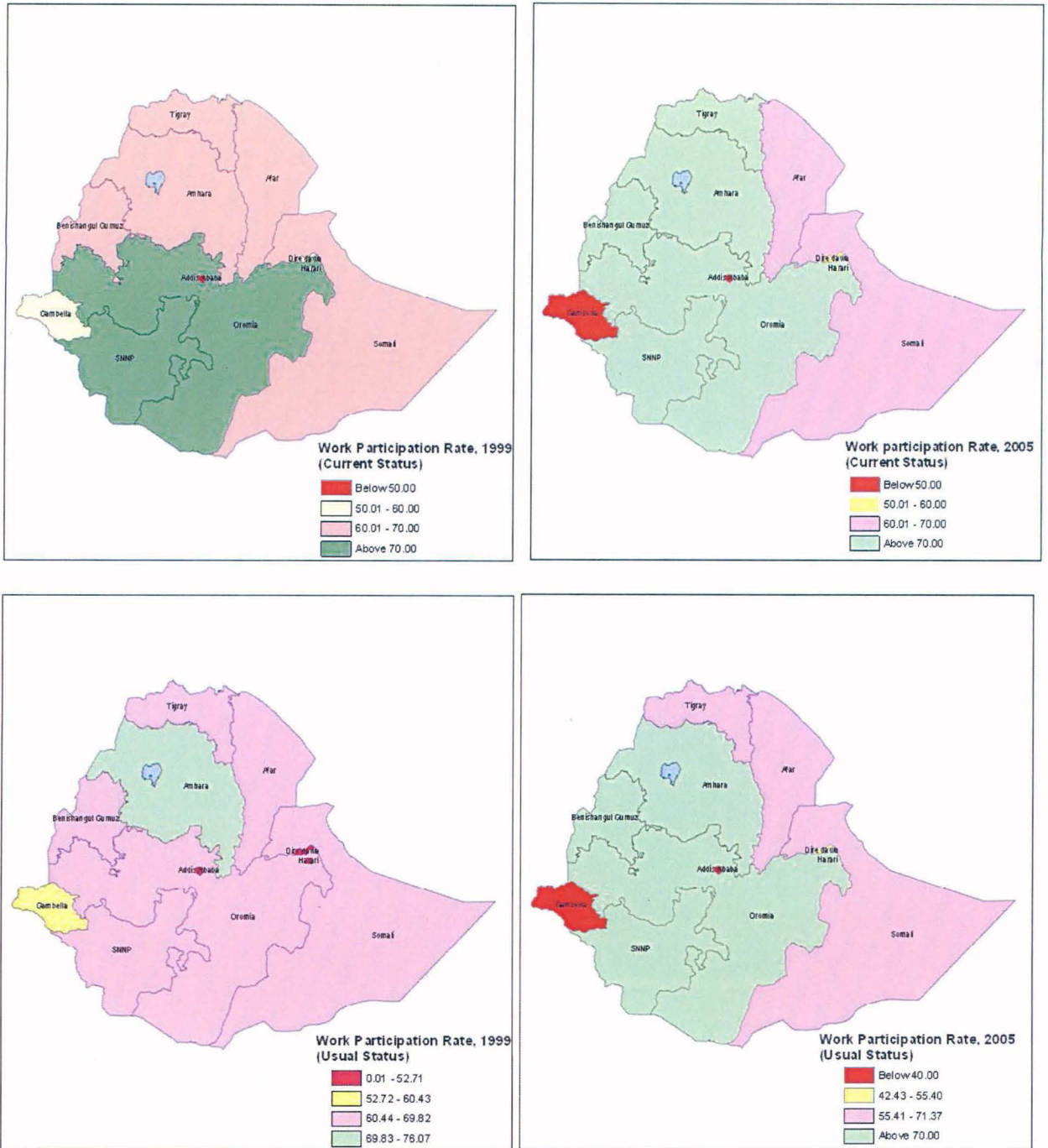
Regions	1994			1999			2005			2007		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Tigray	46.86	31.33	38.12	53.47	43.30	47.30	55.21	46.53	50.24	47.6	31.4	38.9
Affar	68.40	37.68	53.57	64.51	42.83	52.82	67.17	38.32	52.36	56.2	33.9	45.9
Amhara	52.11	36.80	43.55	56.53	43.89	49.08	57.73	48.28	52.47	46.7	34.9	40.6
Oromiya	51.82	29.63	40.23	63.46	47.30	54.87	59.99	47.02	53.21	53.2	36.4	44.9
Somali	42.22	26.68	34.90	52.22	37.48	44.62	47.23	35.87	41.27	53.1	45.3	49.6
Benishangul-Gumuz	64.41	39.72	51.96	63.53	47.00	54.79	72.07	52.16	61.87	61.3	41.7	51.8
S.N.N.P	54.84	32.29	43.49	63.31	45.66	54.23	62.73	46.85	54.70	53.8	37.7	46.1
Gambella	50.90	22.63	37.84	59.09	38.06	48.39	44.69	31.76	38.12	57.8	41.5	50.2
Harari	41.31	24.99	32.89	59.19	38.55	48.42	52.16	39.21	45.23	57.3	40.9	49.1
Addis Ababa	44.85	24.28	34.14	51.23	31.04	40.25	54.17	35.69	44.13	61.0	38.6	49.2
Dire Dawa	43.45	26.94	34.98	50.74	36.77	43.06	50.36	39.25	44.45	49.0	31.5	40.2
Total	48.99	29.47	38.76	57.41	40.50	48.15	57.70	43.67	50.18	53.7	36.9	45.2

Source: Owen computation of CSA data

Map 1 below show the spatial distribution of work participation using current and usual status approach for the year 1999 and 2005 and give overall view by combining the rate at country level. Accordingly, looking at the overall work participation rates of regions in the last twelve months i.e. usual status, for both periods the highest was reported for Amhara region (76.1 and 79.4 percent), while Addis Ababa Region has shown the least participation rate (40.5 and 42.4 percent) compared to other regions in 1999 and 2005 respectively. In the current status approach, SNNP (72.4 percent) followed by Oromiya region (71.6 percent) had observed the highest work participation while Addis Ababa (40.48 percent) registered the least in 1999. In 2005 Amhara and SNNP regions were shown the highest participation rates compared to other regions, while Addis Ababa region has registered the least participation rate 44.4 percent (See also Table 1.6 and Table 1.7 in the appendix and). For all regions, for both method (current and usual status approach) and for both periods, work participation rate of rural areas were significantly higher than urban areas.

In general, in Ethiopia, for all regions there is disparity in work participation rate between regions, urban and rural and gender. These variations may be explained by the existence of a pronounced difference among regions in regional economic as well as labour market structure and gaps in skill among working age population. In addition the gender gap in work participation rate in the country across the geographical regions may be explained by the existence of different cultural traditions and socio-economic condition of the women.

Map 1. Work participation rate in Ethiopia for the year 1999 and 2005 (current and usual status)



3.1.2.3 Trends in Work participation in Ethiopia by Urban Centers

Table 3.10 presents work participation rate for urban centers²⁰ in Ethiopia. Overall these towns register work participation rate of 35.7, 45.8 and 42.6 in 1994, 2005 and 2007 respectively.

Geographic variations in the work participation rate are observed among the selected urban areas in the three periods. In 1994, the highest rate was observed in Asayita²¹ (48.1 percent) followed by Asosa town²² (45.4 percent) and the lowest were 24.6 percent and 26.5 percent observed in Adigrat town and Debreziet ²³respectively. In 2005 the highest rate was observed in Bahir Dar town (53.9 percent) closely followed by Asosa town (52.8 percent) and the lowest rate were recorded in Jijiga (34.7 percent) (Table 3.14). The local differences persist in for 2007 with the highest value of 51.3 percent observed in Gambella and the lowest value of 32.4 percent recorded in Adigrat.

²⁰ The Central Statistical Agency of Ethiopia defines urban areas as "localities with 2,000 or more inhabitants" though in practice (i) all administrative capitals (regional, zonal and wereda capitals), (ii) localities with urban dweller's associations not included in (i) and (iii) all localities not included in either (i) or (ii) whose inhabitants are primarily engaged in non-agricultural activities are considered as urban.

²¹ Asayita, a relatively small and poor town, has a high work participation rates in 1994. Asayita was the capital of Affar region, which is predominantly inhabited by the Affar Ethnic group known for their nomadic lifestyle. But the residents of the town of Asayita are predominantly non-Affar people who immigrated from various parts of Ethiopia. The livelihood of the inhabitants of the town is detached from the surrounding rural area and most inhabitants were engaged in various trade activities during that period.

²² The livelihood of the inhabitants of the Asosa town was attached to the surrounding rural area where most of the inhabitants in the town engaged in primary activities. The high work participation rates could also be the effect of a smaller number of dependants or relatives in the households.

²³ The low level of work participation rates observed in Adigrat in 1994 periods can be explained by the fact that the area was affected by the extended civil war which prevailed in the northern part of the country for about two decades. While in the case of Debreziet the low participation rate was the result of the demobilization of the military in 1991, because the town was the base for the Ethiopian Air Force.

The variations in the work participation rates by sex reveal similar patterns, where the range between the highest and lowest rates in 1994 is about 29.8 percentage points in the case of male work-force participation and about 19 percentage points in the female work participation rates.

Similarly, in 2005 the range between the highest and the lowest work participation rates was 24.9 percentage points for men and 23.5 percentage points for women. In 2007 the range for men was 20.9 and that of for women was 15.5. In the case of men dramatic changes in the geographic patterns of work force participation rates occurred where there is a rise in work participation rate in terms of percentage points in towns of Debreziet (21.3) and important decline in the town of Asayita and Hosaena. In the case of female work participation rates highly increased in terms of percentage points in the town of Gambella (21.9) for the period between 1994-2007.

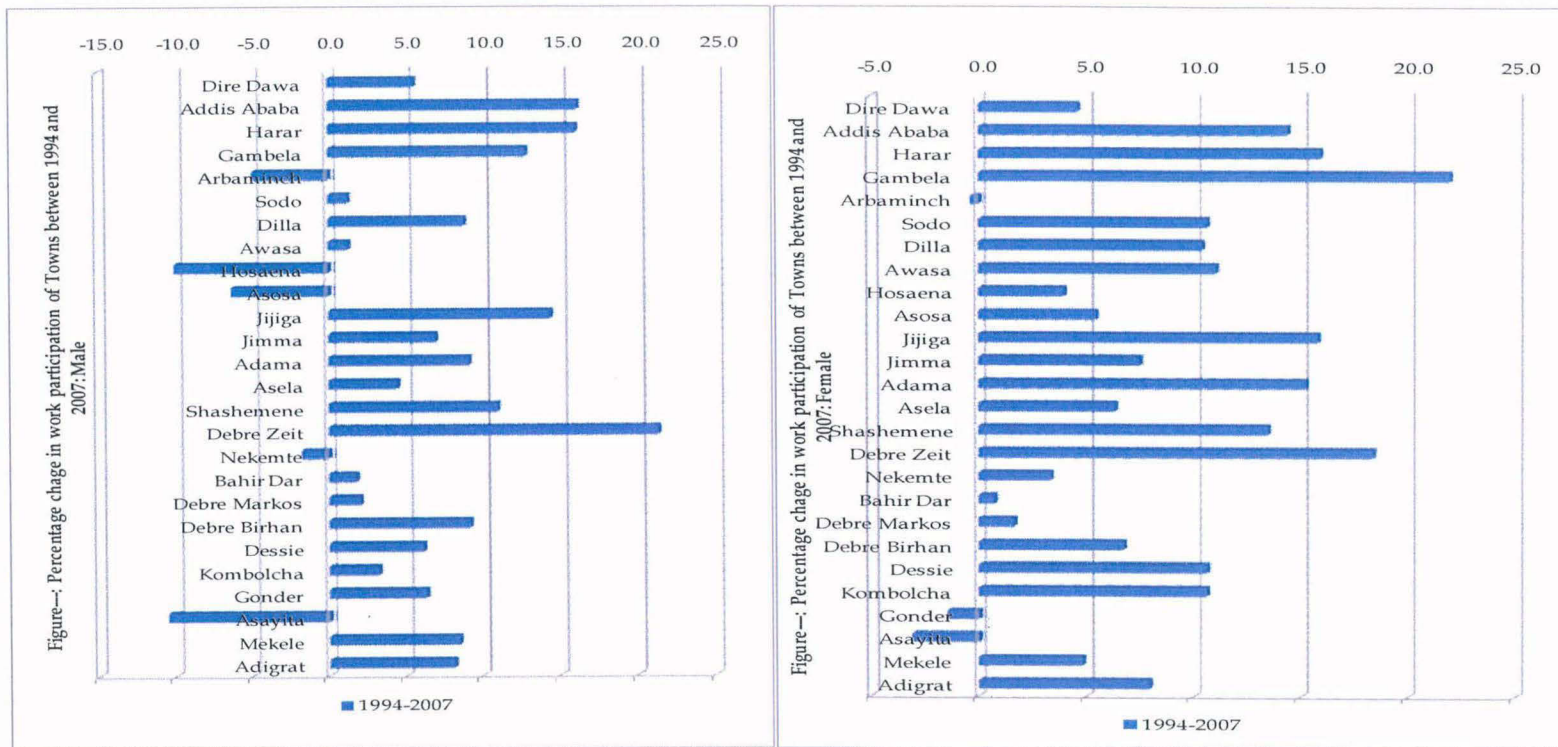
With the exception of Mekele, Asosa, Sodo, and Jijiga towns, all the selected towns show an increase in work participation rates between 1994 and 2007 censuses. The highest increase in male work participation rates is observed in Debreziet with an increase of 21.3 percentage points, followed by Addis Ababa (16.1) and Harar (16). While, on the contrary, the steepest decline is observed in Asayita, a town with extremely high work participation rates in 1994 (decline of 10.5 percentage points), followed by Hosaena (10.1 percentage points) and Asosa (6.3 percentage points). In the case of women, high increases of 14 to 22 percentage points are recorded in the following towns: Gambella (21.9), Debreziet (18.4) Harar (15.9) Jijiga (15.8), Adama (15.2) and Addis Ababa (14.4). While there is a slight decline in participation rate in towns of Asayta (3.1), Gonder (1.5) and Arbaminch (0.4) (See Figure 3.4 below).

Generally, compared to small towns, large cities like Addis Ababa (the capital city of Ethiopia), Diredawa, Adama and Mekele are characterized by lower work participation rates for most of the years. This may be explained by the fact that when we observe most of the small urban towns in Ethiopia their economic base is more attached to their rural surroundings i.e. primary activity, hence they have higher work participation rates than in the large urban areas where some specialized skills are required for access to employment. Moreover, problems related to definition of urban centers make comparisons between large and small towns more difficult task.

Townships	1994			2005			2007		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Adigrat	24.6	33.2	17.6	40.4	46.7	35.9	32.4	41.3	25.6
Mekele	34.4	43.4	26.8	45.5	52.2	40.4	41.3	51.8	31.6
Asayita	48.1	63.0	32.0	49.8	62.5	39.1	40.8	52.5	28.9
Gonder	35.9	39.6	33.0	43.4	51.0	37.8	38.2	45.9	31.5
Kombolcha	37.1	50.9	24.8	42.1	53.3	33.4	44.4	54.1	35.3
Dessie	30.5	41.9	20.9	43.0	52.0	35.5	39.4	48.1	31.5
Debre Birhan	32.8	40.4	26.4	51.5	57.3	47.2	41.1	49.6	33.1
Debre Markos	36.9	41.8	32.8	47.4	51.4	44.4	38.9	43.9	34.4
Bahir Dar	42.0	48.1	36.7	53.9	61.5	48.1	43.4	49.9	37.4
Nekemte	35.8	46.1	26.3	39.5	49.9	31.2	37.2	44.4	29.6
Debre Zeit	26.5	34.6	19.2	48.4	60.0	39.1	46.3	55.9	37.6
Shashemene	35.5	47.4	24.3	48.0	59.8	37.5	48.2	58.3	37.8
Asela	32.2	35.7	23.5	46.7	54.7	39.5	35.0	40.1	29.8
Adama	33.2	47.0	20.5	47.6	57.2	40.6	45.8	56.1	35.7
Jimma	36.4	47.9	25.5	48.1	58.0	39.6	44.0	54.8	32.9
Jijiga	29.9	40.0	19.3	34.7	45.8	24.7	45.4	54.4	35.1
Asosa	45.4	60.8	26.6	52.8	69.6	38.0	43.7	54.4	32.0
Hosaena	39.2	50.5	28.4	42.9	53.6	33.0	36.5	40.5	32.4
Awasa	37.5	52.1	22.7	47.0	57.6	37.4	43.9	53.4	33.7
Dilla	37.1	47.7	26.1	48.7	59.0	39.8	47.1	56.5	36.4
Sodo	38.0	50.8	23.9	48.3	58.5	38.4	44.0	52.1	34.6
Arbaminch	42.0	50.7	33.3	49.4	54.5	44.9	39.7	45.8	32.9
Gambela	34.3	47.2	19.1	38.1	44.7	31.8	51.3	60.0	41.1
Harar	32.9	41.3	25.0	45.2	52.2	39.2	49.1	57.3	40.9
Addis Ababa	34.1	44.8	24.3	44.1	54.2	35.7	49.2	61.0	38.6
Dire Dawa	35.0	43.4	26.9	44.5	50.4	39.3	40.2	49.0	31.5
Country Total	35.7	45.8	25.6	45.8	54.9	38.1	42.6	51.2	33.9

Source: Owen computation of CSA data

Figure 3.4. Percentage change in work participation of urban centers between 1994 and 2007



3.2. Trends and Patterns in the status of employment, Industry and Occupation in Ethiopia

3.2.1 Trends and patterns in Status of Employment

Employment status of a person is defined in-terms of his/her ownership or degree of commitment to the job. Employment status of a person indicates the level of involvement and degree of decision-making in respective activity (CSA, 1994; 1999; 2005 and 2008).

Overall at country level, the majority of the employed population was unpaid family workers (51 percent, 47.0 percent, 50 percent and 24 percent) and self employed (39.5 percent, 43.5 percent, 41 percent and 59 percent) in the year 1994, 1999, 2005 and 2007 respectively. The paid employee altogether constitute only 5.7 percent, 8.2 percent, 7.7 percent and 9 percent of the total working population during 1994,1999, 2005 and 2007 respectively²⁴. The share of employers, apprentices and member of cooperatives among the total employed population was found to be negligible. Further the result shows that self-employment was the dominant employment status among the male while employed females were highly dominated by unpaid family workers (See Table 3.11).

Disaggregating employment status by urban and rural areas as well as gender shows that in rural areas, for all period, the unpaid family workers make up more than half of the employed population. During the period 1994-2005 the proportion of unpaid family workers were more or less in stable condition (55 per cent). Women were largely employed in unpaid family work. The high proportion of unpaid family workers in rural areas is followed by a sizable

²⁴ *Paid employees include employee-government, employee-government parasitatal, employee-private organization, and other paid employee.*

number of self-employed persons and small proportion of paid employees. The share of self-employed increased from about 40 per cent in 1994 to 44 per cent in 1999 and slightly decline to 41 percent in 2005. Although waged employment maintains very low rates, it has increased though with slight decline in 2005, predominantly in the private sector rather than in the public one. The positive trend of private waged employment is an encouraging sign indicating that the private sector is slowly emerging as a valid source of employment in rural areas. The very high proportion of unpaid family workers in the rural areas may be a result of system of agricultural production where the husband works as head of the farm and the wives and young children helping in the field as unpaid workers. (See Table 3.12).

The picture in urban areas is, however, different. Here, self-employment remains the principal form of employment, despite a slight decline from 42 per cent in 1999 to 40.3 per cent in 2005. Unpaid family work represents a rather small share of urban employment though increased from 10.6 percent per cent in 1994 to 13.99 per cent in 1999 and 14.97 in 2005. From a gender perspective, the share of women in self-employment and unpaid family work was higher than men and still remaining the most common status in employment for women. The proportion of female waged employment risen slightly in the recent year comparing to the figure 1999, contributing to some improvement in the level of employment and income security for women. Waged employment showed a slight decline from 41.4 percent in 1994 to 39 per cent in 1999 then it slightly rose to 40.7 percent in 2005. Private waged employment increases from 16.9 percent in 1994 to 20.5 percent and 22 percent in 1999 and 2005 respectively while the share of public employment was 24.5 per cent, 18.5 percent and 18.2 percent during 1994, 1999 and 2005 respectively. Labour demand from the private sector has increased, possibly because of privatization policy of the government since 1994 and the subsequent rise in investment in the private sector. (See Table 3.13).

Table 3.11. Percentage distribution of employed population aged ten years and over by Employment Status in Ethiopia (Urban +Rural) 1994-2007

Employment status	1994			1999			2005			2007		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Employer	2.62	3.58	1.35	0.77	1.16	0.26	0.60	0.92	0.23	0.24	0.34	0.13
Self Employed	39.50	51.23	24.02	43.53	54.46	29.22	40.89	54.79	24.80	58.84	65.14	51.33
Government Employee	2.75	3.51	1.74	2.40	2.95	1.68	2.59	3.17	1.92	3.16	3.92	2.24
Employee-gov't parasatal	-	-	-	0.54	0.61	0.45	0.56	0.62	0.49	0.76	0.94	0.55
Private Employee	2.97	3.53	2.25	4.32	5.05	3.36	4.10	4.72	3.38	4.82	5.43	4.09
Member of Co-cooperative	0.14	1.97	4.05	0.04	0.05	0.01	0.04	0.06	0.01	0.13	0.15	0.12
Unpaid Family Worker	51.17	35.33	65.74	46.97	34.31	63.56	50.28	34.56	68.47	23.60	16.32	32.29
Apprentices	-	-	-	0.05	0.05	0.05	0.21	0.29	0.11	0.75	0.85	0.63
Employee-NGO or UN	-	-	-	0.90	0.92	0.88	0.46	0.55	0.35	0.24	0.28	0.20
Others	0.10	0.13	0.06	0.32	0.31	0.34	0.23	0.27	0.19	7.46	6.65	8.43
Not Stated	0.76	0.73	0.81	0.16	0.12	0.20	0.04	0.05	0.03	-	-	-
Total	100	100	100	100	100	100	100	100	100	100	100	100

Source: Computed from CSA data

- Apprentice were not included as employed in 1994 census

Table 3.12: Percentage distribution of Employed population aged ten years and over by Employment Status in Rural Ethiopia, 1994-2005

Employment status	1994			1999			2005		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Employer	2.58	3.61	1.22	0.75	1.16	0.21	0.60	0.93	0.22
Self Employed	39.54	52.49	22.72	43.70	56.16	27.16	40.96	56.74	22.68
Government Employee	0.66	0.88	0.37	0.75	0.97	0.46	0.88	1.12	0.60
Employee-gov't parasatal	-	-	-	0.29	0.34	0.24	0.39	0.41	0.36
Private Employee	1.63	2.33	0.73	2.36	3.29	1.12	1.88	2.71	0.91
Member of Co-operative	0.12	2.14	4.38	0.02	0.03	0.00	0.02	0.03	0.00
Unpaid Family Worker	55.07	38.19	70.15	50.99	37.00	69.56	54.63	37.29	74.71
Apprentices	-	-	-	0.01	0.01	0.02	0.12	0.15	0.08
Employee-NGO or UN	-	-	-	0.75	0.73	0.78	0.34	0.40	0.27
Others	0.04	0.05	0.03	0.22	0.21	0.23	0.17	0.18	0.15
Not Stated	0.36	0.32	0.41	0.15	0.11	0.21	0.03	0.04	0.02
Total	100	100	100	100	100	100	100	100	100

Source: Computed from CSA data

- Apprentice were not included as employed in 1994 census

Table 3.13. Percentage distribution of employed population aged ten years and over by Employment Status in Urban Ethiopia, 1994-2005

Employment status	1994			1999			2005		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Employer	3.04	3.23	2.75	0.94	1.20	0.64	0.64	0.89	0.36
Self Employed	39.03	39.05	39.00	42.14	39.68	45.03	40.32	38.88	41.96
Government Employee	24.46	29.01	17.45	15.93	20.11	11.02	16.51	19.95	12.58
Employee-gov't parasatal	-	-	-	2.54	2.96	2.05	2.01	2.40	1.57
Private Employee	16.92	15.14	19.70	20.45	20.39	20.52	22.14	21.13	23.30
Member of Co-operative	0.34	0.38	0.27	0.17	0.25	0.09	0.19	0.25	0.12
Unpaid Family Worker	10.58	7.65	15.10	13.99	10.94	17.57	14.97	12.20	18.14
Apprentices	-	-	-	0.33	0.46	0.18	1.04	1.42	0.61
Employee-NGO or UN	-	-	-	2.15	2.60	1.63	1.39	1.73	1.01
Others	0.70	0.89	0.42	1.16	1.17	1.15	0.71	1.07	0.30
Not Stated	4.93	4.65	5.36	0.20	0.25	0.13	0.07	0.09	0.05
Total	100	100	100	100	100	100	100	100	100

Source: Computed from CSA data

- Apprentice were not included as employed in 1994 census

Examining the spatial distribution of employment type in Ethiopia during 1994 and 2007 the general pattern observed above for the total, urban and rural areas of the country were similarly reflected in most of the regions with the exceptions some regions in 1994 where the contribution of unpaid family workers were lower than the self employed and the paid employee. In general regions such as Addis Ababa, Harari and Dire Dawa there is high concentration of employed belongs to the paid employee. Similarly, most of the regions with the exception of the above mentioned regions were found a high proportion of people engaged in unpaid family workers and self employed in 1994 and 2007 respectively (See Table 1.8 and Table 1.9 in the appendix).

Looking at employment status by age group status of employment differs markedly between children (10-14), youth (15-24) and adult (25+), and by gender. In general, adults are much more likely to have formal jobs, and to be self-

employed, while children and youth are frequently unpaid family employees. As shown in Table 3.14, percentages of adults who are government employee were more than the youth. Within the adult population, men are much more likely than women to have a public sector job, but the possibility for youth is relatively gender neutral. Private employment (which includes both formal and informal wage jobs) is somewhat more common among youth than adults, though more so for men than women in both age groups. Young women dominate the category of employment as unpaid family worker.

Unpaid family work occupies about 94 percent and 70.3 percent of Ethiopian children and youth, compared to just 29.7 percent of adults. About 60 percent of adults are self-employed while 20 percent of youth. This suggests that the informal sector serves as an important entry point to the labour market, but that starting a business is not within reach of all young people. Moreover, young men are more likely to be self-employed than young women. This suggests that a common path for women may be to enter the labour market as an unpaid or domestic worker, later becoming self-employed, while young men are somewhat more likely to enter the labour market as a self-employed worker, later to transition into the public sector or other wage work.

Table 3.14. Percentage distribution of currently employed population aged ten years and over by Employment Status and age groups in Ethiopia (Urban + Rural), 2005

Employment status	Age group								
	10-14			15-24			25+		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Employee -Government	0.01	0.08	0.04	2.12	1.81	1.97	4.52	2.41	3.55
Employee -Gov't-parastal	0.08	0.05	0.07	0.34	0.53	0.44	0.90	0.58	0.75
Employee -Private	3.07	0.77	2.11	5.59	2.45	4.04	3.55	1.43	2.57
Employee -NGO	0.01	0.00	0.00	0.41	0.43	0.42	0.76	0.39	0.59
Employee -Domestic	1.06	1.43	1.22	0.87	3.53	2.19	0.57	0.93	0.73
Other Employees	0.01	0.06	0.03	0.19	0.05	0.12	0.32	0.12	0.23
Member of Co-Operatives	-	-	-	0.07	0.02	0.04	0.06	0.02	0.04
Self employed	2.20	3.19	2.61	24.37	15.30	19.89	82.92	34.58	60.60
Unpaid family worker	93.31	94.34	93.74	65.23	75.50	70.31	4.58	58.95	29.69
Employer	-	-	-	0.19	0.03	0.11	1.51	0.39	0.99
Apprentice	0.05	0.00	0.03	0.14	0.05	0.09	0.02	0.01	0.01
Others	0.05	0.07	0.06	0.40	0.28	0.34	0.28	0.18	0.23
Not Stated	0.16	0.01	0.10	0.08	0.03	0.05	0.00	0.03	0.01
Total	100	100	100	100	100	100	100	100	100

Source: Computed from CSA data

-represents data not applicable

3.2.2. Trends and patterns in Occupational Distribution

This section tries to present the trends in the percentage distribution of the employed population aged ten years and over by sex, major occupational group urban and rural areas.

Data on employment by occupation in rural areas indicate that for all periods the share of skilled agricultural and fishery workers and elementary occupations were highly significant. Looking at the trends over a period skilled agricultural and fishery workers declined from 77.3 per cent in 1994 to 41.5 per cent in 1999 and 44.5 percent in 2005, while that of elementary occupations and service, shop and market sales workers rose during the same period. The rise in the proportion of elementary occupation and at the same time the decline in the proportion of skilled agricultural occupation between 1994 and 2005 indicate the shift between these two occupations that might be the strict application of the concepts of skilled and elementary agricultural activities during survey data collection. In general, legislators, Senior Officials and Managers; Professionals; Technicians and Clerks, which are some times referred to as "white collar occupations"²⁵ take up in significant proportion of the total rural employed persons (See Table 3.15). In urban areas, unlike rural, service sectors took the leading position closely followed by elementary occupations and craft workers. The share of skilled agricultural and fishery workers, crafts and related trade workers and service, shop and market sales workers followed a declining pattern during 1994-2005. Whereas, elementary occupation, professionals, clerks and legislator and senior officials and managers increased during the same period. Unlike rural areas, the so-called white-collar occupations, specially, technicians and associate professionals, and clerks have, relatively, greater proportions in urban areas (See Table 3.16).

²⁵ *White-collar occupations include: 1/Legislators, senior officials and managers; 2/Professionals; 3/Technicians and associate professionals; 4/Clerks*

Table 3.15: Percentage distribution of employed Population Aged Ten Years and Over by Sex and Major Occupational Division, Rural Ethiopia, 1994- 2005

Major occupational division	1994			1999			2005		
	Both sex	Male	Female	Both sex	Male	Female	Both sex	Male	Female
Legislator, Senior officials and managers	0.03	0.06	0.01	0.05	0.07	0.02	0.09	0.13	0.04
Professionals	0.01	0.02	0.00	0.00	0.01	0.00	0.12	0.15	0.09
Technicians & Associate Professionals	0.23	0.34	0.08	0.30	0.43	0.12	0.44	0.56	0.30
Clerks	0.04	0.05	0.02	0.07	0.11	0.03	0.07	0.08	0.05
Service, Shop & Market Sales workers	1.47	0.47	2.72	3.29	1.59	5.55	4.46	1.97	7.35
Skilled Agricultural and Fishery	77.27	79.86	74.00	41.52	61.49	15.01	44.46	61.17	25.11
Crafts & Related Trades	1.00	0.46	1.68	10.46	1.88	21.85	5.08	2.28	8.31
Plant, machines Operators & Assemblers	0.07	0.10	0.02	0.15	0.17	0.11	0.18	0.16	0.22
Elementary Occupation	19.47	18.29	20.96	44.01	34.14	57.10	45.07	33.46	58.53
Not Stated	0.42	0.35	0.51	0.16	0.11	0.21	0.03	0.04	0.02
Total	100	100	100	100	100	100	100	100	100

Source: Computed from CSA data

Table 3.16. Percentage distribution of employed Population Aged Ten Years and Over by Sex and Major Occupational Divisions, Urban Ethiopia, 1994- 2005

Major occupational division	1994			1999			2005		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Legislator, Senior officials and managers	2.70	3.86	0.89	2.17	3.28	0.87	2.22	3.33	0.96
Professionals	1.93	2.66	0.80	1.81	2.77	0.68	3.61	4.90	2.13
Technicians & Associate Professionals	7.69	9.03	5.61	6.55	8.73	3.99	5.45	7.18	3.47
Clerks	4.71	4.16	5.55	4.67	4.04	5.40	4.76	3.88	5.77
Service, Shop & Market Sales workers	27.07	20.43	37.40	24.95	22.39	27.96	24.75	20.55	29.55
Skilled Agricultural and Fishery	10.27	12.58	6.67	6.23	9.42	2.50	8.15	10.17	5.83
Crafts & Related Trades	15.68	17.43	12.95	25.22	18.78	32.78	22.58	19.07	26.60
Plant, machines Operators & Assemblers	4.18	6.14	1.13	3.82	6.41	0.78	3.70	6.19	0.85
Elementary Occupation	19.54	17.79	22.28	24.18	23.62	24.85	24.64	24.52	24.77
Not Stated	6.24	5.92	6.72	0.39	0.55	0.19	0.15	0.22	0.08
Total	100	100	100	100	100	100	100	100	100

Source: Computed from CSA data

A further look at in the above table, occupational status by gender illustrate that for all periods and for both urban and rural areas elementary occupations, service shop and sales workers and crafts and related trades were occupied by a relatively greater proportion of females than males, while the reverse holds true for skilled agricultural and fishery occupation group.

Finally looking occupational status by age group revealed that the proportion of elementary occupation steadily declines as age group increases. But the reverse is true for skilled agricultural and fishery workers where the proportion steadily ascends with age (See Table 3.17 below).

Table 3.17. Percentage distribution of currently employed population aged ten years and over by major occupational Divisions and age groups in Ethiopia (Urban + Rural) 2005

Occupational Divisions	Age group								
	10-14			15-24			25+		
	Male	Female	Both sex	Male	Female	Both sex	Male	Female	Both sex
Legislator, senior officials and managers	0.00	0.00	0.00	0.11	0.08	0.10	0.77	0.20	0.51
Professionals	0.00	0.00	0.00	0.45	0.34	0.40	0.96	0.37	0.69
Technical and Associate professionals	0.06	0.01	0.04	1.33	0.88	1.11	1.61	0.68	1.18
Clerks	0.16	0.02	0.10	0.31	0.52	0.41	0.67	0.92	0.78
Service workers, shop and market sales	2.05	6.15	3.75	5.25	11.12	8.15	4.00	9.98	6.76
Skilled Agricultural and Fishery	8.28	7.33	7.88	35.49	15.71	25.71	77.74	30.26	55.81
Crafts and related trades	1.12	5.27	2.84	3.90	11.24	7.53	5.05	11.04	7.82
Plant, Machine operators & Assemblers	0.03	0.18	0.09	0.54	0.22	0.38	1.15	0.35	0.78
Elementary occupation	88.23	81.02	85.24	52.59	59.88	56.19	8.00	46.17	25.63
NS	-	-	-	0.04	0.01	0.02	0.07	0.06	0.05
Total	100	100	100	100	100	100	100	100	100

Source: Computed from CSA data

3.2.3. Trends and patterns in Industrial Distribution

Agriculture, the country's main economy, is more of rural activity, and nearly 88 percent of the rural employed population was engaged in this sector in 2005. As indicated in the discussion on occupational distribution section above, here also agriculture is the major sector that absorbed the rural population nonetheless observing a declining trend, shifting from 96.8 per cent in 1994 to 88.1 per cent in 1999 and 2005 respectively. Employment in services relatively showed an increasing pattern, especially in wholesale and retail trade, and hotels and restaurants. The manufacturing sub-sector has also been growing. The decline in work in agriculture has been compensated by an increase of women's employment in the above-mentioned sectors. Moreover, we can observe that there is slightly larger proportion of employed males engaged in the agricultural sector than females. On the other hand, the proportion of females in the main non-agricultural sectors, i.e., manufacturing, wholesales and retail trade is higher than that of males. The gap was wider in the hotel and restaurant sector (See Table 3.18).

The industrial division in urban areas differs considerably from that of the rural areas. In urban areas the distribution of employment by sector appears as much more diversified than in rural areas. The highest proportion of the employed population was working in wholesale and retail trade sector. These are followed by those engaged in manufacturing, hotels and restaurants and the agricultural sectors. There was a high concentration of women in wholesale and trade, hotels and restaurants. Generally employment increased in manufacturing, construction, Social, cultural, personal and household services whereas it declined in agriculture, wholesale and trade, and hotels and restaurants and public administration and defense. A shift from wholesale and trade, and hotels and restaurants to manufacturing and construction are likely to have occurred,

especially because of the big construction projects that have recently been launched. Real estate, financial inter-mediation, energy sector; and mining and quarrying sector have negligible contribution. The considerably small contribution of these sectors is a reflection of the country's low level of development and suggests that lot to be done in the social, transport, finance, real state, and construction sectors (See Table 3.19).

The sex disparity observed in rural areas for manufacturing and wholesale and retail trade sectors disappear in the urban areas. However, in the other important sectors except hotels and restaurants sector and private households with employed persons, males happen to be dominant in number over the females.

Table 3.18. Percentage distribution of employed population aged ten years and over by major Industrial Divisions in Rural Ethiopia, 1994-2005

Industrial division	1994			1999			2005		
	Both sex	Male	Female	Both sex	Male	Female	Both sex	Male	Female
Agriculture, Hunting, Forestry & Fishing	96.83	98.20	95.11	88.09	94.07	80.15	88.47	92.65	83.63
Mining and Quarrying	0.03	0.04	0.02	0.04	0.05	0.02	0.23	0.26	0.20
Manufacturing	0.86	0.47	1.36	3.28	1.27	5.95	3.71	1.34	6.45
Electricity, Gas and Water supply	0.02	0.03	0.01	0.02	0.02	0.01	0.03	0.05	0.01
Construction	0.04	0.08	0.01	0.55	0.81	0.20	0.93	1.31	0.48
Whole Sale & Retail Trade, Repair of Vehicles, Personal and Household Goods	0.72	0.41	1.10	3.58	1.62	6.19	3.17	1.86	4.69
Hotels and Restaurants	0.90	0.09	1.94	2.31	0.19	5.12	1.42	0.23	2.81
Transport, Storage and Communication	0.05	0.07	0.03	0.05	0.08	0.01	0.10	0.16	0.02
Financial Inter-Mediation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Real Estate, Renting Business and Activities	0.00	0.00	0.00	0.03	0.02	0.03	0.03	0.05	0.02
Public Administration, Defense, Compulsory Social Security	0.13	0.19	0.06	0.31	0.38	0.23	0.44	0.50	0.37
Education, Health and Social Work	0.19	0.27	0.08	0.76	0.75	0.78	0.49	0.61	0.35
Other Social, Cultural, Personal and Household Activities	0.08	0.11	0.05	0.69	0.63	0.76	0.63	0.76	0.47
Private Households with Employed Persons	0.13	0.05	0.23	0.15	0.02	0.32	0.16	0.02	0.33
Extra-Territorial Organizations and Bodies	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.18	0.14
Total	100	100	100	100	100	100	100	100	100

Source: Computed from CSA data

Table 3.19. Percentage distribution of employed population aged ten years and over by major Industrial Divisions in Urban Ethiopia, 1994-2005

Industrial division	1994			1999			2005		
	Total	Male	Female	Both Sex	Male	Female	Both Sex	Male	Female
Agriculture, Hunting, Forestry & Fishing	12.97	15.68	8.71	11.79	15.41	7.55	12.96	15.86	9.64
Mining and Quarrying	0.32	0.49	0.07	0.28	0.47	0.05	0.49	0.68	0.27
Manufacturing	13.49	14.30	12.23	14.03	14.23	13.78	14.28	13.23	15.48
Electricity, Gas and Water supply	0.97	1.29	0.46	0.89	1.27	0.45	0.67	0.95	0.36
Construction	3.40	5.02	0.84	3.95	6.29	1.21	5.40	8.30	2.09
Whole Sale & Retail Trade, Repair of Vehicles, Personal and Household Goods	18.97	19.98	17.38	24.70	23.80	25.76	21.75	20.31	23.40
Hotels and Restaurants	13.69	4.57	28.03	13.58	3.66	25.22	10.76	3.39	19.18
Transport, Storage and Communication	5.96	8.65	1.73	4.13	6.91	0.88	3.47	5.86	0.73
Financial Inter- Mediation	0.40	0.41	0.37	0.72	0.83	0.59	1.08	1.14	1.01
Real Estate, Renting Business and Activities	0.52	0.61	0.38	1.04	1.59	0.39	1.36	1.76	0.90
Public Administration, Defense, Compulsory Social Security	11.56	14.58	6.80	6.24	8.02	4.14	7.09	9.05	4.84
Education, Health and Social Work	6.98	7.91	5.52	6.32	7.51	4.93	6.48	7.17	5.70
Other Social, Cultural, Personal and Household Activities	3.14	3.87	2.00	5.63	7.71	3.19	7.62	10.27	4.59
Private Households with Employed Persons	7.45	2.42	15.37	6.19	1.71	11.43	5.88	1.12	11.33
Extra-Territorial Organizations and Bodies	0.18	0.22	0.12	0.27	0.30	0.23	0.67	0.88	0.44
Total	100	100	100	100	100	100	100	100	100

Source: Computed from CSA data

Observing major industrial classifications by age group revealed that during 2005 of total persons involved in agricultural sector the dominant part was constitute by 10-14 age groups (92 percent). This indicates that child labour is still very common phenomenon in Ethiopia. A further observation from the table could also show a significant number of persons who were employed in hotels and restaurant, private households and socio-cultural and personal household services came from the age group 15-24 (See Table 3.20 below).

Table 3.20. Percentage distribution of Currently employed population aged ten years and over by major Industrial Divisions and age groups in Ethiopia (Urban +Rural) 2005

Major Industrial division	Age group								
	10-14			15-24			25+		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agriculture, Hunting, Forestry & Fishing	95.23	87.36	91.96	83.72	71.24	77.55	81.45	74.82	78.39
Mining and Quarrying	0.11	0.16	0.13	0.37	0.24	0.31	0.33	0.21	0.27
Manufacturing	0.81	4.17	2.20	2.58	8.01	5.27	3.17	7.93	5.37
Electricity, Gas and Water supply	0.00	0.00	0.00	0.11	0.01	0.06	0.21	0.08	0.15
Construction	0.32	0.17	0.26	1.58	0.86	1.22	2.78	0.67	1.81
Whole Sale & Retail Trade, Repair of Vehicles, Personal and Household Goods	2.02	4.08	2.88	4.76	7.64	6.18	3.99	6.94	5.35
Hotels and Restaurants	0.40	2.27	1.18	0.92	5.21	3.04	0.47	4.86	2.50
Transport and Communication	0.08	0.03	0.06	0.77	0.10	0.44	0.98	0.11	0.58
Financial Inter- Mediation				0.03	0.05	0.04	0.21	0.17	0.19
Real Estate, Renting Business and Activities	0.03	0.01	0.02	0.22	0.13	0.18	0.29	0.13	0.22
Public Administration, Defense, Compulsory Social Security	0.02	0.07	0.04	0.86	0.75	0.81	2.09	1.10	1.63
Education, Health and Social Work	0.01	0.01	0.01	1.21	1.22	1.21	1.75	1.02	1.41
Other Social, Cultural, Personal and Household Activities	0.83	0.38	0.64	2.44	1.03	1.74	1.79	1.00	1.43
Private Households with Employed Persons	0.06	1.26	0.56	0.20	3.33	1.75	0.13	0.72	0.40
Extra-Territorial Organizations and Bodies	0.00	0.00	0.00	0.19	0.17	0.18	0.35	0.21	0.29
Not stated	0.09	0.01	0.06	0.01	0.01	0.01	0.00	0.03	0.01
Total	100	100	100	100	100	100	100	100	100

Source: Computed from CSA data

3.3. Unemployment situation in Ethiopia

3.3.1. Trends in unemployment rate in Ethiopia

The magnitude or extent of unemployment is measured using the unemployment rate. The unemployment rate is computed as the percentage of the unemployed population over the economically active population. Table 3.21 presents the current and usual status rates of unemployment for the country by sex in urban and rural areas for 1999 and 2005. Accordingly in 1999 and 2005 the rate of unemployment in the current status approach for the total country was found to be 8.0 percent and 5.0 percent respectively.

In Ethiopia unemployment seems to be more of urban problem, where the rates for urban areas were 26.4 percent, that is, five times higher than that of the rural areas (5.1 percent) in 1999 and 20.6 percent, which is ten times higher than that of the rural areas (2.6 percent) in 2005. The incidence of unemployment also differs between sexes. In urban areas a significant proportion of unemployed female population (34.0 percent) was reported as compared to males (18.3 percent) in 1999 while the incidence for 2005 showed unemployment rate of 27.2 percent and 13.7 percent for both females and male respectively. The above pattern also holds true for the rural areas where 8.6 percent of females and 2.4 percent of males were reported to be unemployed in 1999 comparing to 4.6 and 0.9 percent of females and males respectively in 2005.

The unemployment rate based on the usual status approach for the total country, urban and rural areas were reported to be 2.0 percent 13.8 percent and 0.3 percent, respectively for the year in 1999 while the corresponding figure for the year 2005 were 5.6 percent, 20.5 percent and 3.41 percent for in the above order. The unemployment rate at country level was higher among the females. This phenomenon of relatively higher unemployment rate among females holds true in both the urban and rural areas.

Table 3.21: Trends in unemployment rate by sex and urban and rural Ethiopia: 1999 and 2005

year	U+R(Current Status)			Urban(Current Status)			Rural (Current Status)		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1999	8.02	4.32	12.46	26.40	18.34	34.03	5.14	2.39	8.56
2005	5.0	2.5	7.8	20.6	13.7	27.2	2.6	0.9	4.6
year	Urban+Rural (Usual)			Urban (usual)			Rural (usual)		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1999	1.95	1.43	2.60	13.83	10.42	17.52	0.31	0.28	0.36
2005	5.56	3.29	8.03	20.5	14.55	26.54	3.41	1.73	5.26

Source: Owen computation of CSA data

Table 3.22 below presents the trends in rates of unemployment for Ethiopia by sex and in urban and rural areas from 1994 to 2007. Accordingly, during the last thirteen years unemployment rate appears to follow a decreasing trend. According to the 1994 Population and Housing Census result unemployment rate for urban Ethiopia was 22.0 percent. This has increased by 4.4 percentage point and reached 26.4 percent in 1999. For the year 2005 and 2007 the rate has declined to 20.6 percent and 17.6 percent respectively. This decline in unemployment could occur either due to creation of jobs or shift from unemployment to inactive status. In the case of the rural areas, unemployment rate was reported to be 0.7 percent in the 1994 census against 0.3 percent in the 1999 and rise to 3.4 percent in 2005 but again declined to 1.4 percent in 2007.

Further disaggregation of the trends in unemployment rates by gender reveals that for all years and for urban as well as rural areas unemployment rate for females was higher than that of males. In urban areas, the unemployment rate among females was 24.2 percent, 34.0 percent, 27.2 percent and 23.3 percent against 20.5, percent, 18.34 percent, 13.74 percent and 13 percent for males in the year 1994, 1999, 2005 and 2007 respectively. Similarly, in rural areas the figure for

female was 0.79 percent, 0.36 percent, 5.26 percent and 1.30 percent against 0.63 percent, 0.28 percent, 1.73 percent and 1.60 percent for male in the same year.

To conclude, on the basis of a comparison of unemployment rates in 1994-2007 it is observed that between rural and urban areas unemployment rates, urban rates were much higher than rural rates. This might be the fact related to the seasonality of agricultural labour in rural Ethiopia. Rather than open unemployment, low productivity agricultural underemployment can be found. Moreover, the proportion of unemployed people has remained high in urban than in rural areas where rural areas in Ethiopia absorb the labor supply through progressive subdivision of family holdings, also known as the “sponge effect”. Gender wise comparisons of trends in unemployment rate also showed us that unemployment rates of females were significantly higher than those of males. This indicates unemployment is more of a problem for females than males in Ethiopia where this phenomenon is very sever in urban areas.

Table 3.22. Trends in unemployment rate in Ethiopia: 1994-2007

Year	Urban			Rural		
	Total	Male	Female	Total	Male	Female
1994	22.03	20.52	24.21	0.70	0.63	0.79
1999	26.40	18.34	34.03	0.31	0.28	0.36
2005	20.60	13.74	27.23	3.41	1.73	5.26
2007	17.6	13.1	23.3	1.40	1.60	1.30

Source: Owen computation of CSA data

3.3.2. Age Specific Unemployment rate

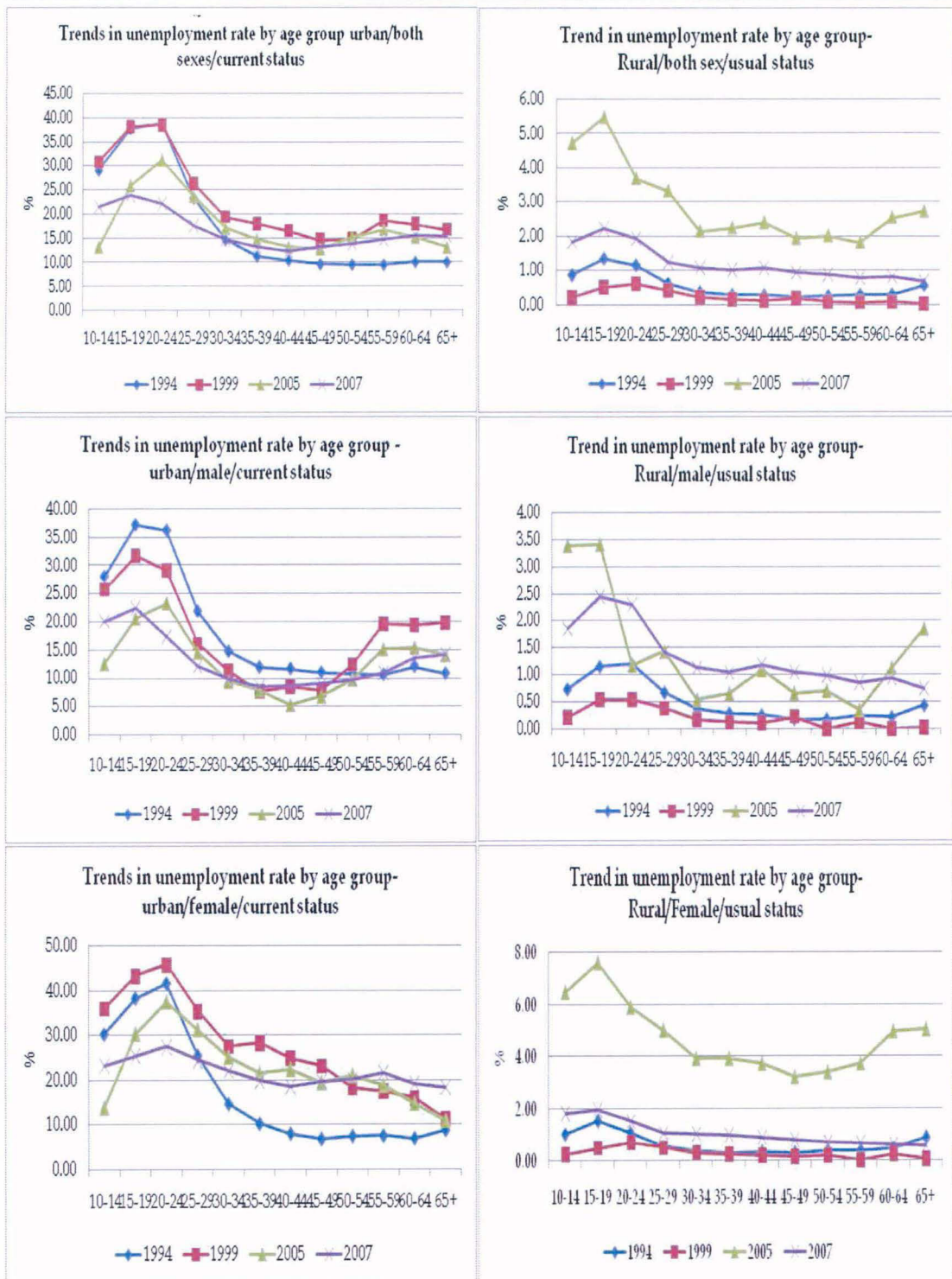
Concerning the age pattern of unemployment, Figure 3.5 below and Table 1.10 and Table 1.11 in the appendix clearly show that the unemployment is predominantly young men and women phenomenon. The unemployment rate starts comparatively at lower levels in the age group 10-14 years (29.1 percent, 31 percent, 13.1 percent and 22 percent in 1994, 1999, 2005 and 2007 respectively in

urban areas and 0.86 percent, 0.23 percent, 4.7 percent and 1.8 percent in 1994, 1999, 2005 and 2007 respectively in rural areas), then it increases with advancing age up to age group 20-24 years (38.7 percent, 38.5 percent, 31 percent and 27.4 percent in 1994, 1999, 2005 and 2007 respectively) in urban areas and thereafter it starts to decline.

Similarly, more or less the above pattern also holds true for rural areas. However, in urban areas the females had higher unemployment rate at the age group 20-24 years (42 percent, 46 percent, 37.4 percent and 27.5 percent in 1994, 1999, 2005 and 2007 respectively) and continue to decline consistently with increasing age. On the other hand, males had higher rate of unemployment at the age group 15-19 years except for the year 2005 (37 percent, 32 percent, 21 percent and 22 percent in 1994, 1999, 2005 and 2007 respectively) and decline up to the age group 45-49 years and start to rise up thereafter. In all age groups whether in urban or rural areas females show higher rate of unemployment than their male counterparts.

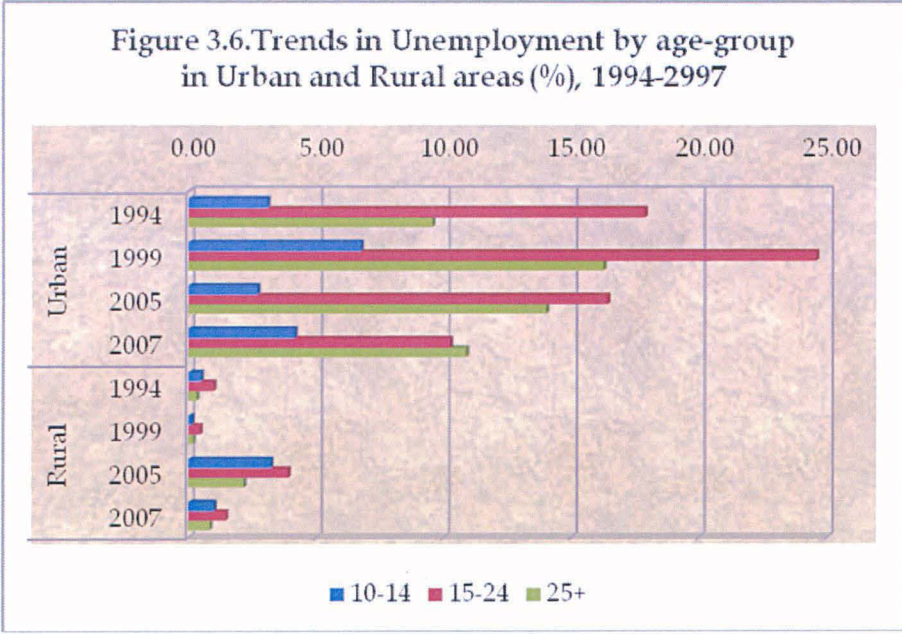
Generally, disaggregating unemployment rates by age shows that unemployment rate for all period shows a spike in the age group 15-19 for male and 20-24 year age group for females. It declines fairly steadily thereafter, with the female rate dipping below the male rate for older groups. Women's have higher unemployment rates than men for all age groups less than 55-59 years. Although unemployment is relatively low among the oldest age groups, it remains significant i.e. greater than 10 percent for those aged over 60 in urban areas and more than 1 percent in the rural areas between 1994 and 2007. Labour market participation is still common for this old age group.

Figure 3.5. Trends in Age-specific Unemployment rate by sex and residence in Ethiopia: 1994 - 2007



Unemployment rate by age group is relatively found to be higher for the age groups 15-49 years. The youth population aged 15-24 years recorded the highest unemployment rate for the whole period. The rates for females are higher than that of males at all age groups (See figure 3.6 below and Table 1.12 in the appendix).

Between 1994- 2007 significant decreases were recorded in the rate unemployment. This decline in unemployment appears to have been driven by a drop in youth unemployment, and lower unemployment for older males. Still, youth continue to experience relatively much higher unemployment than adults.



3.3.3. Unemployment and Level of Education

In this section attempt is made to see the relationship between unemployment rate with literacy status and educational attainment. According to the data in the table for all years and for both urban and rural areas unemployment rate reported for literate persons was higher than that of the illiterate persons. Unemployment rates in the urban male were higher for the literate (25.8 percent,

20 percent and 14.4 percent) than the illiterate (20.3 percent, 10.7 percent and 10.1 percent) for 1994, 1999 and 2005 respectively. Similarly, for females the rate of unemployment for literate was 35 percent, 41.6 percent and 31.6 percent against 16.7 percent, 23 percent and 20 percent for illiterate for 1994, 1999 and 2005 respectively in that order (See figure 3.7 below and Table 1.13 in the appendix).

Among the literate group, relatively the highest unemployment rates in urban areas were found to be among high school graduates i.e. those who completed grade 12 followed by those who attend grades 9-11 and grades 7-8 with the exception for the year 2005. The Lower unemployment rate was reported for those persons who were educated beyond grade 12 and non formal education. Further, the data reveals unemployment rate increases as level of education increases until the level reaches grade 12. For both male and female the peak rate of unemployment is observed at educational level of grades 9-11 and grade 12. Although the males and the females show similar pattern, the unemployment rates for females were higher than that of males at all levels of education (See Table 3.23).

In rural areas the unemployment rate among the illiterate and the literate show slight difference (See figure 3.8 below and Table 1.14 in the appendix). This is also true for each of the sexes. Though the unemployment rate seems to follow the pattern observed in urban areas where the rate tends to increase as the level of education increases up to grade 12 and then drops down for those who have attained an educational level of beyond grade 12 there is high rate of unemployment in the above certificate category. This may be due to over qualification with the skill needed in the rural labour market where there is lack of job opportunity beyond agriculture. Like urban areas in rural areas females have higher rates than males at all level of education (see Table 3.24).

Generally, looking at unemployment rate by literacy status showed that for all year unemployment rate reported for literate persons were higher than that of the illiterate persons in both urban and rural areas. However, in the rural areas, the difference in the rate of unemployment between literate and illiterate is minimal. The literate showed higher unemployment rate than the illiterate as the literate group might be students who stay in school and can not be engaged or furnish their labour for production of goods and services. Further more comparison made by rate of unemployment between urban and rural showed that significant numbers of unemployed persons who have completed at least high school education (grade 12) were reported in the urban areas and for both male and females. Moreover, the above result revealed that the unemployed persons in the urban areas were better educated than those in the rural areas. Unemployment rate tends to increase as the level of education increases up to grade 12 and then drops down for those who have attained an educational level of beyond grade 12. Looking at gender wise, although the males and the females show similar pattern, the unemployment rates for females were higher than that of males at all levels of education.

Figure 3.7. Unemployment rate by Literacy status and gender: urban Ethiopia, 1994-2005

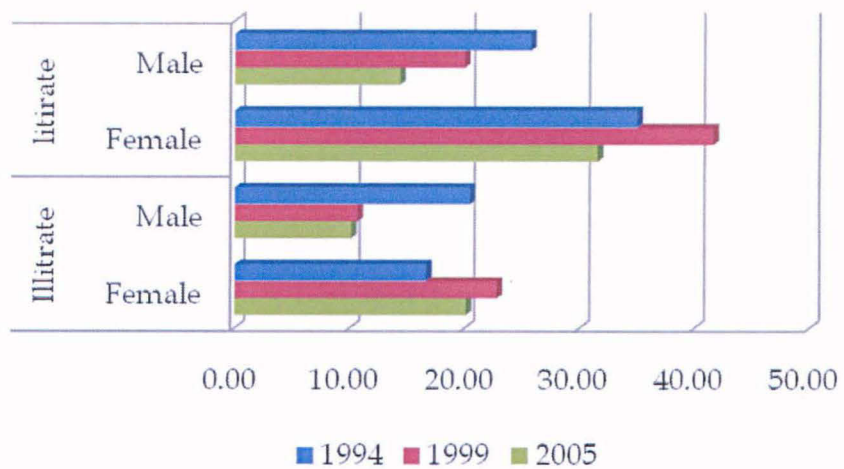


Figure 3.8. Unemployment rate by Literacy status and gender: Rural Ethiopia, 1994-2005

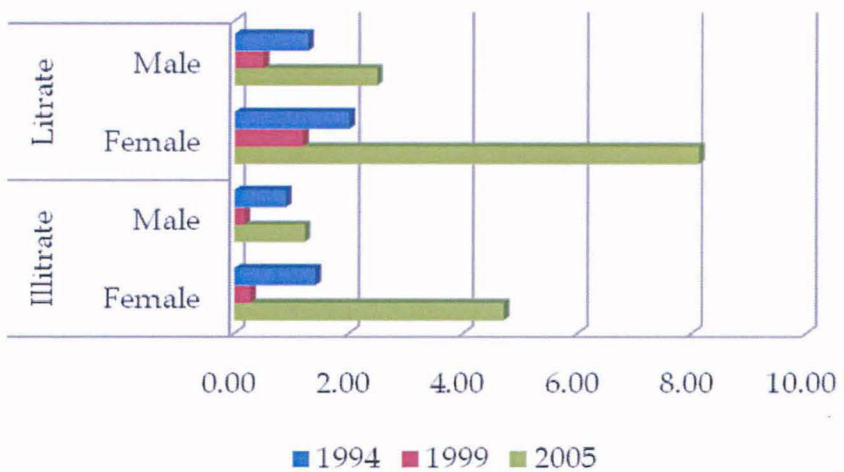


Table 3.23: Unemployment rate by Educational Status and Gender: Urban Ethiopia, 1994-2005

Year	Sex	Illiterate	Literate						
			Highest Grade Completed						
			Non-formal	Grade 1-6	Grade 7-8	Grade 9-11	Completed grade 12	Certificate	Above certificate
1994	Male	20.48	17.74	21.00	27.29	29.68	37.23	13.81	14.25
	Female	16.68	14.38	26.51	36.69	40.49	54.71	21.69	15.79
1999	Male	10.69	13.00	17.32	23.23	25.31	26.24	6.78	12.16
	Female	22.82	29.79	36.21	46.72	53.62	50.42	15.72	16.38
2005	Male	10.14	10.97	11.61	14.55	22.42	17.76	8.41	7.30
	Female	20.14	19.71	26.47	32.64	45.84	38.01	16.71	17.62

Source: Owen computation of CSA Data

Table 3.24: Unemployment rate by Educational Status and Gender: Rural Ethiopia, 1994-2005

Year	Sex	Illiterate	Literate						
			Highest Grade Completed						
			Non-formal	Grade 1-6	Grade 7-8	Grade 9-11	Completed grade 12	Certificate	Above certificate
1994	Male	0.90	0.64	1.05	1.47	2.18	9.72	0.70	1.08
	Female	1.42	0.84	1.82	2.62	6.33	17.34	3.85	0.00
1999	Male	0.18	0.29	0.35	0.41	3.57	4.23	0.07	7.12
	Female	0.29	0.22	0.65	1.52	2.22	26.41	0.00	0.00
2005	Male	1.23	2.30	2.40	2.27	5.73	3.89	1.98	6.52
	Female	4.72	9.01	7.49	11.01	14.55	15.44	8.29	20.12

Source: Owen computation of CSA Data

3.3.4. Trends and patterns in the spatial distribution of Unemployment in Ethiopia

Table 3.25 and Table 3.26 summarize the unemployment rates by sex and region in urban and rural areas for the year 1994 to 2007. Accordingly, the table revealed that unemployment rate is highest for urban areas of Addis Ababa, Dire Dawa and Somali region Regions and relatively regions with lower unemployment rate were Benishangul-Gumuz and SNNP regions. Similarly, in the case of rural areas, those regions that observed highest unemployment rate for urban areas also reported relatively higher unemployment rate with the exception of Addis Ababa where there is no data for the year 2007 and with the inclusion of some regions like Harari and Affar. While rural areas of the remaining regions showed relatively lower unemployment rate between 1994 and 2007.

Table 3.25: Trends in unemployment rate by region: Urban Ethiopia 1994-2007

Regions	1994			1999			2005			2007		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Tigray	9.81	9.74	9.78	14.96	23.31	19.81	13.92	21.79	18.29	16.8	29	22.6
Affar	11.97	9.23	11.06	10.12	35.25	23.16	9.47	30.63	18.78	14.3	27.2	19.2
Amhara	11.98	11.61	11.81	14.86	28.24	22.48	9.90	21.02	15.95	11.7	17.3	14.3
Oromiya	14.49	16.75	15.37	12.38	25.72	19.04	9.00	21.15	15.04	10.6	18.5	13.9
Somali	33.17	29.41	31.86	21.43	42.18	32.00	23.73	35.75	29.74	17.3	21.5	19.1
Benishangul-Gumuz	7.57	6.64	7.21	10.81	26.67	18.79	4.32	17.19	10.34	7.5	15	10.6
SNNP	11.22	11.73	11.41	10.86	25.96	18.10	8.54	22.25	15.03	10.5	16.5	13
Gambella	11.16	11.23	11.18	12.49	31.14	21.05	14.23	37.02	25.63	10.9	16.9	13.3
Harari	25.13	30.03	27.13	19.66	39.12	29.07	19.79	34.07	27.12	14.7	25.2	19.4
Addis Ababa	30.68	41.53	35.14	27.97	48.15	38.08	22.78	40.00	31.44	15.2	30.9	22.5
Dire Dawa	31.42	40.66	35.40	27.06	42.65	35.32	21.56	41.62	32.46	23.7	41.2	31.7
Country	20.52	24.21	22.03	18.34	34.03	26.40	13.74	27.23	20.60	13.1	23.3	17.6

Source: Owen computation of CSA data

Table 3.26: Trends in unemployment rate by region: Rural Ethiopia 1994-2007

Regions	1994			1999			2005			2007		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Tigray	0.59	0.89	0.73	0.15	0.18	0.17	1.85	3.92	2.85	2.7	2.2	2.5
Affar	0.65	0.89	0.73	0.35	1.33	0.71	1.38	5.25	2.99	7.1	4.6	6.1
Amhara	0.27	0.39	0.33	0.22	0.30	0.25	1.65	4.70	3.07	0.6	0.6	0.6
Oromiya	0.55	0.66	0.60	0.23	0.36	0.29	1.88	6.28	3.96	1	0.9	0.9
Somali	1.85	2.41	2.05	1.08	1.48	1.25	1.13	6.37	3.44	7.4	7.8	7.6
Benishangul-Gumuz	0.31	0.29	0.30	0.14	0.06	0.10	2.29	2.82	2.56	0.7	0.6	0.6
SNNP	0.92	1.29	1.07	0.44	0.43	0.43	1.53	4.56	3.03	1.3	0.9	1.1
Gambella	0.23	0.44	0.32	0.32	0.00	0.18	-	-	-	2.2	1.9	2.1
Harari	0.59	1.76	1.07	0.09	0.27	0.15	0.97	8.85	4.52	0.7	1.5	1.1
Addis Ababa	6.58	10.21	7.98	0.59	11.25	3.78	4.33	18.55	10.83	-	-	-
Dire Dawa	1.81	4.97	3.05	1.41	1.69	1.53	0.35	5.42	2.68	1.5	2.9	2.1
Country	0.63	0.79	0.70	0.28	0.36	0.31	1.73	5.26	3.41	1.6	1.3	1.4

Source: Owen computation of CSA data

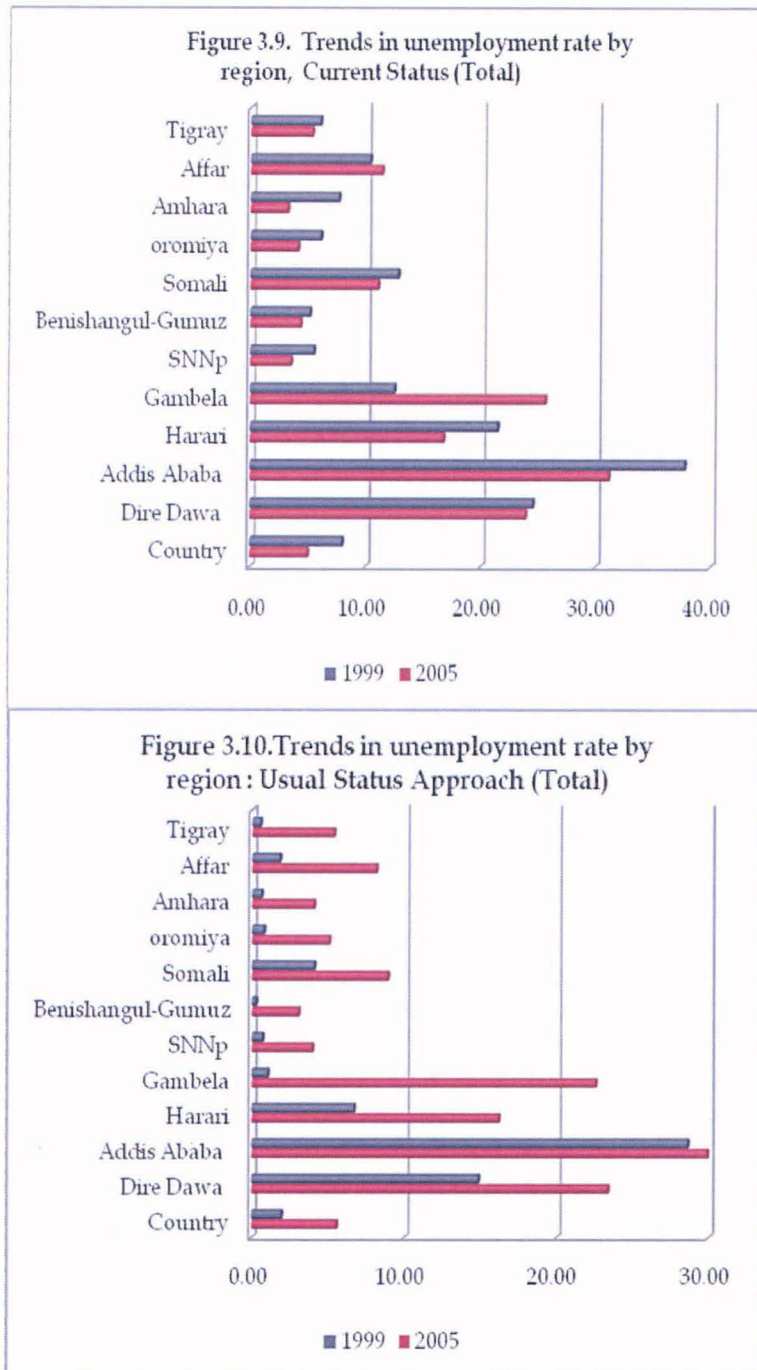
- Data not available

Further comparison of unemployment rate of regions by current and usual status approaches was made for the year 1999 and 2005 so as to show the overall picture of the magnitude of unemployment at country level and between urban and rural. Thus, based on the data for the year 1999 the unemployment rate, according to current status, is highest for Addis Ababa (37.8 percent), Dire Dawa Administration (24.6 percent) and Harari region (21.5 percent). Somali (12.8 percent), Gambella (12.5 percent) and Affar (10.4 percent) regions took intermediate position. Regions with lower unemployment rate were Amhara (7.7 percent), Oromiya (6.1 percent), Tigray (6.1 percent), SNNP (5.5 percent) and Benishangul-Gumuz (5.2 percent) regions.

While in 2005 unemployment rate was highest in Addis Ababa (31.2 percent) followed by Gambella Region (25.6 percent) and Dire Dawa (23.9 percent). Whereas the unemployment rate for SNNP, Amhara and Oromiya regions were found to be the lowest. Unemployment rate obtained based on the usual status approach was also following a similar pattern with that of the current status for both 1999 and 2007. (See Figure 3.9 and Figure 3.10 below and Table 1.15 and Table 1.16 in the appendix).

Looking at the rate of unemployment by urban and rural shows that urban unemployment rate was substantially higher than the rural, in all regions for all year for both current and usual status approach.

In general, in all the regions for all year the urban unemployment rate was much higher than the rural part and taking the sex composition, in both the urban and rural areas of almost all regions female unemployment rate was higher than those of the males.



3.3.5. Trends in Unemployment rate by urban centers in Ethiopia

Table 3.27 reports data on unemployment for the selected urban centers for the years 1994, 2005 and 2007. The level of unemployment of urban Ethiopia

increased between 1994 and 2005 yet showed a slight decline thereafter. The total urban unemployment rates reported were 21.9 percent, 23.6 percent and 18.4 percent during 1994, 2005 and 2007 respectively.

Even though the level of unemployment in general was high in 1994, a wide variation among the selected towns was observed. For instance, the highest and lowest unemployment rates were recorded in Debreziet (36.3 percent) and in Mekele (11.62 percent). Unemployment rate was more than 25 percent in 11 urban centers. The high unemployment rate in Debreziet is the result of the demobilization of the military in 1991, because the town was the base for the Ethiopian Air Force. The low levels of unemployment in Mekele is the short-term outcome of the special economic recovery programme that was directed towards regions affected by the extended civil war which prevailed in the northern part of the country for about two decades followed by expansion of manufacturing industries and service sectors in the town. Geographic variations in the level of unemployment observed in 2005 range from the highest in Jijiga (35.4 percent) to the lowest in Debre Brihan(14.4 percent). In 2007 the highest rate was recorded in DireDawa (31.7 percent) and the lowest was in Debre Birhan (10.7 percent). The low level of unemployment in Debrebirhan in 2005 and 2007 may be due to the recent expansion of infrastructure services and investment in the town.

Between 1994 and 2007 the geographic patterns of unemployment rates of men and women changed drastically. Between 1994 and 2005 in the majority of the selected urban centers women moved towards higher unemployment levels than men. Though female unemployment rate showed a decline in 2007, the rate is still higher comparing to 1994 figure.

Though the majority of the towns showing a rise in the rate of unemployment, an over all decline in the level were observed between the two census period (1994 and 2007). Among the towns the highest decline was observed for Debreziet (17.9

percentage points), followed by Debre Birhan (17.8 percentage points), Addis Ababa (12.6 percentage points) and Jijiga, Adama, Shashemene, Debre Markos, Dessie are towns with an increase of above 8 percentage points. Only in Adigrat, Mekele, Asayta, Asosa, Hosaena, Sodo and Arbaminch the 2007 unemployment rates are above the 1994 values. The over all changes in the level of unemployment for men and women between the two censuses follow similar patterns like the country total, observing a decline in the rate (See figure 3.11).

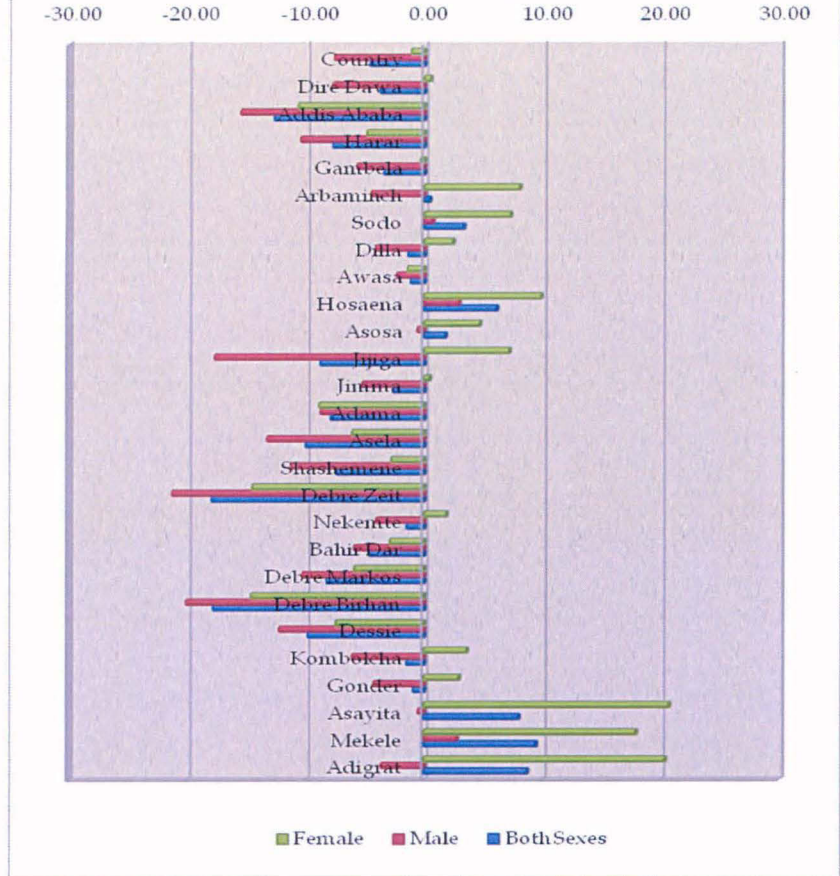
In general, looking at the over all pattern of unemployment rate for all urban centers and for all period female unemployment rates is higher than male. This is because female activity in Ethiopia is restricted to household chores which are not considered as productive work. In addition, major urban centers like Addis Ababa and Dire Dawa are suffering from high unemployment rate for most of the periods. This may be due to high rural to urban migration of people influx towards these major urban centers in search of job and better living standard.

Table 3.27. Unemployment rate by selected urban centers 1994, 2005 and 2007

Town	1994			2005			2007		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Adigrat	20.2	20.9	19.0	26.4	17.3	33.2	28.9	17.3	39.4
Mekele	11.6	11.7	11.5	21.6	18.3	24.5	21.1	14.5	29.4
Asayita	13.5	14.2	12.0	19.0	8.2	30.2	21.5	13.7	32.7
Gonder	17.2	17.8	16.6	25.2	19.1	30.4	16.3	13.5	19.6
Kombolcha	19.8	18.9	21.4	27.9	17.5	37.7	18.3	12.8	25.0
Dessie	25.5	23.8	28.1	27.4	17.8	36.6	15.7	11.6	20.7
Debre Birhan	28.5	27.1	30.2	14.4	8.7	18.9	10.7	7.0	15.6
Debre Markos	20.0	19.4	20.7	16.9	11.4	21.1	11.8	9.1	14.8
Bahir Dar	16.2	14.2	18.4	18.7	9.8	25.7	11.6	8.3	15.5
Nekemte	19.4	18.0	21.6	23.6	14.8	32.4	17.9	14.0	23.5
Debre Zeit	36.3	34.8	38.6	27.0	18.5	35.2	18.4	13.5	24.1
Shashemene	25.2	23.6	28.0	27.3	16.8	38.3	17.8	12.3	25.3
Asela	27.4	26.9	28.1	18.2	11.2	25.5	17.4	13.7	22.1
Adama	29.3	24.8	37.3	24.6	17.5	30.7	21.4	16.0	28.4
Jimma	21.2	17.8	26.6	21.5	12.9	30.2	18.5	12.5	27.0
Jijiga	32.4	35.2	25.3	35.4	25.7	47.0	23.6	17.5	32.5
Asosa	11.9	11.0	14.6	18.7	5.8	33.5	13.7	10.4	19.3
Hosaena	15.4	15.3	15.5	20.0	8.9	32.5	21.5	18.2	25.4
Awasa	19.3	15.5	27.1	24.2	12.3	36.2	18.2	13.2	25.7
Dilla	17.7	16.3	20.2	23.0	14.7	31.6	16.3	12.2	22.6
Sodo	12.5	12.1	13.3	18.1	10.4	27.2	15.8	12.8	20.6
Arbaminch	16.7	19.4	12.1	20.5	13.6	26.8	17.1	14.9	20.2
Gambella	15.6	15.1	17.0	25.6	14.2	37.0	12.2	9.4	16.7
Harar	27.1	25.1	30.0	27.1	19.8	34.1	19.4	14.7	25.2
Addis Ababa	35.1	30.7	41.5	31.4	22.8	40.0	22.5	15.2	30.9
Dire Dawa	35.4	31.4	40.7	32.5	21.6	41.6	31.7	23.7	41.2
Country Total	21.9	20.8	23.7	23.6	14.9	32.0	18.4	13.5	24.7

Source: Computed from CSA Data

Figure 3.11. Percentage change in the rate of unemployment of selected urban centers by sex between 1994 and 2007



CHAPTER FOUR

Determinants of work participation in Ethiopia

In the previous chapter attempt has been made to see the trends and patterns in activity status as well as work participation, the structure and distribution of employment by industry, occupation, status of employment and their variations over the years and the unemployment situation in Ethiopia including its relation with education and the like. Hence, the previous section aimed to give an over all highlight on the existing employment situation in Ethiopia.

Therefore, in this chapter an attempt will be made to highlight the possible connections between some of socio- demographic factors and work participation. Here, sex and age will be always used as key-factors in comparing rates by the other socio-demographic variables (See section 4.1). Starting from this basis and by incorporating more variables and using appropriate statistical tools we will try also to single out the most important differential factors that determine whether an individual participated in a work or not; a probit models of regression analysis will be used for this purpose (See the detail in section 4.2).

4.1. Socio-demographic factors affecting work participation in Ethiopia

In this section the work participation rates broken down by some background variables were presented. It is aimed at describing the differentials of work participation rates in relation to marital and migration status, educational level and number of children a woman own in the household will be considered in analyzing work participation. The effect of each variable on work participation rates will be described comparing the levels by sex and by five-year age-groups.

4.1.1. Work participation by marital status

Marital status often plays a significant role on individuals whether to participate in a work or not. This is especially true for women's where their gender roles and homemaking and childcare responsibilities make them to participate lower. An indirect way of investigating these issues is to focus on differences in work participation by marital status.

Accordingly, observing relationship between work participation rate and marital status by sex in urban areas, for males, the married group had the highest rate (71.5 percent, 84.8 percent and 85.8 percent in 1994, 1999 and 2005 respectively) followed by the divorced and separated. Among the females, the divorced took the leading position (55 percent, 69.4 percent, 70.7 percent in 1994, 1999 and 2005 respectively) followed by the separated and widowed group. The relatively higher participation for married group among men and relatively lower rate for the currently married among the females is not surprising in view of the fact that in Ethiopia the husband is considered as the major bread winner for the family and married women with gender roles and their homemaking and childcare responsibilities make them to participate less. Similarly, high participation among the female divorced group might be the fact that divorce often leads women to seek work in the labor market to survive and to protect financial against financial adversities of divorce many women seek work to protect themselves. The lower rates for among the never married groups of Total are justified by the obvious connection between the continuation of upper studying and the postponement of both their family formation and the entrance into the labour market (See Table 4.1).

For rural areas the variation in the participation rate among different categories of marital status by sex showed that for males, the married group had the highest rate (96.9 percent, 94.39 percent and 95.7 percent in 1994, 1999 and 2005 respectively) followed by the divorced and separated. Among the females, the

separated and divorced took the highest percentage. Like urban areas there is relatively higher participation rate for married group among men. Widowed had relatively lower rate among females. Similarly never married exhibited relatively lower participation rates for all periods comparing to other marital status groups. The major reason for being lower participation among the never married might be the fact that that most of the singles are young and attending school, while most widowed persons are in the older age group.

In all categories of marital status, for all periods and for both urban and rural areas males show higher participation rates than the females. The gap in work participation within a marital status group also showed that male participation rate is higher than female in urban areas while it is relatively minimal in rural areas. It is also observed that the participation rate of the widows is the lowest for both men and women and for both rural and urban group. This may possibly be due to the fact that a high proportion of the widows are elderly and have reduced participation rates. Divorced urban women show a relatively high participation rate possibly because this group may need to support family and children.

Table 4.1: Work participation by marital status, sex and residence in Ethiopia, 1994-2005

Marital Status	Urban					
	1994		1999		2005	
	Male	Female	Male	Female	Male	Female
Never married	28.42	18.87	40.11	28.15	40.25	32.46
Currently married	71.47	30.60	84.79	46.54	85.82	49.92
Divorced	60.92	55.00	71.46	69.44	68.07	70.73
Widowed	44.80	35.02	58.39	47.91	54.27	47.90
Separated	-	-	70.85	63.70	76.67	66.01
	Rural					
Marital Status	1994		1999		2005	
	Male	Female	Male	Female	Male	Female
	70.32	58.12	70.62	53.93	77.32	61.92
Never married	70.32	58.12	70.62	53.93	77.32	61.92
Currently married	96.94	71.94	94.39	72.18	95.71	80.83
Divorced	90.49	77.11	88.25	71.24	84.21	77.79
Widowed	74.31	62.52	65.03	52.85	69.81	63.50
Separated	-	-	86.32	75.20	88.70	74.08

Source: Own computation from CSA data

The work participation rates by the different marital status categories are also varying by age. In urban areas the pattern showed a significantly lower age-curve for the never-married men and striking different work participation rates in levels and pattern for the unmarried women (never-married, divorced or widowed women) when compared to the much lower and relatively flat curve for the currently married women (see Figure 4.1 and 4.2). The decrease in participation in older ages was probably due to an age effect, which shrinks the number of those women to a group effect with the older female generations officially working less in the urban context.

It is worthwhile to note that patterns and levels for the never-married men and women are similar in younger ages: differences are relatively small at age 15-19 and more or less not more than 10 percent points till at age 30-34, showing a

similar scheme of entrance of the young generations into the labour market for the never-married men and women (See also Table 1.17 in the appendix).

In the rural areas there were higher percentage of people in the young and old age category participating in work for each group of marital status comparing to urban areas. In addition the gap in work participation between male and female observed relatively minimal for each age and marital status category comparing to urban areas (See figure 4.3 and 4.4 and Table 1.18 in the appendix).

Generally, looking at the patterns of age specific work participation by marital status plays an opposite role respectively in male and female work participation rates, at least in central and older ages. Never-married men show significantly lower work participation, while it is strikingly different in levels and pattern for the unmarried women when compared to the much lower and relatively flat curve for the currently married women. Patterns and levels for the never-married men and women are similar in younger ages, showing a similar scheme of entrance of the young generations into the labour market. The work participation rate of the adult never-married women is often higher both because their fewer engagements in the house and children keeping and their stronger need to earn their living by work. Also a positive selection by education and modern-style attitudes may add. Looking the rate for married male in both urban and rural areas their work participation rate is very high while the reverse is true for married females. This is quiet obvious as in most developing countries including Ethiopia the husband is considered as the major bread winner for the family and married women with gender roles and their homemaking and childcare responsibilities make them to participate less.

It should be noted that these variations in patterns of participation by marital status are likely to be reflecting the influence of a variety of other demographic

characteristics that are correlated with marital status, such as age, educational qualifications, family circumstances and health status.

Figure 4.1. Work participation rate by marital status and age group :Urban Ethiopia, Male 2005

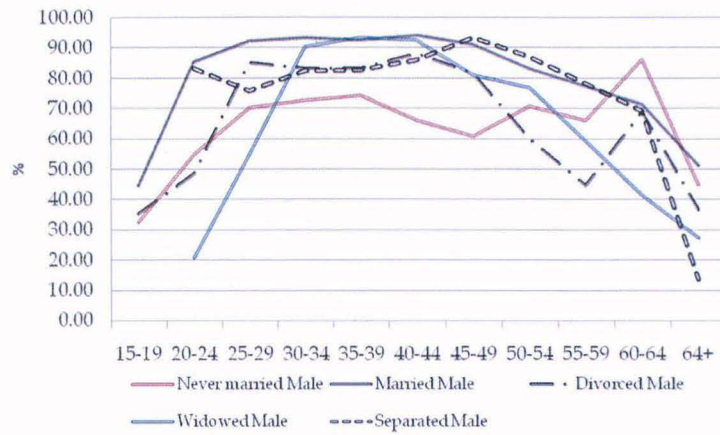


Figure 4.2. Work participation rate by marital status and age group :Urban Ethiopia, Female 2005

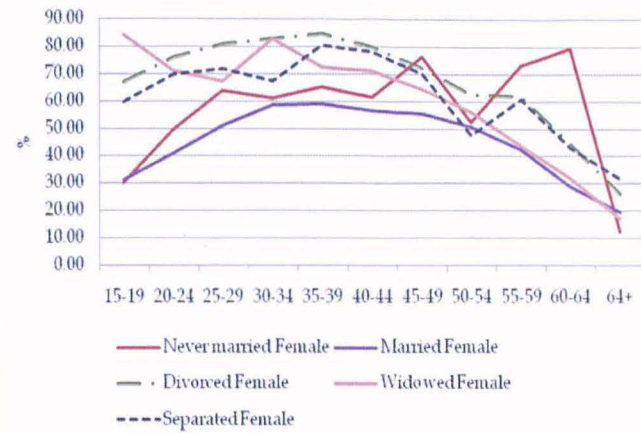


Figure 4.3. Work participation rate by marital status and age group :Rural Ethiopia, Male 2005

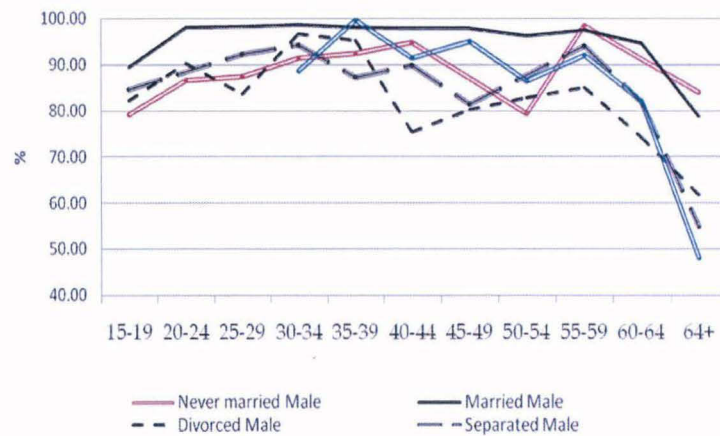
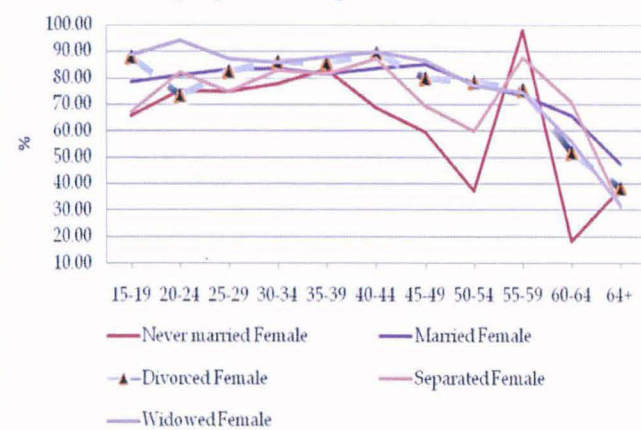


Figure 4.4. Work participation rate by marital status and age group :Rural Ethiopia, Female 2005



4.1.2. Work participation rate by Migration Status

Before going to explain the connection between migrations and work participation a brief account should be made on the levels, patterns, forms and causes of migration in Ethiopia.

Migration is a form of geographical mobility between one geographical unit and another, generally involving a change of residence from the place of departure to the place of arrival.

Since time immemorial migration from one area to another in search of improved livelihood has been a key feature of human history. While some regions and sectors fall behind in their capacity to support populations, other move ahead and people migrate to access these emerging opportunities. Migration has become a universal phenomenon in modern times. Industrialization widens the gap between rural and urban areas, including a shift of the workforce towards industrializing areas. In most countries, it has been observed that industrialization and economic development has been accompanied by large-scale movements of people from villages to towns, from towns to other towns and from one country to another country.

From the demographic point of view, migration is one of the three basic components of population growth of any area, the other being fertility and mortality. But whereas both fertility and mortality operate within the biological framework, migration does not. It influences size, composition and distribution of population. More importantly, migration influences the social, political and economic life of the people at the origin as well as at the destination.

Migrants constitute a high percentage of working age population. This may have a substantial impact on the composition of the work force in the areas of destination. In this context, this sub-section will be focusing on internal

migration²⁶ in Ethiopia and try to look at the levels and Patterns of migration as well as forms and reason for migration. Section...4.1.2.1 will try to see work participation rates by different categories of migration together with gender and age.

A. Levels and Patterns of Migration

Level of migration to an area is measured by taking the proportion of migrants against the total population of the area. Table 4.2 presents the proportion of migrants for the country classified by sex, urban and rural areas. Accordingly, during 2007 census period among the total population of the country 16.6 percent were migrants and 83.4 percent were non-migrants. The table further shows that the level of migration to be different for males and females, the latter being more mobile. The level internal migration, 84.1 percent of the males and 82.7 percent of the females were non-migrants, while the remaining 15.9 and 17.3 percent of the males and of the females, respectively were migrants.

The levels of migration in urban and rural areas of Ethiopia vary substantially. The level of migration for urban areas was substantially higher than that of rural areas. The proportion of migrants in the urban areas amounted to 47.7 percent of the total urban population, while the corresponding percentage in the rural areas turned out to be only 10.6 percent. This disproportionate distribution of migrants between urban and rural areas could be explained partly by the fact that the rural areas are relatively less attractive in providing job opportunities than urban areas.

²⁶ *Internal migration, in this sense, is residential mobility from one geographical unit to another within the same country.*

Table 4.2. Distribution of population by migration status, sex and residence in Ethiopia: 2007 census

Migration Status	Sex	Urban + Rural	Urban	Rural
Migrants	Total	16.6	47.7	10.6
	Males	15.9	47.1	9.9
	Females	17.3	48.3	11.2
Non-Migrants	Total	83.4	52.3	89.4
	Males	84.1	52.9	90.1
	Females	82.7	51.7	88.8

Source: Computed from CSA, 2007 census

Looking at the percentage of migrants by regions Addis Ababa (47.6 percent), Gambella (47.1 percent), Benishangul-Gumuz (30.1 percent) and Dire-Dawa (29.6 percent) had the highest percentage of migrants. Similarly, gender wise Gambella (48.6 percent and 45.4 percent) and Addis Ababa (45.2 percent and 49.7 percent) registered the highest percentage of migration for both male and female respectively.

Comparing percentage of migrants by residence i.e. urban and rural, in urban areas Gambella (63 percent) and Benishangul-Gumuz (61.3 percent) registered the highest percentage. The above patterns holds true for rural areas as well as for both male and females residing in urban and rural areas. Generally, the percentage of migrants in urban is higher than rural areas (Table 4.3).

Table 4.3. Distribution of migrants by Region in Ethiopia, 2007 census

Region	Percentage of Migrant								
	Urban +Rural			Urban			Rural		
	Both			Both			Both		
Affar	13.6	13.4	13.9	42.5	41.5	43.6	9.2	9.3	9.0
Tigray	19.9	19.0	20.8	52.7	51.6	53.8	11.9	11.5	12.4
Amhara	13.7	13.0	14.4	53.0	53.1	52.9	8.3	7.7	8.9
Oromiya	16.4	15.8	16.9	50.7	51.2	50.2	11.5	10.9	12.2
Somali	10.3	10.1	10.5	14.5	14.2	14.9	9.6	9.5	9.8
SNNP	13.9	13.4	14.4	47.0	47.7	46.1	10.2	9.4	11.0
Benishang ul Gumuz	30.1	30.0	30.1	61.3	62.2	60.4	25.2	25.0	25.4
Harari	26.4	26.8	26.0	43.3	44.6	42.0	6.5	6.1	6.9
Gambella	47.1	48.6	45.4	62.9	63.8	61.9	41.7	43.4	39.9
Addis	47.6	45.2	49.7	47.6	45.2	49.7	-	-	-
Dire-	29.6	28.2	31.1	40.0	38.1	41.9	7.4	7.3	7.4
Country	16.6	15.9	17.3	47.7	47.1	48.3	10.6	9.9	11.2

Source: Computed from CSA, 2007 Census result

B. Forms of Migration

Form of migration is defined as the movements of people between and within rural and urban areas. According to the information obtained on the area of previous residence of the migrants, the majority of the migrants (73.6 percent) moved directly from the rural areas, while 26.4 percent were from urban areas. Among male and female migrants, 72.7 and 74.5 percent respectively were from the rural areas while 27.3 percent and 25.5 percent of males and females were from urban areas (CSA, 2008).

Looking forms of migration further by area of previous residence and age-group the higher percentage was concentrated in the age group 15-64, 68 percent and 74.6 percent for those whose previous residence was rural and urban respectively. Gender wise difference was not seen within place of residence yet the percentage of migrants whose place of residence belongs to urban was higher

than those in the rural. Age group 65 and above showed the lowest percentage of migrants in both urban and rural areas as migration is age selective (Table 4.4).

Table 4.4. Percentage Distribution of Migrants by area of previous residence and sex in Ethiopia: 2007 Census

Age Group	Previous Place of Residence			Previous Place of Residence		
	Rural			Urban		
	Total	Male	Female	Total	Male	Female
0-14	27.85	29.12	26.69	21.75	21.93	21.57
15-64	67.99	66.49	69.35	74.59	74.31	74.88
65+	4.16	4.39	3.96	3.65	3.76	3.55
All	100	100	100	100	100	100

Source: Computed from CSA, 2007 Census result

Table 4.5 also gives the major *Form of Migration*. The common Forms of migration were rural-urban, rural-rural, urban-rural and urban-urban. Accordingly, rural-rural migration was the prevailing form of the population's movement in Ethiopia in the four reference periods (1984, 1994, 1999 and 2005) comprising of 55.8, 48.9, 37.6 and 46 percent of their respective total population. This type of migration is typical of rural areas and is linked to seasonal agricultural and pastoral labour. Rural-rural migration has been following a declining trend till the year 1999 and rise during 2005 though the percentage is less comparing to 1984 and 1994 figure. Rural-urban migration ranked second and revealed a slightly decreasing trend, from 24.8 per cent in 1994 to 24.3 per cent ten years later though showing a slight increase comparing to 1999 labour force survey. Urban-Urban and Urban-Rural forms of migration took the third and fourth positions respectively.

Urban-urban forms of migration²⁷ ascended from 13.5 to 17.7 percent in the years 1984-2005. However, it is to be noted that often urban-urban migration originates from a rural-urban move. Like urban-urban movements, urban-rural migration has also increased in recent years, from 2.0 to 12.1 percent in the years 1984-2005, despite its relatively small share (see also figure 4.5 in the appendix).

Table 4.5. Forms of Migration in Ethiopia, 1984-2007

Forms of Migration	1984 Census	1994 Census	1999 LFS	2005LFS
All forms	100	100	100	100
Rural-Rural	55.8	48.9	37.6	46.0
Rural-Urban	28.7	24.8	23.5	24.3
Urban-Rural	2.0	7.3	15.7	12.1
Urban-Urban	13.5	18.9	23.2	17.7

Source: CSA (1984; 1994), Owen computation from CSA,2005

As table 4.6 indicates, there are regional variations in migration movements. Rural-rural migration was the dominant forms of migration, above 30 per cent of total migration per region in Amhara, Oromiya, Benishangul-Gumuz and SNNP. In Oromiya region, it reached 62.1 per cent, which reflects the agricultural and pastoral nature of local labour. This high percentage of migrants could also be due to natural calamities like drought.

²⁷ Although, the urban-urban form of movement reflects direct moves among urban areas, it should be noted that the bulk of these migrants originally moved from the rural areas to the nearby urban centers and stayed there for sometimes and then moved to the next higher level urban centers. These stepwise movements are the common forms of migratory movements often observed in Ethiopia.

Table 4.6. Regional distribution of migrants in Ethiopia (%), 2005

Regions	Forms of Migration				Total
	Rural- Rural	Rural- Urban	Urban- Rural	Urban- Urban	
Tigray	20.47	28.22	17.11	34.20	100
Afar	15.16	25.82	6.91	52.11	100
Amhara	33.02	36.02	12.83	18.13	100
Oromiya	62.07	16.68	10.19	11.06	100
Somali	14.78	29.44	14.98	40.80	100
Benishangul_Gumuz	49.60	24.35	6.59	19.45	100
SNNP	37.42	25.73	19.85	16.99	100
Gambella	0.00	52.97	0.00	47.03	100
Harari	9.95	30.76	5.67	53.62	100
Addis Ababa	1.01	48.03	0.34	50.62	100
Dire- Dawa	2.04	47.55	4.23	46.19	100
Country	46	24.3	12.1	17.7	100

Source: Computed from CSA data

Rural-urban flows are particularly high in Gambella (53 percent) and Addis Ababa (48 percent) of total migration. In Gambella such kind of migration is due to drought and insecurity in the area while in Addis Ababa is due to in search of job- to find employment especially in the informal economy.

In Afar, Addis Ababa and Harari regions, Urban-Urban migration is the major form of migration. Unlike the other regions, in the S.N.N.P region one can see that the proportion migrating from urban areas to rural areas is higher than that of from urban to urban areas.

As can be seen below the higher percentage of internal migration rate was concentrated in the age group 15-64, 70. The figure for urban was 79 percent and that of rural was 62 percent. Gender wise difference was not as such significant. Migration rates of urban were higher than those in the rural areas. Age group 65 and above showed the lowest migration rates in both urban and rural areas as migration is age selective (Table 4.7).

Table 4.7. Internal migration rates by age, gender and location (%), 2007

Age Group	Urban			Rural			Country		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
0-14	17.2	16.2	18.1	34.2	37.0	31.6	26.24	27.2	25.4
15-64	78.9	79.9	77.8	61.8	58.5	64.8	69.73	68.6	70.8
65+	4.0	3.9	4.1	4.1	4.5	3.7	4.0	4.21	3.9
All	100	100	100	100	100	100	100	100	100

Source: Computed from CSA 2007 Census

C. Reason for Migration

Table 4.8 shows that the main reason for migration. Accordingly, 27.9 per cent of the population was migrating to follow one's family. This may be due to employment opportunities of a relevant family member or of the household's head. Work-related reasons (including search for a job, displacement of work and job transfer) are the second principal causes for migration (totaling 19.1 per cent).

Main reasons for migration show some variation between men and women. As expected, marriage arrangement is the second main reason for migration among females (15.1 percent), while it is not important at all among men. For men education is reported by about 15.7 percent of the migrant population as the second main reason.

In urban areas the contribution of education as the main reason for migration was relatively higher, 27 percent and migration for work-related reasons account for 26.8 per cent. The work related migration indicating that movements from rural to urban areas are closely linked to employment opportunities, especially when seeking an informal job. In rural areas, migration along with family was mentioned the main reason for migration (31.3 percent) followed by shortage of land (18.6 percent).

Gender wise, in urban areas, education (34.9 percent) and moving along with the family (26.2 percent) was mentioned as the main reason for migration by males and females respectively. While in rural areas moving along with the family (33.7 percent) and shortage of land (20.9 percent) by males and moving along with the family (28.8 percent) and marriage arrangement (21 percent) was mentioned as a reason for migration.

In sum, following one's family and work-related reasons account for the main migration cause in Ethiopia.

Table 4.8. Reasons for migration by gender and location (%), 2005

Reason	Urban			Rural			Country		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Education	34.9	19.9	27.0	2.9	1.2	2.1	15.7	9.5	12.6
Marriage arrangement	0.7	7.8	4.4	0.8	21.0	10.5	0.8	15.1	7.9
Marriage Dissolution	0.3	2.4	1.4	0.2	3.6	1.8	0.2	3.1	1.6
Search for work	16.9	20.4	18.7	12.0	6.5	9.4	14.0	12.7	13.3
Job transfer/Got job	11.9	3.8	7.6	3.9	2.9	3.4	7.1	3.3	5.2
Displacement/war/draught	2.1	2.3	2.2	7.4	4.7	6.1	5.3	3.6	4.5
Displacement or work	0.6	0.4	0.5	1.0	0.3	0.7	0.9	0.4	0.6
Along with family	19.7	26.2	23.1	33.7	28.8	31.3	28.1	27.6	27.9
Return back to home	2.9	3.9	3.5	8.7	5.6	7.2	6.4	4.9	5.6
Shortage of land	0.9	0.9	0.9	20.9	16.1	18.6	13.0	9.3	11.2
Health problem	1.7	2.6	2.2	1.2	1.4	1.3	1.4	1.9	1.7
To live with relatives	3.6	5.2	4.5	3.8	4.4	4.1	3.7	4.8	4.3
Others	1.5	1.8	1.6	0.5	0.7	0.6	0.9	1.2	1.0
Not Stated	2.3	2.3	2.3	2.9	2.8	2.9	2.7	2.6	2.6
Total	100	100	100	100	100	100	100	100	100

Source: Computed from CSA, 2005 National Labour Force Survey

4.1.2.1 Work participation rate by Migration Status Categories

Table 4.9 presents the work participation rate by migration status categories. As can be seen from the table, work participation rates in urban areas show noticeable difference among different categories of migration. Looking at the table, for all year, except for the year 1994 for female, long time migrants had the highest participation rate compared to other migration categories. Conversely,

non- migrants had registered the lowest participation rate. Moreover, gender gap in participation is pronounced with in the migration category, male work participation is higher than female.

Similarly, in the rural areas, again long time migrants more or less showed higher participation rates than the other migration categories although the participation rate for non migrants and migrant category was higher than long time migrants for the year 1994 (for female) and in 2005 (for male) respectively . However, unlike the case in the urban areas, non-migrants had higher participation rate comparing to recent migrants (less than 2 years). Moreover, migrants (2-6 years) had more or less comparable participation rate with longtime migrants (7+ years) for all years except for the year 1994 for males. The gender gap in participation rate with in the migration categories also existed in rural area where there is high male work participation than females.

Work participation rates by migration status categories also vary by age. For instance, in 2005, for urban areas, the highest rate of work participation for non-migrants (75 percent), recent migrants (80.13 percent) and migrants (84 percent) took place at the age group 40-44 years. The corresponding highest rate of work participation for long time migrants (78.2 percent) occurred at the age group 35-39 years. Contrasting age specific work participation rates of male and female one observes that male non- migrants had the highest work participation rate (89.6 percent) at the age group 40-44 years and similarly female non migrants had the highest work participation rate (63.2 percent) at the same age group. The corresponding highest rates of work participation for the recent migrant males (93.1 percent) and females (67.9 percent) occurred at the age groups 40-44 and 45-49 years, respectively. However, recent migrants' females between ages 10-24 tend to prevail over male and other females found in the different migration category in terms of work participation rate. This is because uneducated and with very low skills levels, women migrate to cities and towns to be employed as domestic workers and/or as prostitutes. They often work in hotels and

restaurants in very precarious, flexible and insecure conditions, and may perform both types of job at the same time.

Table 4.9. Work participation rate by migration status and sex in Ethiopia (1994-2005)

Migration Status	Urban					
	1994		1999		2005	
	Male	Female	Male	Female	Male	Female
Non Migrant	32.16	21.92	40.87	30.11	45.22	35.41
Recent Migrants(<2yrs)	40.46	36.29	60.99	44.44	52.86	46.65
Migrants(2-6 yrs)	50.20	32.89	67.19	43.79	61.56	44.75
Long time migrants (7+ yrs)	62.28	33.28	71.61	48.75	73.55	51.31
Migration Status	Rural					
	1994		1999		2005	
	Male	Female	Male	Female	Male	Female
Non Migrant	84.00	67.19	81.93	63.74	87.09	73.20
Recent Migrants(<2yrs)	68.71	63.48	82.55	61.08	74.76	56.37
Migrants(2-6 yrs)	80.46	66.07	87.40	67.85	90.83	77.53
Long time migrants (7+ yrs)	88.39	66.45	88.70	67.96	90.23	76.36

Source: Owen computation of CSA data

Considering the migrant, males and females, the highest work participation rates which occurred at the age groups of 45-49 and 40-44 years were 94.1 and 64.7 percent, respectively. For long time migrants the highest participation rate for male and female were 92.3 percent and 64.14 percent at the age group 40-44 years (See Figure 4.6, 4.7, 4.8 and Table 1.19 in the appendix).

In the rural areas, the age specific work participation rates for male and female showed that the highest work participation rate for male in the non migrant category (98.12 percent), migrants (97.4 percent) long time migrants (98.1 percent) registered at the age group 35-39 years while the corresponding figure for recent migrants (96.7 percent) was at the age group 45-49 years. For females,

the figure was a mixed one i.e., highest rate of participation for non- migrants (85.6 percent) and migrants (99.5 percent) occurred at the age group 40-44 years while for recent migrants (90.3 percent) and long time migrants (85.3 percent) observed at the age group 45-49 and 25-29 years (See Figure 4.9 and 4.10 and Table 1.20 in the appendix).

The Figures shown below further depicted that in urban areas the non-migrants had the lowest work participation rates than other migration categories at all age group, except at the age group 50-54 years and above, 55-59 years and above, 60-64 years and above comparing to recent migrants, migrants and long time migrants respectively where non-migrants had higher participation rate. For rural areas, however, non-migrants had more or less registered higher work participation rate across age groups comparing to other migration categories and recent migrants had the lower participation rates.

Generally speaking, the age specific work participation rates for all migration categories, for both rural and urban areas, increase up to the age groups where the highest rates of work participation took place and then declined as age increased. The age of least work participation rate happened to be age group 10-14 years followed by age group 65 years and over. It should be borne in mind that the age group 10-14 is age at which about half of the young people attend school (especially in urban areas) and age group 65 years and above is age where most people become economically inactive.

However, it should be noted that more recent migrants in urban areas are normally less educated and poorer than natives and long-time migrants: therefore, they have a stronger necessity to work and a higher propensity to accept any kind of work demanded. Their entrance pattern into the labour market is earlier. This is further confirmed in the analysis that male recent migrants start to show higher work participation rates at young ages and till age

35-39 then start to decline. The corresponding women have increasing pattern till age of 30-34 and decline there after probably because of the traditional role they have in their families. For Total work participation rate in young ages competes with education, so limiting the upward mobility of recent migrants in employment as well as in the society. Non migrants, on the contrary, have a later entrance into the labour market. This proves their possibility to go on studying or, anyway, to wait for a suitable job. At the older ages, recent migrants' work participation is the lowest again because of the possible concurrence of the newer and younger migrants on the same poor jobs: the necessity of earning by work compels the older ones to remain on the market in any case, seeking work.

For rural areas, the pattern showed that recent migrants had relatively lowest work participation rate comparing to other migration categories for both male and females. This may be due to the fact that in rural parts of Ethiopia where agriculture is the only means of earning and lack of alternative job opportunities outside agriculture and the existing shortage of agricultural land it is quite difficult to get job for recent migrant as there is competition from other migrant categories.

Figure 4.6. Work participation by migration status -urban
Ethiopia (2005)

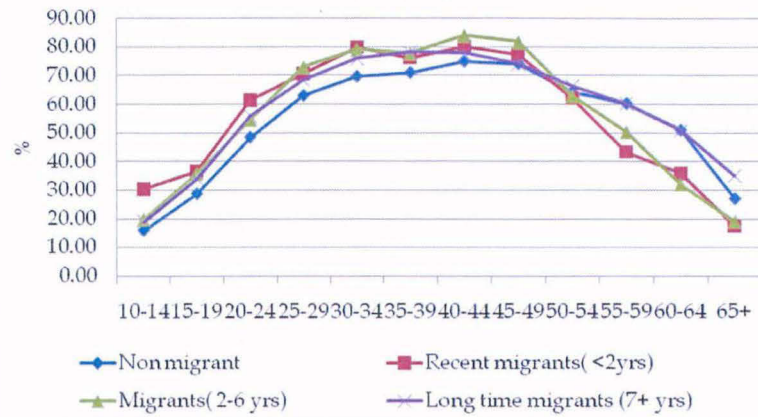


Figure 4.7. Work participation by migration status -Male,urban
Ethiopia (2005)

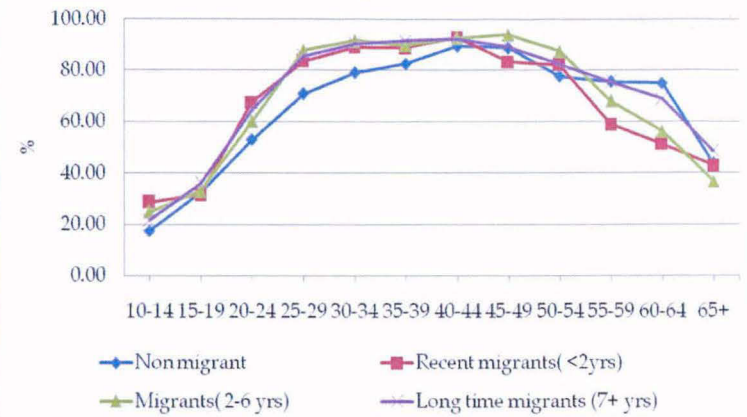


Figure 4.8. Work participation by migration status -Female,urban
Ethiopia (2005)

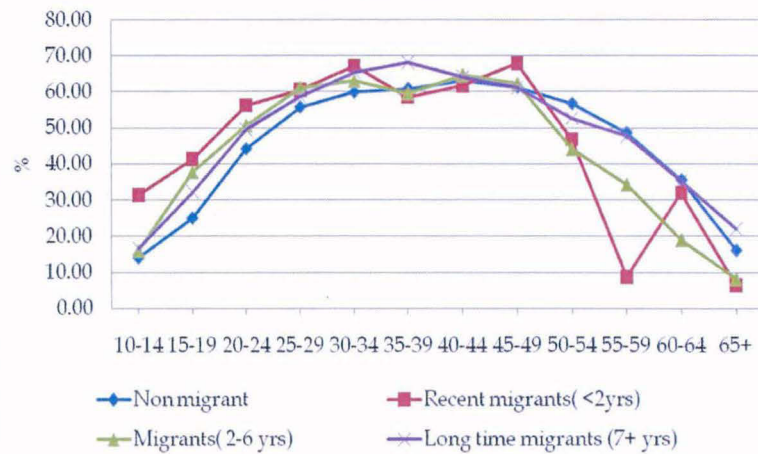


Figure 4.9. Work participation by migration status -Male,Rural Ethiopia (2005)

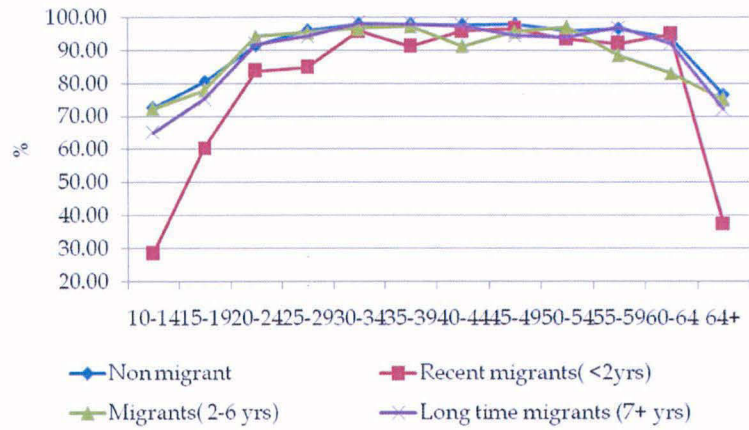
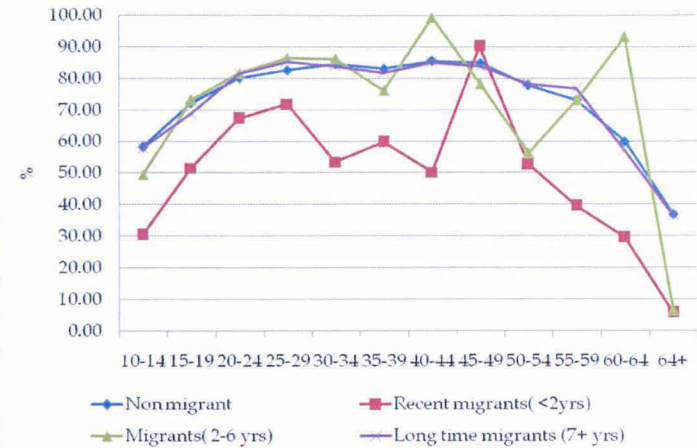


Figure 4.10. Work participation by migration status -Female,Rural Ethiopia (2005)

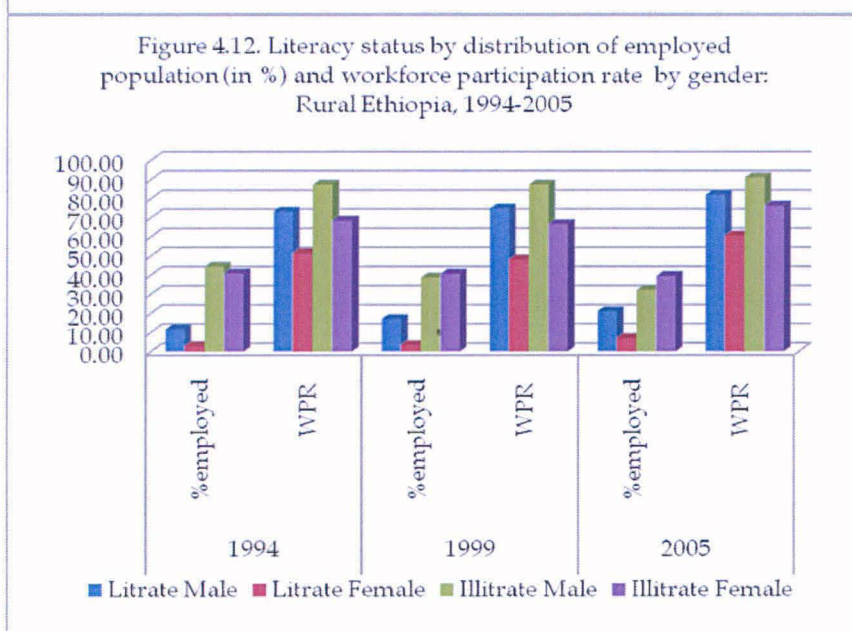
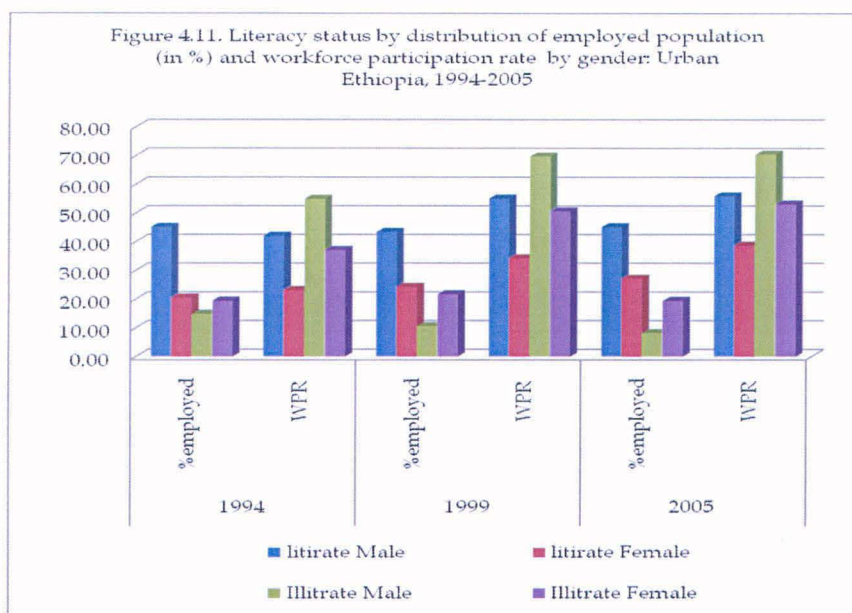


4.1.3. Educational status and work participation

Educational qualifications influence work participation decisions through their impact on job opportunities and relative wages. This section tries to see the relation between work participation and literacy status and educational qualification. Accordingly, in urban areas, taking the distribution of work participation rate by literacy status shows that the percentage of male literate declines from 45.12 percent in 1994 to 43.4 percent in 1999 and again rises to 45.12 percent during 2005. For females, the percentage has showed a rising trend from 20.6 percent in 1994 to 24.3 percent and 27.2 percent during 1999 and 2005 respectively. Further looking at the distribution of work participation rate for illiterate showed that percentage of illiterate males has declined from 14.8 percent in 1994 to 10.6 percent and 8.2 percent during 1999 and 2005 respectively. For females, the percentage has showed a slight increase from 19.5 percent 1994 to 21.8 percent in 1999 and again declined to 19.5 percent during 2005. For rural areas, a similar trend has observed like that of urban areas where there is a rise in the percentage of distribution of participation among literate group and a decline in the rate for illiterate group for both male and female (See figure 4.11 and 4.12 and Table 1.21 in the appendix).

Generally, looking at the distribution of work participation by literacy level, we can conclude that the literate showed slightly higher share in terms of percentage than the illiterate. Further more, there is an increasing trend in educational profile where the proportions of those who are illiterate decreased while that of literate rises between 1994 and 2005. Moreover, looking at the distribution by gender showed that there is higher percentage share of males than the females at all literacy levels. The percentage distribution of work participation for literate male and females in urban area is higher than that of rural areas and the reverse is true for illiterates where there is higher proportion found in rural areas.

Observing the relationship between work participation rate and literacy status, in urban areas, for both male and females as well as for illiterates and literates, work participation has shown an increasing trend between 1994 and 2005. For rural areas, the same pattern observed as urban areas except a slight decline in female work participation rate for both illiterates and literate group during 1999. For both urban and rural areas work participation rate of male is higher than females in both literate and illiterate group. Further comparing the rate of work participation between urban and rural showed that rural work participation rate is higher than urban areas for both literate and illiterate groups. Finally, the result showed that in both urban and rural areas illiterate had higher work participation rate than the literate. This was also true for each sex. The higher work participation rate among the illiterates group may be due to the fact that this groups are being free from school commitments and can be engaged or furnish their labour for production of goods and services (ibid).



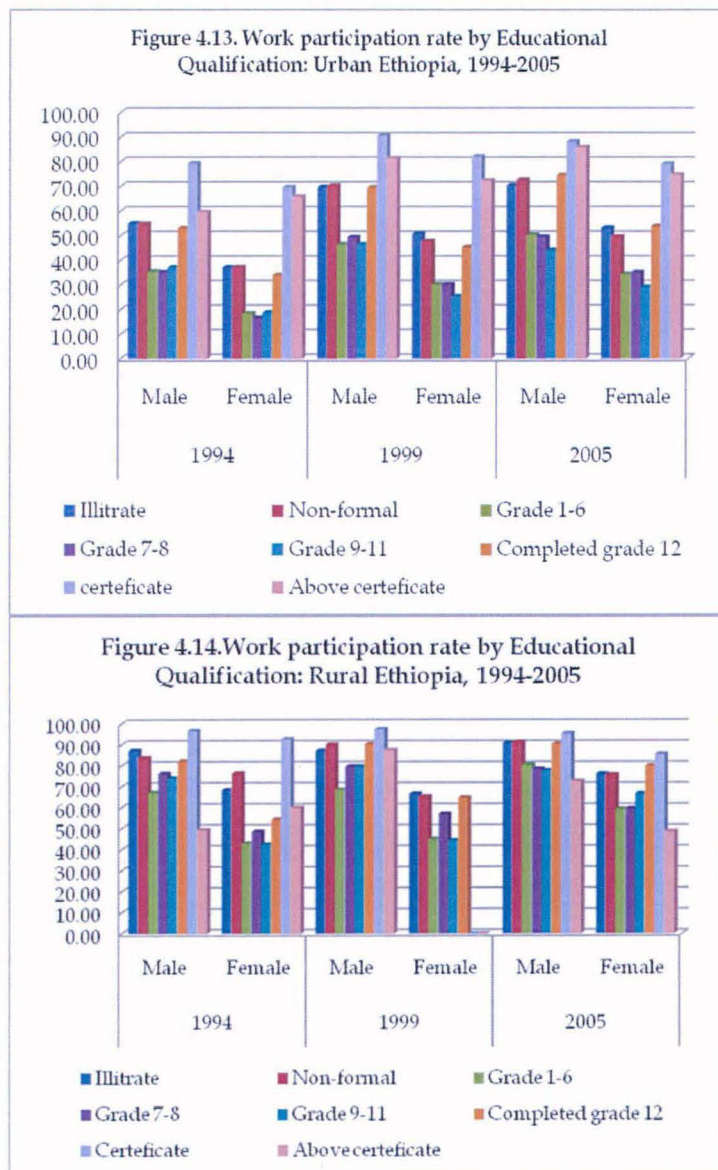
Looking at further, work participation among the literate category, in urban areas for all years and for both male and females the highest and the lowest percentage of employed population were concentrated in the education category of grade 1-6 and certificate respectively. There was also an increasing trend in

terms of percentage for most of the education category between 1994 and 2005. Observing the work participation rate for males, for all years, those who had certificate (79.4 percent, 90.6 percent and 88.2 percent) and those who had an educational level of above certificate recorded the highest rate (59.6 percent, 81.5 percent and 86 percent) during 1994, 1999 and 2005 respectively. The lowest rate was recorded for persons with grade 7-8, about 35.3 percent during 1994 and for grades 9-11, about 46.5 percent and 44.2 percent during 1999 and 2005 respectively. The corresponding rates for females showed a similar pattern as that of males but higher participation rate were found among the males than the females at all educational levels and for all years though the gap is narrower at the upper end of the educational spectrum, where participation rates are also higher for Total. Work participation rates declined for both males and females for the educational category of grade 9-11 and certificate between 1999 and 2005. (See figure 4.13 and Table 1.22 in the appendix).

Similarly, in the rural areas like urban areas, there existed higher concentration of employed people in terms of percentage in the education category of grade 1-6 though unlike the urban areas there existed lowest percentage of people in the education category of above certificate. The percentage of people in the above category was almost nil for females. Further comparison in terms of work participation, for male for all years, those who had certificate (96.58 percent, 97.4 percent and 95.5 percent) and those who had an educational level of non-formal education recorded the highest rate (83.8 percent, 90 percent and 91.4 percent) during 1994, 1999 and 2005 respectively. The lowest rate was recorded for persons in the education category of above certificate, about 49.5 percent and 72.7 percent in 1994 and 2005 respectively and grade 1-6, about 68.7 percent during 1999. The corresponding rates for females showed more or less a similar pattern as that of males except for the year 1999 where there was high participation rate recorded in the education category non-formal education and

the least participation rate occurred in the education category of above certificate.

Moreover, higher participation rate were found among the males than the females at all educational levels and for all years though the gap is narrower at the upper end of the educational spectrum, for those education category of grade 12 completed and certificate (See figure 4.14 and Table 1.23 in the appendix).



Looking at work participation rate by educational status and age group for the year in 1999 showed that for urban males in the age group 10-14 the highest participation rate was registered for the illiterate group (40.16 percent) followed by non-formal education category (26.8 percent). For females, in the same age group, similar patterns observed like males. Similarly, for the age group 15-24 the highest participation rate was registered for persons in the education category of certificate (80.8 percent and 73.8 percent) and for education category of illiterates (76.3 percent and 58.6 percent) and the least participation rate observed for the education category of 9-11 (28.4 percent and 18.3 percent) for both male and female respectively. The rate of participation for the age group 25 and above showed that the highest rate were recorded for the education category of certificate (91.3 percent and 83.9 percent) and above certificate (86.8 percent and 82 percent) for both male and female respectively. The least participation rate recorded for the education category of grade 12 completed for male (78.9 percent) and grade 9-11 (47 percent) for females.

For the year 2005, in urban areas, the highest participation rate for the age group 10-14 were recorded for the education category of illiterate for both male and females. While for the age group 15-24 the highest rate were recorded in the education category of illiterates and non-formal education for males and in the education category of certificate for females. And the least rate of participation were recorded for both male and females in the education category of grade 9-11. For the age group 25 and above the highest rate were observed in the education category of certificate and above certificate, for both male and females.

In rural areas for both 1999 and 2005 and for both male and females for the age group 10-14 and 15-24 the highest participation rate were recorded for the education category of illiterates and the lowest participation in the education category of grade 9-11. However for females in the age group for 15-24 for the year 2005 the lowest participation rate was in the education category of grade 7-

8. For the age group 25 and above during the year 1999 the highest rate of participation for males were recorded in the education category of grade 1-6 and completed grade 12 for females. Where as, the corresponding figures for the year 2005 were in the education category of certificate for both male and females (See figure 4.15 - 4.18 and Table 1.24 and 1.25 in the appendix).

Figure 4.15. Work participation rate by education status and age group: Urban Ethiopia (Male)

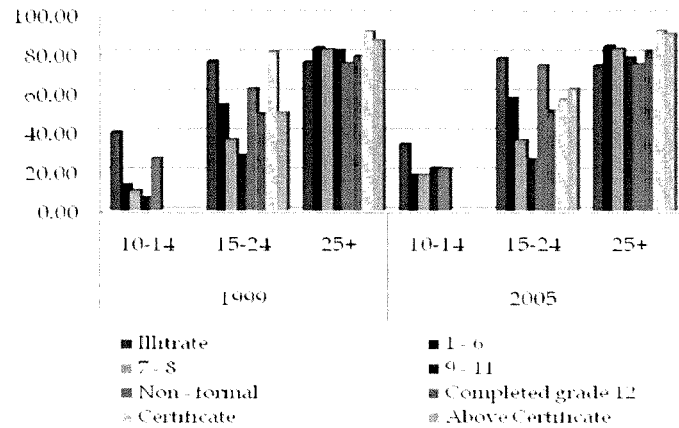


Figure 4.16. Work participation rate by education status and age group: Urban Ethiopia (Female)

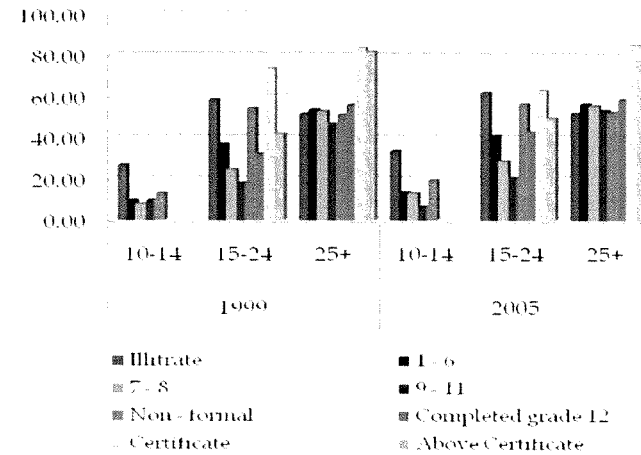


Figure 4.17. Work participation rate by education status and age group: Rural Ethiopia (male)

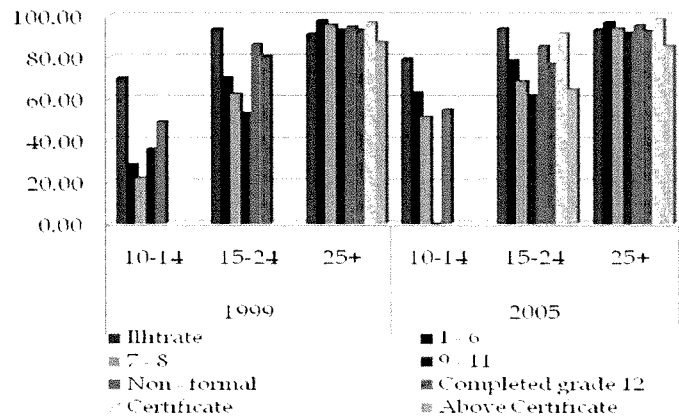
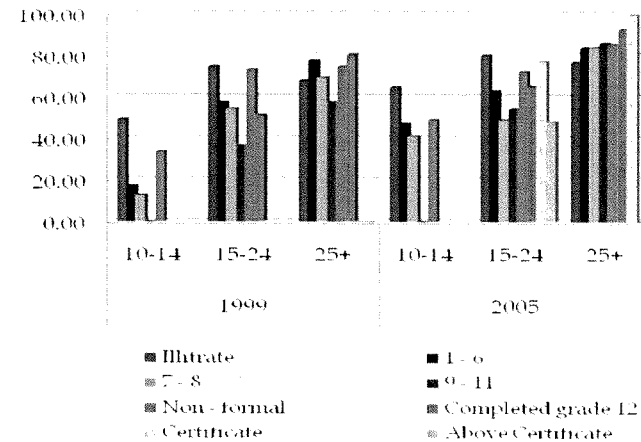


Figure 4.18. Work participation rate by education status and age group: Rural Ethiopia (Female)



4.1.4. Number of children living in the household

Most empirical study has found a significant and strong negative relationship between number of children and the probability of participation in the labor market by the female partner. This is particularly pronounced for preschool age children. Therefore, many studies have concluded that increased labor market participation was largely influenced by the decline in birth rates and average family size.

Economists have also emphasized that the price of children is much higher than what it was decades ago. Cost of food, clothing, shelter, and education are all direct cost in addition to the opportunity of someone who does not work in the labor market for rearing children. Competition between female work and reproduction is a debated item in developed countries: factual obstacles add to rational choices of the couple and to mass behavior in reducing fertility of working women often deferring their reproduction to older ages. This may be partially the same in LDCs' urban areas though the poorer jobs the most part of women actually perform and the lower control they have on their fertility.

Table 4.10 below shows the percentage distribution of female work participation in urban and rural Ethiopia by the number of children they have own. Accordingly, in urban areas percentages of females who are participating at work are actually inverse-related with the number of children living in the household²⁸. In 1994 females having no child is highly participated comparing to others and females having 2-3 children follow the second position. However, in 2005 females having 4 or more children follow the second position. The higher percentage of females having 4 or more children at work may be due to the need to supplement income for their families and to support their children.

²⁸ Note that this number is computed on the mother's own children of any age, still living in the household in which she lives: the possible cohabiting offspring of her husband is not considered.

In rural areas in 1994 the percentage of females at work follows the same pattern like the urban areas in the same year. However, in 2005 those women who have 4 or more and 2-3 number of children respectively have registered higher percentage. The higher percentage of women participating at work may be due to the fact that in the rural parts of Ethiopia where there is traditional forms of agriculture and family labour is the main source of labour so it is quiet common to see members of the family including women participating in the farm.

Table 4.10. Distribution of work participation of females (15+) by the number of children they have urban and Rural Ethiopia, 1994 and 2005

No. of children	1994		2005	
	Urban	Rural	Urban	Rural
No child	47.22	32.10	35.15	19.39
One Child	15.86	16.38	11.84	9.64
2-3 children	21.00	26.99	21.99	19.95
4 or more children	15.92	24.53	31.03	51.02
Total	100	100	100	100

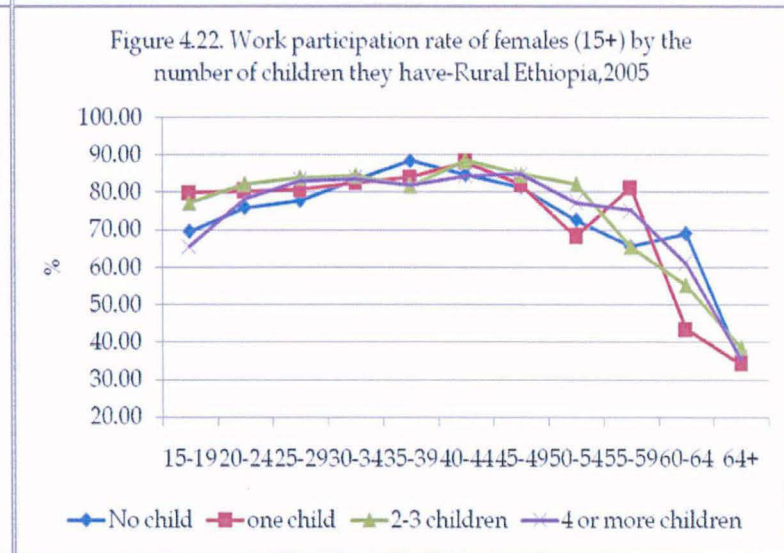
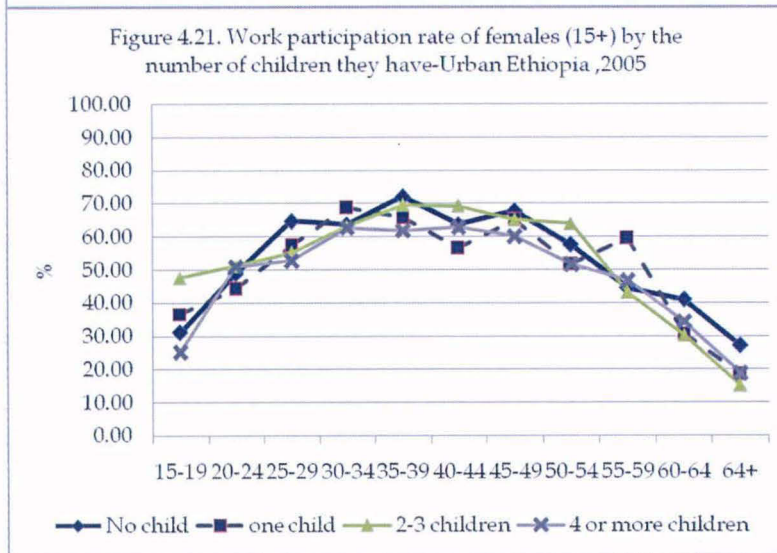
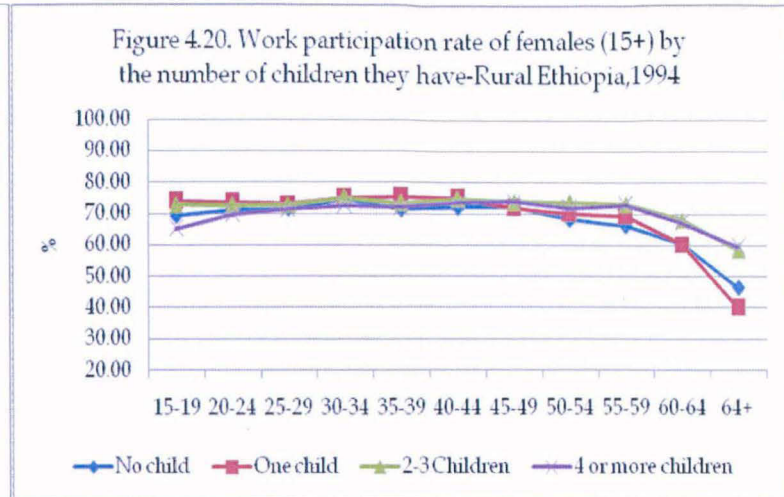
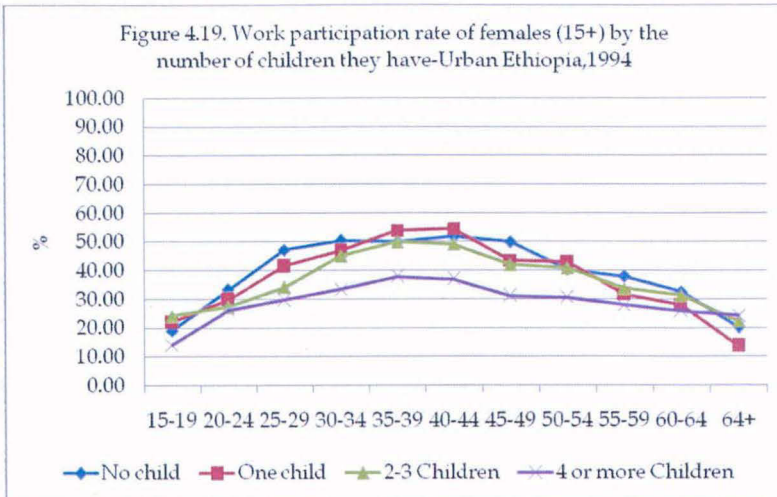
Source: Computed from CSA data

Work participation of females by the number of children they have and by age group, in urban areas, in 1994 the childless women's rates are higher in every age-group except for the age group 15-19, 40-44 and 64 and above where they registered lower participation rates compared to those females who have one child, 2-3 children and 4 or more children respectively. But they shape in an apparent early-exit model because of the progressive selection of this group caused by the passage of women from the single and daughter condition to the married one with one or more children²⁹. For those women having one child have also higher participation rate comparing to those who have 2-3 children and 4 or more children except for the age group 55-59 and 60-64 comparing to those who have 2-3 children and at the age group of 64

²⁹ In later ages the participation rate converges also because the number of cohabiting children declines because of their exit from their parents' home.

and above comparing to those who have 4 or more children. Those who have 4 or more children have lower participation rate at all ages except at the age of 64 and above where they registered higher participation rate. In 2005, women with a highly controlled fertility (only one or two cohabiting own children) show participation rates more similarly shaped as the male pattern, though on much lower level (See figure 4.19 and 4.20 and Table 1.26 in the appendix).

In rural areas in 1994 those females who are childless has shown lower participation rates almost for all age group comparing to others. Those who have one child have higher participation rate starting from age group 15-19 to 40-44 and decline after wards. For those who have 2-3 children have also higher participation rates comparing to those females having 4 or more children except for the age group 64 and above. While in 2005 the pattern showed that those females who have 2-3 children have higher participation rate for most of the age group except at old ages (See figure 4.21 and 4.22 and Table 1.27 in the appendix).



4.2. Determinants of work participation in Ethiopia: Regression Result

In the preceding analysis we explored trends in work participation, how work participation vary with age, education, urban/rural location, and sex by relying primarily on descriptive techniques. Here the main goal in regression analysis is to identify key determinants associated with work participation and to gauge their net effects controlling for confounding factors by bringing additional explanatory variables into the analysis. All the analyses in this section are disaggregated by sex and urban/rural location, as was the case in the preceding sections.

To identify the main determinants of work participation in Ethiopia, a probit models are particularly useful because the main variables of interest (dependent variable) – work participation – is binary (*i.e.* the dependent variable takes a value of “1” if an individual has participated in any productive work and “0” otherwise) and may therefore be expressed in terms of probabilities.³⁰ We conduct separate regressions for the urban and rural male and for the urban and rural females. STATA version 11 software is used for analysis purpose.

³⁰ Formally, the probability model can be written as:

$$y = P^y X_j + s$$

where, X_j is a vector of socio-demographic and other determinants influencing work participation, p is a vector of parameters to be estimated, e is a random disturbance term assumed to be normally, independently and identically distributed with zero mean and constant variance (σ^2), and y is given by:

[1 if an individual participates at work

[0 otherwise

More precisely, the following probit equation will be estimated:

$$\text{Prob}(y = 1/X_j) = \Phi(X_j \cdot \beta)$$

Where, Φ is the cumulative normal distribution function and the rest are as defined above.

It has been argued that participation in work is believed to be influenced by a range of individual, household, economic and geographic characteristics. Therefore, a number of potential variables for inclusion in the model of regression are identified on the basis of results of the chi-squared tests and also on the basis of theoretical models which explain an individual's work participation. In order to prepare the available data for the probit regression analysis each variables were recoded and reference category was defined. This coding scheme, with one category as a reference, allows representing the effect of each category compared to the chosen reference category. Accordingly, a number of factors have been identified that are potentially affecting involvement in work which includes the following:

Socio-demographic variables: include number of children a woman has (dummy variable) which has been categorized into four groups viz. No child (reference category), one child, two to three children and four or more child. Live birth during the last twelve months which is a dummy variable taking value of 1 if a woman has given birth during the past 12 months prior to the survey and 0 otherwise (taken as a reference). Gender is another dummy variable which takes value of 1 if an individual is male and 0 otherwise (reference category). Age of an individual (dummy variable), the age groups are reduced to seven category (10-14,15-24, 25-34, 35-44, 45-54, 55-64 and 65 and above) and the 25-34 age group is defined as the reference. Head of the household which is a dummy variable, 1 if the individual is head and 0 otherwise (taken as a reference).

With regards to Martial status a dummy variable has been introduced which is categorized in to three categories, never married, Married and Divorced/separated/Widowed and never married taken as a reference. Migration status, a dummy variable grouped in to four: Non migrants, recent

migrants, migrants and long time migrants and migrants are defined as the reference.

Disability status: a dummy variable takes a value of 1 if an individual has and 0 otherwise (used as a reference).

Education and other related variables: Educational attainment is a dummy variable representing an individual's level of schooling which has been categorized in to seven groups: illiterate, non-formal, 1 to 6 years of schooling, 7 or 8 years of schooling, 9 to 11 years of schooling, grade 12 completed and some higher education. Non-formal education was taken as the reference category.

Training: a dummy variable which shows whether an individual received any professional or vocational or technical training. It takes 1 if an individual received and 0 other wise. 0 is taken as a reference.

Income related variables: One of the major important variables in the labour market studies as well as in understanding labour force participation behavior is wage or earnings. However, the National Labour Force Survey provides no information on labour earnings, for instance in self employment. Hence, the absence of any earnings variable, except for a small section of the labour force, i.e., salary and wage earners as well as lack of getting proxy variable for wage we haven't used income as an explanatory variable for analyzing work participation behavior. However, attempt is made to incorporate some income related variables in the regression analysis.

Accordingly, those income related variables included in this category are whether an individual is getting support from family and remittance and spouse's earning in which both of them are a dummy variable taking a value of 1 if they get support from family and remittance and spouse earn income and 0 if not getting support and spouse's does not earn money.

Location related variables: A number of dummies were created and incorporated in the equations so as to see spatial/location differences on work participation and also roughly to capture some of the cultural variations in labour use patterns across regions, especially for women and also to partly control the impacts of environmental variations on work participation decision. Hence, the data is categorized into rural and urban clusters which include a dummy for rural/urban cluster, with urban = 1 and rural = 0 and also dummies are created for all 9 regional states and 2 Administrative Regions/Councils ³¹, Addis Ababa city administration taken as a reference category.

4.2.1. Empirical Results and Discussion

Estimation results of a series of regression that identify demographic, household, educational and locational factors on determinants of work participation are presented in Table 4.11-4.20. They are probit estimates based on data of 2005 National Labour Force Survey. The fit of the models are good: Chi-square is significant at 1% level.³² A few of the variables are however found not significant determinant of work participation as there were no much observations for them, which is relatively small. For example, there were no much observation for dummy variables, individual getting support from family and remittance and spouse's earning we had to drop these variables from the regression model.

For ease of interpretation, the analysis of the determinants of work participation is based on the marginal effects, which indicates the effect of a percentage change

³¹ Ethiopia is divided in to 9 regional states and 2 Administrative Regions/Councils : Tigray, Afar, Amhara , Oromiya, Somali, Benishangul-Gumuz, Southern Nationals, Nationalities and Peoples Regional State (SNNP) , Harari, Gambella, Dire-dawa Administrative council and Addis Ababa city Administration

³² Note that before a probit model was fitted to check for the determinants of work participation, a correlation matrix was computed where all explanatory variables were included. The results showed that no serious multi co-linearity problem was detected (See Appendix 1.26).

in the explanatory variable on the probability of involvement in work, evaluating all other variables at their mean values.³³

Table 4.11 presents the estimation results for factors affecting work participation rate at country level. Accordingly, among the demographic variable, age shows that those in the age group of age 10-14 and 15-24 has a negative coefficient and significant at 1 percent. Being in the age category of 10-14 the probability of work participation declines by about 28 percentage points, perhaps because individuals at this age category may concentrate and attend schools. While those in the age category of 35-44 and 45-54 has a positive coefficient and significant at 1 percent level suggesting that those in this age category are more experienced and thus more likely to obtain job and join the work environment easily. yet work participation decreases as age increases where those in the age group 55-64 and 65 and above has negative coefficient and their probability of participation decline by 12 percent age points and 53 percent percentage points respectively.

The coefficient estimates for urban is negative and highly significant. Being in urban the probability of work participation decline by 33.2 percentage point. This implies that in non -urban areas, rural, work participation is expected to be high because people in rural areas participate in large numbers in agricultural activities as unpaid family workers. This result is consistent with literatures in Ethiopia (CSA,2005); Bizuneh, G (2001) and what is discussed in the descriptive analysis.

Controlling for other factors, males are more likely to be employed than females by 16 percentage point suggesting the emerging gender gap in the labour market. The coefficient for head of household also shows positive and highly significant

³³ For dummy variables, the marginal effect has been calculated as the change in the dependent variable associated with a move from a value of zero for the dummy to one, keeping all other variables constant at their mean values.

at 1 percent that has 20 percentage points more likely to participate on work comparing to non-head. The existing gender gap and the higher probability of work participation for males comparing to females is consistent with the literature and descriptive analysis.

In terms of marital status, the results reveal that individuals who are married are more likely to participate on employment as compared to those who are never married. The result further indicate that those individual in divorced/separated and widowed category has lower chances to currently participate at work than the never married ones and their probability is lower by 10.3 percentage points compared their never married counter parts.

The coefficients for migration dummies indicate that the coefficient for non-migrants is negative and significant and their probability of work participation decline by 2.5 percentage points comparing to those in the migrants group. While the coefficient those in the category of recent migrants shows negative though not significant. Nevertheless, the coefficient of the variable for long time migrants is positive and significant at 1% level of significance. The probability of work participation increases by 2.5 percentage points comparing to those migrants in the reference category.

As for level of education, all indicators except for those in the education category of grade 12 competed are statistically significant in influencing the probability of work participation. The coefficient for illiterate category is positive and their probability of work participation higher compared to those with non-formal education. Those in the education category of grade 1-6, grade 7-8 and grade 9-11 has negative coefficient and highly significant and their probability of work participation is low comparing to in the non-formal education group indicating continuing schooling. The coefficient of the variable for higher level of education is positive and significant at 1% level of significance. The level of education

therefore significantly influences the probability of work participation and the higher the level of education, the more likely the person is likely to participate on work.

As for training, which consists of vocational and technical, is concerned the coefficient shows positive and highly significant at 1 percent of level significance and work participation increases by 16 percentages for those who got training comparing to those not trained. Therefore, it shows that having some kind of training do prepare individuals for employment.

Persons with disabilities in the Ethiopia suffer from segregation in which most of them remained unemployed and few of those who are employed are self-employed. In urban areas they participate in handicrafts and arts while in rural areas they found in occupations such as agriculture, animal husbandry or forest activities. None of the disabled people surveyed were reported to be employed in administration or management positions (ILO, 2004). Therefore, based on the estimated result, an individual having some kind of disability status has negative coefficient and highly significant at 1 percent level and have lower probability of participating at work amounts to 34 percentage points.

Regarding regional dummy variables, the regional differentials in work participation are observed. Regional dummy variables control for broad differences in regional labor markets. Addis Ababa city administration was the base region. The coefficient estimates indicate that the result for Afar is not statistically significantly different from those in Addis Ababa. In regions like Tigray, Amhara, Oromiya, Benishangul-Gumuz, SNNP and Dire-Dawa the work participation was statistically significantly higher than in Addis Ababa. In regions like Somali, Gambella and Harari the coefficient shows negative indicating their work participation is lower comparing the base category i.e., Addis Ababa. This result may not be surprised as regions like Somali and

Gambella are already identified as less developed regions where special attention and priority is being currently given for them by the government during planning process as well as while designing development projects. The case for Harari region may be due to dissolution of illegal contraband trade in the area by the government and hence lack of alternative job opportunity in the other sectors of economy. This is also shared by Somali region.

Table 4.11. Probit regression results for the determinants of work participation in Ethiopia
(Country), 2005

			Number	of obs =	162016
			LR chi	2(32) =	51886.8
			Prob >	chi2 =	0.000
Log likelihood	= -81333.972		Pseudo	R2 =	0.2418
Currently participating at work	Coef.	Std. Err.	z	P> z	dy/dx*
Age Group					
Age10_14	-0.718	0.015	-47.35	0.000	-0.275*
Age15_24	-0.187	0.012	-16.13	0.000	-0.069*
Age25-34(ref.)	-	-	-	-	-
Age35_44	0.317	0.013	23.54	0.000	0.108*
Age45_54	0.108	0.016	6.9	0.000	0.038*
Age55_64	-0.326	0.018	-17.89	0.000	-0.124*
Age_65	-1.476	0.020	-72.31	0.000	-0.529*
Place of residence					
urban	-0.966	0.010	-98.62	0.000	-0.332*
Rural (ref.)	-	-	-	-	-
Sex					
Female (ref.)	-	-	-	-	-
Male	0.442	0.008	53.18	0.000	0.159*
Head of HH					
head	0.578	0.011	54.24	0.000	0.198*
Non-head (ref.)	-	-	-	-	-
Marital Status					
Never Married(ref.)	-	-	-	-	-
Married	0.036	0.012	3.09	0.002	0.013*
Divorced/Widowed/separated	-0.274	0.017	-16.55	0.000	-0.103*
Migration Status					
Non-migrant	-0.069	0.013	-5.49	0.000	-0.025*
Recent migrants	-0.018	0.018	-0.99	0.323	-0.007
Migrants(ref.)	-	-	-	-	-
Long time migrants	0.069	0.014	5.04	0.000	0.025*
Training received					
yes	0.500	0.018	27.91	0.000	0.161*
No(ref.)	-	-	-	-	-
Educational Status					
Illiterates	0.094	0.026	3.57	0.000	0.034*
Non-formal educ(ref.)	-	-	-	-	-
Grade1_6	-0.113	0.027	-4.19	0.000	-0.041*
Grade7_8	-0.297	0.028	-10.55	0.000	-0.112*
Grade9_11	-0.547	0.029	-18.79	0.000	-0.211*
Grade 12 completed	0.011	0.030	0.37	0.712	0.004
Higher education	0.160	0.037	4.26	0.000	0.056*
Disability Status					
Disabled	-0.870	0.022	-40.24	0.000	-0.336*
No(ref.)	-	-	-	-	-
Region					
Tigray	0.115	0.016	7.15	0.000	0.041*
Afar	0.024	0.022	1.1	0.272	0.009
Amhara	0.231	0.013	18.25	0.000	0.081*
Oromiya	0.211	0.012	17.51	0.000	0.075*
Somali	-0.164	0.019	-8.59	0.000	-0.061*
Benishangul-Gumuz	0.181	0.021	8.7	0.000	0.063*
SNNP	0.226	0.013	17.53	0.000	0.079*
Gambella	-0.177	0.042	-4.24	0.000	-0.067*
Harari	-0.040	0.025	-1.61	0.107	-0.014
Addis Ababa(ref.)	-	-	-	-	-
Dire-Dawa	0.068	0.024	2.84	0.004	0.024*
_cons	0.675	0.033	20.53	0.000	

(*) dy/dx is for discrete change of dummy variable from 0 to 1
*, significant at 1%

Table 4.12 and 4.13 shows probit regression results for male and females respectively at country level. Accordingly, based on the results, for both male and female age group shows a negative coefficient at both ends of extreme where there is lower probability for those age group 10-14, 15-24 , 55-64 and for those in the age group 65 years and above and a positive coefficient and highly significant for the age group 35-44 and 45-54. The probability of work participation declines for those in the age group 65 years and above by 64 percentage points and 50 percentage points for both male and females respectively.

The coefficient estimates for urban is negative and highly significant at 1 percent of level of significance. Being in urban areas the probability of work participation declines by 31 percentage points and 29 percentage points for both male and female respectively. The coefficient for head of household has also shows positive and highly significant at 1 percent that have 14 percentage points and 13 percentage points more likely to participate on work comparing to non-head for both male and females respectively.

The coefficients for marital status dummies indicate that unlike age, the influence of the marital status variable is very different for men and women. For Male the coefficient for currently married group is positive and significant and other states of marital status such being divorced/ widowed/separated is also significant though the coefficient shows negative sign.

However for women, the 'currently married' status does not shows to be a significant factor, its impact on work participation of women is not significant. In other words, while for men, being currently married raises the probability of being in the work, for women, given other things, this is not significant. For men it is the signal for higher responsibility as the bread winner of the nuclear unit, while for women it emphatically signals the beginnings of new reproductive

responsibilities and new norms of behavior in the marital home as compared to the 'not married' status. The situation is very different for widowed/divorced/separated women though. While for men, these categories of marital status shows negative and reduce probability of work participation, widowed/ divorced/separated women have a significantly higher probability of participating in work as compared to the never married category. This relatively higher probability of work participation for these marital groups may possibly be due to the fact that women at this group may shoulder family responsibility need to support their children. This result is consistent with the descriptive analysis made earlier and literatures done in other countries.

The coefficients for migration status indicate that the coefficient for non-migrants is negative and significant and their probability of work participation decline by 2.4 percentage points and 1 percentage points, for both male and females respectively, comparing to those in the migrants group. This may be due to the fact that those in the non-migrant's category aspire for good job prospect or job preference that they stay unemployed for long till they get their aspired job. The other reason may be the desire to continue their education and staying in school than joining the labour market. The coefficient for those in the category of recent migrants shows negative and significant for male indicating that recently arriving migrants facing problems in getting job easily. While for females the variable indicates positive coefficient though not significant. On the other hand, the coefficient for the variable long time migrants is positive and significant at 1% level of significance for both males and females. The probability of work participation increased by 3.1 percentage points and 2.1 percentage points for both male and females respectively comparing to those migrants in the reference category.

As for level of education, for both male and female the coefficient for illiterate category is positive and their probability of work participation is higher compared to those with non-formal education in the reference. For male in the education category of grade 1-6 have positive coefficient though not significant. For those in grade 7-8 and grade 9-11 male has negative coefficient and highly significant and their probability of work participation is low comparing to those in the non-formal education group. The coefficient of the variable for male in the education category of grade 12 completed and higher level of education is positive and significant at 1% level of significance. The only discernible effect of education on work participation is a negative effect at the basic education level, indicating continuing schooling, and a positive effect at the university level.

For females in the education category of grade 1-6, grade 7-8, grade 9-11 and grade 12 completed has a negative coefficient while those in the higher education category has a positive coefficient and highly significant.

Generally, one noticeable reason for the negative effect beyond the primary level is due to the fact that more and more of the younger cohorts of the potential labour force is getting absorbed into longer years of schooling, and therefore is absorbed in the out-of-the-labour-force category.

The variable training, has positive coefficient and highly significant at 1 percent of level significance for both male and female. Work participation increases by 12 percentages and 14.5 percentages points for both male and females respectively. Therefore, it shows that having some kind of training do prepare individuals for employment.

Individuals having some kind of disability status has negative coefficient and highly significant at 1 percent level and have lower probability of participating at work amounts to 39 percentage points for males and 30.3 for females.

For females, in addition to the common variables we incorporate a few other demographic variables such as the number of children and whether a woman have live birth during the past 12 months prior to the survey. Hence, based on the estimated results the coefficient for variables having one -child and two-child is positive but not significant. For those women having four or more children, the coefficient shows negative and significant at 1 percent indicating that woman having such number of children has less probability of participating at work by 8.3 percentages points. Regarding those women having live birth during the last 12 months, the coefficient shows negative and highly significant. The probability of participation declines by 3.5 percentage points for those women having live birth during the last 12 months.

Regarding the region dummy variables, those males residing in SNNP, Oromiya, and Amhara region have relatively higher probability of participation on work while those in Somali, Gambella, Harari and Dire-Dawa regions have lower probability of participation. While for females in Benishangul-Gumuz, Oromiya, Amhara, Tigray and Harari region have higher probability of participation in work and that women in Afar, Somali and Gambella regions have a lower probability of participation. The explanation given previously (for country level regression result for both sexes also holds true here where these regions are considered as underdeveloped.

Table 4.12. Probit regression results for the determinants of work participation in Ethiopia (Country Male), 2005

			Number	of obs =	76580
			LR chi	2(31) =	29745
			Prob >	chi2 =	0.000
Log likelihood	=-30888		Pseudo	R2 =	0.325
Currently participating at work	Coef.	Std. Err.	z	P> z	dy/dx*
Age Group					
Age10_14	-0.894	0.024	-37.6	0.000	-0.297*
Age15_24	-0.335	0.020	-16.94	0.000	-0.098*
Age 25-34(ref.)	-	-	-	-	-
Age35_44	0.497	0.026	19.49	0.000	0.116*
Age45_54	0.229	0.029	7.83	0.000	0.058*
Age55_64	-0.274	0.031	-8.92	0.000	-0.083*
Age_65	-1.823	0.033	-54.73	0.000	-0.636*
Place of residence					
urban	-1.183	0.016	-73.7	0.000	-0.311*
Rural (ref.)	-	-	-	-	-
Head of HH					
head	0.519	0.020	26.12	0.000	0.143*
Non-head (ref.)	-	-	-	-	-
Marital Status					
Never Married(ref.)	-	-	-	-	-
Married	0.159	0.023	6.82	0.000	0.044*
Divorced/Widowed/separated	-0.348	0.033	-10.63	0.000	-0.109*
Migration Status					
Non-migrant	-0.087	0.020	-4.33	0.000	-0.024*
Recent migrants	-0.122	0.029	-4.17	0.000	-0.035*
Migrants(ref.)	-	-	-	-	-
Long time migrants	0.121	0.023	5.3	0.000	0.031*
Training received					
yes	0.523	0.024	21.59	0.000	0.120*
No(ref.)	-	-	-	-	-
Educational Status					
Illiterates	0.259	0.037	7.08	0.000	0.069*
Non-formal educ(ref.)	-	-	-	-	-
Grade1_6	0.019	0.037	0.52	0.603	0.005
Grade7_8	-0.159	0.039	-4.12	0.000	-0.046*
Grade9_11	-0.433	0.040	-10.89	0.000	-0.137*
Grade 12 completed	0.125	0.042	2.99	0.003	0.033*
Higher education	0.092	0.051	1.82	0.069	0.025**
Disability Status					
Disabled	-1.072	0.031	-34.77	0.000	-0.386*
No(ref.)	-	-	-	-	-
Region					
Tigray	0.010	0.026	0.39	0.698	0.003
Afar	0.065	0.035	1.89	0.059	0.018***
Amhara	0.186	0.020	9.22	0.000	0.049*
Oromiya	0.193	0.019	10.13	0.000	0.051*
Somali	-0.196	0.030	-6.5	0.000	-0.058*
Benishangul-Gumuz	0.129	0.034	3.82	0.000	0.034*
SNNP	0.250	0.020	12.22	0.000	0.064*
Gambella	-0.247	0.062	-3.96	0.000	-0.075*
Harari	-0.106	0.039	-2.72	0.007	-0.031*
Addis Ababa(ref.)	-	-	-	-	-
Dire-Dawa	-0.011	0.038	-0.31	0.760	-0.003
_cons	1.245	0.047	26.46	0.000	

(*) dy/dx is for discrete change of dummy variable from 0 to 1
 *, **,*** significant at 1 %, 5% and 10 % respectively

Table 4.13. Probit regression results for the determinants of work participation in Ethiopia
(Country Female), 2005

			Number	of obs =	69709
			LR chi²	(35) =	12538.7
			Prob >	chi2 =	0.000
Log likelihood	=-41108		Pseudo	R² =	0.1323
Currently participating at work	Coef.	Std. Err.	z	P> z	dy/dx*
Age Group					
Age10_14	-0.816	0.148	-5.53	0.000	-0.312*
Age15_24	-0.198	0.016	-12.38	0.000	-0.077*
Age 25-34(ref.)	-	-	-	-	-
Age35_44	0.318	0.017	18.85	0.000	0.119*
Age45_54	0.143	0.020	7.19	0.000	0.055*
Age55_64	-0.296	0.024	-12.35	0.000	-0.117*
Age_65	-1.485	0.030	-50.3	0.000	-0.503*
Place of residence					
urban	-0.787	0.014	-55.6	0.000	-0.293*
Rural (ref.)	-	-	-	-	-
Head of HH					
head	0.347	0.016	22.25	0.000	0.131*
Non-head (ref.)	-	-	-	-	-
Marital Status					
Never Married(ref.)	-	-	-	-	-
Married	0.017	0.021	0.83	0.407	0.007
Divorced/Widowed/separated	0.133	0.025	5.23	0.000	0.051*
No. of children a woman own					
No Child	-	-	-	-	-
one child	0.002	0.023	0.11	0.916	0.001
Two to three children	0.009	0.023	0.38	0.705	0.003
Four or more child	-0.214	0.023	-9.27	0.000	-0.083*
Live birth last 12 months					
Yes	-0.088	0.019	-4.77	0.000	-0.035*
No (ref.)	-	-	-	-	-
Migration Status					
Non-migrant	-0.023	0.018	-1.29	0.196	-0.009
Recent migrants	0.001	0.026	0.03	0.976	0.000
Migrants(ref.)	-	-	-	-	-
Long time migrants	0.054	0.019	2.88	0.004	0.021*
Training received					
Yes	0.399	0.028	14.24	0.000	0.145*
No(ref.)	-	-	-	-	-
Educational Status					
Illiterates	0.027	0.044	0.62	0.535	0.011
Non-formal educ(ref.)	-	-	-	-	-
Grade1_6	-0.119	0.045	-2.65	0.008	-0.047*
Grade7_8	-0.356	0.047	-7.64	0.000	-0.141*
Grade9_11	-0.575	0.048	-12.02	0.000	-0.226*
Grade 12 completed	-0.110	0.049	-2.25	0.025	-0.043**
Higher education	0.307	0.060	5.09	0.000	0.113*
Disability Status					
Disabled	-0.785	0.032	-24.37	0.000	-0.303*
No(ref.)	-	-	-	-	-
Region					
Tigray	0.215	0.023	9.42	0.000	0.081*
Afar	-0.029	0.031	-0.94	0.349	-0.011
Amhara	0.271	0.018	15.23	0.000	0.103*
Oromiya	0.274	0.017	15.88	0.000	0.104*
Table 4.24 continued					
Variables	Coef.	Std. Err.	z	P> z	dy/dx*

Somali	-0.150	0.027	-5.52	0.000	-0.059*
Benishangul-Gumuz	0.314	0.030	10.58	0.000	0.116*
SNNP	0.303	0.018	16.45	0.000	0.114*
Gambella	-0.062	0.059	-1.06	0.291	-0.024
Harari	0.053	0.035	1.52	0.128	0.020
Addis Ababa(ref.)	-	-	-	-	-
Dire-Dawa	0.119	0.034	3.55	0.000	0.045*
_cons	0.636	0.052	12.3	0.000	
(*) dy/dx is for discrete change of dummy variable from 0 to 1					

* ** significant at 1% and 5% respectively

Table 4.14 below presents the regression estimation results for urban Ethiopia for both sexes. Accordingly, like the previous regression results age group shows a negative coefficient at both ends of extreme and a positive coefficient and highly significant for the age group 35-44 and 45-54. The coefficient estimates for sex is positive and highly significant at 1 percent of level of significance. The coefficient for head of household has also shows positive and highly significant at 1 percent that have 22 percentage points more likely to participate on work comparing to non-head. The coefficients for marital status indicate that the coefficient for currently married group is positive and significant and other states of marital status such being divorced/ widowed/separated is not significant though the coefficient shows positive sign.

Regarding migration status the coefficient for non-migrants is negative and significant and their probability of work participation decline by 4 percentage points. This may be due to job preference and the desire to continue education and staying in school than joining the labour market. The coefficient for those in the category of recent migrants shows positive though not significant. On the other hand, the coefficient for the variable long time migrants is positive and significant at 1% level of significance.

As for level of education, the coefficient for illiterate category shows positive sign and probability of work participation is higher compared to those with non-formal education in the reference. Education category of grade 1-6 have positive coefficient though not significant. For those in grade 7-8 and grade 9-11 male has negative coefficient and highly significant. The coefficient for the education category of grade 12 completed and higher level of education is positive and significant at 10 % and 1% level of significance respectively. The only discernible effects of education on work participation in urban areas is a negative effect at the basic education level, indicating continuing schooling, and a positive effect at the university level.

The variable training, has positive coefficient and highly significant at 1 percent of level significance Individuals having some kind of disability status has shown negative coefficient and highly significant and have lower probability of participating at work 26 percentage points.

Regarding the regional variation, dummy variables, in Benishangul-Gumuz, SNNP, Oromiya, Amhara, Tigray and Harari regions have higher probability of participation in work and that in Somali, Gambella and Dire-Dawa region have a lower probability of participation. The explanation given previously (for country level regression result for total) also holds true here.

Table 4.14. Probit regression results for the determinants of work participation in urban Ethiopia, 2005

			Number	of obs =	90076
			LR chi ²	(31) =	24476.7
			Prob	> chi ² =	0.000
Log likelihood	= -50076		Pseudo	R ² =	0.1964
Currently participating at work	Coef.	Std. Err.	z	P> z 	dy/dx*
Age Group					
Age10_14	-1.179	0.021	-56.78	0.000	-0.403*
Age15_24	-0.358	0.014	-24.72	0.000	-0.141*
Age 25-34(ref.)	-	-	-	-	-
Age35_44	0.316	0.017	19.16	0.000	0.126*
Age45_54	0.066	0.020	3.34	0.001	0.026*
Age55_64	-0.427	0.024	-18.12	0.000	-0.163*
Age_65	-1.486	0.028	-53	0.000	-0.430*
Sex					
Female (ref.)	-	-	-	-	-
Male	0.351	0.010	33.65	0.000	0.139*
Head of HH					
head	0.556	0.013	43.57	0.000	0.219*
Non-head (ref.)	-	-	-	-	-
Marital Status					
Never Married(ref.)	-	-	-	-	-
Married	0.067	0.015	4.46	0.000	0.027*
Divorced/Widowed/separated	0.032	0.021	1.51	0.130	0.013
Migration Status					
Non-migrant	-0.101	0.014	-7.15	0.000	-0.040*
Recent migrants	0.025	0.020	1.26	0.207	0.010
Migrants(ref.)	-	-	-	-	-
Long time migrants	0.047	0.015	3.09	0.002	0.019*
Training received					
yes	0.472	0.018	25.74	0.000	0.185*
No(ref.)	-	-	-	-	-
Educational Status					
Illiterates	-0.105	0.033	3.14	0.002	0.042*
Non-formal educ(ref.)	-	-	-	-	-
Grade1_6	0.055	0.034	1.65	0.100	0.022
Grade7_8	-0.173	0.035	-5.02	0.000	-0.068*
Grade9_11	-0.452	0.035	-12.85	0.000	-0.174*
Grade 12 completed	0.061	0.036	1.71	0.087	0.024***
Higher education	0.228	0.042	5.39	0.000	0.091*
Disability Status					
Disabled	-0.725	0.030	-24.02	0.000	-0.261*
No(ref.)	-	-	-	-	-
Region					
Tigray	0.127	0.020	6.22	0.000	0.050*
Afar	0.139	0.029	4.82	0.000	0.055*
Amhara	0.184	0.015	12.5	0.000	0.073*
Oromiya	0.204	0.014	14.71	0.000	0.081*
Somali	-0.206	0.025	-8.36	0.000	-0.081*
Benishangul-Gumuz	0.454	0.029	15.71	0.000	0.178*
SNNP	0.242	0.015	15.78	0.000	0.096*
Gambella	-0.194	0.042	-4.57	0.000	-0.076*
Harari	0.013	0.033	0.39	0.700	0.005
Addis Ababa(ref.)	-	-	-	-	-
Dire-Dawa	-0.021	0.030	-0.68	0.494	-0.008
_cons	-0.183	0.038	-4.84	0.000	

(*) dy/dx is for discrete change of dummy variable from 0 to 1

* ** * significant at 1% and 10% respectively

Table 4.15 and 4.16 shows probit regression results for male and females respectively for urban Ethiopia. Like the previous regression results age group again here shows a negative coefficient at both ends of extreme and a positive coefficient and highly significant for the age group 35-44 and 45-54 for both male and females. The coefficient for head of household has also shows positive and highly significant.

The coefficients for marital status indicate that the coefficient for currently married group is positive and significant for male as men is the signal for higher responsibility as the bread winner of the nuclear unit while for females it shows a negative coefficient and significant. Being female and married the probability of work participation decline by 4.4 percentage points. The negative effect of marriage on work participation is probably because participation in urban areas is more likely to mean work outside the home, which may be less compatible with marital responsibilities than work at home. This result is somewhat consistent with the descriptive results discussed in the previous section. Marital status such being divorced/ widowed/separated is positive and significant for males while for female though the coefficient is positive it is not significant.

As for migration status the coefficient for non-migrants is negative and significant both male and females respectively, comparing to those in the migrants group. This may be due to the fact that those in the non-migrant's category aspire for good job prospect or job preference that they stay unemployed for long till they get their aspired job. The other reason may be the desire to continue their education and to stay at school. The coefficient for those in the category of recent migrants shows negative and significant for male indicating that recently arriving migrants facing problems in getting job easily in urban areas. While for females the variable indicates positive coefficient though

not significant. In contrast, the coefficient for the variable long time migrants is positive and significant at 1% level of significance for both males and females.

As for level of education, for male, the coefficient for illiterate category is positive and significant. Education category of grade 1-6 and grade 7-8 have also positive coefficient though significant for grade 1-6 only. Those in grade 9-11 has negative coefficient and highly significant. The coefficient for the education category of grade 12 completed and higher level of education is positive and significant at 1% level of significance. The only discernible effect of education on work participation is a negative effect at the basic education level, indicating continuing schooling, and a positive effect at the higher education level. While for females though not significant illiterates has shown positive coefficient. The other entire education category except for those in higher education has shown a negative coefficient. This indicates that educating women at least at higher level will increase their work participation.

The variable training, has positive coefficient and highly significant at 1 percent of level significance for both male and female. Individuals having some kind of disability status has negative coefficient and highly significant at 1 percent level and have lower probability of participating at work amounts to 33 percentage points for males and 24.8 percentage points for females.

The coefficient for demographic variables -number of children a woman has shows that those women who have two-three children and four or more child is negative and significant at 10% and 1% respectively. This may indicates that women burden at household which impede them from not participating in the labour market or it might also be due to the dependence of those women on their children as a source of income that they are not participating on work. Regarding those women having live birth during the last 12 months, the coefficient shows negative and highly significant. The probability of participation

declines by 7.7 percentage points for those women having live birth during the last 12 months.

Regarding the spatial variation or regional variables, those males residing in Benishangul-Gumuz, SNNP, and Afar, Oromiya regions have relatively higher probability of participation on work while those in Somali, Gambella, Harari and Dire Dawa region have lower probability of participation. While for females in Benishangul-Gumuz, SNNP, Oromiya, Amhara, Tigray and Harari region have relatively higher probability of participation in work and that women in Somali, and Gambella region have a lower probability of participation.

Table 4.15. Probit regression results for the determinants of work participation for urban males in Ethiopia, 2005

			Number	of obs =	41283
			LR chi ²	(30) =	15900
			Prob	> chi ² =	0.000
			Pseudo	R ² =	0.281
Log likelihood=-20347					
Currently participating at work	Coef.	Std. Err.	z	P> z 	dy/dx*
Age Group					
Age10_14	-1.357	0.031	-43.93	0.000	-0.491*
Age15_24	-0.497	0.023	-21.88	0.000	-0.194*
Age 25-34(ref.)	-	-	-	-	-
Age35_44	0.389	0.029	13.57	0.000	0.144*
Age45_54	0.106	0.034	3.17	0.002	0.041*
Age55_64	-0.456	0.036	-12.58	0.000	-0.180*
Age_65	-1.813	0.043	-42.17	0.000	-0.561*
Head of HH					
head	0.527	0.022	23.89	0.000	0.201*
Non-head (ref.)	-	-	-	-	-
Marital Status					
Never Married(ref.)	-	-	-	-	-
Married	0.246	0.027	9.1	0.000	0.095*
Divorced/Widowed/separated	0.216	0.044	4.91	0.000	0.081*
Migration Status					
Non-migrant	-0.068	0.022	-3.07	0.002	-0.026*
Recent migrants	-0.104	0.031	-3.34	0.001	-0.041*
Migrants(ref.)	-	-	-	-	-
Long time migrants	0.100	0.025	4.06	0.000	0.038*
Training received					
yes	0.459	0.025	18.33	0.000	0.170*
No(ref.)	-	-	-	-	-
Educational Status					
Illiterates	0.255	0.050	5.14	0.000	0.096*
Non-formal educ(ref.)	-	-	-	-	-
Grade1_6	0.271	0.048	5.59	0.000	0.104*
Grade7_8	0.029	0.049	0.59	0.557	0.011
Grade9_11	-0.291	0.050	-5.82	0.000	-0.115*
Grade 12 completed	0.227	0.051	4.42	0.000	0.086*
Higher education	0.224	0.059	3.79	0.000	0.085*
Disability Status					
Disabled	-0.856	0.042	-20.42	0.000	-0.327*
No(ref.)	-	-	-	-	-
Region					
Tigray	0.072	0.033	2.21	0.027	0.028**
Afar	0.232	0.045	5.1	0.000	0.087*
Amhara	0.123	0.023	5.27	0.000	0.047*
Oromiya	0.190	0.022	8.77	0.000	0.073*
Somali	-0.301	0.037	-8.06	0.000	-0.119*
Benishangul -Gumuz	0.498	0.046	10.72	0.000	0.177*
SNNP	0.291	0.024	12.28	0.000	0.110*
Gambella	-0.270	0.064	-4.24	0.000	-0.107*
Harari	-0.112	0.051	-2.19	0.029	-0.044**
Addis Ababa(ref.)	-	-	-	-	-
Dire-Dawa	-0.123	0.047	-2.65	0.008	-0.049*
_cons	0.021	0.055	0.38	0.707	

(*) dy/dx is for discrete change of dummy variable from 0 to 1

* ** significant at 1% and 5% respectively

Table 4.16. Probit regression results for the determinants of work participation for urban females in Ethiopia, 2005

			Number	of obs =	40286
			LR chi ²	(34) =	4463.46
			Prob	> chi ² =	0.000
Log likelihood	-25485		Pseudo	R ² =	0.0805
Currently participating at work	Coef.	Std. Err.	z	P> z	dy/dx*
Age Group					
Age10_14	-1.060	0.211	-5.03	0.000	-0.331*
Age15_24	-0.325	0.020	-16.04	0.000	-0.128*
Age 25-34(ref.)	-	-	-	-	-
Age35_44	0.352	0.022	15.98	0.000	0.140*
Age45_54	0.105	0.027	3.96	0.000	0.042*
Age55_64	-0.411	0.033	-12.44	0.000	-0.155*
Age_65	-1.579	0.042	-37.71	0.000	-0.424*
Head of HH					
head	0.292	0.019	15.68	0.000	0.116*
Non-head (ref.)	-	-	-	-	-
Marital Status					
Never Married(ref.)	-	-	-	-	-
Married	-0.112	0.026	-4.27	0.000	-0.044*
Divorced/Widowed/separated	0.003	0.030	0.1	0.922	0.001
No. of children a woman own					
No Child	-	-	-	-	-
one child	-0.017	0.029	-0.58	0.562	-0.007
Two to three children	-0.049	0.029	-1.72	0.086	-0.019***
Four or more child	-0.277	0.029	-9.41	0.000	-0.108*
Live birth last 12 months					
Yes	-0.198	0.030	-6.66	0.000	-0.077*
No (ref.)	-	-	-	-	-
Migration Status					
Non-migrant	-0.087	0.020	-4.28	0.000	-0.034*
Recent migrants	0.025	0.028	0.91	0.363	0.010
Migrants(ref.)	-	-	-	-	-
Long time migrants	0.053	0.021	2.53	0.012	0.021*
Training received					
Yes	0.398	0.029	13.92	0.000	0.158*
No(ref.)	-	-	-	-	-
Educational Status					
Illiterates	0.022	0.049	0.45	0.651	0.009
Non-formal educ(ref.)	-	-	-	-	-
Grade1_6	-0.041	0.050	-0.81	0.418	-0.016
Grade7_8	-0.298	0.052	-5.75	0.000	-0.115*
Grade9_11	-0.526	0.053	-9.96	0.000	-0.197*
Grade 12 completed	-0.070	0.054	-1.3	0.194	-0.027
Higher education	0.353	0.064	5.47	0.000	0.140*
Disability Status					
Disabled	-0.705	0.045	-15.5	0.000	-0.248*
No(ref.)	-	-	-	-	-
Region					
Tigray	0.233	0.028	8.25	0.000	0.093*
Afar	0.104	0.041	2.52	0.012	0.041*
Amhara	0.254	0.021	12.37	0.000	0.101*
Oromiya	0.273	0.020	13.85	0.000	0.109*
Somali	-0.094	0.035	-2.66	0.008	-0.037*
Benishangul -Gumuz	0.484	0.041	11.77	0.000	0.190*
SNNP	0.283	0.022	12.86	0.000	0.112*
Gambella	-0.053	0.060	-0.9	0.370	-0.021
Harari	0.147	0.047	3.13	0.002	0.058*
Addis Ababa(ref.)	-	-	-	-	-
Dire-Dawa	0.073	0.043	1.71	0.087	0.029***

Table 4.27 continued					
	Coef.	Std. Err.	z	P> z	dy/dx*
_cons	-0.032	0.055	-0.57	0.567	
(*) dy/dx is for discrete change of dummy variable from 0 to 1					

* *** significant at 1% and 10% respectively

Regression results for rural areas for both sexes combined showed that work participation in relation to age group is somewhat similar with the previous findings for the country as well as for urban areas except for the age group 15-24 where the coefficient is positive and significant for rural. The positive result for the youth group may be due to the fact that unlike in urban areas where access to job opportunities is difficult, in rural areas it is common to find them participating as unpaid family workers and in family farms. The coefficient estimates for sex is positive and highly significant at 1 percent of level of significance. Being male the probability of work participation rises by 14.3 percentage points. The coefficient for head of household shows positive and highly significant at 1 percent. As for marital status the coefficient for currently married group shows positive and significant and that of divorced/widowed/separated is negative and significant.

Concerning migration status unlike the urban areas the coefficient for non-migrants showed positive though not significant. The coefficient for those in the category of recent migrants shows negative and significant indicating that recently arriving migrants facing problems in rural areas that may be due to the existing shortage of farm lands for cultivation. Similarly, the coefficient for the variable long time migrants is negative but not significant.

The variable training, has positive coefficient and highly significant at 1 percent level of significance Individuals having some kind of disability status has shown negative coefficient and highly significant.

As for level of education, the coefficient for illiterate category shows positive sign but not significant. Education category of grade 1-6, grade 7-8, grade 9-11, shows negative coefficient and highly significant. The coefficient for the education category of grade 12 completed also showed negative though not significant. For higher level of education the coefficient shows positive but not significant. Regarding the regional variation except for Afar, Somali and Harari regions the coefficient for all other regions showed positive and significant (See table 4.17 below).

Table 4.17. Probit regression results for the determinants of work participation in rural Ethiopia, 2005

			Number	of obs =	71940
			LR chi ²	(30) =	9677.42
			Prob	chi2 =	0.000
Log likelihood= -29985.086			Pseudo	R ² =	0.1389
Currently participating at work	Coef.	Std. Err.	z	P>z	dy/dx*
Age Group					
Age10_14	-0.247	0.025	-9.96	0.000	-0.061*
Age15_24	0.090	0.020	4.56	0.000	0.020*
Age 25-34(ref.)	-	-	-	-	-
Age35_44	0.310	0.023	13.77	0.000	0.063*
Age45_54	0.240	0.026	9.3	0.000	0.049*
Age55_64	-0.055	0.029	-1.88	0.060	-0.013*
Age_65	-1.309	0.031	-42.61	0.000	-0.438
Sex					
Female (ref.)	-	-	-	-	-
Male	0.624	0.014	43.12	0.000	0.143*
Head of HH					
head	0.533	0.019	27.42	0.000	0.112*
Non-head (ref.)	-	-	-	-	-
Marital Status					
Never Married(ref.)	-	-	-	-	-
Married	0.183	0.021	8.82	0.000	0.042*
Divorced/Widowed/separated	-0.357	0.029	-12.51	0.000	-0.094*
Migration Status					
Non-migrant	0.011	0.033	0.32	0.747	0.002
Recent migrants	-0.180	0.053	-3.37	0.001	-0.045*
Migrants(ref.)	-	-	-	-	-
Long time migrants	-0.027	0.037	-0.74	0.457	-0.006
Training received					
yes	0.523	0.096	5.48	0.000	0.090*
No(ref.)	-	-	-	-	-
Educational Status					
Illiterates	0.064	0.045	1.41	0.160	0.015
Non-formal educ(ref.)	-	-	-	-	-
Grade1_6	-0.271	0.046	-5.85	0.000	-0.067*
Grade7_8	-0.492	0.055	-8.91	0.000	-0.140*
Grade9_11	-0.518	0.076	-6.81	0.000	-0.150*
Grade 12 completed	-0.178	0.130	-1.37	0.170	-0.045
Higher education	0.197	0.209	0.94	0.346	0.041
Disability Status					
Disabled	-0.974	0.031	-31.78	0.000	-0.318*
No(ref.)	-	-	-	-	-
Region					
Tigray	0.183	0.036	5.08	0.000	0.039*
Afar	-0.015	0.041	-0.37	0.709	-0.004
Amhara	0.377	0.034	11.25	0.000	0.077*
Oromiya	0.297	0.033	9.07	0.000	0.063*
Somali	-0.031	0.040	-0.77	0.439	-0.007
Benishangul-Gumuz	0.056	0.039	1.43	0.152	0.012
SNNP	0.306	0.033	9.18	0.000	0.064*
Harari	-0.042	0.044	-0.95	0.343	-0.010
Addis Ababa(ref.)	-	-	-	-	-
Dire-Dawa	0.242	0.047	5.13	0.000	0.049*
_cons	0.265	0.065	4.05	0.000	

(*) dy/dx is for discrete change of dummy variable from 0 to 1

* significant at 1%

The regression results for rural male and females separately shows that for the age group 10-14 and age 65 and above male work participation decline, the coefficient is negative for both age groups and highly significant. However, for the other age group the coefficient is positive and significant. For females though similar with male age group 55-64 shows negative coefficient and significant. The coefficient for head of household has also shows positive and highly significant for both male and females.

Marital status indicates that currently married group has positive coefficient and significant for both male and female. The positive coefficient for married females may be due to the fact that unlike in urban areas where work outside home is less compatible with marital responsibilities in rural areas they mostly working on family farms and as unpaid family work which is near home. Divorced/widowed/separated showed negative and significant for both males and female.

Regarding migration status, for male, all the migration categories shows negative coefficient though significant only for long time migrants (5 percent level). While for females only recent migrant is significant and have negative coefficient. The variable training and disability has shown positive and negative coefficient respectively.

As for level of education, the coefficient for illiterate category shows positive coefficient and significant for male and negative for female though not significant. Education category of grade 1-6, grade 7-8, grade 9-11, shows negative coefficient and highly significant for both sexes. Similarly the coefficient for the education category of grade 12 completed also has negative though not significant. For both male and female higher level of education has positive coefficient but not significant.

Demographic variables -number of children a woman has showed that those women who has one child and two-three children shows positive coefficient but

significant only for the latter. Those who have four or more child shows negative and though not significant. Regarding those women having live birth during the last 12 months, the coefficient shows negative and highly significant. The probability of participation declines by 2.2 percentage points for those women having live birth during the last 12 months.

Regarding the spatial variation or regional variables, those males in Amhara, Oromiya, SNNP, and Dire-Dawa regions have positive coefficient and highly significant relatively indicating higher probability of participation on work. While for females in Tigray, Amhara, Oromiya, Benishangul-Gumuz, SNNP and Dire-Dawa region have relatively higher probability of participation in work and that women in Afar, Somali, and Harari region have a lower probability of participation (See table 4.18 and table 4.19 below).

Table 4.18. Probit regression results for the determinants of work participation for rural females in Ethiopia, 2005

			Number	of obs =	29423
			LR chi ²	2(33) =	1690.87
			Prob >	chi ² =	0.000
Log likelihood = -15243.973			Pseudo	R ² =	0.0525
Currently participating at work	Coef.	Std. Err.	z	P>z	dy/dx*
Age Group					
Age10_14	-0.414	0.213	-1.95	0.051	-0.142**
Age15_24	0.038	0.028	1.36	0.173	0.011
Age 25-34(ref.)	-	-	-	-	-
Age35_44	0.264	0.026	9.97	0.000	0.074*
Age45_54	0.211	0.031	6.91	0.000	0.060*
Age55_64	-0.114	0.036	-3.2	0.001	-0.035*
Age_65	-1.289	0.042	-30.38	0.000	-0.473*
Head of HH					
head	0.435	0.029	14.94	0.000	0.117*
Non-head (ref.)	-	-	-	-	-
Marital Status					
Never Married(ref.)					
Married	0.212	0.037	5.8	0.000	0.065*
Divorced/Widowed/separated	-0.272	0.043	-6.34	0.000	-0.087*
No. of children a woman own					
No Child	-	-	-	-	-
one child	0.048	0.040	1.2	0.231	0.014
Two to three children	0.115	0.037	3.07	0.002	0.034*
Four or more child	-0.041	0.038	-1.08	0.282	-0.012
Live birth last 12 months					
Yes	-0.072	0.025	-2.92	0.003	-0.022*
No (ref.)	-	-	-	-	-
Migration Status					
Non-migrant	0.067	0.043	1.53	0.125	0.020
Recent migrants	-0.246	0.072	-3.4	0.001	-0.080*
Migrants(ref.)	-	-	-	-	-
Long time migrants	0.047	0.047	1	0.319	0.014
Training received					
Yes	0.553	0.168	3.3	0.001	0.130*
No(ref.)	-	-	-	-	-
Educational Status					
Illiterates	-0.106	0.103	-1.03	0.305	-0.031
Non-formal educ(ref.)	-	-	-	-	-
Grade1_6	-0.344	0.106	-3.25	0.001	-0.113*
Grade7_8	-0.510	0.118	-4.32	0.000	-0.177*
Grade9_11	-0.558	0.150	-3.72	0.000	-0.197*
Grade 12 completed	-0.196	0.246	-0.8	0.425	-0.063
Higher education	0.212	0.317	0.67	0.504	0.058
Disability Status					
Disabled	-0.803	0.045	-17.65	0.000	-0.292*
No(ref.)	-	-	-	-	-
Region					
Tigray	0.252	0.052	4.82	0.000	0.070*
Afar	-0.079	0.059	-1.35	0.179	-0.024
Amhara	0.349	0.048	7.25	0.000	0.096*
Oromiya	0.319	0.047	6.74	0.000	0.090*
Somali	-0.145	0.056	-2.6	0.009	-0.046*
Benishangul-Gumuz	0.238	0.056	4.22	0.000	0.066*
SNNP	0.387	0.048	8.08	0.000	0.106*
Addis Ababa(ref.)	-	-	-	-	-
Harari	-0.008	0.064	-0.13	0.898	-0.002
Dire-Dawa	0.214	0.066	3.23	0.001	0.059*
_cons	0.345	0.122	2.83	0.005	

*, ** significant at 1% and 5 % respectively

Table 4.19. Probit regression results for the determinants of work participation for rural males in Ethiopia, 2005

		Number of obs	= 35297		
		LR chi2(29)	41420.6		
		Prob > chi2	0.000		
Log likelihood = -9856.2597		Pseudo R2	0.1737		
Currently participating at work	Coef.	Std. Err.	z	P>z	dy/dx*
Age Group					
Age10_14	-0.287	0.044	-6.55	0.000	-0.042*
Age15_24	0.134	0.040	3.33	0.001	0.016*
Age 25-34(ref.)	-	-	-	-	-
Age35_44	0.617	0.054	11.47	0.000	0.056*
Age45_54	0.463	0.059	7.85	0.000	0.044*
Age55_64	0.193	0.060	3.22	0.001	0.022
Age_65	-1.509	0.054	-28.2	0.000	-0.386*
Head of HH					
head	0.549	0.047	11.65	0.000	0.074*
Non-head (ref.)	-	-	-	-	-
Marital Status					
Never Married(ref.)	-	-	-	-	-
Married	0.145	0.049	2.94	0.003	0.019*
Divorced/Widowed/separated	-0.414	0.056	-7.42	0.000	-0.069*
Migration Status					
Non-migrant	-0.074	0.060	-1.22	0.224	-0.009
Recent migrants	-0.093	0.094	-1	0.318	-0.013
Migrants(ref.)	-	-	-	-	-
Long time migrants	-0.143	0.068	-2.1	0.036	-0.020**
Training received					
yes	0.465	0.118	3.95	0.000	0.042*
No(ref.)	-	-	-	-	-
Educational Status					
Illiterates	0.150	0.056	2.71	0.007	0.020*
Non-formal educ(ref.)	-	-	-	-	-
Grade1_6	-0.227	0.057	-3.99	0.000	-0.031*
Grade7_8	-0.502	0.068	-7.38	0.000	-0.089*
Grade9_11	-0.538	0.094	-5.75	0.000	-0.099*
Grade 12 completed	-0.187	0.164	-1.15	0.252	-0.027
Higher education	0.081	0.287	0.28	0.778	0.010
Disability Status					
Disabled	-1.207	0.044	-27.46	0.000	-0.306*
No(ref.)	-	-	-	-	-
Region					
Tigray	0.029	0.058	0.49	0.621	0.004
Afar	-0.049	0.066	-0.74	0.460	-0.006
Amhara	0.375	0.055	6.84	0.000	0.041*
Oromiya	0.289	0.053	5.43	0.000	0.033*
Somali	0.057	0.066	0.86	0.387	0.007
Benishangul-Gumuz	-0.102	0.063	-1.61	0.107	-0.014
SNNP	0.292	0.054	5.37	0.000	0.033*
Harari	-0.038	0.072	-0.53	0.593	-0.005
Addis Ababa(ref.)	-	-	-	-	-
Dire-Dawa	0.247	0.079	3.13	0.002	0.026*
_cons	0.928	0.097	9.54	0.000	*

(*) dy/dx is for discrete change of dummy variable from 0 to 1

*** significant at 1% and 5 % respectively

To summarize, the forgoing discussion was focusing on identifying the major socio-demographic determinants affecting work participation. Accordingly the results of the regression analysis showed that as expected previously the relationship between work participation and residence status shows negative for urban areas in comparison to rural and differences are also important by gender (positive and significant for male comparing to their female counterparts) and by age (lower participation both at entry and exit ages, with typical patterns by gender). Moreover, the result shows that those in the higher the level of education and having some training have higher chances for participating on work.

Variables like head of household increase the probability of work participation for both male and female. While having some kind of disability prohibit individuals from not participating in work, the coefficient for all levels of regressions shows negative. The marital status of individuals' shows that being married lower the probability of work participation for females in urban areas while for male unlike females being married increases their work participation.

The result further showed that at least having more than four children reduces the probability of female work participation rates in urban Ethiopia. Regarding migration, as expected, the result showed that recent migrants have lower probability of work participation comparing to long time migrants for urban areas. Differences are however important by gender (lower probability of participation for male recent migrants comparing to females). Long time migrants showed higher probability of participation at work however migration status relation with work participation vary by location (lower probability of participation for urban male recent migrants and higher probability of participation for long time migrants). Finally, regional variations have also been in relation to work participation (see table 4.31 below).

variables	Total			Urban			Rural		
	Total	Male	female	Total	Male	female	Total	Male	female
Currently participating at work	dy/dx*	dy/dx*	dy/dx*	dy/dx*	dy/dx*	dy/dx*	dy/dx*	dy/dx*	dy/dx*
Age Group									
Age10_14	-0.28*	-0.297*	-0.312*	-0.403*	-0.491*	-0.331*	-0.061*	-0.042*	-0.142
Age15_24	-0.07*	-0.098*	-0.077*	-0.141*	-0.194*	-0.128*	0.02*	0.016*	0.011
Age 25-34(ref.)	-	-	-	-	-	-	-	-	-
Age35_44	0.11*	0.116*	0.119*	0.126*	0.144*	0.14*	0.063*	0.056*	0.074*
Age45_54	0.04*	0.058*	0.055*	0.026*	0.041*	0.042*	0.049*	0.044*	0.06*
Age55_64	-0.12	-0.083*	-0.117*	-0.163*	-0.18*	-0.155*	-0.013*	0.022*	-0.035*
Age_65	-0.53*	-0.636*	-0.503*	-0.43*	-0.561*	-0.424*	-0.438*	-0.386*	-0.473*
Place of residence									
urban	-0.33*	-0.311*	-0.293*						
Rural (ref.)	-	-	-						
Sex									
Female (ref.)	-			-			-		
Male	0.16*			0.139*			0.143*		
Head of HH									
head	0.20*	0.143*	0.131*	0.219*	0.201*	0.116*	0.112*	0.074*	0.117*
Non-head (ref.)	-	-	-	-	-	-	-	-	-
Marital Status									
Never Married(ref.)	-	-	-	-	-	-	-	-	-
Married	0.01*	0.044*	0.007	0.027*	0.095*	-0.044*	0.042*	0.019*	0.065*
Divorced/Widowed/separated	-0.10*	-0.109*	0.051*	0.013	0.081*	0.001	-0.094*	-0.069*	-0.087*
No. of children a woman own									
No Child			-			-			-
one child			0.001			-0.007			0.014
Two to three children			0.003			0.019***			0.034*
Four or more child			-0.083*			-0.108*			-0.012
Live birth last 12 months									
Yes			-0.035*			-0.077*			-0.022*
No (ref.)			-			-			-
Migration Status									
Non-migrant	-0.03*	-0.024*	-0.009	-0.04*	-0.026*	-0.034*	0.002	-0.009	0.02
Recent migrants	-0.01*	-0.035*	0	0.01	-0.041*	0.01	-0.045	-0.013	-0.08
Migrants(ref.)	-	-	-	-	-	-	-	-	-
Long time migrants	0.03*	0.031*	0.021*	0.019*	0.038*	0.021*	-0.006	-0.02	0.014
Training received									
yes	0.16*	0.12*	0.145*	0.185*	0.17*	0.158*	0.09	0.042	0.13
No(ref.)	-	-	-	-	-	-	-	-	-
Educational Status									
Illiterates	0.03*	0.069*	0.011	0.042*	0.096*	0.009	0.015	0.02	-0.031
Non-formal educ(ref.)	-	-	-	-	-	-	-	-	-
Grade1_6	-0.04*	0.005	-0.047*	0.022	0.104*	-0.016	-0.067	-0.031	-0.113
Grade7_8	-0.11*	-0.046*	-0.141*	-0.068*	0.011	-0.115*	-0.14	-0.089	-0.177
Grade9_11	-0.21	-0.137*	-0.226*	-0.174*	-0.115*	-0.197*	-0.15*	-0.099*	-0.197*
Grade 12 completed	0.00*	0.033*	-0.043**	0.024***	0.086*	-0.027	-0.045	-0.027	-0.063
Higher education	0.06*	0.025**	0.113*	0.091*	0.085*	0.14*	0.041	0.01	0.058
Disability Status									
Disabled	-0.34*	-0.386*	-0.303*	-0.261*	-0.327*	-0.248*	-0.318*	-0.306*	-0.292
No(ref.)	-	-	-	-	-	-	-	-	-
		Total		Urban		Rural			

Table 4.31. continued									
variables	Total	Male	female	Total	Male	female	Total	Male	female
Currently participating at work	dy/dx*	dy/dx*	dy/dx*	dy/dx*	dy/dx*	dy/dx*	dy/dx*	dy/dx*	dy/dx*
Region									
Tigray	0.04*	0.003	0.081*	0.05*	0.028**	0.093*	0.039*	0.004*	0.07*
Afar	0.01	0.018***	-0.011	0.055*	0.087*	0.041*	-0.004	-0.006	-0.024
Amhara	0.08*	0.049*	0.103*	0.073*	0.047*	0.101*	0.077*	0.041*	0.096*
Oromiya	0.08*	0.051*	0.104*	0.081*	0.073*	0.109	0.063*	0.033*	0.09*
Somali	-0.06*	-0.058*	-0.059*	-0.081*	-0.119*	-0.037*	-0.007	0.007	-0.046*
Benishangul-Gumuz	0.06*	0.034*	0.116*	0.178*	0.177*	0.19*	0.012	-0.014	0.066*
SNNP	0.08*	0.064*	0.114*	0.096*	0.11*	0.112*	0.064*	0.033*	0.106*
Gambella	-0.07*	-0.075*	-0.024	-0.076*	-0.107*	-0.021			
Harari	-0.01*	-0.031*	0.02	0.005	0.044**	0.058*	-0.01	-0.005	-
Addis Ababa(ref.)	-	-	-	-	-	-	-	-	-0.002
Dire-Dawa	0.02*	-0.003	0.045*	-0.008	-0.049*	0.029***	0.049*	0.026*	0.059*
_cons									

*, **, ***, significant at 1%, 5% and 10% respectively

CHAPTER FIVE

Summary and Conclusion

Ethiopia is one of the poorest countries in the world and its economy is among the most vulnerable in sub-Saharan Africa. The economy of the country depends on agriculture, where around 80 percent of the labour forces work. Agriculture generates 45 percent of GDP of the country (Mulat and et.al, 2006). Although the economy of Ethiopia achieved modest growth recently, the result of that growth has not translated into poverty reduction. And a primary reason for that is the rate of employment growth compared to output growth is rather low.

Being Ethiopia is among the countries with a rapidly growing population with a still backward agriculture based economy, the capacity of the country's economy in absorbing the potential labour force is very low. The country is facing with the developmental challenges of creating jobs for the rapidly increasing labour force.

Existing literatures and data from various organizations shows that work participation is currently showing a declining trends where there is less participation rates is common among the urban youth and females. Moreover, currently unemployment has become a major issue in the country especially in urban areas and among youth and under employment in rural areas despite government efforts in job creation.

Several factors are to blame for the existing relatively lower employment rate and unemployment in urban areas and under employment in rural areas. Among these: unprecedented rate of growth of the (urban) population., lack of growth and job creation performance of the economy, mismatch between the

skill requirements of the labour market on the one hand and the education/training skills of the youth and women on the other, minimal support of the private sector contribute for the persistent levels of unemployment and underemployment in the urban centers are the reasons.

Therefore, despite a growing awareness in the literature on the existing factors for the relatively lower rate of employment and higher rate of unemployment among a group of peoples and specific ages and other employment related concerns have yet to be translated into an in-depth analysis of the levels, trends and patterns of work participation as well as specific factors affecting it in Ethiopia. Thus, this study filled the gap by focusing mainly on the trends, patterns, change in the structure of employment as well as determinants that are major hurdles for work participation in the Ethiopian using the two national population and household censuses (1994 and 2007) and National Labour Force Survey data conducted by Central Statistical Agency of Ethiopia during 1999 and 2005.

Therefore, the next section will try to summarize the results of the study by focusing on the major themes of the research then conclude the main findings and finally some of important policy concerns that needs attention will be forward.

Summary

The size and distribution of the labour force

Accordingly, based on the results of the study on economic activity status, the population of Ethiopia aged ten years and over was found to be around 50.9 million persons in 2007 census among which, 9.4 million or 18.5 percent were residing in the urban areas, while the great majority of the population (41.6 million or 81.5 percent) were rural residents. The trend in terms of the percentage of working age population living in rural and urban areas has shown a decline. The percentage of people living in rural areas declined from 84.9 in 1994 to 84.4,

83.3 and 81.5 percent for the year 1999, 2005 and 2007 respectively. While in urban areas it has increased from 15 percent in 1994 to 15.6, 16.7 and 18.5 percent for the year 1999, 2005 and 2007 respectively.

The results related to the existing labor force also showed that among the population aged ten years and over 35.3 million or 69.3 percent were reported to be economically active and 15.7million or 30.7 percent are economically inactive in 2007. The trends for economically active showed an increasing trend for all years except a sharp drop in the year 1999 due to the war with Eritrea. However, when we look at the trends for inactive population it shows declining trends till the year 2005 and a huge jump in the year 2007 which may be due to the high school enrollment rate in the recent years.

The trends and distribution of the economically active population by residence/urban and rural/ and sex showed that for all the study periods the percent economically active males were relatively higher than the females in both urban and rural areas. This is true mainly because housewives are mostly engaged in activities that are not considered economic. Moreover, it is observed that for all years (except for the year 1994 and 2007 where more inactive females were reported than the active ones in urban areas) in all the urban and rural areas of the country more active persons were reported compared to the inactive ones for both males and females. However, the balance between the active and inactive females was slightly reversed, (39.1 percent active against 61 percent inactive and 48.1 active and 52 percent for 1994 and 2007 respectively) in the urban part where unlike the rural areas, in the urban part, unless they have some type of regular job, most housewives stay at home and are mainly engaged in housework activities.

Looking at the over all trends and patterns and composition of labour force in the country the rural labour force is higher than urban and male have the

dominance in terms of size comparing to females. In other words, observing the distribution of the labour force in urban and rural areas there are two kinds of characteristics in the distribution of Ethiopia's labour force. First, rural labour is still predominant. The second characteristic is the relatively higher percentage share of men in the labour force for both urban and rural areas.

The results showed that among the working age population of Ethiopia the employed and unemployed population was reported to be 67 percent and 2.6 percent respectively in 2007 which more or less showing a declining trends comparing to previous years, except for the year 2005, because of an increase in the number of non- active population in the same year (2007). Looking at the patterns of activity status by gender and residence, employed male for both urban and rural areas in 2007 showed a declining trend. While for females in urban areas it has shown an increasing trend except for the year 2007 and shows more or less a stable condition except a sharp rise in the figure to 73.3 percent in the year 2005 for rural females. While looking at the unemployed situation in urban areas the trends for male has shown a sharp decline in recent years while for females although there is a decline in percentage of unemployed it is still showing higher figure comparing their male counter parts in different years. In rural areas the trend in unemployed showed a stable condition for male and a decline in percentage (3 percent) comparing to the year 2005 and has made slight change in comparison to the year 1994 and 1999.

The patterns for unemployed show that for the urban and rural areas of Ethiopia difference in rate was observed, where a very small number of unemployed persons were reported in the rural areas compared to the urban areas. Further looking gender wise, the percentage unemployed females were consistently higher than the unemployed males in urban areas except for the year 1994 where there is a slight difference in the figure. This gender difference in urban areas

could be because of most females are engaged in non-income generating activities (like housekeeping and other related activities), which resulted in a higher female unemployment rate compared to male.

Significant differences in the proportion of employed and unemployed exist across area of residence, as well as between youth and adults. Urban youth have much lower employed proportion than their older counterparts. However the percentage of employed for rural youth and children is much higher than that of the urban youth in all years. Moreover, little difference can be observed between rural youth and rural adults. An increase in the enrollment of children in primary and secondary education has happened very recently that may eventually lead to a decline in the proportion of employed youth. While looking the trends in the proportion of unemployed, unemployment disproportionately affects the youth population in Ethiopia. In each of the four periods, the youth unemployed proportion was higher than for all other age groups in both urban and rural areas. However, crucial differences across rural and urban areas exist. Open youth unemployment appears to be characteristic of urban centers, where there is more proportion of youth unemployed than adult compared to rural areas.

Levels, trends, patterns and characteristics of work participation

The results for the trends and patterns in work participation shows that over all work participation rate has declined in Ethiopia in recent year in both urban and rural areas and irrespective of gender despite the marginal increase in the number of employed people in absolute terms between 1994 and 2007. The result also shows that the trend for each year work participation rate by age group in rural and urban areas of Ethiopia observed to start rather early especially among the rural children, as opposed to urban children. However, work participation rates are found to increase rapidly with age for both rural and

urban areas such that by age 25, more rural and urban persons are economically active. The rates remain as high up till age 49 for urban and almost age 64 for rural. Generally the following salient features are observed in the relationship between age group and work participation rates in Ethiopia:

- Age and work participation rate show curvilinear relationship, that is, low for the young and old age groups and high in the middle age groups for both urban and rural male and female;
- The rates for the rural areas are always higher than that of urban areas at all ages. Work participation rates are higher in rural areas where most persons are self-employed in their farms or other activity than in the urban areas where some specialized skills are required for access to employment;
- The participation rate of men exceeds that of women for all age groups both in rural and urban areas. This gap may be attributed to underreporting of female participation in the work force and the large proportion of women that marry at a young age. Moreover, discrimination against hiring of women may contribute to this situation;
- the work participation rate in Ethiopia tends to rise with age. Moreover, significant differences in the participation rates exist across area of residence, as well as between youth and young adults for all years. The participation rate of rural youth in 2007 for instance was (68.22 per cent) is much higher than that of the urban youth (34.3 per cent);
- child labour is still dominant in both urban and rural Ethiopia. However, the intensity is much severe in the rural area (work participation rate of 15 percent against 53 percent in 2007 in urban and rural areas respectively);
- Moreover, little difference can be observed between rural youth and rural young adults for both male and females (especially little difference is more pronounced

between rural female youth and rural young female adults). However, urban youth have much lower participation rates than their older counterparts (although comparing between male and female youth with that of young adult the difference in the rate of participation is lower between female youth and young adults in urban areas). A major factor that explains these facts is educational participation; with relatively little opportunities for education in rural areas, the rural youth are more likely to become active in the labour force. Urban child and youth seem to benefit most from this factor. The higher level of poverty in rural areas leads rural children and youth to participate in the labour force;

- The participation rate of youth is showing a downward trend recently mainly due to increases in the educational participation of young people. An increase in the enrolment of children in primary and secondary education has happened very recently. This may eventually lead to a decline in the participation rate of youth.

The trends in spatial distribution of work participation.

The trends in spatial distribution of work participation rate shows that for all administrative regions there is disparity in the participation rate between regions, urban and rural and gender. These variations may be explained by the existence of a pronounced difference among regions in regional economic as well as labour market structure and gaps in skill among working age population. In addition the gender gap in work participation rate in the country across the geographical regions may be explained by the existence of different cultural traditions and socio-economic condition of the women.

Similarly, looking at the geographic variations of work participation rate among the selected urban areas over all, compared to small towns, large cities like Addis Ababa (the capital city of Ethiopia), Diredawa, Adama and Mekele are

characterized by lower work participation rates for most of the study periods. The difference in work participation may be explained by the fact that when we observe most of the small urban towns their economic base is more attached to their rural surroundings i.e. primary activity compared to large urban areas where some specialized skills are required for access to employment. The other reason may be problems related to definition of urban centers make comparisons between large and small towns more difficult task.

Trends and patterns in the status of employment, industry and occupation

Attempts have also been made to see the trends and patterns as well as changes in the status of employment, industry and occupation in the study periods. Accordingly, looking at the status of employment at country level, the majority of the employed populations were self employed and unpaid family workers. While the share of employers, apprentices and member of cooperatives among the total employed population was found to be negligible. The result further shows that self-employment is the dominant employment status among the male while employed females were highly dominated by unpaid family workers. Observing the difference by residence/urban-rural/, in rural areas, the unpaid family workers make up more than half of the employed population. This is followed by a sizable number of self-employed persons and small proportion of paid employees.

The picture in urban areas is, however different. Here, the proportion of unpaid family workers is relatively lower while the proportion of paid employees is considerably high. The very high proportion of unpaid family workers in the rural areas may be a result of system of agricultural production where the husband works as head of the farm and the wives and young children helping in the field as unpaid workers.

Data on the trends and patterns of employment by occupation showed that in rural areas for all study periods the share of skilled agricultural and fishery workers and elementary occupations were highly significant. Looking at the trends over period skilled agricultural and fishery workers declined for the period between 1994 and 2005, while that of elementary occupations and service, shop and market sales workers rose during the same period. In general, legislators, Senior Officials and Managers; Professionals; Technicians and Clerks, which are some times referred to as "white collar occupations" take up in significant proportion of the total rural employed persons.

In urban areas, unlike rural, service sectors took the leading position closely followed by elementary occupations and craft workers. The share of skilled agricultural and fishery workers, crafts and related trade workers and service, shop and market sales workers followed a declining pattern during 1994-2005. Whereas, elementary occupation, professionals, clerks and legislator and senior officials and managers increased during the same period. Unlike rural areas, the so-called white-collar occupations, specially, technicians and associate professionals, and clerks have, relatively, greater proportions in urban areas. In addition, closer examinations of the data reveal that the proportion of elementary occupation steadily declines as age group increases. But the reverse is true for skilled agricultural and fishery workers where the proportion steadily ascends with age. It also shows that elementary occupations and crafts and related trades were occupied by a relatively greater proportion of females than males, while the reverse holds true for skilled agricultural and fishery occupation group.

At national level, the result shows the vast majority of the country's employed persons are engaged in agricultural sector. The result further shows that, wholesale and retail trade, manufacturing; and hotel and restaurant sectors have also some contribution to the country's economy. The remaining sectors

constitute negligible proportion at country level. The considerably small contribution of other sectors is a reflection of the country's low level of development and suggests that lot to be done yet in economic, social, transport, finance, real state, and construction sectors. Looking at the result gender wise, one can observe that there is slightly larger proportion of employed males engaged in the agricultural sector. On the other hand, the proportion of females in the main non-agricultural sectors, i.e., manufacturing, wholesales and retail trade is higher than that of males. The gap is wider in the hotel and restaurant sector and this is particularly true in urban areas. Finally, observing major industrial classifications by age group revealed that during 2005 of total persons involved in agricultural sector the dominant part was constitute by 10-14 age groups (92 percent). This indicates that child labour is still very common phenomenon in Ethiopia. A further observation from the table could also show a significant number of persons who were employed in hotels and restaurant, private households and socio-cultural and personal household services came from the age group 15-24.

Levels, trends, patterns and characteristics of the unemployed population

Concerning unemployment rate the result at national level was registered 2.9 percent in 1994 while it showed a slight increment in 2007 (3.8 percent). Urban employment rate was 22 and 17.6 percent in 1994 and 2007, respectively. While, rural unemployment rate was 0.7 percent and 1.4 percent for the same year. It seems that in Ethiopia unemployment becomes urban phenomenon.

Regarding the age specific pattern of unemployment the result show that the unemployed is predominantly young men and women. The unemployment rate starts comparatively at lower levels in the age group 10-14 years then it increases with advancing age up to age group 20-24 years/peak age/ and thereafter it starts to decline. Similarly, the above pattern also holds true for rural areas. However, in urban areas the females have higher unemployment rate at the age group 20-24

years and continue to decline consistently with increasing age. On the other hand, males had higher rate of unemployment at the age group 15-19 years and decline up to the age group 45-49 years and start to rise up thereafter. Generally in all age groups whether in urban or rural areas females show higher rate of unemployment than their male counterparts.

Further comparison of unemployment rate by level of education showed that for all study period's unemployment rate reported for literate persons were higher than that of the illiterate persons in both urban and rural areas though in the rural areas the difference in the rate is minimal. Further more the result revealed that the unemployed persons in the urban areas were better educated than those in the rural areas. Unemployment rate tends to increase as the level of education increases up to grade 12 and then drops down for those who have attained an educational level of beyond grade 12. Looking at gender wise, although the males and the females show similar pattern, the unemployment rates for females were higher than that of males at all levels of education.

Spatial aspects unemployment shows that regions like Addis Ababa, Dire Dawa, Harari are the most affected regions in terms of unemployment where higher rate of unemployment registered for almost all the study periods compared to other regions. Looking at the rate of unemployment by urban and rural shows that urban unemployment rate was substantially higher than the rural, in all regions for all year for both current and usual status approach and taking the sex composition, in both the urban and rural areas of almost all regions female unemployment rate was higher than those of the males.

Looking at the over all trends and pattern of unemployment rate by urban centers major urban centers like Addis Ababa and Dire Dawa are suffering from high unemployment rate for most of the periods. This may be due to high rural to urban migration of people in fluxing towards these major urban centers in

search of job and better living standard. Like our previous results for regional variations, for all urban centers and for all study period female unemployment rates are higher than male. This may be because female activity in Ethiopia is restricted to household chores which are not considered as productive work.

The relationship between work participation and socio-demographic factors

The possible relations between some of socio- demographic factors and work participation were highlighted through an in-depth analysis of some of the characteristics describing the differentials of work participation rates in relation to marital and migration status, educational level and number of children a woman has own in the household. The result showed that in the case of the relationship between work participation rate and marital status never married and the widowed exhibited relatively lower participation rates and in all categories of marital status, males show higher participation rates than the females. The marital status and pattern of work participation rate also shows variation between sexes. For the males, the married group has the highest rate of participation followed by the divorced and separated. Among the females, the separated took the leading position followed by the divorced and the married group. Variation also observed in terms of age specific work participation by marital status.

In the country 16.6 percent were migrants and 83.4 percent were non-migrants and the level of migration to be different for males and females, the latter being more mobile (CSA, 2008). Looking at the percent of migrants by residence, urban areas have registered substantially higher percentage than that of rural areas. This disproportionate distribution of migrants between urban and rural areas could be explained partly by the fact that the rural areas are relatively less attractive in providing job opportunities than urban areas. Further more region wise, Addis Ababa has registered the highest percentage of migrants in terms of

percentage of migrants. Similarly, gender wise, for both male and females these regions recorded highest percentage of migration.

Looking at forms of migration based on area of previous residence, the majority of the migrants moved directly from the rural areas and in terms of age group concentrated in the age group 15-64. Rural-rural migration was the prevailing form of the population's movement in Ethiopia. In rural areas his type of migration is typically linked to seasonal agricultural and pastoral labour movements. Regions like Amhara, Oromiya, Benishangul-Gumuz and SNNP observed rural-rural migration as the dominant forms. Following one's family and work-related reasons account for the main cause of migration in Ethiopia.

Examination of work participation and migration status the result revealed that at country level, migrants seem to have slightly higher participation rate than the non-migrants. The differential in participation rate between recent migrants and longtime migrants is relatively wider among the males than the females, while the difference is insignificant between non-migrants and migrants among each sex. Looking at urban-rural difference work participation rate in urban areas show noticeable difference among different categories of migration. The long time migrants have the highest rate compared to that of the non-migrants. Similar pattern was observed for both the males and the females, however, the difference between recent migrants and longtime migrants among the females is not pronounced.

For rural areas, the pattern showed that recent migrants had relatively lowest work participation rate comparing to other migration categories for both male and females. Moreover, unlike the case in the urban areas, non-migrants had higher participation rate comparing to recent migrants (less than 2 years) and migrants (2-6 years) had more or less comparable participation rate with longtime migrants (7+ years) for all years except for the year 1994 for males.

Regarding the relation between work participation and education level at national level, literate showed slightly lower work participation rate than the illiterates. Looking at further, percentage of employed among the literate category, in urban areas for all years and for both male and females the highest and the lowest were concentrated in the education category of grade 1-6 and certificate respectively.

Similarly, in the rural areas like urban areas, there existed higher concentration of employed people in terms of percentage in the education category of grade 1-6 though unlike the urban areas there existed lowest percentage of people in the education category of above certificate. There was also an increasing trend in terms of percentage for most of the education category between 1994 and 2005. Observing the work participation rate by gender for males, for all years, those who had certificate and those who had an educational level of above certificate recorded the highest rate while lowest rate was relatively recorded by persons with grade grades 9-11 during 1999 and 2005. The corresponding rates for females showed a similar pattern as that of males but higher participation rate were found among the males than the females at all educational levels and for all years though the gap is narrower at the upper end of the educational spectrum, where participation rates are also higher for Total. Looking at work participation rate by educational status and age group the result showed that in urban areas work participation increases at both ends of education ladder where there is higher participation for illiterates and relatively higher for the education category of certificate and above while in rural areas illiterates have the highest rate of participation.

Finally, attempt has been made to show the relationship between female work participation by the number of children they have own. Accordingly, the result for the period 1994 and 2005 showed that in urban areas percentages of females who are participating at work are inverse-related with the number of children living in the household. In other words, females having no child is having higher

participation comparing to others while for the rural areas in 1994 the percentage of females at work follows the same pattern like the urban areas though for the year in 2005 those women who have 4 or more and 2-3 number of children respectively have registered higher percentage. The higher percentage of women participating at work may be due to the fact that in the rural parts of Ethiopia where there is traditional forms of agriculture and family labour is the main source of labour so it is quiet common to see members of the family including women participating in the farm. Work participation of females by the number of children they have and by age group also show variation between in both urban and rural areas.

To investigate the major determinants of work participation a regression analysis was carried out and a separate regression disaggregated by country, urban-rural and gender was made.

Accordingly, the results from the regression model estimated at country level indicate that among the demographic variable, age shows that those in the age group of 10-14 and 15-24 has a negative coefficient and significant While those in the age category of 35-44 and 45-54 have a positive coefficient and significant. Work participation decreases as age increases where those in the age group 55-64 and 65 and above have negative and significant coefficient. The coefficient estimates for urban is negative and highly significant. Controlling for other factors, males are more likely to be employed than females. The coefficient for head of household shows positive and highly significant.

In terms of marital status, the results reveal that individuals who are married are more likely to participate on employment as compared to those who are never married while fort those individual in divorced/separated and widowed category has lower chances to currently participate at work than the never married ones. The coefficients for migration dummies indicate non-migrants is

negatively influencing work participation while the coefficient for the variable long time migrants is positive and significant. As for level of education, the coefficient for illiterate category has shown positive and those in the education category of grade 1-6, grade 7-8 and grade 9-11 has negative coefficient and highly significant while for those in the education category of higher education is positive. The variable, training, shows positive and highly significant while those who have some sort of disabilities has negative coefficient and highly significant.

Regarding regional dummy variables, regions like Tigray, Amhara, Oromiya, Benishangul-Gumuz, SNNP and Dire-Dawa the work participation was statistically significantly higher than in Addis Ababa. In regions like Somali, Gambella and Harari the coefficient shows negative indicating their work participation is lower comparing the base category i.e., Addis Ababa.

The regression results for male and females at country level indicates that for both male and female age group shows a negative coefficient at both ends of extreme where there is lower probability for those age group 10-14, 15-24 , 55-64 and for those in the age group 65 years and above and a positive coefficient and highly significant for the age group 35-44 and 45-54. The probability of work participation declines for those in the age group 65 years and above. The coefficient estimates for urban is negative and highly significant. The coefficient for head of household has also shown positive and highly significant. The coefficients for marital status dummies indicate that unlike age, the influence of the marital status variable is vary with gender.

For Male the coefficient for currently married group is positive and significant while for female, the 'currently married' status does not show a stastically significant coefficient. In the case of widowed/divorced/separated groups for men, shows negative and reduce probability of work participation, for women in

this category have higher probability of participating in work as compared to the never married category. The coefficients for migration status indicate that the non-migrants have negative and significant coefficient while the coefficient for those in the category of recent migrants shows negative and significant for male indicating that recently arriving migrants facing problems in getting job easily. While for females the variable indicates positive coefficient though not significant. On the other hand, the coefficient for the variable long time migrants is positive and significant.

As for level of education, for both male and female the coefficient for illiterate category is positive for male those in the education category of grade 7-8 and grade 9-11 has negative coefficient and highly significant and for those in the education category of grade 12 completed and higher level of education is positive and significant while for females in the education category of grade 1-6, grade 7-8, grade 9-11 and grade 12 completed has a negative coefficient while those in the higher education category has a positive coefficient and highly significant.

The variable training has positive coefficient and highly significant while those individuals having some kind of disability status has negative influence on work participation. For females, the regression result shows that the coefficient for those women having four or more children shows negative and significant. Those women having live birth during the last 12 months shows negative coefficient and highly significant.

Regarding the region dummy variables, those males residing in SNNP, Oromiya, and Amhara region have relatively higher probability of participation on work while those in Somali, Gambella, Harari and Dire-Dawa regions have lower probability of participation. While for females in Benishangul-Gumuz, Oromiya, Amhara, Tigray and Harari region have higher probability of participation in

work and that women in Afar, Somali and Gambella regions have a lower probability of participation

The regression estimation results for urban Ethiopia for the total indicates similar results like the previous regression where age groups show a negative coefficient at both ends (youth and aged) and a positive and highly significant coefficient and for the age groups 35-44 and 45-54. The coefficient estimates for sex and head of household show positive and highly significant. The coefficients for marital status indicate that for currently married group is positive and significant. Regarding migration status the coefficient for non-migrants is negative and significant while the coefficient for the variable long- time migrants is positive and significant. As for level of education, the coefficient for illiterate, those in grade 12 completed and higher level of education category have significant and positive coefficients while those in grade 7-8 and grade 9-11 male influencing work participation negatively. The variable training, has highly significant and positive coefficient and variable disability status has shown negative coefficient and highly significant.

Regarding the regional variation, dummy variables, in Benishangul-Gumuz, SNNP, Oromiya, Amhara, Tigray and Harari regions have higher probability of participation in work and that in Somali, Gambella and Dire-Dawa region have a lower probability of participation.

Regression results for male and females in urban Ethiopia indicates that like the previous regression results age group again here shows a negative coefficient at both ends of extreme and a positive coefficient and highly significant for the age group 35-44 and 45-54 for both male and females. The coefficient for head of household has also shown positive and highly significant. The coefficients for marital status indicate currently married group has positive influence on work participation for male while for females it shows a negative coefficient and

significant. The negative effect of marriage on work participation is probably because participation in urban areas is more likely to mean work outside the home, which may be less compatible with marital responsibilities than work at home. Marital status such being divorced/ widowed/separated is positive and significant for males.

As for migration status the coefficient for non-migrants is negative and significant for both male and females. The coefficient for those in the category of recent migrants shows negative and significant for male. In contrast, the coefficient for the variable long - time migrants is positive and significant for both males and females.

Level of education indicates, for male, the coefficient for illiterate, grade 1-6, 12 completed and higher level of education is positive and significant whereas those in grade 9-11 has negative coefficient and highly significant. For females all the education categories except for those in higher education have shown a negative coefficient.

The variable training, has positive coefficient and highly significant while individuals having some kind of disability status has negative coefficient and significant. Among the demographic variables - have two-three children and four or more children and having live birth during the last 12 months influence women work participation negatively.

Regarding the spatial variation or regional variables, those males residing in Benishangul-Gumuz, SNNP, and Afar, Oromiya regions have relatively higher probability of participation on work while those in Somali, Gambella, Harari and Dire Dawa region have lower probability of participation. While for females in Benishangul-Gumuz, SNNP, Oromiya, Amhara, Tigray and Harari region have

relatively higher probability of participation in work and that women in Somali, and Gambella region have a lower probability of participation.

Regression results for rural areas for total combined showed that work participation in relation to age group is somewhat similar with the previous findings for the country as well as for urban areas except for the age group 15-24 where the coefficient is positive and significant for rural. The positive result for the youth group may be due to the fact that unlike in urban areas where access to job opportunities is difficult, in rural areas it is common to find them participating as unpaid family workers and in family farms. The coefficient estimates for sex and head of household is positive and highly significant. As for marital status the coefficient for currently married group shows positive and significant and that of divorced/ widowed/separated is negative and significant. Concerning migration status the coefficient for those in the category of recent migrants shows negative and significant. The variable training, has positive coefficient and highly significant and having some kind of disability status has shown negative coefficient and highly influencing work participation.

As for level of education, education categories of grade 1-6, grade 7-8, grade 9-11, shows highly significant and negative coefficient. Regarding the regional variation except for Afar, Somali and Harari regions the coefficient for all other regions showed positive and significant.

The regression results for rural male and females separately show that for the age group 10-14 and age 65 and above male work participation decline, the coefficient is negative for both age groups and highly significant. However, for the other age groups the coefficients are positive and significant. For females though similar with male age group 55-64 shows negative and significant coefficient. The coefficient for head of household has also shows positive and highly significant and for both male and females.

Marital status indicates that currently married group has positive coefficient and significant for both male and female. The positive coefficient for married females may be due to the fact that unlike in urban areas where work outside home is less compatible with marital responsibilities in rural areas they mostly working on family farms and as unpaid family work which is near home. Divorced/widowed/separated showed negative and significant for both males and female.

Regarding migration status, for male, long time migrants shows negative coefficient while for females only recent migrant is significant and have negative coefficient. The variable training and disability has shown positive and negative coefficient respectively.

As for level of education, the coefficient for illiterate category shows positive coefficient and significant for male. Education categories of grade 1-6, grade 7-8, grade 9-11, show negative and highly significant coefficient for both sexes.

Demographic variables -number of children a woman has showed that those women who have two-three children shows positive and significant coefficient and. Regarding those women having live birth during the last 12 months, the coefficient shows negative and highly significant.

Regarding the spatial variation or regional variables, those males in Amhara, Oromiya, SNNP, and Dire-Dawa regions have positive coefficient and highly significant relatively indicating higher probability of participation on work. While for females in Tigray, Amhara, Oromiya, Benishangul-Gumuz, SNNP and Dire-Dawa region have relatively higher probability of participation in work and that women in Afar, Somali, and Harari region have a lower probability of participation

Conclusion

From the finding of the study the following conclusions are drawn:

- There is an increase in the magnitude of the labour force and there is there also shift in activity status of population comparing between the study periods;
- Levels, trends, patterns and characteristics of work participation vary by age groups (low work participation for youth and old age category) and male has higher participation rate than females. Looking at work participation across regions, those in underdeveloped regions and regions like Addis Ababa, Dire Dawa and harari have registered relatively lower participation rate for almost all study periods. Furthermore, urban centers like Addis Ababa, Dire Dawa and Harari again have observed lower participation rate; the finding further shows that there is change in the trends in work participation between different periods, work participation rate showing a declining trend in recent year (2007) comparing to previous periods;
- Examining the levels, trends, patterns and characteristics of the unemployment situation in the country shows that unemployment rate has gone down in recent years. However unemployment still becomes urban phenomenon and for all age groups whether in urban or rural areas females show higher rate of unemployment than their male counterparts. Youth are the most affected groups by unemployment. Looking at the unemployment by education level those in the education category of higher education are most affected;
- The results for employment situation disaggregated by branches of economic activity, occupations and status of employment shows that most of the employed labor force are concentrated in self employment and

unpaid family works. In terms of industry, agriculture is still a dominant sector while wholesale and retail trade, manufacturing; and hotel and restaurant sectors have also some contribution to the country's economy. The proportion that the remaining sectors constitute negligible proportion at country level. Regarding occupational distribution the highest proportion of employed persons are engaged in elementary occupations. Next to this occupational group are persons engaged in skilled agricultural and fishery occupation. Crafts and related trade workers, service, shop and market sales workers respectively follow. Therefore, the finding shows that there is no as such to any significant change in the structure and composition of industry, occupation and status of employment

- Looking at the connection between work participation and socio-demographic factors both the descriptive and regression analysis showed that gender, age, disability status, being head of the household head, number of children a woman has (negative impact of higher number of children) and live birth for women, migration status, education and training and locatonal factors has impact on work participation.

Policy Implications

From the foregoing discussion a number of issues emerged, which have implications for policy. Some of the broad policy implications which emerged from the current study are as follows:

The labour absorption capacity of the modern sector in Ethiopia is still very low, while the number of job seekers is growing higher each year. Currently, there is a high and ever growing demand for employment opportunities in the country that far exceeds the supply. Creating sufficient job opportunities to eliminate or mitigate the problem of unemployment in urban areas is becoming a formidable challenge to be faced by policy makers.

Similarly an urban development policy has to be formulated to help build accelerated economic opportunities to create jobs. The policies for addressing the existing low work participation rate and unemployment problems in urban areas through designing different schemes like loan schemes for individuals organized to encourage small and micro enterprises.

From the results of study we observed that much of the employment generated in Ethiopia in the last decade has still been in the public sector as part of decentralization, rather than in the private sector. The task for the government, then, will be to boost private sector confidence and empower economic agents through improvements in the investment climate

It is also observed from the result of the study that at national level, the vast majority of people were absorbed by the main stay of the country's economy, i.e., the agricultural sector. About 80 percent of the nation's employed persons are engaged in agricultural sector and its percentage share has non shown change for the last decades. There fore, this shows that there is no shift in industrial composition in the country for the last so many years. The result further shows manufacturing and service sectors have smaller contribution to the country's economy. Thus considerably small contribution of the manufacturing and service sectors in the country is a reflection of the country's low level of development and suggests that lot to be done yet in economic, social, transport, finance, real state, and manufacturing and construction sectors.

In relation to the above mentioned problem there is a need for industrial development strategy that encourages industry to focus on labour intensiveness so as to achieve full employment by consuming the unemployed in larger amount.

From the result of the study we also observed that in Ethiopia, the majority of the employed populations concentrated self employed and unpaid family workers. The result further shows that self-employment is the dominant employment status among the male while employed females were highly dominated by unpaid family workers. Therefore, increasing skill potential of the people as well as designing micro-finance scheme in terms loan is necessary so as to shift and participate those people who are currently having categorized under unpaid family worker and self employment.

The result further shows that there is gender gap the rate of unemployment and work participation in Ethiopia where female unemployment rate is higher than male and male work participation is higher than females. Therefore, the empowerment of women at large will be critical to reducing the dramatic differential between male and female in terms of work participation, unemployment and type of employment they are engaged. Women are disadvantaged on every measure of labour market outcomes. They are constrained in the types of jobs they pursue by social norms regarding acceptable female behavior and childcare responsibilities may make it more difficult to become self-employed. While a comprehensive treatment of policy interventions to raise the status of women in society is well beyond the scope here, it is important to underscore that any employment-related program should be designed with the distributional impact by gender in mind.

The results of the study shows that those people in the education category beyond grade twelve are highly vulnerable to be unemployed. Moreover, people in the education category of higher education do not have access to job opportunities and have lower participation rate. This might happen in most case in Ethiopia due to skill mismatch. However, at the same time the result of the study shows that having some kind of skill in terms of training whether professional or vocational or technical training has a positive impact in work

participation. Therefore, to address the problem of lower participation of the educated people and their higher unemployment rate in the country a policy must be designed where the education policy focused on practice oriented training that suits the employing organizations.

In general, various policies for achieving steady economic and social development and full productive employment like rural development policies, strategies and programs, the industrial development strategy and urban development policy should be formulated so as to increase job opportunities and reduce the existing unemployment in the country.

Appendices

Table 1.1. Distribution of Population aged ten years and over by Sex, Activity status:
Ethiopia 1994-2007

	Urban			Rural		
	1994					
Activity Status	Male.	Female.	Both Sexes.	Male.	Female.	Both Sexes.
Economically Active	1639675	1140379	2780054	13474525	10383786	23858311
Economically Inactive	1003794	1779594	2783388	2286954	5028166	7315120
All	2643469	2919973	5563442	15761479	15411952	31173431
	1999					
Economically Active	1786541	1885068	3671609	12545448	9967148	22512596
Economically Inactive	751432	1181355	1932787	2518453	5379124	7897577
All	2537973	3066423	5604396	15063901	15346272	30410173
	2005					
Economically Active	2131022	2209247	4340269	14822435	13487624	28310059
Economically Inactive	1047263	1467589	2514852	1882199	3922893	5805092
All	3178285	3676836	6855121	16704634	17410517	34115151
	2007					
Economically Active	2881901	2282557	5164458	16369660	13793381	30163041
Economically Inactive	1781331	2465353	4246684	4598238	6806547	11404785
All	4663232	4747910	9411142	20967898	20599928	41567826

Source: Owen computation of CSA data

Table 1.2. Size and Growth of Labour Force aged 10 years and over by Residence status and Sex in Ethiopia

Residence	Gender	Labour Force in (Million)				Average Annual Addition			
		1994	1999	2005	2007	1994-1999	1999-2005	2005-2007	1994-2007
Urban	Male.	1.6	1.8	2.1	2.9	29373.2	57413.5	375440	95555.8
	Female.	1.1	1.9	2.2	2.3	148938	54029.8	36655	87859.8
	Both Sexes.	2.8	3.7	4.3	5.2	178311	111443	412095	183416
Rural	Male.	13.5	12.5	14.8	16.4	-185815	379498	773613	222703
	Female.	10.4	9.97	13.5	13.8	-83328	586746	152879	262277
	Both Sexes.	23.9	22.5	28.3	30.2	-269143	966244	926491	484979
Total	Male.	15.1	14.3	16.9	19.3	-156442	436911	1149052	318259
	Female.	11.5	11.9	15.7	16.1	65610.2	640776	189534	350136
	Both Sexes.	26.6	26.2	32.7	35.3	-90832	1077687	1338586	668395

Source: Owen elaboration of CSA data

Table 1.3. Distribution of population aged 10 years and over by activity status, 1994 to 2007

	Urban			Rural		
	1994					
Activity Status	Male.	Female.	Both Sexes.	Male.	Female.	Both Sexes.
Employed	1303289	864271	2167560	13389475	10301808	23691283
Unemployed	336386	276108	612494	85050	81978	167028
Non Active	1003794	1779594	2783388	2286954	5028166	7315120
All	2643469	2919973	5563442	15761479	15411952	31173431
	1999					
Activity Status	Male.	Female.	Both Sexes.	Male.	Female.	Both Sexes.
Employed	1458859	1243610	2702469	12510578	9931308	22441886
Unemployed	327682	641458	969140	34870	35840	70710
Non Active	751432	1181355	1932787	2518453	5379124	7897577
All	2537973	3066423	5604396	15063901	15346272	30410173
	2005					
Activity Status	Male.	Female.	Both Sexes.	Male.	Female.	Both Sexes.
Employed	1838313	1607779	3446092	14565489	12778290	27343779
Unemployed	292709	601468	894177	256946	709334	966280
Non Active	1047263	1467589	2514852	1882199	3922893	5805092
All	3178285	3676836	6855121	16704634	17410517	34115151
	2007					
Activity Status	Male.	Female.	Both Sexes.	Male.	Female.	Both Sexes.
Employed	2504877	1750147	4255024	16115481	13615510	29730991
Unemployed	377024	532410	909434	254179	177871	432050
Non Active	1781331	2465353	4246684	4598238	6806547	11404785
All	4663232	4747910	9411142	20967898	20599928	41567826

Source: Owen computation of CSA data

Figure 3.1. Trends in Work participation rate in Ethiopia : 1994-2007

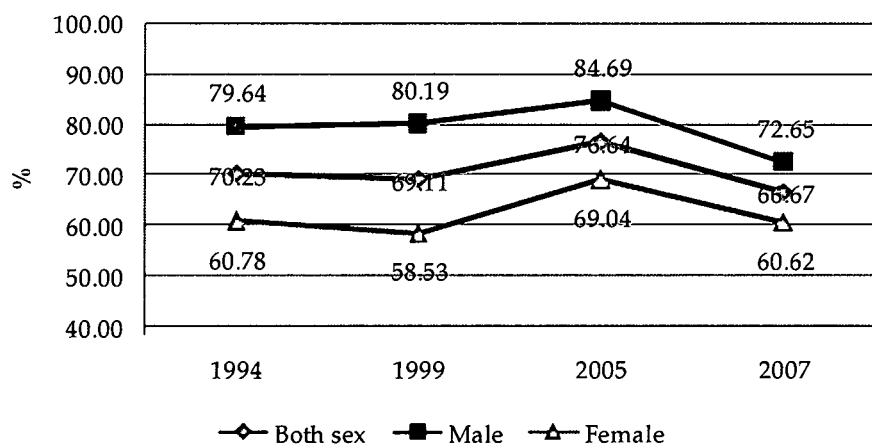


Table 1.4. Trends in Age Specific Work participation rate in rural areas (percent) 1994-2007

Age-	1994			1999			2005			2007		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
10-14	56.68	59.85	53.13	50.63	57.20	43.35	64.94	71.46	57.75	52.96	54.31	51.45
15-19	75.10	80.19	69.71	75.05	79.79	70.02	75.36	79.68	71.27	62.97	63.97	61.90
20-24	80.43	89.71	71.59	83.00	92.31	75.02	84.98	91.37	79.80	75.52	79.28	72.05
25-29	83.03	95.64	72.07	85.82	97.08	75.77	88.50	95.55	82.85	81.56	90.27	74.23
30-34	84.22	97.89	72.80	86.15	97.54	76.66	90.77	97.92	83.75	83.66	93.65	74.20
35-39	84.76	98.50	72.79	86.75	98.02	77.30	89.72	97.77	82.17	84.03	94.44	74.53
40-44	85.39	98.50	72.93	84.62	97.61	73.79	90.89	97.46	84.77	84.09	93.67	74.43
45-49	86.65	98.63	72.98	83.72	96.60	70.81	90.73	97.38	84.67	84.42	93.94	74.51
50-54	84.68	97.88	71.55	80.73	96.39	66.20	85.84	95.47	77.25	82.40	92.97	72.12
55-59	85.30	97.26	70.32	78.04	94.28	58.67	85.83	96.98	74.14	82.78	93.09	70.23
60-64	80.27	94.94	63.64	71.05	90.13	51.30	77.62	93.65	59.56	78.13	89.59	65.12
64+	67.75	82.69	47.03	48.98	65.58	26.58	58.06	74.83	36.13	67.57	77.44	54.39
Total	75.87	84.80	66.73	73.80	83.05	64.71	80.07	87.10	73.32	71.52	76.86	66.09

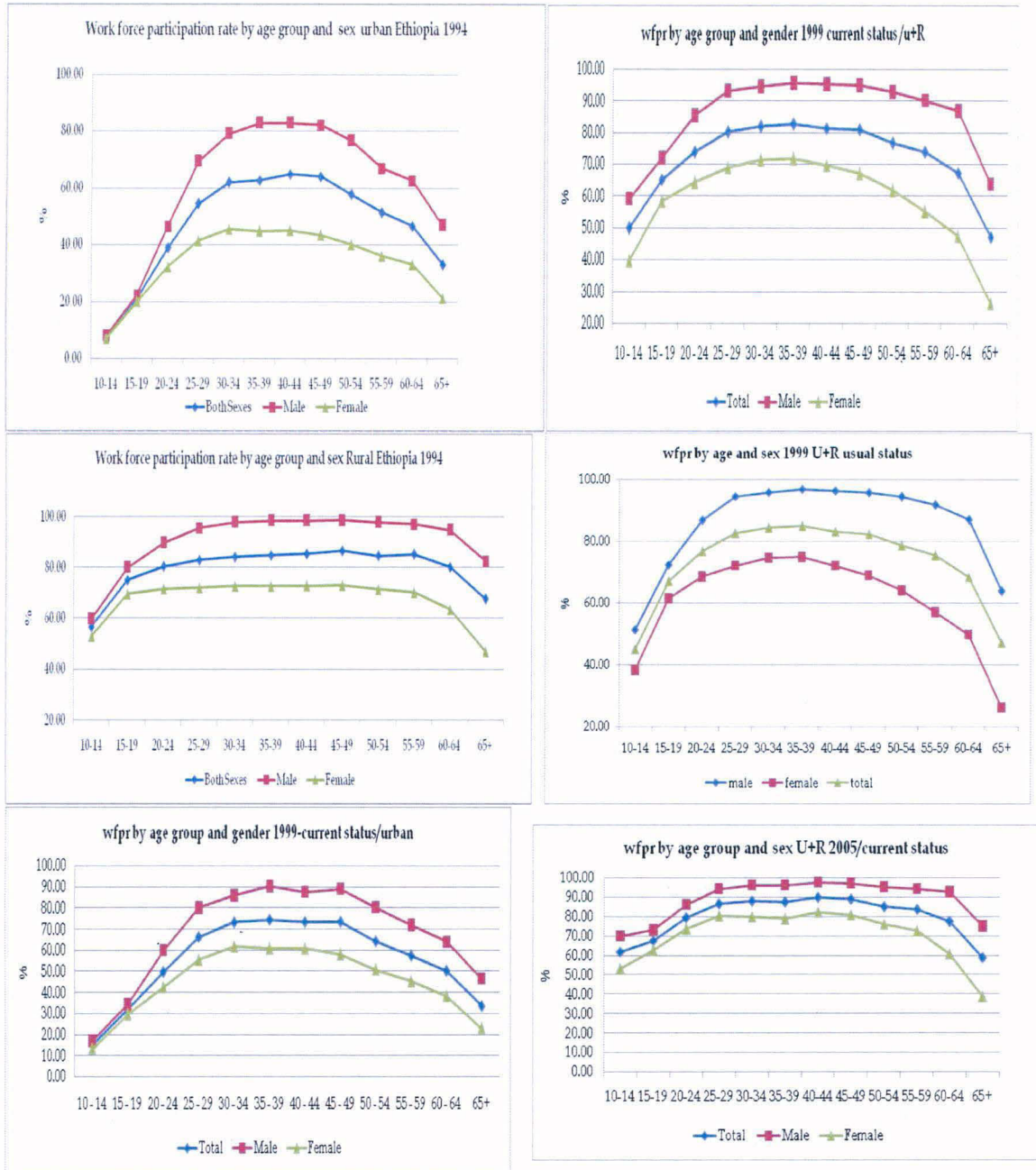
Source: Owen computation of CSA data

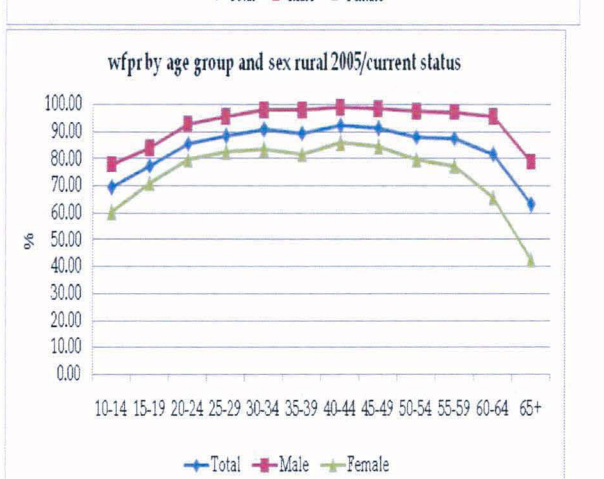
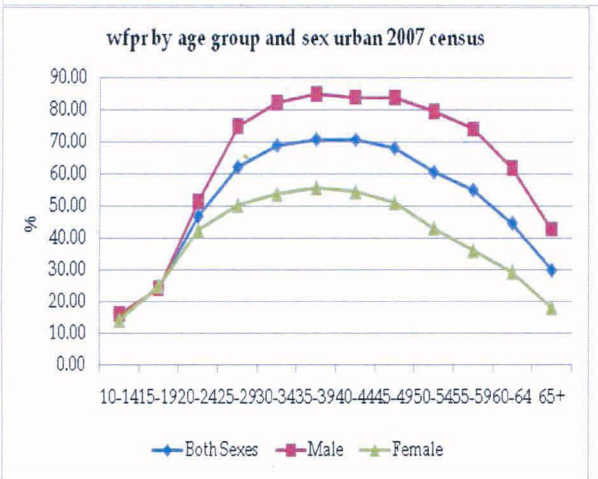
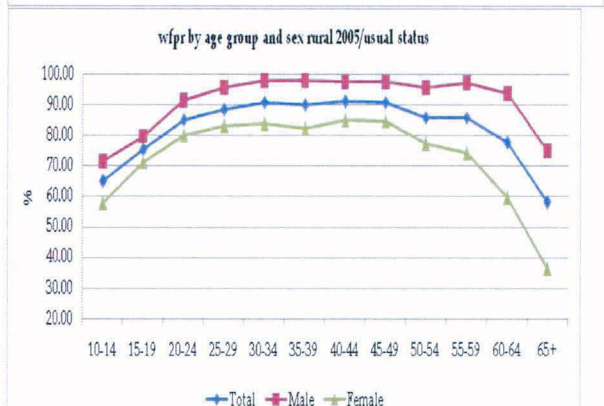
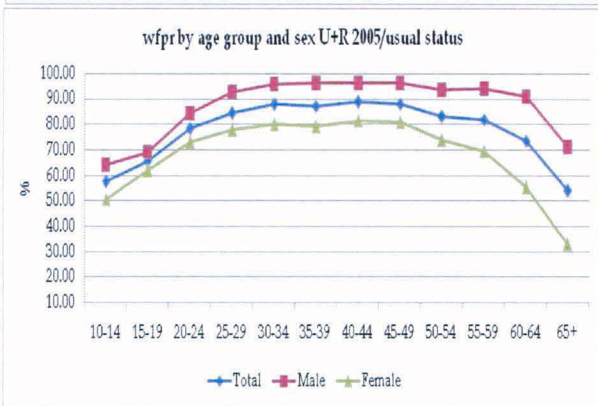
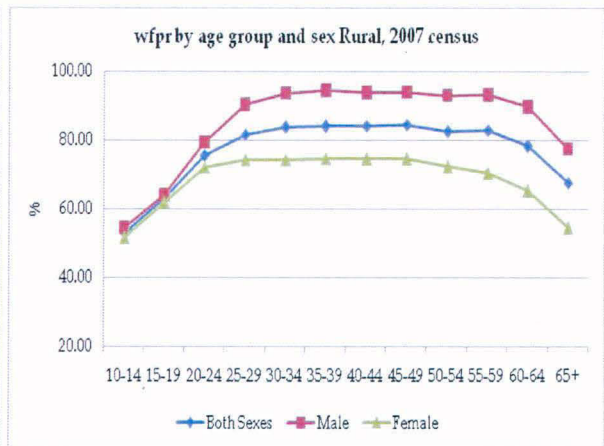
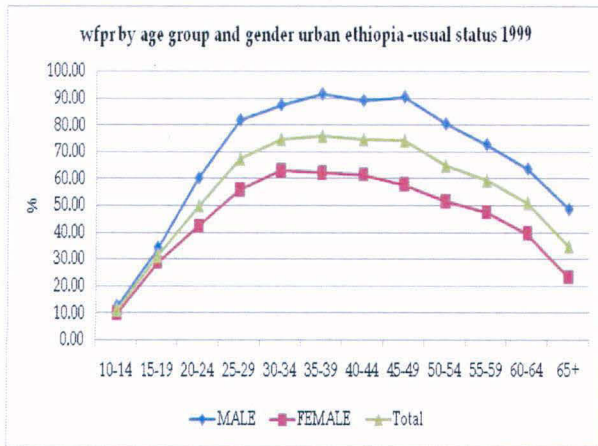
Table 1.5. Trends in Age Specific Work participation rate in urban areas (percent) 1994-2007

Age-	1994			1999			2005			2007		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
10-14	7.52	8.01	7.05	15.11	17.02	13.35	17.86	19.60	16.26	15.05	16.24	14.14
15-19	21.13	22.33	20.15	31.87	34.60	29.70	32.26	32.84	31.74	24.51	29.59	24.82
20-24	38.86	46.60	32.27	50.00	60.34	42.72	52.94	58.60	48.45	46.92	54.80	42.42
25-29	54.52	69.45	41.37	66.50	80.61	55.58	67.54	79.72	58.39	62.15	78.14	50.13
30-34	62.02	79.21	45.47	73.47	86.31	62.06	74.84	86.82	63.64	68.80	84.11	53.58
35-39	62.65	82.90	44.83	74.68	90.70	61.09	76.27	88.97	65.16	70.73	87.38	55.66
40-44	64.78	82.97	45.05	73.65	88.01	61.03	77.75	91.72	63.87	70.59	89.80	54.32
45-49	64.05	82.28	43.49	73.74	89.37	58.32	74.72	89.52	61.50	67.99	88.29	50.92
50-54	57.69	76.79	40.07	64.59	80.68	51.10	66.58	82.09	54.28	60.59	80.28	43.16
55-59	51.32	66.94	36.10	57.68	72.27	45.44	59.42	74.73	46.77	55.08	72.20	35.97
60-64	46.59	62.70	33.15	50.55	64.30	38.57	49.53	69.34	34.19	44.75	67.89	29.23
64+	33.04	46.92	21.30	33.79	46.80	23.21	31.80	46.56	19.19	29.89	43.17	18.16
Total	38.76	48.99	29.47	48.15	57.41	40.50	50.18	57.70	43.67	47.11	54.97	40.31

Source: Owen computation of CSA data

Figure 3.3. Age-specific workforce participation rate by sex and residence in Ethiopia: 1994 – 2007





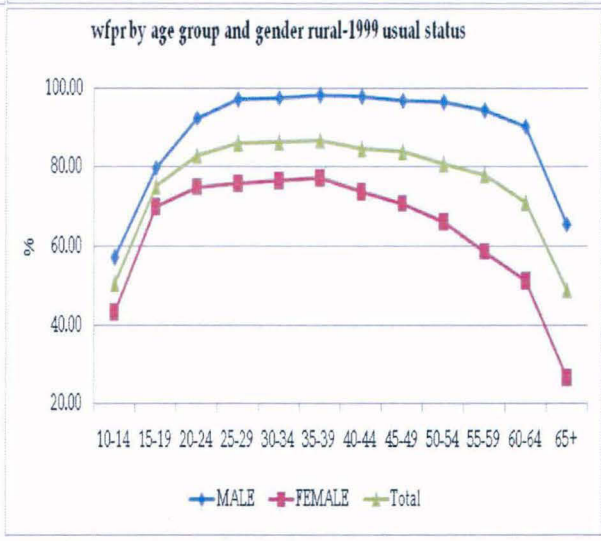
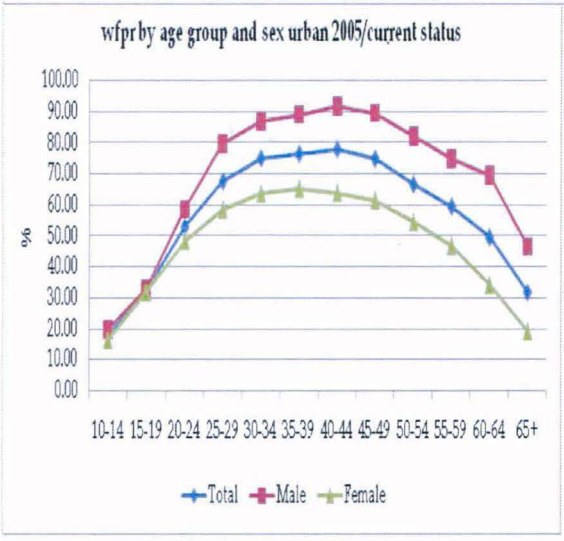
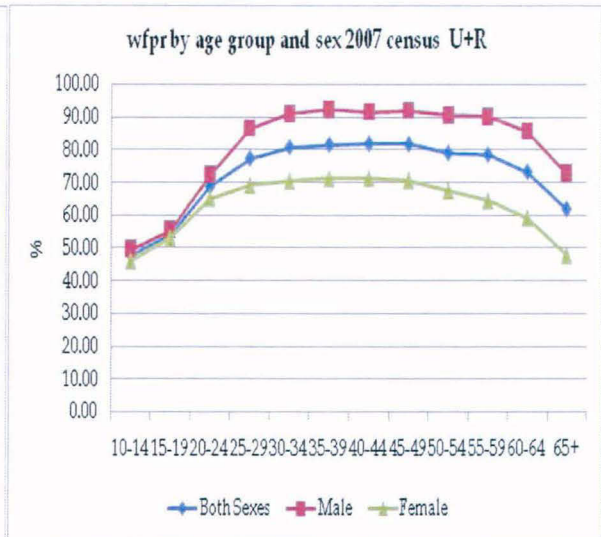
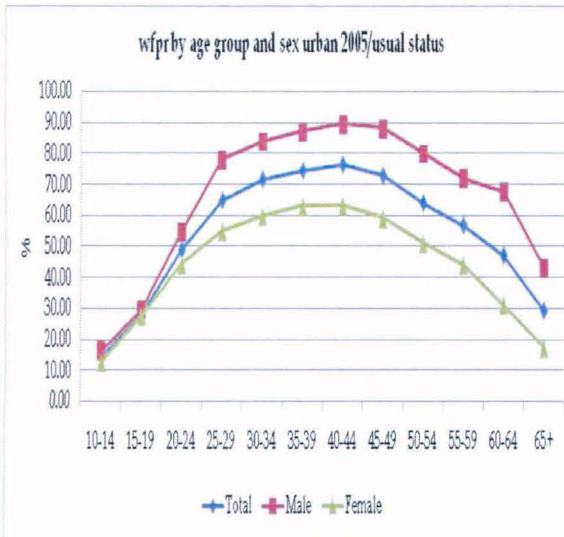


Table 1.6. Trends in Workforce participation rate by region, residence status and sex:
Current Status Approach

Regions	1999			2005		
	Urban+Rural	Urban	Rural	Urban+Rural	Urban	Rural
Tigray	67.10	47.30	70.54	73.19	50.24	78.80
Affar	67.05	52.82	72.54	64.88	52.36	75.31
Amhara	69.82	49.08	71.94	80.53	52.47	84.09
Oromiya	71.57	54.87	73.77	77.48	53.21	80.98
Somali	68.57	44.62	77.60	65.67	41.27	77.56
Benishangul_Gumuz	66.19	54.79	67.23	74.61	61.87	76.49
S.N.N.P	72.39	54.23	73.95	79.82	54.70	82.55
Gambella	54.80	48.39	56.64	38.12	38.12	0.00
Harari	54.36	48.42	62.89	57.64	45.23	73.69
Addis Ababa	40.48	40.25	64.91	44.40	44.13	68.96
Dire Dawa	54.02	43.06	79.29	53.58	44.45	82.25
Country	69.11	48.15	72.98	76.64	50.18	81.96

Source: Owen computation of CSA data

Table 1.7. Trends in Workforce participation rate by region, residence status and sex: Usual Status Approach

Regions	1999			2005		
	Urban+Rural	Urban	Rural	Urban+Rural	Urban	Rural
Tigray	69.57	48.36	73.25	71.37	45.78	77.63
Affar	69.37	54.01	75.29	64.52	50.71	76.01
Amhara	76.07	50.95	78.64	79.42	49.89	83.17
Oromiya	69.82	52.71	72.08	75.28	49.25	79.02
Somali	68.37	44.50	77.38	66.22	41.55	78.24
Benishangul_Gumuz	69.41	56.08	70.63	77.24	61.53	79.56
SNNP	69.63	52.57	71.10	76.15	50.81	78.91
Gambella	60.43	51.68	62.96	37.82	37.82	0.00
Harari	52.71	48.78	58.35	55.40	42.05	72.65
Addis Ababa	40.47	40.27	61.09	42.42	42.11	69.80
Dire Dawa	52.64	42.35	76.37	50.60	41.32	79.73
Country	69.74	47.75	73.80	74.55	47.11	80.07

Source: Owen computation of CSA data

Table 1.8. Percentage distribution of employed population aged ten years and over by Employment Status and regions in Ethiopia (Urban + Rural) 1994

Region	Employer	Self Employed	Government Employee	Private Employee	Member of Co-operative	Unpaid Family Worker	Others	Not Stated	Total
Tigray	2.24	42.78	2.34	1.92	0.13	49.06	0.08	1.44	100
Affar	2.24	29.03	2.48	2.42	0.49	62.39	0.00	0.94	100
Amhara	2.97	36.13	1.33	3.05	0.07	55.92	0.08	0.45	100
Oromiya	2.55	39.01	2.17	2.40	0.10	53.16	0.06	0.56	100
Somali	4.4	32.6	1.1	1.4	0.5	58.5	0.2	1.4	100
Benishangul-gumuz	4.22	37.99	2.12	1.37	0.09	52.99	0.06	1.16	100
SNNP	1.63	51.48	1.86	1.07	0.10	43.40	0.07	0.38	100
Gambella	3.97	42.13	12.85	1.19	0.47	35.89	0.31	3.20	100
Harari	3.28	43.14	16.92	5.88	0.83	24.71	0.39	4.85	100
DireDawa	4.48	38.97	17.86	9.84	0.55	19.23	0.62	8.45	100
Addis Ababa	1.91	25.06	34.96	29.76	0.33	2.12	0.97	4.89	100
Country	2.62	39.50	2.75	2.97	0.14	51.17	0.10	0.76	100

Source: Computed from CSA data

Table 1.9 .Percentage distribution of employed population aged ten years and over by Employment status and regions in Ethiopia (Urban + Rural) 2007

Region	Gov't	Gov't Parastatal	Private	NGO /INT L Empl oyees	Domes tic Worke rs	Oth er Emp loyees	Self Empl oyed	Unpaid Family Worker	Appre ntices	Coopera tive Member s	Emplo yer	Other	Total
Tigray	4.28	1.71	2.59	0.33	2.29	0.45	56.87	18.96	0.51	0.26	0.27	11.47	100
Affar	4.43	1.88	3.64	0.22	1.29	0.30	49.89	20.49	0.30	0.11	0.15	17.30	100
Amhara	2.48	0.52	1.16	0.15	2.13	0.25	57.39	29.49	0.41	0.06	0.34	5.62	100
Oromiya	2.39	0.62	1.90	0.16	1.68	0.28	61.78	23.24	0.37	0.16	0.24	7.19	100
Benishangu I-Gumuz	4.01	0.21	1.37	0.19	2.03	0.27	58.38	28.90	0.35	0.04	0.33	3.92	100
S.N.N.P	2.41	0.57	1.56	0.22	1.12	0.24	59.13	24.54	0.57	0.09	0.11	9.44	100
Gambella	6.39	2.75	3.31	0.50	3.59	0.26	50.00	19.80	0.64	0.13	0.27	12.36	100
Harari	14.57	1.28	6.25	0.57	3.40	0.95	46.09	11.54	0.37	0.25	0.17	14.56	100
Addis Ababa	17.46	3.34	29.76	2.02	12.98	2.20	27.00	1.27	0.13	0.40	0.48	2.97	100
Dire Dawa	11.43	2.54	11.27	0.79	5.14	1.27	36.91	10.43	0.59	0.58	0.27	18.78	100
Somali	1.45	0.20	1.41	0.05	0.52	0.19	74.38	16.92	0.11	0.06	0.04	4.68	100
Country	3.16	0.76	2.74	0.24	2.08	0.34	58.84	23.60	0.41	0.13	0.24	7.46	100

Source: Computed from CSA data

Table 1.10 Trends in Age Specific Unemployment rate in urban areas (percent) 1994-2007

Age Group	1994			1999			2005			2007		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
10-14	29.07	28.01	30.18	30.85	25.72	36.03	13.14	12.48	13.86	21.62	20.08	23.19
15-19	37.74	37.23	38.20	38.21	31.69	43.20	25.88	20.60	30.24	24.04	22.44	25.42
20-24	38.74	36.24	41.54	38.54	29.04	45.77	31.17	23.27	37.37	22.27	17.35	27.46
25-29	23.31	21.85	25.37	26.36	16.02	35.30	23.62	14.44	31.19	17.64	12.02	24.43
30-34	14.65	14.70	14.57	19.38	11.31	27.53	17.05	9.35	25.15	14.69	9.81	22.01
35-39	11.22	11.88	10.13	18.02	7.62	28.19	14.58	7.83	21.45	13.13	8.44	19.74
40-44	10.38	11.57	7.89	16.51	8.47	24.87	13.11	5.16	22.39	12.29	8.56	18.53
45-49	9.61	10.93	6.65	14.63	7.90	23.14	12.68	6.68	19.42	13.09	8.96	19.60
50-54	9.51	10.70	7.31	14.95	12.37	18.14	15.20	9.67	20.99	13.80	9.62	20.05
55-59	9.44	10.55	7.35	18.69	19.56	17.49	16.74	15.04	18.89	14.70	10.96	21.54
60-64	10.01	11.95	6.78	17.96	19.33	15.89	15.09	15.34	14.71	15.55	13.57	19.08
64+	9.99	10.73	8.56	16.73	19.82	11.11	13.02	14.01	10.89	15.45	14.09	18.23
All ages	22.19	20.66	24.39	26.40	18.34	34.03	20.60	13.74	27.23	17.61	13.08	23.33

Source: Owen computation of CSA data

Table 1.11. Trends in Age Specific Unemployment rate in rural areas (percent) 1994-2007

Age-group	1994			1999			2005			2007		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
10-14	0.86	0.73	1.03	0.23	0.22	0.23	4.72	3.39	6.48	1.83	1.85	1.80
15-19	1.33	1.15	1.54	0.52	0.54	0.49	5.48	3.40	7.59	2.22	2.45	1.96
20-24	1.14	1.19	1.09	0.62	0.54	0.70	3.69	1.17	5.92	1.91	2.30	1.52
25-29	0.62	0.67	0.55	0.43	0.38	0.49	3.33	1.43	5.03	1.24	1.42	1.05
30-34	0.37	0.37	0.37	0.24	0.17	0.30	2.15	0.52	3.95	1.08	1.13	1.02
35-39	0.29	0.28	0.30	0.17	0.12	0.23	2.24	0.64	3.96	1.01	1.04	0.98
40-44	0.29	0.24	0.34	0.14	0.11	0.18	2.39	1.08	3.76	1.07	1.19	0.90
45-49	0.23	0.17	0.31	0.19	0.23	0.14	1.93	0.65	3.24	0.93	1.05	0.78
50-54	0.25	0.17	0.37	0.09	0.00	0.20	2.01	0.69	3.42	0.87	0.99	0.71
55-59	0.29	0.23	0.40	0.08	0.12	0.00	1.81	0.34	3.76	0.78	0.85	0.67
60-64	0.30	0.21	0.47	0.08	0.00	0.23	2.55	1.11	4.98	0.81	0.94	0.62
64+	0.56	0.43	0.90	0.03	0.03	0.05	2.73	1.84	5.05	0.68	0.75	0.56
All ages	0.70	0.63	0.79	0.31	0.28	0.36	3.41	1.73	5.26	1.43	1.55	1.29

Source: Owen computation of CSA data

Table 1.12. Trends in Urban and Rural unemployment rate by age-group, sex and residence (%)

Age-Group	Residence	1994			1999			2005			2007		
		Male	Female	Total	Male	Female	Total	Male	Femal	Total	Male	Femal	Total
10-14	Urban	3.12	3.05	3.08	5.89	7.52	6.74	2.79	2.62	2.70	1.94	2.22	4.15
	Rural	0.44	0.55	0.49	0.13	0.10	0.11	2.50	4.00	3.22	0.54	0.45	0.99
15-24	Urban	18.98	16.92	17.86	19.5	28.37	24.57	12.1	20.12	16.4	4.24	6.00	16.4
	Rural	0.99	0.96	0.98	0.46	0.10	0.44	2.09	5.47	3.89	0.86	0.59	1.45
24_+	Urban	12.50	6.78	9.55	11.4	20.30	16.26	9.30	18.02	14.0	4.45	6.43	10.8
	Rural	0.33	0.30	0.31	0.16	0.18	0.17	0.90	3.35	2.16	0.50	0.33	0.83

Source: Owen computation of CSA data

Table 1.13. Unemployment rate by Literacy Status and Gender: Urban Ethiopia
(1994-2005)

Year	Distr.of Educ/unem.rat	Literate		Illiterate		Total
		Male	Female	Male	Female	
1994	Distr.of Educ (in%)	45.43	32.17	11.08	11.32	100.00
	unemployment rate	25.76	35.03	20.48	16.68	
1999	Distr.of Educ (in%)	30.26	48.26	3.54	17.94	100.00
	unemployment rate	20.01	41.62	10.69	22.82	
2005	Distr.of Educ (in%)	29.15	48.36	3.58	18.91	100.00
	unemployment rate	14.36	31.57	10.14	20.14	

Source: Owen computation of CSA Data

Table 1.14. Unemployment rate by Literacy Status and Gender: Rural Ethiopia
(1994-2005)

Year	Distr.of Educ or unem.rat	Literate		Illiterate		Total
		Male	Female	Male	Female	
1994	Distr.of Educ (in %)	12.38	5.22	33.49	48.92	100.00
	Unemployment rate	1.28	2.00	0.90	1.42	
1999	Distr.of Educ (in %)	27.48	13.43	21.83	37.26	100.00
	unemployment rate	0.51	1.20	0.18	0.29	
2005	Distr.of Educ (in %)	15.22	18.01	11.37	55.39	100.00
	Unemployment rate	2.49	8.13	1.23	4.72	

Source: Owen computation of CSA Data

Table 1.15. Trends in unemployment rate by region, residence status and sex:
Current Status Approach

Regions	1999			2005		
	Urban+Rural	Urban	Rural	Urban+Rural	Urban	Rural
Tigray	6.06	19.81	4.15	5.34	18.29	2.94
Affar	10.37	23.16	5.98	11.42	18.78	6.52
Amhara	7.65	22.48	6.40	3.23	15.95	2.05
Oromiya	6.12	19.04	4.62	4.13	15.04	2.95
Somali	12.84	32.00	7.16	11.09	29.74	4.52
Benishangul-Gumuz	5.17	18.79	3.97	4.36	10.34	3.59
SNNP	5.51	18.10	4.58	3.52	15.03	2.57
Gambella	12.54	21.05	10.15	25.63	25.63	-
Harari	21.50	29.07	11.01	16.81	27.12	6.29
Addis Ababa	37.76	38.08	5.70	31.16	31.44	11.03
Dire Dawa	24.59	35.32	4.82	23.94	32.46	3.24
Country	8.02	26.40	5.14	5.00	20.60	2.64

-Data not available

Table 1.16. Trends in unemployment rate by region, residence status and sex:
Usual Status Approach

Regions	1999			2005		
	Urban+Rural	Urban	Rural	Urban+Rural	Urban	Rural
Tigray	0.55	3.82	0.17	5.37	19.76	2.85
Affar	1.83	5.66	0.71	8.17	16.24	2.99
Amhara	0.63	5.98	0.25	4.08	15.53	3.07
oromiya	0.79	5.73	0.29	5.07	15.95	3.96
Somali	4.10	15.36	1.25	8.92	25.32	3.44
Benishangul-Gumuz	0.29	2.75	0.10	3.08	7.39	2.56
SNNP	0.71	4.94	0.43	3.97	15.64	3.03
Gambella	1.06	4.60	0.18	22.58	22.58	0.00
Harari	6.72	11.57	0.15	16.22	28.00	4.52
Addis Ababa	28.63	28.90	3.78	29.91	30.19	10.83
Dire Dawa	14.90	23.06	1.53	23.40	32.26	2.68
Country	1.95	13.83	0.31	5.56	20.50	3.41

Source: Owen computation of CSA data

-Data

not

available

Table 1.17. Work participation rate by marital status and age group: urban Ethiopia, 2005

Age Group	Never married		Married		Divorced		Widowed		Separated	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
15-19	32.67	30.33	44.73	31.39	35.25	67.05	-	84.18	-	59.72
20-24	55.04	49.46	85.34	40.87	48.40	75.86	20.83	70.98	83.35	69.71
25-29	70.34	63.69	92.37	51.10	85.02	80.79	54.80	67.27	75.91	71.72
30-34	72.85	60.92	93.49	58.55	83.12	82.75	90.23	82.66	82.40	67.12
35-39	74.39	65.03	92.42	59.05	83.11	84.64	93.39	72.29	82.73	80.39
40-44	66.16	61.27	94.18	56.75	88.07	79.93	92.67	71.07	85.96	78.03
45-49	61.10	76.18	91.29	55.60	81.48	72.23	81.09	64.37	93.52	69.91
50-54	70.99	52.39	83.29	50.58	59.92	62.54	76.78	56.16	87.08	47.33
55-59	66.20	73.06	77.33	42.45	44.57	61.86	59.27	43.91	78.33	60.53
60-64	86.35	79.31	71.38	28.67	68.74	44.47	41.57	32.15	69.28	43.03
64+	44.96	12.21	51.44	19.44	36.66	25.88	27.33	17.16	13.52	31.53

Source: Own computation from CSA data

Table 1.18. Work participation rate by marital status and age group: Rural Ethiopia, 2005

Age Group	Never married		Married		Divorced		Separated		Widowed	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
15-19	79.19	65.86	89.34	78.72	82.25	88.19	84.58	67.37	-	88.64
20-24	86.64	75.11	97.97	81.25	90.13	73.59	-	82.09	-	94.43
25-29	87.38	74.99	98.13	83.44	83.63	82.49	92.18	74.90	-	87.29
30-34	91.40	77.67	98.56	83.67	96.61	86.16	94.26	82.82	88.57	85.97
35-39	92.48	83.21	98.02	81.49	95.27	85.90	87.27	81.58	99.58	88.12
40-44	94.77	68.74	97.90	83.73	75.44	89.39	89.74	87.17	91.40	89.77
45-49	-	59.62	97.77	85.11	80.13	79.83	81.42	69.58	95.04	86.50
50-54	79.46	37.41	96.29	77.99	82.83	78.41	-	59.81	86.32	77.02
55-59	98.52	98.04	97.51	73.34	84.97	75.68	94.08	87.62	92.01	74.43
60-64	-	18.18	94.68	65.74	74.15	52.01	81.77	70.89	82.00	56.01
64+	84.02	37.91	78.73	47.36	61.65	38.37	54.86	31.61	48.12	31.70

Source: Own computation from CSA data

Figure 4.5. Forms of migration in Ethiopia

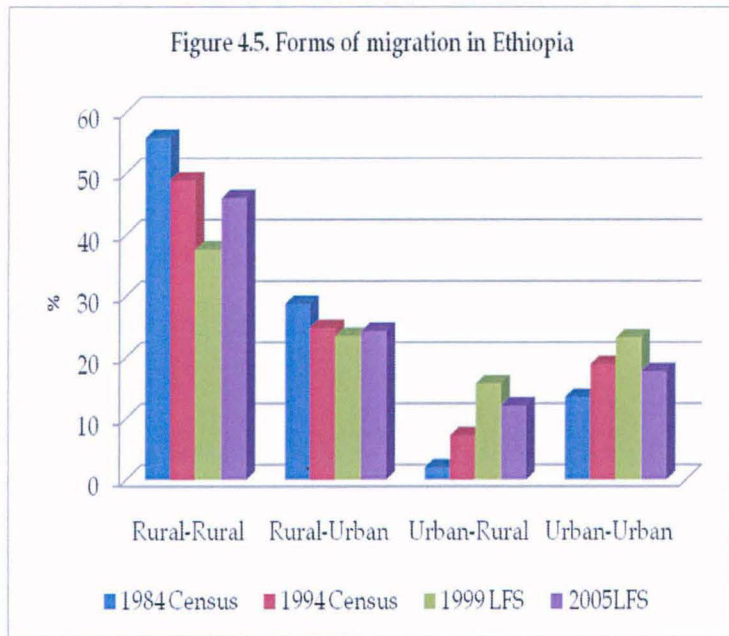


Table 1.19. Work participation rate by migration status, age group and gender: Urban Ethiopia,2005

Age group	Non migrant			Recent migrants(<2yrs)			Migrants(2-6 yrs)			Long time migrants (7+ yrs)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
10-14	17.53	13.96	15.77	28.64	31.37	30.28	24.96	15.91	19.67	21.59	16.61	18.84
15-19	32.49	24.99	28.70	31.59	41.28	36.50	32.94	37.72	35.60	35.95	32.28	33.88
20-24	53.09	44.25	48.43	67.62	56.25	61.36	60.18	50.74	54.51	64.74	49.49	55.90
25-29	70.79	55.86	63.00	83.55	60.47	70.60	87.78	61.24	72.88	85.60	58.59	68.34
30-34	79.07	60.02	69.70	89.04	67.21	79.97	91.54	63.20	78.97	90.17	65.47	75.98
35-39	82.62	61.00	71.07	88.83	58.52	76.19	89.93	59.69	77.71	91.66	68.15	78.17
40-44	89.55	63.19	74.99	93.05	61.71	80.13	92.75	64.73	83.96	92.26	64.14	77.78
45-49	88.81	61.42	74.16	83.38	67.93	77.40	94.10	62.33	81.68	89.46	61.28	74.06
50-54	77.70	56.81	64.32	82.14	46.81	62.12	87.56	44.12	62.81	82.54	52.68	66.39
55-59	75.62	48.69	60.23	59.06	8.59	43.34	68.13	34.25	50.20	75.61	47.68	60.26
60-64	75.13	35.60	50.95	51.27	31.88	35.83	56.22	18.92	31.99	69.05	35.25	50.81
64+	43.68	16.01	26.98	42.91	6.31	17.36	36.75	8.07	19.00	48.56	22.03	35.00

Source: Owen computation of CSA data

Table 1.20. Work participation rate by migration status, age group and gender :Rural Ethiopia, 2005

Age group	Non migrant		Recent migrants (<2yrs)		Migrants(2-6 yrs)		Long time migrants (7+ yrs)	
	Male	Female	Male	Female	Male	Female	Male	Female
10-14	72.67	58.39	28.75	30.56	72.37	49.55	65.17	57.95
15-19	80.54	72.24	60.64	51.71	77.94	73.17	75.29	68.87
20-24	91.54	80.16	83.82	67.34	94.26	81.75	91.97	81.48
25-29	96.13	82.62	84.96	71.97	95.49	86.55	94.32	85.30
30-34	98.05	84.60	96.02	53.51	96.76	86.25	98.35	83.88
35-39	98.12	83.16	91.35	59.95	97.36	76.28	98.09	81.85
40-44	97.74	85.61	95.99	50.26	91.42	99.46	97.50	85.09
45-49	98.02	85.04	96.68	90.28	95.69	78.40	94.55	83.82
50-54	95.91	77.85	93.67	52.78	97.17	56.40	94.07	78.32
55-59	96.74	73.17	92.21	39.7	88.56	73.21	97.15	76.77
60-64	93.94	60.08	94.95	29.62	83.2	93.25	92.15	57.14
64+	76.54	36.94	37.70	5.88	75.27	6.62	72.27	36.68

Source: Owen computation of CSA data

Table 1.21. Distribution of Work participation rate by Literacy Status and Gender in urban and Rural Ethiopia, 1994-2005

Literacy Status	Sex	Urban		
		1994	1999	2005
		WPR/% of employed	WPR/% of employed	WPR/% of employed
Literate	Male	42.02 (45.12)	55.04 (43.39)	55.89 (45.12)
	Female	23.18 (20.56)	34.31 (24.27)	38.74 (27.19)
Illiterates	Male	54.94 (14.82)	69.72 (10.59)	70.43 (8.23)
	Female	37.14 (19.50)	50.71 (21.75)	53.15 (19.46)
Rural				
Literate	Male	73.19 (11.50)	74.72 (17.01)	81.85 (21.06)
	Female	51.42 (3.08)	48.25 (3.49)	60.65 (7.19)
Illiterates	Male	87.34 (44.41)	87.33 (38.73)	91.00 (32.20)
	Female	68.56 (41.00)	66.67 (40.76)	76.23 (39.54)

Source: Owen computation of CSA data
 Figures in parenthesis indicates percentage of employed population

Table 1.22. Work participation rate by educational qualification and sex: Urban
Ethiopia, 1994- 2005

Educational Status	1994		1999		2005	
	Male	Female	Male	Female	Male	Female
Illiterate	54.94 (14.82)	37.14 (19.50)	69.72 (10.59)	50.72 (21.76)	70.43 (8.23)	53.15 (19.46)
Non-formal	54.90 (3.74)	37.29 (2.54)	70.38 (2.80)	47.92 (1.42)	72.83 (2.41)	49.65 (1.25)
Grade 1-6	35.50 (14.80)	18.48 (7.39)	46.58 (14.28)	30.20 (9.42)	50.37 (20.20)	34.45 (14.42)
Grade 7-8	35.25 (6.27)	16.66 (2.70)	49.40 (6.89)	30.25 (4.26)	49.59 (12.22)	35.17 (7.24)
Grade 9-11	37.09 (5.92)	18.82 (2.24)	46.54 (5.47)	25.39 (2.63)	44.16 (8.92)	29.16 (4.59)
Completed Grade 12	53.14 (8.63)	34.04 (3.68)	69.63 (7.86)	45.44 (4.04)	74.61 (9.90)	53.94 (5.83)
Certificate	79.38 (1.84)	69.69 (0.90)	90.62 (1.93)	82.11 (1.15)	88.20 (2.26)	79.13 (1.88)
Above certificate	59.59 (3.92)	65.88 (1.11)	81.47 (4.14)	72.42 (1.35)	85.93 (6.48)	74.81 (2.40)

Source: Own computation from CSA data

Figures in parenthesis indicates percentage of employed population

Table 1.23. Work participation rate by educational qualification and sex: Rural

Ethiopia, 1994- 2005

Educational Status	1994		1999		2005	
	Male	Female	Male	Female	Male	Female
Illiterate	87.34 (44.41)	68.56 (41.00)	87.33 (38.74)	66.67 (40.78)	91.00 (32.20)	76.23 (39.54)
Non-formal	83.81 (3.04)	76.52 (1.04)	90.16 (4.18)	65.44 (0.41)	91.38 (10.75)	75.77 (1.46)
Grade 1-6	67.24 (5.94)	43.10 (1.62)	68.70 (10.45)	45.09 (2.58)	80.48 (52.57)	59.35 (20.80)
Grade 7-8	76.32 (1.19)	48.65 (0.26)	79.71 (1.45)	57.16 (0.34)	78.66 (7.39)	59.57 (2.05)
Grade 9-11	74.06 (0.57)	42.56 (0.10)	79.74 (0.51)	44.50 (0.08)	77.70 (2.04)	66.74 (0.55)
Completed Grade 12	82.24 (0.31)	54.52 (0.05)	90.35 (0.27)	64.91 (0.05)	90.48 (0.99)	80.13 (0.21)
Certificate	96.58 (0.07)	92.59 (0.01)	97.43 (0.11)	0.00 (0.02)	95.48 (0.67)	85.54 (0.34)
Above certificate	49.46 (0.02)	60.00 (0.00)	87.55 (0.01)	0.00 (0.00)	72.71 (0.13)	48.69 (0.04)

Source: Own computation from CSA data

Figures in parenthesis indicates percentage of employed population

Table 1.24. Work participation rate by educational status, age group, sex and residence, 1999

Educational Status	Urban						Rural					
	10-14		15-24		25+		10-14		15-24		25+	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Illiterate	40.16	26.97	76.29	58.64	75.83	51.72	70.33	49.47	93.74	75.00	91.36	68.10
Non - formal	26.83	13.37	62.30	54.52	75.06	51.43	49.16	33.84	86.49	73.45	94.91	74.88
Grade 1 - 6	13.29	9.96	54.15	37.19	83.06	53.87	28.55	17.23	70.43	57.53	97.79	77.72
Grade 7 - 8	10.29	8.14	36.45	24.86	82.12	53.15	22.22	12.82	62.43	54.51	95.81	69.53
Grade 9 - 11	6.74	10.01	28.36	18.31	81.47	46.92	36.16	0.00	53.20	36.65	93.33	57.61
Completed grade 12	-	-	49.50	32.49	78.88	56.25	-	-	80.56	51.42	93.32	80.39
Certificate	-	-	80.77	73.79	91.32	83.85	-	-	-	-	96.98	0.00
Above Certificate	-	-	50.02	42.06	86.77	81.95	-	-	-	-	87.55	0.00

Table 1.25. Work participation rate by educational status, age group, sex and residence, 2005

Educational Status	Urban						Rural					
	10-14		15-24		25+		10-14		15-24		25+	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Illiterate	34.01	33.83	77.77	62.36	74.23	52.26	79.48	64.98	94.05	80.21	93.47	76.94
1-6	18.25	13.69	57.45	41.28	84.04	56.68	63.17	47.20	78.66	63.15	97.05	83.86
7-8	18.36	13.34	36.12	29.05	82.63	55.93	51.53	41.38	68.68	49.25	94.01	84.16
Grade 9-11	21.93	6.81	26.19	20.55	78.17	53.75	0.00	0.00	61.73	54.47	91.88	86.15
Non formal	21.53	19.64	74.26	56.85	74.80	52.79	55.05	49.30	85.62	72.54	95.67	85.70
Completed grade 12	-	-	51.25	43.07	81.86	59.06	-	-	76.99	65.39	92.91	92.97
certificates	-	-	56.91	63.46	91.85	85.60	-	-	91.70	77.33	98.61	99.92
Above certificate	-	-	62.40	49.76	90.40	85.60	-	-	64.70	48.29	85.76	0.00

Source: Computed from CSA data

Table 1.26. Correlation matrix for regression analysis

	curr_p-t	Age10_14	Age15_24	Age25_34	Age35_44	Age45_54	Age55_64	Age_65
curr_part	1.00							
Age10_14	-0.02	1.00						
Age15_24	-0.14	-0.03	1.00					
Age25_34	0.10	-0.02	-0.45	1.00				
Age35_44	0.12	-0.02	-0.34	-0.25	1.00			
Age45_54	0.06	-0.01	-0.26	-0.19	-0.15	1.00		
Age55_64	-0.03	-0.01	-0.20	-0.14	-0.11	-0.08	1.00	
Age_65	-0.14	-0.01	-0.18	-0.13	-0.10	-0.08	-0.06	1.00
urban	-0.31	0.00	0.09	-0.02	-0.04	-0.04	-0.03	-0.01
Sex_r	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.01
head	0.08	-0.02	-0.28	-0.05	0.08	0.16	0.19	0.19
never_marr~d	-0.16	0.06	0.59	-0.17	-0.24	-0.20	-0.15	-0.14
married	0.12	-0.04	-0.28	0.24	0.18	0.04	-0.07	-0.15
DivWa_sep	0.03	-0.02	-0.30	-0.11	0.04	0.17	0.25	0.33
no_children	-0.15	0.05	0.62	-0.18	-0.26	-0.21	-0.15	-0.13
one_children	-0.01	-0.01	0.11	0.03	-0.08	-0.07	-0.05	-0.02
TwoT_child~n	0.06	-0.02	-0.13	0.21	0.00	-0.05	-0.04	-0.03
four_child~n	0.10	-0.03	-0.57	-0.01	0.30	0.30	0.21	0.16
Birth_12	0.03	-0.01	0.00	0.17	-0.03	-0.10	-0.08	-0.08
non_migrant	0.09	0.02	0.11	-0.01	-0.05	-0.05	-0.03	-0.04
recent_mig~t	-0.05	0.00	0.16	-0.03	-0.07	-0.06	-0.05	-0.03
migrant	-0.06	0.00	0.14	0.02	-0.08	-0.08	-0.06	-0.05
long_migrant	-0.03	-0.02	-0.29	0.01	0.14	0.14	0.10	0.09
Training_re	0.04	-0.01	-0.01	0.07	0.02	-0.03	-0.05	-0.05
Illiterate	0.21	-0.02	-0.30	-0.04	0.09	0.17	0.17	0.18
grade1_6	-0.06	0.04	0.17	-0.02	-0.05	-0.07	-0.07	-0.09
grade7_8	-0.14	0.01	0.17	0.00	-0.07	-0.08	-0.07	-0.07
grade9_11	-0.17	-0.01	0.20	-0.04	-0.08	-0.08	-0.07	-0.07
grade12_co~d	-0.03	-0.01	-0.03	0.13	0.00	-0.05	-0.06	-0.06
higher_ed	0.06	-0.01	-0.03	0.05	0.03	-0.01	-0.03	-0.04
non_formal	0.00	0.01	-0.05	-0.02	0.04	0.03	0.02	0.02
Disability~a	-0.08	0.00	-0.07	-0.04	-0.01	0.02	0.07	0.16
region_1	0.01	0.00	-0.02	0.00	-0.01	0.01	0.02	0.02
region_2	-0.01	0.02	-0.01	0.01	0.03	0.00	-0.02	-0.02
region_3	0.04	-0.01	-0.01	-0.02	0.00	0.01	0.02	0.02
region_4	0.04	0.00	0.01	-0.01	0.00	0.00	0.00	0.00
region_5	-0.04	0.01	-0.02	0.01	0.02	0.00	-0.01	0.00
region_6	0.04	0.00	0.02	0.01	0.00	-0.02	-0.01	-0.02
region_7	0.06	-0.01	0.00	0.01	0.00	0.00	-0.01	-0.02
region_12	-0.03	0.00	0.01	0.01	-0.01	0.00	-0.01	-0.01
region_13	-0.01	0.01	-0.02	0.01	-0.01	-0.01	0.02	0.02
region_14	-0.14	0.00	0.02	0.00	-0.02	0.00	0.00	0.00
region_15	0.00	0.00	-0.02	0.01	0.01	0.00	0.00	0.00

Table 1.26. continued								
	urban	Sex_r	head	never_~d	married	DivWa_~p	no_chi~n	one_ch~n
urban	1.00							
Sex_r	0.00	1.00						
head	0.10	0.02	1.00					
never_marr~d	0.25	0.01	-0.22	1.00				
married	-0.26	-0.01	-0.30	-0.63	1.00			
DivWa_sep	0.05	0.00	0.61	-0.32	-0.53	1.00		
no_children	0.22	0.00	-0.22	0.82	-0.52	-0.26	1.00	
one_children	0.04	0.00	0.00	-0.16	0.11	0.04	-0.25	1.00
TwoT_child~n	-0.01	0.00	0.05	-0.28	0.22	0.05	-0.34	-0.17
four_child~n	-0.23	-0.01	0.17	-0.47	0.26	0.19	-0.55	-0.27
Birth_12	-0.16	-0.01	-0.10	-0.19	0.28	-0.13	-0.24	0.13
non_migrant	-0.41	0.00	-0.16	0.10	0.01	-0.11	0.07	-0.03
recent_mig~t	-0.14	-0.01	-0.01	0.12	-0.08	-0.03	0.16	0.03
migrant	0.19	0.00	-0.01	0.07	-0.02	-0.05	0.09	0.09
long_migrant	0.24	0.00	0.19	-0.21	0.05	0.17	-0.22	-0.04
Training_re	0.21	0.01	0.03	0.10	-0.04	-0.06	0.09	0.02
Illiterate	-0.51	-0.01	0.10	-0.44	0.23	0.20	-0.40	-0.03
grade1_6	0.14	0.00	-0.07	0.15	-0.08	-0.08	0.15	0.01
grade7_8	0.22	0.00	-0.05	0.20	-0.11	-0.08	0.18	0.02
grade9_11	0.23	0.01	-0.05	0.26	-0.15	-0.11	0.24	-0.01
grade12_co~d	0.20	0.01	-0.01	0.11	-0.04	-0.07	0.09	0.04
higher_ed	0.13	0.00	0.02	0.06	-0.01	-0.05	0.06	0.01
non_formal	0.05	0.01	0.02	-0.03	0.01	0.03	-0.03	-0.01
Disability~a	-0.02	0.01	0.06	-0.02	-0.08	0.12	-0.03	-0.01
region_1	-0.03	0.01	0.06	-0.03	-0.02	0.06	-0.04	0.00
region_2	-0.03	0.01	-0.01	-0.05	0.04	0.00	-0.03	0.02
region_3	-0.04	-0.01	0.02	-0.06	-0.01	0.07	-0.03	0.02
region_4	-0.06	0.00	-0.03	-0.01	0.04	-0.03	-0.02	0.00
region_5	-0.02	0.01	0.01	-0.04	0.04	-0.01	-0.03	-0.02
region_6	-0.07	0.00	-0.02	-0.03	0.05	-0.03	-0.02	0.01
region_7	-0.10	-0.01	-0.02	0.01	0.04	-0.05	-0.01	-0.02
region_12	0.07	0.00	0.02	-0.01	0.00	0.01	0.01	0.02
region_13	-0.03	0.01	0.00	-0.03	0.02	0.01	-0.02	0.01
region_14	0.30	0.01	-0.01	0.17	-0.15	-0.01	0.14	-0.01
region_15	-0.01	0.00	-0.01	-0.02	0.01	0.01	-0.01	0.00

Table 1.26. continued	TwoT_c~n	four_c~n	Birth_12	non_mi~t	recent~t	migrant	long_m~t	Traini~e
TwoT_child~n	1.00							
four_child~n	-0.37	1.00						
Birth_12	0.14	0.04	1.00					
non_migrant	-0.05	-0.01	0.07	1.00				
recent_mig~t	-0.04	-0.14	-0.02	-0.26	1.00			
migrant	0.02	-0.17	0.02	-0.37	-0.09	1.00		
long_migrant	0.06	0.19	-0.07	-0.70	-0.16	-0.23	1.00	
Training_re	0.02	-0.12	-0.05	-0.05	0.02	0.02	0.02	1.00
Illiterate	0.04	0.38	0.10	0.09	-0.07	-0.10	0.01	-0.29
grade1_6	-0.01	-0.14	-0.02	-0.06	0.02	0.06	0.01	-0.09
grade7_8	-0.03	-0.16	-0.04	-0.02	0.05	0.03	-0.02	-0.03
grade9_11	-0.06	-0.18	-0.06	0.00	0.04	0.05	-0.05	0.12
grade12_co~d	0.02	-0.13	-0.04	-0.01	-0.01	0.01	0.00	0.24
higher_ed	0.03	-0.08	-0.03	-0.04	0.02	0.02	0.01	0.62
non_formal	0.00	0.05	-0.01	-0.05	0.00	0.00	0.05	-0.03
Disability~a	-0.01	0.04	-0.04	0.00	-0.02	-0.03	0.03	-0.03
region_1	0.01	0.03	0.01	-0.01	0.01	0.04	-0.02	-0.01
region_2	0.02	0.00	0.02	0.00	0.01	0.00	0.00	-0.03
region_3	0.00	0.01	-0.02	0.01	0.03	0.00	-0.03	-0.01
region_4	0.00	0.02	0.02	0.01	0.00	-0.01	-0.01	-0.02
region_5	0.00	0.04	0.04	0.01	-0.02	-0.02	0.01	-0.04
region_6	0.01	0.01	0.02	-0.03	0.00	0.02	0.02	-0.02
region_7	-0.02	0.04	0.03	0.05	0.00	-0.02	-0.04	-0.03
region_12	0.02	-0.03	-0.01	-0.04	0.01	0.02	0.02	0.00
region_13	0.00	0.01	0.01	0.04	-0.01	-0.01	-0.02	-0.01
region_14	-0.02	-0.12	-0.09	-0.06	-0.03	0.01	0.08	0.13
region_15	0.01	0.01	0.01	0.02	-0.01	-0.01	0.00	0.00
	Illitr~e	grade1_6	grade7_8	grade~11	grade1~d	higher~d	non_fo~l	Disabi~a
Illiterate	1.00							
grade1_6	-0.50	1.00						
grade7_8	-0.37	-0.14	1.00					
grade9_11	-0.34	-0.12	-0.09	1.00				
grade12_co~d	-0.29	-0.11	-0.08	-0.07	1.00			
higher_ed	-0.20	-0.07	-0.05	-0.05	-0.04	1.00		
non_formal	-0.14	-0.05	-0.04	-0.03	-0.03	-0.02	1.00	
Disability~a	0.09	-0.03	-0.04	-0.04	-0.03	-0.02	-0.01	1.00
region_1	0.03	-0.01	0.00	0.00	-0.04	-0.02	-0.01	0.02
region_2	0.07	-0.02	-0.02	-0.03	-0.03	-0.03	0.00	0.01
region_3	0.05	-0.04	-0.01	-0.02	-0.01	-0.02	0.04	0.02
region_4	0.00	0.01	0.00	0.00	-0.01	-0.02	-0.02	-0.01
region_5	0.10	-0.04	-0.04	-0.04	-0.04	-0.03	0.00	0.00
region_6	0.04	0.00	-0.02	-0.02	-0.03	-0.01	-0.01	-0.01
region_7	0.03	0.01	0.00	-0.02	-0.02	-0.02	-0.04	-0.02
region_12	-0.04	0.05	0.00	0.00	0.00	0.00	0.00	-0.01
region_13	0.02	-0.02	0.00	-0.01	0.00	-0.01	0.00	0.01
region_14	-0.24	0.05	0.06	0.10	0.13	0.12	0.04	-0.01
region_15	0.03	-0.01	-0.01	-0.02	-0.01	-0.01	-0.01	0.00

Table 1.26. continued

	region_1	region_2	region_3	region_4	region_5	region_6	region_7	region_12
region_1	1.00							
region_2	-0.05	1.00						
region_3	-0.14	-0.09	1.00					
region_4	-0.16	-0.10	-0.26	1.00				
region_5	-0.06	-0.04	-0.11	-0.12	1.00			
region_6	-0.06	-0.04	-0.10	-0.11	-0.04	1.00		
region_7	-0.13	-0.09	-0.22	-0.25	-0.10	-0.09	1.00	
region_12	-0.03	-0.02	-0.04	-0.05	-0.02	-0.02	-0.04	1.00
region_13	-0.05	-0.03	-0.08	-0.08	-0.03	-0.03	-0.07	-0.01
region_14	-0.13	-0.08	-0.21	-0.23	-0.09	-0.09	-0.20	-0.04
region_15	-0.05	-0.03	-0.08	-0.09	-0.04	-0.03	-0.08	-0.01
	region_13	region_14	region_15					
region_13	1.00							
region_14	-0.07	1.00						
region_15	-0.03	-0.07	1.00					

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