International
Labour
Office
Geneva

Employment Sector
Employment Working Paper No.14

2008

School-to-work-transitions in Mongolia

Francesco Pastore

Country
Employment
Policy

Employment
Policy
Department

LO Cataloguing in Publication Data

Pastore, Francesco

School-to-work-transitions in Mongolia / Francesco Pastore ; International Labour Office, Employment Policy Department. - Geneva: ILO, 2008. 138 p. (Employment Sector – Employment Working Paper No. 14: 2008)

ISBN: 978-92-2-121524-0 (print) 978-92-2-121525-7 (web PDF)
ISSN: 199-2939 (print) 1999-2947 (on-line)

International Labour Office; Employment Sector.

International Labour Office; Employment Policy Dept.

transition from school to work / entry into working life / youth employment / Mongolia

06.02

ILO Cataloguing in Publication Data

Printed in Switzerland

Preface

The primary goal of the ILO is to achieve full and productive employment and decent work for all, including women and young people, a goal which has now been widely adopted by the international community. Working towards this goal is the fundamental aim of the ILO.

In order to support member States and the social partners to reach the goal, the ILO pursues a Decent Work Agenda which comprises four interrelated areas: Respect for fundamental worker's rights and international labour standards, employment promotion, social protection and social dialogue. Explanations of this integrated approach and related challenges are contained in a number of key documents: in those explaining and elaborating the concept of decent work,[1] in the Employment Policy Convention, 1964 (No. 122),[2] and in the Global Employment Agenda.

The Global Employment Agenda was developed by the ILO through tripartite consensus of its Governing Body's Economic and Social Policy Committee. Since its adoption in 2003 it has been further articulated and made more operational and today it constitutes the basic framework through which the ILO pursues the objective of placing employment at the centre of economic and social policies.[3]

The Employment Sector is fully engaged in the implementation of the Global Employment Agenda, and is doing so through a large range of technical support and capacity building activities, advisory services and policy research. As part of its research and publications programme, the Employment Sector promotes knowledge-generation around key policy issues and topics conforming to the core elements of the Global Employment Agenda. The Sector's publications consist of books, monographs, working papers, employment reports and policy briefs.[4]

The Employment Working Papers series is designed to disseminate the main findings of research initiatives undertaken by the various departments and programmes of the Sector. The working papers are intended to encourage exchange of ideas and to stimulate debate. The views expressed are those of the author(s) and do not necessarily represent those of the ILO.

José Manuel Salazar-Xirinachs
Executive Director
Employment Sector

[1] See the successive Reports of the Director-General to the International Labour Conference: *Decent work* (1999); *Reducing the decent work deficit: A global challenge* (2001); *Working out of poverty* (2003).

[2] In 1964, ILO Members adopted Convention No. 122 on employment policy which states that "With a view to stimulating economic growth and development, raising levels of living, meeting manpower requirements and overcoming unemployment and underemployment, each Member shall declare and pursue, as a major goal, an active policy designed to promote full, productive and freely chosen employment". To date, 97 member States have ratified this Convention.

[3] See http://www.ilo.org/gea. And in particular: *Implementing the Global Employment Agenda: Employment strategies in support of decent work, "Vision" document*, ILO, 2006.

[4] See http://www.ilo.org/employment.

Foreword

Young people everywhere set out in life with dreams, hopes and aspirations. They bring with them numerous assets: recent education and training; enthusiasm, hope and new ideas; willingness to learn and be taught; openness to new skills and technology; mobility and adaptability. Yet throughout the world youth face obstacles in making transitions from school to work. All too often, their full potential is not realized because they do not have access to decent and productive work. Globally, young people are more than three times as likely as adults to be unemployed.

Young people differ from adults in the labour market because they are in quest of their first job experience and their search for a good job continues until the gap is filled. When some form of employment is found, many consider this only as a transitional stage to fill their work experience gap in the hope of accessing better quality jobs later. Many employed young people would like to work longer hours. Many accept jobs that are "below" their level of education and training – they are forced to "trade down". In rural areas and in the informal economy, young people are often underemployed in jobs with low productivity and low income. Some young people still at school are already looking for work and many "inactive" young people are also looking, although not actively, because they are discouraged and feel that their work experience is insufficient to appeal to employers, especially in periods of economic distress. This suggests that only looking at employment, unemployment and inactivity rates might be insufficient to understand the real nature of the youth labour market and the issue of school-to-work transition.

To assist member States in building a knowledge base on youth employment that helps better and informed policy-making, the ILO has designed a methodology referred to as a "School-to-Work Transition Survey" (SWTS). The SWTS is developed to quantify the relative ease or difficulty faced by young people in "transiting" to a job that meets the basic criteria of "decency", namely a job that provides the worker with a sense of permanency, security and personal satisfaction. It is aimed at identifying the opportunities and constraints faced by youth in specific country contexts and linking the results with practical measures to overcome these obstacles.

This paper presents the results of the SWTS conducted in Mongolia between October and December 2006. The ILO, with financial support from the Republic of Korea, assisted the Government of Mongolia in implementing the survey. The paper prepared by Dr. Francesco Pastore presents the results of the SWTS. It seeks to measure the quality of the transition to decent work. It captures the labour market status of young people, the different types of transitions leading to work and provides information on both quantity and quality of employment. The study also incorporates the results of an employers' survey that enriches the analysis with data concerning labour demand.

The paper is structured around five chapters. Chapter 1 examines the overall labour market situation in Mongolia. Chapter 2 analyzes the trends and dynamics of the youth labour market. Chapter 3 screens the different types of transitions from school to work. Chapter 4 reviews the results of the employers' survey and chapter 5 concludes the report by exploring the implications for the design and implementation of policies aimed at easing young people's access to the labour market and countering decent work deficits.

Evidence from the survey confirms that Mongolian youth face significant challenges in finding decent employment after leaving school. Only about 1 per cent of the sample has completed the transition to decent work. About 56.5 per cent are still in transition, meaning they are still looking for decent work, whether they are employed, unemployed or inactive. Within the "in transition" group, about one third is employed, more than twice the unemployment ratio of 14 per cent. Of the employed, 47.8 per cent feel they would like to change their job and 49.6 per cent experience a decent work deficit. This suggests strong

competition for jobs, exerting a potentially important downward pressure on already very low wages. There is a vicious circle in place enabling only a few young people to complete their school-to-work transition and the lack of alternatives causes, in turn, increasing precariousness in employment relationships.

Shortcomings are revealed in both the capacity of the education and training systems to provide in an equitable manner the skills that meet the requirements of employers, as well as in the capacity of the Mongolian economy to create sufficient demand for young labour. In addition, existing labour market intermediation institutions are found to play only a minimal role in matching labour supply and demand. It is expected that such findings and the analysis of the underlying factors as identified in this study, will help shape the design and implementation of new policies and programmes to improve the employment prospects of Mongolian youth.

This paper is a result of joint collaboration between the Employment Policy Department and the Youth Employment Programme at ILO headquarters in Geneva and the ILO Office in Beijing.

Azita Berar Awad
Director,
Employment Policy Department

Contents

Page

Page

Tables

Page

Figures

Abbreviations

ALMP	Active Labour Market Policy
CEECs	Central and Eastern European countries
CMTU	Confederation of Mongolian Trade Unions
EBRD	European Bank of Reconstruction and Development
FSU	Former Soviet Union
GDP	gross domestic product
GWG	gender wage gap
HDI	Human Development Index
HPI	Human Poverty Index
ICT	information and communication technology
ILO	International Labour Office
IV	instrumental variables
JMP	Juhn, Murphy and Pierce
LFS	Labour Force Survey
MGD	Millennium Development Goal
MLSF	Mongolian Labour Force Survey
MONEF	Mongolian Employers' Federation
MYF	Mongolia Youth Federation
NEP	National Employment Programme
NPADW	National Plan of Action for Decent Work
NSO	National Statistical Office of Mongolia
NTPYC	National Tripartite Plus Youth Committee
OECD	Organisation for Economic Co-operation and Development
OLS	ordinary least square
PES	public employment service
SWTS	school-to-work survey
TUG	tughrik (the Mongolian currency)
UNDP	United Nations Development Programme
UNIFEM	United Nations Development Fund for Women
US	United States
VET	vocational education and training
WTO	World Trade Organization

School-to-work transitions in Mongolia [5]

Francesco Pastore [6]

Introduction

The position of young people in labour markets in transition and developing countries has attracted insufficient attention until now, particularly in Asian countries. Relatively little is known about the youth labour market in Mongolia. Previous studies have looked at the drop-out rate or at other specific aspects of the youth school-to-work transition (Gerelmaa, 2005; National Tripartite Plus Youth Committee, 2005), [7] but do not provide a comprehensive analysis of the youth labour market.

This report addresses the issue by taking advantage of a recent ad hoc school-to-work transition survey (SWTS) of young people aged 15–29 years [8] carried out in 2006 by the National Statistical Office of Mongolia (NSO) with the International Labour Office's (ILO) financial and technical assistance.

Chapter 1 studies the macroeconomic conditions of the country: economic transition from a planned to a market economy has caused the emergence of unprecedented problems, such as macroeconomic instability, the emergence of the private sector and the ensuing need for new and higher skills. Chapter 2 focuses on the youth labour market by looking at the determinants at an individual and family level of educational attainment, employment, unemployment and inactivity. Educational attainment is relatively high and increasing, as compared to other countries in the area, which mirrors the perceived need for new and higher skills, confirmed by the declared aspirations of young people. Nonetheless, important constraints seem to affect the supply of education, especially in rural areas. In addition, the country is unable to provide young people with a sufficient number of decent jobs. This translates into high youth unemployment in urban areas and very low productivity jobs in rural areas, especially in the livestock sector. Chapter 3 analyses the school-to-work transition by applying the ILO classification: (a) youth who completed transition; (b) youth "in transition"; and (c) youth whose transition has not yet started. Only 0.9 per cent of the sample has completed the transition. The "in transition" group has a very high share of young workers who are employed, but wishing to change their job or experiencing important decent work deficits. Four types of decent work deficits have been identified: (a) about 60 per cent of young employed workers work informally; (b) 74 per cent have a fixed-term contract; (c) 12 per cent do not pay income tax; and (d) about 40 per cent work more than 50 hours per week. Chapter 4 studies the size and composition of the demand for skills. It is based on answers to the specific employers and

[5] Acknowledgements. This report has been prepared as part of the project "Promoting decent and productive work for young women and men in Mongolia" within the framework of the ILO/Korea Partnership Programme. Special thanks are due to all those who have carried out the Mongolian STWS. The author wishes to thank Claire Harasty and Diego Rei for useful comments on an earlier version. The usual disclaimer applies.

[6] Seconda Università di Napoli and IZA Bonn. Email: fpastore@unina.it

[7] Other recent studies on Mongolia include Darii and Suruga (2006) on private returns to education, and Morris and Bruun (2005) on rural labour markets.

[8] The information provided throughout this report is broken down for different age groups, including teenagers (aged 15–19), young adults (20–24) and the oldest segment of young people aged 24–29.

managers' module of the Mongolian SWTS. The evidence confirms firms' needs for higher skills and work experience than those actually possessed by young people. There also seems to be a mismatch between job search methods preferred by employers and by young people. This report concludes with a number of policy suggestions for policy-makers and practitioners at all levels, such as: (a) the need to increase the quantity and quality of the supply of skills, especially in rural areas; (b) a more active role of the public employment service (PES) in providing information, counselling and training not only to the unemployed, but also the discouraged workers and jobseekers who are still at school; (c) a closer integration between the educational system, governmental institutions at all levels and social partners to reduce imperfect and asymmetric information on job vacancies, as well as to increase and diversify the supply of on-the-job and off-the-job training for young people.

Chapter 1. Methodology and overview of the labour market

Introduction

This chapter places the youth employment condition in a broader national context. Section 1.1 discusses the country's general economic framework to better understand opportunities and constraints confronting the younger generation in Mongolia. It puts the current economic situation in an historical perspective, focusing on the post-transition period, while providing some general analysis of the main macroeconomic indicators in recent years. It then describes the country's overall level of development, as measured by the United Nations Development Programme's (UNDP) Human Development Index (HDI) and the Human Poverty Index (HPI). The rest of this chapter draws on evidence from the latest national labour market statistics (population, labour force, labour force participation rates, unemployment rates, etc.), first at the national level (in section 1.2) and then for youth specifically (in section 1.3). It also aims to identify policies and programmes that impact the employment situation and explain the institutional arrangements for youth employment issues at the national level. Finally, section 1.4 presents the SWTS survey methodology: the questionnaire development and design of the sampling frame.

1.1. The socio-economic context

Mongolia is a country with vast territories inhabited by a relatively small population, making it the least densely populated in the world. It is now in a situation of extreme poverty, despite its long history and having once been the world's largest empire. In its recent history, it has been squeezed between two of the biggest and most powerful countries in the world, the Former Soviet Union (FSU) and China. The influence of these two countries on the economic and political situation of Mongolia has been important and lasting.

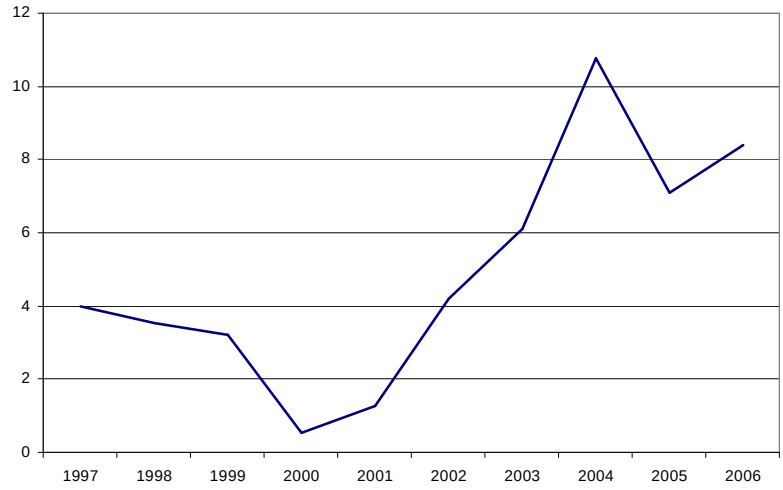
Mongolia was also influenced by communist ideals and was a socialist country, but is now in transition from a planned to a market economy. Transition has been strongly influenced by the transformation, ongoing, in the two neighbouring FSU republics and China. Transition began in 1990 as a consequence of the process of "disorganization" of the planning system in the Russian Federation and the sudden reduction of trade flows with the FSU. Soviet assistance, at its height, accounted for one third of GDP, but disappeared almost overnight in 1990–91, with the dismantling of the FSU, leading to a deep recession The reform process was, thereafter, much faster in Mongolia than in FSU republics. Mongolia has experienced a more rapid liberalization of domestic prices, foreign trade

regime, including removal of export controls and taxes, privatization of large- and small-scale enterprises and banking reform.[9]

Economic activity has traditionally been based on herding and agriculture. However, the country has extensive mineral deposits of copper, coal, molybdenum, tin, tungsten, and gold, accounting for a large part of its industrial production The economic structure is typical of a developing country, in as much as today the manufacturing sector represents a small share of GDP and employment. Moreover, it is concentrated in a few more densely populated urban areas. The greater share of GDP and employment is provided by the primary sector, including agriculture, herding and the mining industry.

According to the National Tripartite Plus Youth Committee (NTPYC) (2005), recent economic trends can be described as going through the following stages: economic decline (1990–92); end of decline and growth rates rising (1993–95); growth rates stabilizing (1996–99); growth rates falling (2000–02); growth rates rising again and stabilizing (2003–today). The annual average rate of economic growth was 1.9 per cent in 1993–95 and 3.6 per cent in 1997-99.

Figure 1.1.1. GDP growth rate (annual %)



Source: World Development Indicator – online database

Severe winters and summer droughts in 2000–01 and 2001–02 resulted in a massive loss of livestock and anaemic GDP growth in 2000 and 2001. This was compounded by falling prices for Mongolia's primary-sector exports and widespread opposition to privatization. Growth improved to 4 per cent in 2002 and averaged 8.1 per cent between 2003 and 2006. Much of the growth was due to high copper prices and new gold production.

Thanks to a relatively quick recovery from the slowdown of the early 1990s and the excellent growth rate trend of recent years, Mongolia's GDP is estimated to be, in 2006, at around 137 per cent of its 1989 level. This is one of the best performances achieved by a transition country.

According to the EBRD (2007, pages 38–40), in the medium term the country should be able to maintain a growth rate of 5–6 per cent, if there are no major changes in the

[9] Darii and Suruga (2006).

current economic situation, including the quite rapid pace of reforms and the acquired stability of the state budget. A further positive sign, and an important opportunity for the future growth of Mongolia, is the increasing flow of foreign direct investment (FDI), which has gone up from US$10 million in 2001 to a high of US$449 million. However, the country's growth prospects remain vulnerable, not only to weather conditions, but also to fluctuations in global commodity prices, especially for oil, metals and textiles.

During the years 1990 to 1995, when the economy experienced a rapid decline, and then a quick recovery, there was a sharp increase in the share of agricultural products in GDP, reaching 38 per cent, while the other sectors suffered a considerable loss. Nonetheless, since 1995, the share of the agricultural sector in the economy has been steadily declining to 20 per cent of GDP. The industrial sector's share in GDP is rising at a relatively slow rate and was 25 per cent in 2004. The reverse is happening in trade, which accounted for 25.6 per cent of the GDP in 2004, the same as that of the industrial sector. The tourism sector has recently shown signs of rapid growth.

Remittances from Mongolians working abroad are significant. Mongolia settled its large debt to the Russian Federation at the end of 2003 on favourable terms. It joined the World Trade Organization (WTO) in 1997 and is the only member not participating in a regional trade organization. It seeks to expand its participation and integration into Asian regional economic and trade regimes.

With rising international commodity prices, there has been a surge of international interest in investing in its mining sector, despite the absence of a policy environment conducive to private investment. How effectively it mobilizes private international investment around its comparative advantages (mineral wealth, small population, and proximity to China and its burgeoning markets) will ultimately determine its success in sustaining rapid economic growth. Parliament passed a windfall profits tax on copper and gold that took effect in mid-2006, and major amendments to the mining law, allowing the Government to take an equity stake in major new mines. It is not known what effect these laws will have on mining activities in Mongolia, although major potential investors expressed considerable concern about the changes.

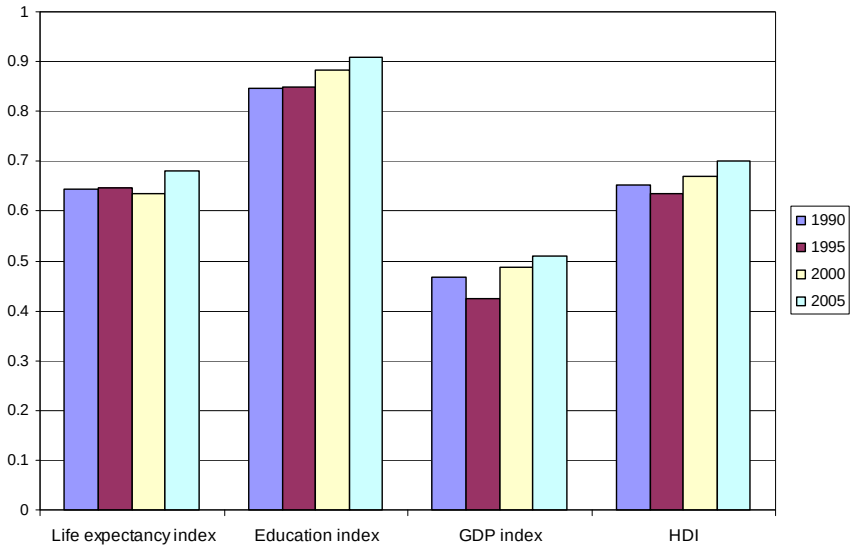
In 2006, Parliament passed four new tax laws: personal and corporate income, value added and excise, intended to reduce the overall tax burden on taxpayers and stimulate the economy. Most provisions of the new laws took effect on 1 January 2007. No projections of the economic effects are currently available.

As a result of rapid urbanization and industrial growth policies under the communist regime, Mongolia's deteriorating environment has become a major concern. The burning of soft coal by individual home or *"ger"* owners, power plants, and factories in Ulaanbaatar has resulted in severe air pollution. Deforestation, overgrazed pastures, and efforts to increase grain and hay production by ploughing up more virgin land have increased soil erosion from wind and rain. With the rapid growth of newly privatized herds, overgrazing in selected areas is also a concern. Recent rapid and relatively unregulated growth in the mining sector (gold, coal, etc.) has become the focus of public debate. A great deal of public attention is being paid to non-transparency of the government process of awarding licences, the equitable sharing of economic rents between foreign investors and the government, and the potential impact on the environment. However, the real environmental concern is the sharp boom in the number of informal gold miners, who frequently and illegally use mercury, which may lead to mercury poisoning.

The Human Development Index (HDI). Mongolia is classified among the medium human development countries. The initial years of reform and transition – between 1990 and 1994 – saw a marked deterioration in human development. Real incomes fell, human insecurity increased and people became more vulnerable as employment opportunities shrank. In 1995, a modest recovery began. The massive deterioration in living standards

was arrested although not completely reversed. It was not until 1999 that the HDI surpassed the 1990 level. In recent years, this upward trend has continued. The National Statistical Office (NSO) computed Mongolia's HDI for 2005 at 0.7, compared to 0.652 in 1990 and 0.626 in 1992 (the lowest level recorded).

Figure 1.1.2. Decomposition of the HDI, 1990 - 2005



Sources: Human Development Report 2007//2008, p.236.

Decomposition of the country's performance along the three main dimensions of the HDI suggests important differences in the speed of human development. Life expectancy at birth was 65.9 years in 2005, below the average for middle-income countries and for East Asian countries. The adult literacy rate was 97.8 per cent in 2005, while the combined gross enrolment ratio for primary, secondary and tertiary education was 77.4 per cent, above the average for middle income countries and East Asian countries. The annual per capita GDP was US$2107 in purchasing power parity, equivalent to the low income countries average.

While life expectancy has a value similar to the HDI, the education index has a much higher value and the GDP index a much lower value. This is in line with the previous observation that the country scores very low in terms of income (0.50), though the educational level is considered higher than the average of other middle-income countries, with an education index of 0.91. In fact, the education index of Mongolia is at the same level of other FSU republics, while the GDP per capita is much lower.

Overall, decomposition of the HDI suggests that Mongolia has similar problems to other formerly planned economies in Europe and Asia, where a strong presence of the State contributed to levels of education and health services close to, or above, those achieved in countries with a similar level of development, but with weaker economic and political institutions and a smaller presence of the state sector. However, due also to the transitional recession, Mongolia, like many other European and Asian transition countries, scores lower than average per capita GDP levels.

The Human Poverty Index (HPI). According to the UNDP (2006), Mongolia scores values on the HPI even lower than those on the HDI.[10]

According to UNDP (2008), among Asian transition economies, China ranks 29th, Viet Nam 36th, Mongolia 40th, Lao PDR 70th and Cambodia 85th on the HPI. In Mongolia, the share of the population below the national poverty line was 36.1 per cent in the period 1990–2004. About 11 per cent and 44.6 per cent were living on less than US$1 and US$2 per day, respectively. According to a recent study carried out by the National Statistical Office of Mongolia (2003, page 9), the poverty level sharply increased in rural areas and decreased in urban areas during the years 1995–2003.

It is likely that per capita income growth is at risk due to the high degree of inequality and poverty existing in the country. In turn, this suggests that the fight against poverty and income inequality is important for the country's future growth prospects. Inequality and poverty are also likely to significantly affect youth aspirations for higher education, decent jobs and better lives. Discussion of the policy instruments to fight poverty deserves, therefore, special consideration. One of the contributions of this study is to provide in Chapter 2 some measures of poverty for the households of young people included in the sample of the SWTS in 2006. In addition, it will discuss different policy options to tackle the trade-off between short- and long-term objectives of economic policy in the perspective of an amelioration of opportunities available to young people. The fight against poverty could also contribute to enable talented young people, living in poor households, to satisfy their legitimate aspirations by reducing the cost of their investment in skill formation. In turn, this is the best way not only to foster economic growth, but also to fight income inequality and poverty in the long term.

1.2. The labour market in Mongolia

Economic transition has had an important effect on the labour market, including youth employment. On the one hand, the fall in output in the early 1990s caused increasing unemployment due to the closure of many state-owned enterprises and the slow process of job creation in the emerging private sector. On the other hand, the emergence of market-oriented firms also increased the skill content of any type of job, especially in the private sector.

The traditional divide between urban and rural areas has taken on new forms, in particular, the evolution of economic activities in rural areas has affected urban labour markets. As Morris and Brunn (2005) note in their remarkable study of rural Mongolia, the first decade of the transition from a command economy to a market system witnessed tremendous changes in the rural sector with the dismantling of agricultural collectives and state farms, together with cutbacks in public expenditures to support administration, schools, clinics and infrastructure. Privatization of livestock at first provided new opportunities for herders and farmers, as well as workers laid off from government jobs

[10] The HPI is an indicator computed as the mean of a series of other indicators of poverty, namely the probability at birth of not surviving to age 40, the adult illiteracy rate, the share of the population without access to an improved water source, the percentage of children under weight for age under the age of 5, the percentage of people living on less than US$1 or US$2 per day, and the percentage living under the poverty line.

and state-owned enterprises in the cities, to obtain employment in rural areas. Others found jobs in provincial capitals and *soum* centres. [11]

However, increases in the number of herders and livestock came to an abrupt end with a series of harsh winters and summer droughts that resulted in many families losing their animals during 2000−01. The unemployment and poverty that followed have contributed to a growing stream of migration from rural areas to urban centres. Many migrants live in the traditional tents and urban poverty of the *ger* areas [12] surrounding the cities of Ulaanbaatar, Darkhan and Erdenet.

As a consequence of these changes, the rural population of Mongolia increased dramatically over transition to decrease again to its pre-transition level in more recent years. Currently, 43 per cent of the total population live in rural areas.

As noted by the NTPYC (2005), based on the Labour Force Survey (LFS) data, the labour force participation rate was 64.4 per cent and the employment rate 62.1 per cent in 2004. Independent of the statistical source adopted and the period considered, the participation rate is less than 60 per cent in urban areas and over 75 per cent in rural areas. These rates are low for the region (the employment rate in East Asia was 76.4 per cent in 2004), but are approximately around the world average. The average unemployment rate is 14.2 per cent.

As already noted in section 1.1, the country's production structure is still very traditional. In rural areas especially, the primary sector, including agriculture, herding and mining, employs by far the largest share of the population, compared to manufacturing and services. Overall, the share of agricultural employment has fluctuated between 15 per cent, in the early 1990s, to over 36 per cent in the mid-1990s. In the 2000s it amounts to about 30 per cent of the total. The manufacturing sector has steadily declined from about 40 to 20 per cent of total employment, due to the decline of the food industry which was fostered by the collective farms. [13]

With the formal sector unable to absorb unemployed workers coming from rural areas and new labour market entrants, many Mongolians have found employment in the informal economy. Data from the LFS covering the years 2002−2003 indicate that 27 per cent of non-agricultural employment is in informal activities. [14] Most (71 per cent) informal jobs are in urban areas and women hold 45 per cent. In rural areas, informal jobs are related to

[11] In Mongolia, there are 21 *aimags* (provincial centres) and the capital city of Ulaanbaatar, each of them further divided into a number of *soums* (rural districts). There are 340 *soums*, which are further divided into 1,671 *baghs* (small villages). The capital city is divided into nine districts of which four are suburban (del Rosario, 2005, p. 33).

[12] "*Ger*" are tent houses. Many people coming from rural areas live in the suburbs of urban areas in *gers*.

[13] As Morris and Brunn (2005, Ch. 1) note, in the late 1980s, collective farms were large and important production units, coinciding with *soum* centres. They were able to carry out not only herding, but also agriculture and other related activities typical of the food industry. In addition, they provided important services, including veterinary, but also insurance. The privatization of collective farms destroyed many farming and industrial activities.

[14] Note that the definition of informal work adopted in the MLFS is different from the one adopted in this report (see especially section 2.7). Here, informal employment is related to any type of labour relationship that is not regulated by a contract.

herding and non-herding activities. Often herders and farmers supplement their incomes with revenue from subsistence activities and commercial production.

1.3. Youth in the national labour force in Mongolia

Mongolia's population is young: more than half below the age of 24 years and over 20 per cent between 15 and 24 years. The unemployment rate of this age group is higher than that of the rest of the labour force. More than a quarter of all unemployed are below 24 years old. The high rates of youth unemployment, concentration of poverty and increasing social problems in urban areas highlight the necessity of employment generation for urban youth.

In the period between 1997 and 2004, the percentage of young people aged 25 years or less decreased by 5.1 points from 28.4 to 23.3 per cent. It has gone down by 7.1 points from 61.4 to 54.3 per cent for those aged 35 years or less.

As shown in the labour force survey conducted by the National Statistical Office in 2002/03 the average unemployment rate is 18 per cent for those aged 15−19 years, 21.2 per cent for the 20−24-year-olds, 14.4 per cent for the 25−29-year-olds and 13.5 per cent for the 30−34-year-olds compared to an average of 14.2 per cent.

The unemployment rate of the age groups 15−24 years and 15−30 years is very high in urban areas. Women are more frequently unemployed among those aged 15−19 years, but not among young people aged below 35 years.

The Government has been pursuing a policy of promoting overseas employment for its citizens. According to the 2002 statistics of the Ministry of Foreign Affairs, a total of more than 100,000 Mongolians are studying, working or living abroad. [15] The average age of emigrants is 31.3, most of them belonging to the age group 20−35 years.

In 2003, money transfers totalling US$101.6 million were made by overseas workers, amounting to 21 per cent of imports. Among positive economic consequences that cannot be expressed in monetary terms are learning modern technologies and production processes, gaining working skills, learning foreign languages, and changing attitudes to business.

More boys and young men, than girls and young women, are in the labour force as they are more likely to drop out of school to help with family herding or seek other employment. In rural areas, school attendance for boys drops sharply after 10 years old and remains lower than for girls at all levels. This may reflect lower enrolment rates for older male cohorts as well as drop-outs from school. Among herding households, there are indications that wealthier herders with more animals rely on additional labour from poorer families. Some hire adolescent boys who work for food and lodging. This informal labour market for boys and young men may have placed additional burdens for unpaid work on girls and young women (UNIFEM, 2001).

The Government places a high priority on generating productive employment as shown in its successfully running National Employment Programme (NEP). Youth are a

[15] The adoption of the Law on Export and Import of Work Force in 2001 was intended to promote the services rendered by private companies to citizens in seeking job opportunities abroad. As of the end of 2004, over 3,000 persons were sent abroad by 20 authorized agencies within the workforce and trainee exchange agreements made at the governmental as well as ministerial levels with the Republic of Korea, Japan, Taiwan and the Czech Republic.

target group in the National Plan of Action for Decent Work (NPADW). The Government considers the promotion of youth employment both an integral part of the Millennium Declaration and a key contribution to meeting other MDGs, including those related to poverty reduction.

In 2005 the tripartite plus youth steering committee was formed with the task of formulating an action plan to address the youth employment challenge. The Committee prepared a study on "Youth employment during the transition period to the market economy" as well as a draft National Acton Plan on Youth Employment. By doing so, it has identified a number of priorities for action. These priorities focus on unemployed youth, young graduates, young migrants and the role of information technology. However, to date, too little is known about the characteristics and determinants of the youth employment challenge and the opportunities for and aspirations of young people, their difficulties and working conditions. The aim of this report is to contribute to the ongoing debate by providing a detailed analysis of the youth labour market in several dimensions. Based on such an analysis, it also provides policy recommendations intended to inform and provide a background for government action.

In 2001, Parliament adopted the Employment Promotion Law, implemented through the NEP. The Programme includes employment promotion and active labour market policies. Policies to promote employment cover five areas: (i) finance and credit; (ii) enterprise development; (iii) rural employment promotion through cooperatives, partnerships, family businesses, animal husbandry and crop production; (iv) employment promotion linked to environmental protection; and (v) employment promotion through tourism and the development of infrastructure. Active labour market policies include job brokerage, training, counselling, information, business incubators, bilateral agreements for migrant workers and policies for employing foreign workers. Measures are also outlined for youth employment and vulnerable groups.

The Mongolian Employers' Federation (MONEF) has come up with a number of proposals to support youth employment, such as policy development, job placement, business surveys, information dissemination, professional training, internship programmes and cooperation with universities. The Confederation of Mongolian Trade Unions (CMTU) adopted a policy document at its 2004 Congress on "The position of CMTU on the issue of youth". [16] This was aimed at encouraging young people to join trade unions with specific provisions to include them in national employment programmes and to protect young migrants working abroad. It also called for assistance to youth working in the informal sector.

The Mongolia Youth Federation (MYF) carried out a survey on the "Development needs of the Mongolian youth" that pointed to the role of employment as a source of regular income, future security, social status and teamwork, as well as a means to realize their talents and abilities. Among obstacles faced by youth are scarcity of jobs and lack of qualifications, along with bureaucratic red tape, inadequate language ability and inappropriate professional skills. In particular, young people need computer training. The MYF has proposed the following measures for youth employment: (i) a programme should be developed, implemented and monitored by the Government and public organizations to address youth employment and job creation; (ii) job openings should be surveyed nationwide to identify training needs; (iii) cooperation between educational institutions and

[16] MYF: "Development needs of Mongolian youth: A survey", Youth Development Policy Centre, Ulaanbaatar, 2003.

business enterprises should be strengthened; and (iv) employment abroad should be promoted. [17]

1.4. Survey methodology

Aims of the Mongolian SWTS. The analysis based on the Mongolian Labour Force Survey (MLFS), does not elucidate the specific nature of the youth labour market problem. In fact, the available statistical sources cover the labour market in general and are insufficient to understand the conditions and hardships of young people in their school-to-work transition. The implications for young people are whether to study or work, type and level of education to achieve, ways to fill their experience gap to make them more appealing to employers.

To answer these questions, a key role is attributed to the young person's household and aspirations. However, the information provided on family background in the MLFS is insufficient, inasmuch as it is available only for those who continue to live with their parents. In Mongolia, young people establish their households quite early in life so information on family background is missing for a large number.

However, this is not the only constraint to using the MLFS to study school-to-work transitions. In addition to family background, other important information includes: (a) aspirations of young people; (b) working while in school; (c) reasons to drop out from school; (d) participation in training programmes; and (e) intensity and methods of job search.

For all these reasons, the ILO developed a methodology for a specific school-to-work survey. This type of survey has some specific features, making it the most valuable source of statistical information on the labour market behaviour of young people. Such surveys have been conducted in a number of countries; in Mongolia:

(a) it includes young people aged 15−29 years, giving a larger sample than the MLFS for the same age group;

(b) it provides detailed information on family background, essential to understand not only educational choices, but also success in the labour market;

(c) it asks questions regarding not only the actual features of young people's participation in the labour market, but also their aspirations;

(d) it detects different types of school-to-work transitions;

(e) it provides detailed information on Active Labour Market Policy (ALMP) carried out by the Government, allowing for a first assessment and evaluation of their labour market impact;

(f) it includes a supplementary questionnaire for employers which provides evidence on youth labour demand;

[17] Labour Market Policy Department of the Ministry of Social Welfare and Labour, Labour Relations Department of the Mongolian Employers' Federation, the Confederation of Mongolian Trade Unions and the Mongolia Youth Federation: *Youth employment in the market transition in Mongolia: A national report*, draft, ILO–Korea Partnership Programme on "Promoting decent and productive work for young women and men in Mongolia", Ulaanbaatar, 2005.

(g) it is based on a strong participation of several local partners, including officers from ministerial bodies, members of unions of employers and workers, students' organizations, thereby contributing to institution building in the country and increasing awareness of the hardship in school-to-work transition.

Questionnaire. The SWTS's questionnaire provides detailed information on a number of issues:

(a) *family background:* information is provided on parents' educational attainment and occupation, on the number of employees and unemployed in the household, as well as on the household income;

(b) *individual characteristics:* this includes the civil status and characteristics of the young people's new household, including the labour market status of the spouse and the number of children;

(c) *educational level and status:* this provides not only the educational qualification of each individual, but also the time and reason for leaving education, the skills that young people aim to gain and those they feel are necessary to find the job they want;

(d) *employment status:* this includes information on the sector, working conditions, existence of a contract, the temporary or permanent nature of the job, secondary job holding, on-the-job training, union membership;

(e) *recall data from the time of school:* this poses a key question to reconstruct past labour market experience up until leaving school;

(f) *in-school young people:* this includes the type of education aimed for, the source of income to pay tuition fees and other costs and the possible working activities carried out while in school; and

(g) *unemployed young people:* this includes detailed information on job search methods, intensity of job search, barriers to and supports for entry into the labour market, wage versus self-employment preference.

The questionnaire of the employers and managers module includes detailed information on the ownership and industrial sector of the firm, union membership, number and skill requirements of employees, vacancies, recruitment methods, criteria for personnel selection and training practices.

Sampling method of the SWTS. The primary sampling unit is the total population aged 15−29 years, which, at the time of the interview (end of 2006), represented 31.56 per cent of the total population or about 809,000 individuals. As the results of previous similar surveys suggest, a share of 0.5−0.75 per cent was considered adequately representative of the underlying total sample population. The upper band of 0.75 per cent of the total sample population, representing approximately 6,100 people, was chosen.

The sampling was done in several steps. The first step consisted of selecting households rather than individuals, due to the impossibility of making a list of the total population aged 15−29 years. Step two consisted of sampling those household members within the selected households aged between 15–29 years.

At the end of 2005, the average household size was 4.2 and 1.32 of them was aged 15−29 years, implying the inclusion of at least one member from each selected household. As in previous similar surveys, it was proved that 25−30 households sampled from each primary sampling unit was sufficient to represent the underlying population.

Thereafter, the organizers selected *bags* and *khoroos* as primary sampling units and 30 households were sampled from each of them. According to planning, it was necessary to cover 4,585 households, representing about 0.75 per cent of the total. In turn, this required sampling 154 primary units, as shown in table 1.

The SWTS is based on a two strata (stage) proportional sampling method. In the first stage, the organizers selected administrative units by a proportional probability method and in the second stage, households were selected by a random sampling method, requiring a list of current total households, after which, 30 households were selected by the random sampling method thus providing the sample population of the survey.

Table 1.2.1. Distribution of the SWTS household sampling by *aimag*

Aimags and the Capital	Number of Households			*Aimags and the Capital*	Number of primary samling units		
	Total	Urban	Rural		Total	Urban	Rural
TOTAL	**4585**	**2685**	**1900**	***TOTAL***	**154**	**90**	**64**
	West region				***West region***		
Total	**723**	**210**	**513**	***Total***	**24**	**7**	**17**
Bayan-Olgii	160	48	112	*Bayan-Olgii*	6	2	4
Govi-Altai	116	35	81	*Govi-Altai*	4	1	3
Zavkhan	151	32	119	*Zavkhan*	5	1	4
Uvs	149	45	104	*Uvs*	4	1	3
Khovd	147	50	97	*Khovd*	5	2	3
	Khangai region				***Khangai region***		
Total	**1046**	**357**	**689**	***Total***	**34**	**11**	**23**
Arkhangai	182	33	149	*Arkhangai*	6	1	5
Bayankhongor	157	44	113	*Bayankhongor*	5	1	4
Bulgan	113	28	85	*Bulgan*	4	1	3
Orkhon	157	145	12	*Orkhon*	5	5	-
Ovorkhangai	216	38	178	*Ovorkhangai*	7	1	6
Khovsgol	223	71	152	*Khovsgol*	7	2	5
	Central region				***Central region***		
Total	**827**	**351**	**476**	***Total***	**29**	**13**	**16**
Govisumber	24	14	10	*Govisumber*	1	1	-
Darkhan-Uul	167	137	30	*Darkhan-Uul*	6	5	1
Dornogovi	105	60	45	*Dornogovi*	4	2	2
Dundgovi	95	26	69	*Dundgovi*	3	1	2
Omnogovi	96	32	64	*Omnogovi*	3	1	2
Selenge	166	50	116	*Selenge*	6	2	4
Tov	175	33	142	*Tov*	6	1	5
	East region				***East region***		
Total	**371**	**149**	**222**	***Total***	**13**	**5**	**8**
Dornod	136	71	65	*Dornod*	4	2	2
Sukhbaatar	100	21	79	*Sukhbaatar*	4	1	3
Khentii	134	56	78	*Khentii*	5	2	3
	Ulaanbaatar				***Ulaanbaatar***		
Ulaanbaatar	**1618**	**1618**	**0**	***Ulaanbaatar***	**54**	**54**	**-**

In addition, 2.3 per cent of the 321,000 registered enterprises were considered as the sample population for the Employers and Managers module of the survey. This meant that the employers and managers of 760 enterprises were interviewed. While sampling the employers, the organizers defined the number of enterprises according to their share in the economy.

Chapter 2. Characteristics of youth in the sample survey

Introduction

This chapter provides a detailed picture of young people in Mongolia. Throughout this and the following chapters, different age groups are considered. The SWTS includes

the main categories of young people suggested by the ILO as a standard for useful international comparison: (a) teenagers (aged 15–19 years); (b) young adults (aged 20–24 years); and (c) under 30 years (aged 25–29 years).

These are three distinct groups, with potentially different labour market behaviour. The teenagers have generally completed, or are close to completion, of compulsory education. [18] In an age of increasing educational attainment, many teenagers are still studying to obtain a secondary high school diploma. However, minor components, which may change from one country to another, already abandon education to enter the labour market. This is one of the weakest groups, due to their low level of education, and needs special attention. In the case of Mongolia, about 78.8 per cent of teenagers are still in school.

The young adults include those still at school, who are aiming for a university degree, or have already entered the labour market. Labour market entry at this stage is not necessarily a weakness, provided that young people have already attained the educational qualification aimed at and that its quality is sufficiently high to find a decent job. In the case of Mongolia, 27.2 per cent of young adults are still in school.

The SWTS also includes the remaining age segment of the under 30 years. This group includes those who have completed their education, with the exception of the few who have still to complete tertiary education or have gone back to school after dropping out at a younger age. In Mongolia, 7 per cent are still at school and the rest have entered the labour market, not necessarily having completed their school-to-work transition.

According to international conventions, despite being demographically young, this last group cannot be considered "young" in a statistical sense. However, when trying to understand juvenile labour market conditions in many countries, the inclusion of this group is even more important due to increasingly difficult school-to-work transition. Only a small part of this group, and only a few of those with the highest educational level, manages to accomplish their transition to the labour market when they are still young adults. For the important differences existing between these three age groups, this distinction is maintained throughout this report.

2.1. Individual characteristics of youth

Marital status. The first, and perhaps the most important element affecting young people's participation in the labour market, is their marital status. As the analysis of the ensuing sections shows, especially in the case of women, marital status affects the decision to study and/or to work, how active a young unemployed person is in seeking a job, and also the type of employment and wage to accept. The marital status also directly affects the fertility rate of young people and, therefore, of the entire country.

Economic transition has caused dramatic changes in the establishment and stability of families. In many transition countries, the reform has coincided with a rapid change from a traditional to a post-modern model of household. The former was characterized by early marriage and fertility decisions and linked to a production system based on manufacturing and providing stable jobs for all. This change has meant the age at marriage and bearing of

[18] In fact, in some countries, and for some individuals who are less successful at school, compulsory education continues after the age of 14. Also, in the case of Mongolia, most young people complete compulsory school at the age of 15, as shown in detail in Appendix A.1. However, it is a widely accepted convention to consider the teenagers a homogeneous group, including those in the process of completing compulsory education and deciding what to do afterwards.

the first child has increased, as well as the divorce rate, and in the diffusion of non-traditional forms of households, such as living together.

In addition, and related to this, gender roles have undergone rapid and dramatic changes, with an increasing tendency for women to aim for a working career thus creating tensions around their traditional place in the household. In formerly transition countries, women have always had high labour force participation rates compared to women in mature market economies. However, the double burden coincided with an enormous amount of time spent in unpaid family work. Now, this picture is rapidly changing. The increasing cost of childrearing and the greater job and career opportunities for the most motivated women, have meant a reduction in the time they wish to dedicate to unpaid family work.

Table 2.1.1 provides a summary representation of the youth distribution by civil status for different age groups, gender, place of residence, region and education as given by the SWTS. The first, most apparent feature, shown by the table is that most people marry quite early, between the ages of 20 and 29. Among young adults (aged 20−24 years) about 25 per cent are married. In the age group 25–29 years, around 33 per cent are single and a very small number live together without being married.

Table 2.1.1. Marital status, by sex, age group, urban rural, region and education

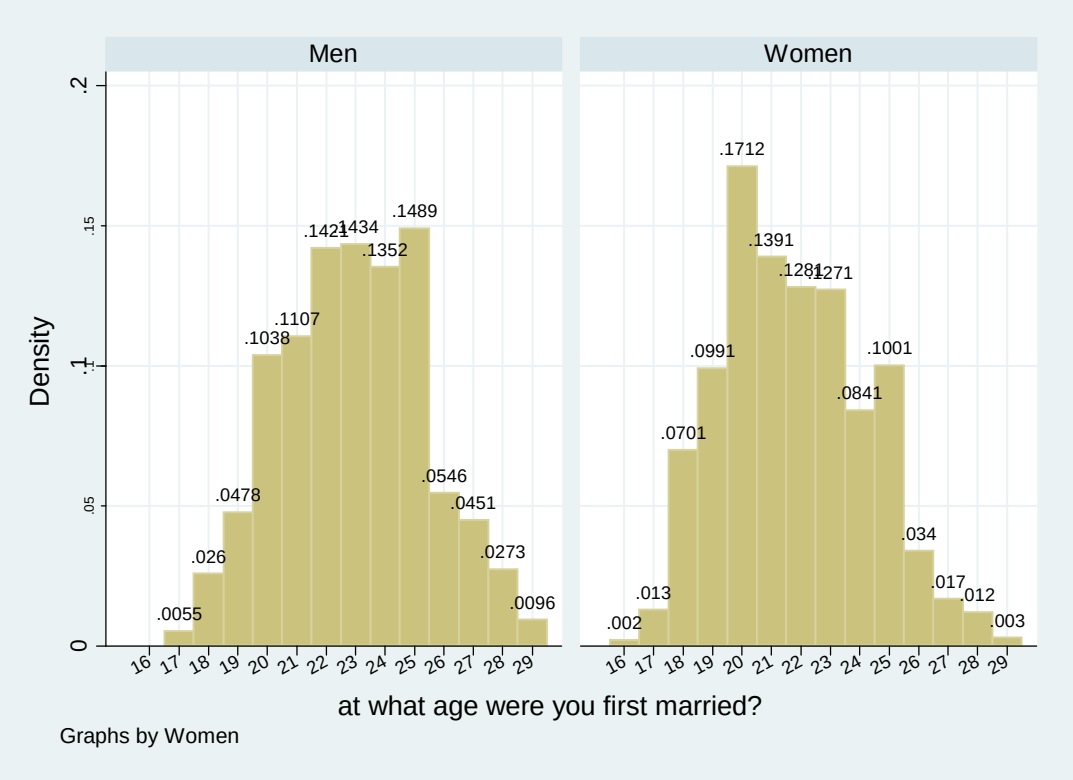
	15–29 aged population (thous)	Of which (%)					
		Never married	Married	Living together	Separated	Divorced	Widowed
Total	808.8	73.0	25.3	1.1	0.1	0.3	0.1
15–19	336.8	98.4	1.5	0.1	–	–	–
20–24	253.0	73.2	24.9	1.4	0.1	0.2	0.0
25–29	219.0	33.8	62.5	2.1	0.2	1.0	0.4
Male	399.3	76.9	22.1	0.9	–	0.1	0.1
Female	409.5	69.2	28.5	1.3	0.2	0.6	0.2
Urban	445.2	79.8	18.2	1.2	0.1	0.4	0.2
Rural	363.6	64.7	34.0	0.9	0.1	0.2	0.1
West region	119.6	68.5	31.2	0.2	–	0.1	–
Khangai region	169.1	65.2	33.6	0.8	0.1	0.1	0.1
Central region	143.5	68.6	28.4	2.3	0.1	0.5	0.1
East region	67.7	63.9	34.8	0.2	–	0.7	0.4
Ulaanbaatar region	308.9	83.1	15.0	1.2	0.2	0.4	0.1
Uneducated	27.0	77.6	22.4	–	–	–	–
Primary	97.2	67.2	30.9	1.3	0.1	0.3	0.3
Basic (Grade 4–8)	264.6	82.1	17.1	0.6	–	0.2	–
Secondary (Grade 9–10)	270.1	76.4	21.7	1.4	0.2	0.3	0.1
Vocational technical education	27.7	64.1	33.6	1.4	–	0.5	0.5
Diploma, specialized secondary	18.4	47.9	47.3	1.4	0.7	2.1	0.7
Tertiary/bachelor	100.7	51.9	45.6	1.5	0.1	0.6	0.3
Masters degree and above	3.0	58.3	37.5	4.2	–	–	–

Source: Own elaboration based on SWTS database, NSO Mongolia.

The persistence of a traditional household structure might depend upon the economic transition being slow and, therefore, not bringing about the same cultural changes as in other Central and Eastern European countries (CEECs) and FSU republics. It may also reflect the different history of the country, including its prevailing agricultural structure and a large share of nomads.

The table also shows that women marry earlier than men. Less than 70 per cent of women in the sample are single, suggesting that the age of marriage is still very low for women (22 years on average) and lower than that of men (23 years on average). Figure 2.1.1 shows the distribution of age at marriage by gender, and confirms that, among married men, the highest share married at between 20−25 years, whereas the peak for women is between 19−23 years. The female distribution is skewed to the left, while the male one is more similar to a normal distribution with a mean at the average age in the sample. About two out of ten women marry at age 20 years, which is the mode of the female distribution, and the peak of the male distribution is at age 25 years.

Figure 2.1.1. Distribution of age at marriage by gender



Note: 0 = men; 1 = women.
Source: Own elaboration based on SWTS database, NSO Mongolia.

The population in rural areas guarantees the stability of the traditional model of household and gender roles, as shown in table 2.1.1. The share of married young people is 34 per cent in rural areas, almost twice higher than in urban areas (18.2 per cent). A sign of change in the household model prevalent among young people residing in urban areas, compared to their contemporaries in rural areas, is the greater share of divorce, which is, nevertheless, low at 0.4 per cent of the overall sample. In fact, about 4 per cent of women living in Ulaanbaatar are divorced and account for the largest part of the divorce rate. The corresponding figure for men is zero, but due to the limited data, the reported figures should be taken with due caveat.

Children. The number of children affects not only labour market participation, especially that of women, but also poverty. Considering the low incomes, especially for

young people, having several children means, for most households, being under the poverty line.

About 33 per cent of women and 21 per cent of men in the SWTS sample have children. Over 90 per cent of them have one or two children, meaning that about 10 per cent of the youth population are in households with three children or more.

Spouse. An important determinant of a married individual's participation in the labour market is the occupation of their spouse. As expected, in the traditional household model where only one, typically the male partner, is involved in economic activities, table 2.1.2 shows that most of the women's spouses are employed, whereas most of the men's spouses are involved in unpaid family work or in household duties. About 62.2 per cent of male partners are in some form of remunerated activity. However, the rest of Mongolian women are married to unemployed partners, students or men involved in unpaid family work.

Table 2.1.2. Spouse's occupation by gender

	Men		Women	
	%	Cum.	%	Cum.
Studying/in school	6.99	6.99	5.14	5.14
Unemployed	14.79	21.78	16.31	21.45
Paid employee	25.62	47.40	27.09	48.54
Employer	0.27	47.67	0.40	48.94
Member of cooperatives			0.20	49.14
Unpaid family worker	21.37	69.04	8.36	57.50
Self-employed/own-account worker	12.33	81.37	34.54	92.04
Household duties	15.48	96.85	2.72	94.76
Unemployed due to health status	0.27	97.12	0.81	95.57
NA (in case of separated/divorced)	0.14	97.26	1.41	96.98
Other	2.74	100.00	3.02	100.00

Source: Own elaboration based on SWTS database, NSO Mongolia.

Overall, this suggests that newly established households resemble the traditional model and young people maintain traditional gender roles within the family. This contributes to maintaining a low level of women's participation and to generating a household income lower than it would have been if both partners were employed.

Migration. Migration, especially from rural to urban areas, is substantial. A large share of young people, about 17.1 per cent, are migrant. Not surprisingly, the larger share, of in-migrants, about 21.2 per cent, locates in Ulaanbaatar, but a similar share is in the *aimag* centres. In the *soum* centres, it falls slightly to 16 per cent. In rural areas it is only about 8 per cent.

This suggests that internal migration is an important phenomenon and that the direction of net migration is to urban areas. It is a positive tendency to be encouraged inasmuch as, in principle, it is a factor potentially able to contribute to equalising unemployment rate differentials across regions. However, this statement might be mitigated by the following observations regarding the human capital level of migrants compared to those who remain in the local areas.

Being mainly a flow from rural to urban regions, it is not surprising that the share of in-migrants increases with educational attainment, moving from 12.6 per cent for the uneducated and 9.6 per cent for those with primary education to 26.7 per cent and 25 per cent for those with tertiary or master degrees, respectively. The share of in-migrants is also higher than average for those holding intermediate high secondary diplomas in vocational and specialized secondary subjects.

This might suggest that some form of brain drain is taking place from rural to urban, regions. In fact, considering that those who wish to attend school and, therefore, migrate to places where the supply of education is higher, are the most talented individuals, migration might cause a reduction of the human capital endowment in rural areas. In turn, this may contribute to geographical differences in growth.

As to the reasons for migration, the evidence, based on the Mongolian SWTS, suggests that most young people move with their family, about 64 per cent. This percentage is particularly high for women, 68.9 per cent.

The next most important cause of migration is to attend educational or training programmes and accounts for 17.2 per cent and 14 per cent of male and female migration, respectively. This is explained by fewer schools, and even fewer universities, in rural areas.

The next most common cause of migration is receiving a job offer in another place and is 14 per cent for men and 8.9 per cent for women, respectively. Finally, more men move in search of a job in another place, most frequently in urban areas.

These figures show that women are less likely to migrate alone. Nonetheless, a larger share of women, about 19 per cent, compared to men (15 per cent), migrates.

It is difficult to say, a priori, whether in-migrants receive a wage premium or loss and if their economic conditions in the new workplace are more or less favourable than in their original workplace. Moreover, it is not clear whether the impact of this migration flow is increasing or decreasing the lagging behind of rural areas. All these questions are a matter for empirical investigation and some will be addressed in the following sections.

2.2. Household characteristics of youth

The household characteristics considered in this section are as follows: (i) place of residence; (ii) number of siblings; (iii) family background (educational and occupational level of parents); (iv) income level of the household; (v) income inequality; and (vi) poverty.

Place of residence. The distribution of the sample population shows an important share in the capital city (table 2.2.1). The rural population is also relatively large, about 22.2 per cent. What can be called the urban population, including those in the capital and in the *aimag* centres, is about 54 per cent of the total population. [19] Construction of the sample population reflects the geographical distribution within the country.

Teenagers tend to reside in the capital city and in the *soum* centres rather than in rural areas. This is probably because most of them are still attending high school, which is often not available in rural areas. Among the oldest segment (25−29 years), the share of those

[19] This is exactly the share of urban population reported in UNDP (2006).

living in rural areas is higher than average, perhaps because young people return home after completion of schooling in urban areas.

Women tend to reside more frequently than men in the capital city and, in general, in *aimag* centres. In addition, women tend to migrate more frequently than men, often either to follow their parents or to seek educational opportunities.

Table 2.2.1. Place of residence by age and gender (%)

Residence	15–19	20–24	25–29	Men	Women	Total
Ulanbaatar	37.58	38.24	34.69	36.68	37.31	37.02
Aimag centre	18.91	16.78	15.52	16.93	17.80	17.32
Soum centre	26.09	20.74	22.82	23.22	23.73	23.50
Rural	17.43	24.24	26.96	23.16	21.17	22.16
Total	2 829	2 199	1 836	3 432	3 439	100.00

Source: Own elaboration based on SWTS database, NSO Mongolia.

Number of siblings. A numerous household has a high risk of falling below the poverty line and puts a greater weight on the opportunity cost of education for the children. The issue of whether the number of siblings affects educational attainment, once a controlling factor for other important determinants of investment in education, is tested econometrically in a later section.

Unreported calculations show that almost 95 per cent of young people in the sample have siblings, suggesting that households with only one child are almost an exception. About 17 per cent of the youth population having siblings has more than five and 45 per cent have more than three.

The number of siblings is higher in rural than urban areas. In particular, households with a single child are almost all located in Ulaanbaatar: there, the share of young people with no siblings is about 9.8 per cent, but only 2.4 per cent in rural areas. This might mirror the lower cost of child rearing and living in rural areas, as well as the need of poorer households to have children to help with agricultural activities in a country where the population density is very low.

Comparing the number of young people's siblings with the number of their own children, as seen in the previous section, the reduction in the fertility rate of the youngest generation is apparent.

Family background. The family background influences many aspects of young people's lives. The family is the first societal unit. It is, therefore, the first social institution towards which young people direct their expectations about their adult life.

This is particularly true in countries where social mobility is low and the economic structure is stable over time. It is interesting to assess the extent to which intergenerational transfer of wealth, income, education and also employment opportunities take place in Mongolia, in view of the important changes the country has recently undergone, including a continuous process of industrial restructuring, especially in urban areas. This tends to change the skill composition of employment and makes it more difficult to maintain a stable social structure. For instance, it becomes less frequent for young people to do the same job as their parents and means they must put more effort into their search for decent jobs.

Intergenerational transfers may be negative or positive for the younger generation, in the sense that they might increase or decrease the level of welfare of the youth population.

Empirical evidence, relating to most developing and transition countries, shows that young people from wealthier households, whose parents have higher educational attainment and better jobs, achieve a higher level of education and higher quality and better paid jobs.

Table 2.2.2 shows the distribution of fathers and mothers' occupations. Young people, whose parents have died, are unemployed or retired from the labour market, are about 40 per cent of the sample and are the weakest segment. In particular, orphans are about 2.8 per cent of interviewees. In addition, about 19 per cent were fatherless and 6.1 per cent motherless. This is quite a high share considering the young age of the interviewees. Policy-makers should take this group into consideration.

Table 2.2.2. Parents' occupation

	Father	Mother
Administrative, managerial	3.01	2.14
Specialist	3.91	6.59
Engineering, technical and related	3.45	1.29
Clerical and related	0.23	0.84
Service worker	4.83	8.79
Agriculture and fishery worker	0.33	0.31
Production and sales worker	1.75	1.67
Machine and equipment fitter	0.94	0.25
Elementary work	6.06	4.85
Herdsman	14.58	15.42
Farmer	0.20	0.17
Retired	15.25	21.28
Self employed/own account worker	9.46	9.77
Unpaid family worker	0.36	1.00
Household duties	1.82	6.72
Unemployed/looking for job	10.35	10.35
Employed in overseas	0.36	0.31
Parent deceased	18.55	6.11
Other	4.57	2.14

Source: Own elaboration based on SWTS database, NSO Mongolia.

About 4 per cent had both parents unemployed. The share of unemployed mother or father is the same at about 10.4 per cent. Moreover, a minor share of those individuals whose father is unemployed and whose mother is not unemployed have also a mother who is retired or inactive and is the weakest group in terms of family background.

About 10.3 per cent of young people have both parents retired. A larger share of mothers (21.3 per cent) is retired compared to fathers (15.3 per cent), due to the lower retirement age for women and the higher mortality of men.

The next largest share comprises young people whose father and/or mother is a herdsman, the most common occupation, not only of parents, but also of children.

The educational level of parents and especially of mothers, is a good predictor of success, not only in achieving higher education, but also greater employment opportunities. The distribution of educational levels of fathers and mothers is very similar

(table 2.2.3). A larger number of mothers have specialized secondary education and a larger number of fathers have basic or low secondary education. The first evidence of the strong degree of intergenerational transfers and of stability of households' economic and social status is the closeness of the distribution of young people and their parents in terms of educational attainment.

Table 2.2.3. Parents' educational attainment

	Father	Mother
Uneducated	1.91	1.73
Primary	13.68	14.71
Basic	18.87	18.14
Secondary	27.44	26.84
Vocational technical education	9.17	7.12
Diploma, specialized secondary	13.86	18.52
Tertiary/bachelor	12.71	12.12
Masters degree and above	0.86	0.68
Unknown	1.49	0.15

Source: Own elaboration based on SWTS database, NSO Mongolia.

Table 2.2.4 provides some summary statistics relative to the household's income measured in thousands of tughrik, the Mongolian currency. The footnote to the table provides exchange rates for the US dollar and the euro. The average income level of the households in the sample is TUGs123,580, about US$106.1 and €78.9. However, outliers might affect this average measure and it is convenient to exclude from the distribution the lowest and highest values, in order to obtain a more reliable measure of the mean income. Two alternative restrictions have been applied. The first excludes the zeros. In this case, however, the average income is almost the same. When excluding all the households belonging to the deciles lower than the 10th and 90th, then the average income equals TUGs109,770, about US$94.3 (or €70). The median value, namely the income of the household that divides the distribution in two equal parts, is less affected by extreme values and is, in fact, always equal to TUGs100,000 (US$85.9 or €63.8), independent of the sample considered.

Hence the income level of Mongolian households is very low in comparison to many developing and transition countries. Even considering the low cost of living, it is clear that many households live in dramatic economic conditions. The situation has worsened given that many goods and commodities in common use are imported and prices are high.

Table 2.2.4. Summary statistics on household's monthly net income (in '000 TUGs)

Variable	Obs	Mean	Median	Std. Dev.	Min	Max
All	6 415	123.58	100	144.09	0	9 000
All including zero	6 367	124.51	100	144.23	1	9 000
From the 10th to the 90th deciles	5 153	109.77	100	51.68	35	236

Note: As to the 31 May 2007, the nominal exchange rates of the TUG to the euro and the US dollars were as follows: 1 euro = 1566.8700 tughrik; 1 tughrik = 0.0006 euro; 1 US dollar = 1164.6993 tughrik; 1 tughrik = 0.0009 US dollars.

Source: Own elaboration based on SWTS database, NSO Mongolia.

Inequality. The average income does not explain the extent to which economic conditions change across households. The degree to which young people's educational opportunities and success in finding a decent job are evenly distributed, depends on the

share of households that live below the poverty line and, more generally, on the share that have lower than average incomes.

The degree of dispersion of the households' income distribution might provide the information necessary to understand the degree to which young people are offered equal opportunities across households. Some measures of dispersion are already provided in table 2.2.4, including the minimum, maximum household income, as well as the standard deviation (the average value of differences between each household's income and the average household's, income). These statistics show that inequality is relatively high. The richest household has a 9,000 times higher income than the poorest. However, again, there are only a few households with TUGs0 and even fewer with TUGs9,000. Therefore, this ratio might be misleading.

If the poorest (under the 10th decile) and the richest (above the 90th decile) households are excluded, then the ratio of the richest to poorest becomes 6.7. This is quite a high ratio. While it depends very much on the low income level of some poorer households, the gap with the richest households is still remarkable and suggests that many are unable to provide their children with equal opportunities for education and decent jobs. In fact, the lower the income level of a household, the higher the opportunity cost of education and, therefore, the lower the probability of finding good jobs in the future. [20]

When looking at the standard deviation, important differences according to whether the poorest and richest segments are included in the calculation appear. When the extreme cases are included, the standard deviation is even greater than the mean value, suggesting that the mean does not completely represent the economic conditions of a large number of households. However, when the poorest and richest households are excluded from the sample, then, the standard deviation suggests that most households have an income between TUGs58,120 (US$49.9 or €37) and TUGs161,450 (US$138.6 or €103). This confirms the impression that a large number of households live off very low incomes.

Other more complex measures of inequality are given in statistical annex A.2.2.1 for international comparisons to be made by observers and policy-makers. They measure different aspects of poverty and are, therefore, also precious instruments for policy-oriented analysis aimed at individualizing instruments of intervention for the Government. Without going into details, [21] these measures confirm the high degree of inequality experienced by Mongolian households.

Poverty. One unanswered question of the previous discussion is: when is a household considered "poor"? Inequality provides a more general view of the degree to which opportunities are evenly distributed among young people. However, defining when a household can be considered poor is important to understand when, independent of the parents' educational endowment, it is particularly difficult to provide children with sufficient opportunities for a decent adult life. Poverty can trap households for generations if no external help is provided to those affected. Providing equal opportunity of access to education and decent jobs is an important tool allowing young people to escape the poverty trap.

[20] This statement is based on the assumption that the marginal utility of money is decreasing with higher incomes, like the marginal utility of any other good or commodity. This implies that assuming the same cost of investment in human capital formation, this cost will still be harder to bear for poorer households.

[21] Further details are available from the author on request.

One of the indicators computed by the UNDP considers the share of the population living on less than US$1 or 2 a day. According to unreported calculations, at the time of the survey, the portion of the population that lived on US$30 a month or less was 10.1 per cent and that living on US$60 a month was 32.9 per cent. These shares are lower than those reported by UNDP (2006, page 293) as obtained based on average incomes relative to the period 1990–2004, suggesting an improvement in recent years. [22]

The simplest poverty line can be defined as half of the median income, so that it would be TUGs50,000 (US$42.9 or €31.9), including a quarter of the entire distribution by definition. [23]

However, this measure is very rough and many others have been introduced to take into account several aspects of income distribution, such as finding a poverty line that policy-makers can consider when attempting to reduce inequality and poverty. They are often interested in understanding when a redistributive policy from rich to poor households is actually able to alleviate poverty and reduce inequality.

The measures provided in table 2.2.6 have been defined so as to allow money transfers from households above the poverty line to households below it, in order to be sure that such money transfer will reduce the overall degree of inequality and poverty (see Lambert and Lanza, 2006). By reducing the degree of poverty inequality, such transfers might also foster economic growth, according to recent literature, suggesting that less inequality means more economic growth.

These poverty lines are relative to the actual household's distribution of incomes and can be defined with respect to different indices of inequality. The table provides measures relative to the Gini and the Theil inequality indices. Based on the Gini, all those transfers from households in the percentiles above 63.3 to those in lower percentiles will reduce inequality. The corresponding benchmark income equals TUGs120,000 (US$103 or €76.6). The benchmark income based on the Theil is slightly lower.

Table 2.2.5. Different measures of the poverty line

Relative poverty line	Thous. TUGs
Gini benchmark percentile	63.31
Gini benchmark income	120.00
Theil benchmark income	109.77
Deviation benchmark income	123.31

Note: The indices have been computed excluding the households whose incomes are lower than the 10th or above the 90th decile.

Source: Own elaboration based on SWTS database, NSO Mongolia.

The abovementioned measures of poverty are all based on income levels. However, the national Government can provide in-kind goods and commodities to poor households in many developing and transition countries. Such aid can also come from external sources, such as foreign governments and international organizations. A more accurate measure of poverty should consider the availability of free health, educational and social

[22] Possible differences in the calculations alone cannot explain the large difference between the UNDP figures and those reported here as based on the STWS.

[23] Recall from Chapter 1 that the share of the population under the national poverty line was 36.1 per cent on average over the period 1990–2004.

services to the poorest households. Though not included in the declared income, these goods and commodities might alleviate the sense of deprivation and social exclusion due to poverty.

2.3. Aspirations and life goals

Aspirations in terms of educational attainment. What are the aspirations, in terms of educational achievement, of young people still at school? Answering this might provide useful suggestions for the direction of future reforms of the educational system, as well as to the aspirations of youth regarding future jobs. Table 2.3.1 suggests that young people still at school aspire to the highest educational levels. About 60 per cent of them wish to reach university level and 25 per cent wish to attain a Masters degree. These shares only slightly decrease with age.

Table 2.3.1 Expected education level of youth currently in school, by sex, age group, urban and rural (%)

	Of which						
	Primary	Basic (Grade 4–8)	Secondary (Grade 9–10)	Vocational technical education	Diploma, specialized secondary	Tertiary/ bachelor	Masters degree and above
Total	0.4	0.6	0.9	5.6	7.7	59.9	24.9
15–19	0.2	0.5	1.1	6.9	8.9	61.6	20.6
20–24	1.2	1.0	–	1.0	3.4	53.2	40.3
25–29	–	–	1.3	1.3	1.3	55.3	40.8
Male	0.4	0.9	1.3	7.4	8.6	58.4	23.1
15–19	0.3	0.7	1.5	9.2	9.8	60.0	18.6
20–24	0.8	2.1	–	0.8	4.2	52.1	40.0
25–29	–	–	3.3	–	3.3	56.7	36.7
Female	0.4	0.2	0.6	4.1	6.9	61.2	26.6
15–19	0.2	0.3	0.8	4.9	8.2	63.2	22.5
20–24	1.5	–	–	1.1	2.6	54.1	40.6
25–29	–	–	–	2.2	–	54.3	43.5
Urban	0.4	0.4	0.7	3.7	6.2	58.2	30.4
15–19	0.1	0.1	0.9	5.0	7.6	60.4	25.8
0–24	1.3	1.1	–	0.4	3.0	52.6	41.6
25–29	–	–	1.5	1.5	–	53.7	43.3
Rural	0.4	1.0	1.5	10.1	11.1	63.7	12.2
15–19	0.4	1.1	1.6	10.4	11.3	63.8	11.4
20–24	–	–	–	7.5	7.5	60.0	25.0
25–29	–	–	–	–	11.1	66.7	22.2
Total	0.4	0.6	0.9	5.6	7.7	59.9	24.9
West region	0.3	0.3	0.9	6.5	5.3	64.7	22.0
Khangai region	0.2	0.7	0.5	7.7	8.1	71.6	11.3
Central region	0.5	0.7	2.3	7.3	8.4	63.5	17.5
East region	0.8	0.8	0.8	19.5	26.3	–	10.2
Ulaanbaatar region	0.4	0.5	0.7	3.0	6.2	55.2	33.9
Total number of youth in school (thous.)	1.4	1.9	3.2	19.0	25.8	201.9	84.1

Source: Own elaboration based on SWTS database, NSO Mongolia

Comparison of these aspirations with the share of young people that eventually attain university education (table 2.4.1) suggests that some bottlenecks exist in the education system preventing them realizing their expectations. In terms of the human capital model, this means that young people consider the returns relatively low compared to the high cost of education. This is an important indication for policy-makers. Women have greater expectations regarding educational attainment than men, which would also help explain their higher attainment, as they consider education an important instrument to escape from discrimination in the labour market later in their lives. [24] The most talented and ambitious young women believe that a high level of human capital is an important pre-condition to access stable employment prospects and higher quality jobs. Does higher education provide a higher return in terms of better employment probability and earnings? Section 2.8 in this chapter will attempt to test these hypotheses.

Surprisingly, the aspiration in terms of educational attainment in rural areas is not much lower than in urban areas. The main difference is in the share of those still at school who wish to attain a post-tertiary education, which is much lower in rural than in urban areas. Correspondingly, the share of those at school, who would be happy to complete their education, with a secondary school diploma or below, is much higher. Notice also that the share of young people still at school, who wish to attain a tertiary educational level or above, is three times higher in Ulaanbaatar than in other regions.

2.4. Educational achievement

Introduction. Fostering the formation of greater and new skills in the youth population is universally considered the main policy objective to increase social integration, fertility, productivity and growth in the long term.

The analysis in this section will shed new light on the possible consequences of the recent reform of the educational system. As a result of the ongoing reforms, from 2005−2006 academic year, the general education system has been extended to 11 years with a 5+4+2 structure [25] (Gerelmaa, 2005; del Rosario, 2005).

The section starts with a general assessment of the country's position in terms of educational attainment compared to other countries. It then considers specific educational categories, with a special focus on the weakest group of the uneducated and on some post-compulsory diplomas. The ensuing analysis of factors leading young people to invest in education is done using several econometric methods. They allow identifying instruments for policy intervention to raise the schooling and skill level of the youth population.

Overall evaluation. Formerly socialist countries traditionally feature high levels of educational attainment. A number of instruments had the important effect of reducing the

[24] A recent stream of research is attempting to explain the greater educational attainment of women worldwide. See, among others, Dougherty (2003).

[25] Due to the transition to the 11-year school system, kindergartens, along with primary schools, have offered primary school grade 1 curriculum to 7 year old children. Students who received primary school grade 1 education in kindergartens in 2004–05 were promoted to grade 2 of the primary school in the next school year (September 2005–July 2006). This was a temporary measure designed to allow schools a one-year preparation time for receiving children as young as 7 years old as well as to compensate for the shortage of classrooms and teachers for the new age cohort currently available in regular schools. Starting September 2005, schools have assumed full responsibility for primary school grades 1–5.

cost of education, while the returns from education were essentially non-monetary, in the sense that the more educated people had easier access to the better jobs with better conditions in a more favourable work environment, compared to manual workers. Monetary returns from education were relatively low, due to low average incomes in many former socialist countries and their political emphasis on income equality. This cultural heritage is still obvious in most formerly socialist countries, where educational levels are still very high, as can also be seen by their score on the HDI.

The available evidence based on the SWTS suggests that Mongolia still under performs compared to most former socialist countries and especially to FSU republics in terms of educational attainment. Tables 2.4.1 and 2.4.2 provide detailed information on complete educational attainment, but this data should be taken with due caveat, considering that, as shown in the next section, about 43 per cent of the overall sample of interviewees were still at school at the time of interview. This especially applies to the youngest segment, 15−19 years, of which 78.4 per cent were still at school. The data provided here are, therefore, likely to underestimate the overall level of education in the years to come. The most reliable statistics apply to the oldest age segment, 25−29 years, most of who had already completed their education. In fact, only 4.4 per cent of them were still at school.

The tables show that, in 2006, young Mongolians had a level of education lower than the Organisation for Economic Co-operation and Development (OECD) average and also lower than other transitional economies (see O'Higgins, 2003, for a comparative perspective on developing and transition countries).

Illiteracy and child labour. The most striking observation is that a low, but still noticeable share of 3.3 per cent of the population is uneducated. As is typical in other developing countries, in this share of uneducated young people there are twice as many men as women. As also noted in del Rosario (2005, page 24), parents prefer to use boys rather than girls to herd.

Table 2.4.1. Educational attainment and distribution by sex, age group and urban rural

	15–29 population		**Of which**						
	('000)	**%**	**Male** (%)	**Female** (%)	**15–19** (%)	**20–24** (%)	**25–29** (%)	**Urban** (%)	**Rural** (%)
Total	808.8	100.0	49.4	50.6	41.6	31.3	27.1	55.0	45.0
Uneducated	27	3.3	68.7	31.3	38.3	40.2	21.5	19.2	80.8
Primary	97.2	12.0	58.0	42.0	45.7	28.7	25.7	24.1	75.9
Basic (Grade 4–8)	264.6	32.7	51.2	48.8	69.1	14.1	16.9	45.2	54.8
Secondary (Grade 9–10)	270.1	33.4	47.0	53.0	34.3	43.0	22.6	72.0	28.0
Vocational technical education	27.7	3.4	52.3	47.7	15.0	42.3	42.7	55.5	44.5
Diploma, specialized secondary	18.4	2.3	39.7	60.3	2.7	38.4	58.9	63.7	36.3
Tertiary/bachelor	100.7	12.5	38.8	61.2	1.9	41.4	56.7	72.1	27.9
Masters degree and above	3.0	0.4	37.5	62.5	–	12.5	87.5	87.5	12.5

Source: Own elaboration based on SWTS database, NSO Mongolia.

Table 2.4.2. Educational attainment by age groups (in %)

	15–29			25–29			15–24			15–19	20–24
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Total	Total
Uneducated	4.64	2.06	3.34	3.46	1.94	2.65	8.05	4.88	6.43	3.07	4.29
Primary	14.11	9.98	12.02	16.05	7.34	11.40	38.98	22.36	30.50	13.18	11.01
Basic	33.94	31.53	32.72	22.96	18.12	20.38	41.10	35.77	38.38	54.29	14.7
Secondary	31.77	34.98	33.39	24.32	31.07	27.92	7.63	27.24	17.63	27.52	45.94
Vocational technical	3.63	3.23	3.43	5.80	5.07	5.41	0.85	3.66	2.28	1.24	4.63
Diploma, specialized	1.83	2.71	2.28	4.20	5.61	4.95	0.85	2.03	1.45	0.15	2.79
Tertiary/bachelor	9.79	15.06	12.46	22.22	29.45	26.08	2.54	4.07	3.32	0.56	16.49
Masters degree	0.28	0.46	0.37	0.99	1.40	1.21	-	-	-	-	0.15
Number of observations	*3 167*	*3 248*	*6 415*	*810*	*927*	*1 737*	*236*	*246*	*482*	*2 671*	*2 007*

Source: Own elaboration based on SWTS database, NSO Mongolia.

This presence of a large number of young uneducated people is particularly worrying as most of them live in urban areas. Although the share of the uneducated living in rural areas is about three times higher in percentage terms (at 6.43 per cent) than in urban areas or in the *aimag* or *soum* centres, nonetheless, the larger population in urban areas makes the problem bigger there.

On the positive side, the share of uneducated young people is lower among the oldest segment, at 2.7 per cent, suggesting that some of them manage to achieve primary or basic education in their 20s. [26]

Table 2.4.3 provides the distribution of the uneducated by their reason for dropping out without any diploma, by age and gender. The largest share of the uneducated left school because they did not enjoy it. This finding is very similar to that of del Rosario (2005, page 27) and has many reasons, such as bullying, lack of attention from teachers and, in general, low quality education and poor conditions of schools. Nonetheless, as del Rosario (2005, pages 65–66) finds, this result is to be compared with the attitude of young people to education and their drop-out status; most drop outs, and their families, value education and regret leaving school.

However, about 27 per cent of drop outs declared they left school to tend livestock. This share is significantly lower for women and teenagers, suggesting that child labour related to herding is more typical of boys and may reduce over time. Many women who remained uneducated did so because it was their parents' choice and in many households,

[26] Del Rosario (2005, pp. 17–18) notes that up to 1.2 million Mongolians are involved in some form of adult learning. In addition, in coordination with the Ministry of Education, UNESCO programmes also target the illiteracy rate, supplying courses additional to the formal ones provided by the Mongolian educational system. However, some observers fear that programmes of adult learning might increase the drop out rate, allowing many adults with unfinished education to achieve the same degree as their peers, but with less effort and an insufficient level of knowledge.

specially those in rural areas, female children are involved in domestic chores. There is also a high share of young males who state economic reasons for dropping out. [27]

Table 2.4.3. Reasons to leave school for the uneducated by age and gender (in %)

	All	Men	Women	15–19	20–24	25–29
Failed examinations	2.82	2.56	3.33	3.33	2.60	2.5
Did not enjoy schooling	26.55	26.5	26.67	23.33	27.27	30.0
Do not like schooling	2.26	3.42	0	3.33	2.60	0
Wanted to work	2.26	2.56	1.67	0	5.19	0
Parents did not allow to continue school	6.78	3.42	13.33	5.00	2.60	17.5
Economic reasons	9.04	11.11	5.00	20.00	5.19	0
Takes care of livestock	26.55	28.21	23.33	20.00	29.87	30.0
Other	23.73	22.22	26.67	25.00	24.68	20.0
Number of observations	177.00	117.00	60.00	60.00	77.00	40.0

Source: Own elaboration based on SWTS database, NSO Mongolia.

Illiteracy in the after-compulsory school age should be targeted by educational policy. Integrating young people into compulsory education is the most effective way to increase the job-finding rate and, therefore, reduce unemployment, crime, poverty and social exclusion in the long term. Fighting illiteracy is hard and should be the objective not only of educational policy, but also of employment policy and pro-poor policy. Its most likely cause is child labour because employers, and sometimes parents, hire children during their compulsory school years in the livestock sector. Child labour is an apparent consequence of poverty and confirms concerns expressed earlier that poverty traps too many young people. In order to survive, the poorest households have to resort (at least in the short term) to employing young children in low pay jobs to augment their very low income. Income support schemes for the poorest household are an important policy target.

The Government, already aware of this problem, has adopted a new definition of drop out and a new regulation to fight it in the Education Law of 2005. As reported in del Rosario (2005, page 70), it has already adopted a number of interventions to reduce the drop-out rate: (a) abolition of the cost of school dormitories and food for children, through the subsidies; (b) free school supplies in the amount of TUGs16,000 (about US$13.7); (c) the implementation of adult learning.

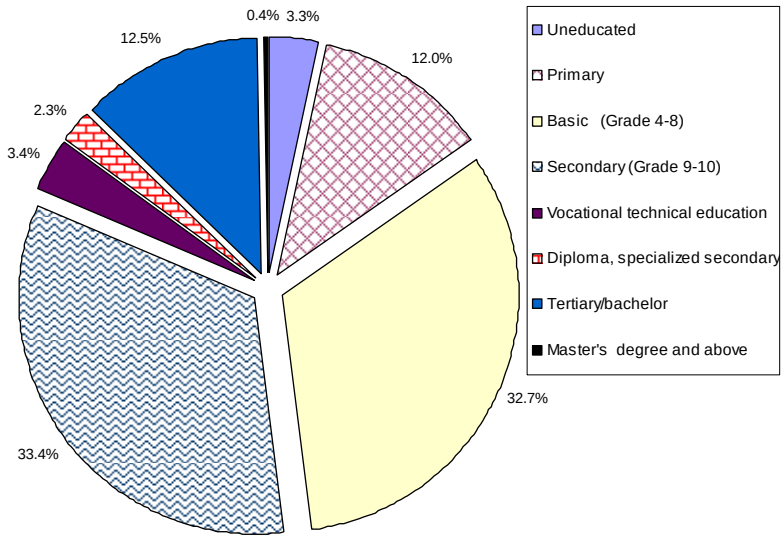
However, it is a matter of concern whether these instruments are sufficient. According to del Rosario (2005), the Government is focusing on: poverty/low income or lack of means of subsistence; child labour related reasons, such as herding, necessity to earn a living to help support the family; migration or lack of dormitories, teacher discrimination; and, systemic problems within the educational system. Areas neglected are: physical and/or mental disabilities; lack of communication and social skills; bullying or peer discrimination; and, parents' educational level. Furthermore, the "initiatives to address the issue are considered palliative since they do not carry legal weight and do not provide sanctions against those who, in one way or the other, cause or made cause the dropping out of a child" (page 7). Moreover, despite government efforts, the supply of education is so weak, especially in rural areas, that the constitutional right to free

[27] Del Rosario (2005) reports many examples of discrimination of urban pupils and teachers against other students coming from rural areas and/or from a poor family. The former consider that the latter pull back the class.

compulsory education remains hard to achieve practically. As noted in del Rosario (2005), there are only 79 independent primary schools, mainly found in remote *soums*, and 232 independent schools with classes for eight years, consisting of primary and lower secondary schools.

Educational attainment. About 11−12 per cent of the entire sample achieves only primary education (table 2.4.1). Of those aged 25−29 years, about a fifth (20.4 per cent) has achieved only basic education (the compulsory level). The country also under performs in secondary education, but less so in tertiary education. In the entire sample, the share of those with a tertiary degree is about 13 per cent (table 2.4.1). The comparable figure for the oldest age segment rises to slightly more than 26 per cent, which is relatively high, compared to the OECD average and other transitional economies.[28]

Figure 2.4.1. Education level of 15-29 year olds, 2006



Source: SWTS, NSO.

However, less optimistically, of those aged 25−29 years, only about 35 per cent have completed high secondary education. Together with those with tertiary education, this figure reaches only about 55 per cent, a much lower share than that typical of other former socialist countries (table 2.4.2). An important factor explaining this outcome is the high level of drop-outs after only primary and basic secondary school, if not earlier. This evidence could signal a fault in the educational system not only to integrate the weakest groups, but also to produce skilled manual labour through vocational training for those not continuing post-compulsory education.

A more positive perspective can be obtained by comparing the level of education of parents (table 2.2.2) and children (table 2.4.2). It shows the numbers rapidly increasing, especially for the intermediate levels. For instance, a larger number of people achieve at least basic and secondary education. Also, the share of those with vocational and technical secondary and those with specialized secondary diplomas is increasing. This is an important sign of the Government's efforts and changes in the composition of demand for skills during transition.

[28] In 2001, the OECD average for those aged 25−34 years with tertiary education was 18 per cent. Of the same group, 74 per cent had completed high secondary education.

Determinants of investment in education. It is important to understand what determines the educational choices of young people for policy-makers to identify which levers to use to increase the level of the population. One important feature, and main aims of an efficient (especially state owned) educational system, is its ability to integrate young people independent of their social background. Everywhere, young people's educational levels rely on parents, and especially mothers' educational achievements. [29]

Based on this, the next step in understanding the reasons of low educational attainment would be to measure the extent to which young people's education depends on that of their parents. This is done by means of multiple regression analysis to take into account other concurrent factors, such as economic conditions in their region, their civil status, the immigrant conditions and living in a rural area.[30] Despite the several reforms of the years necessary to attain each educational diploma, the overall structure of pre-tertiary education has remained substantially unchanged (see table 2.4.1 and Appendix A.1).

Table A.2.4.1 in the Statistical Annex provides the results of this preliminary exercise. [31] From individual characteristics, age is an important determinant of educational choice, highly significant especially in the youngest segments.

Confirming the findings of previous studies (del Rosario, 2005, page 24), women have a significantly higher probability of going into further education than men in every age group. OLS estimates suggest that they have, on average, a 47.4 per cent higher chance than men of achieving the next degree. Younger women seem to have a lower advantage than older women, most likely mirroring the compulsory nature of education below aged 20. This remarkable female advantage in education would suggest targeting men when attempting to increase the overall educational level of young people. However, women may be disadvantaged if their secondary or tertiary diploma is in a field that does not coincide with labour market demand. [32]

Working while studying usually reduces the chances of obtaining a higher degree, but in Mongolia, *ceteris paribus*, those who work and study have more chance of obtaining a higher degree. The impact of this is greater on the oldest groups, who also have a better chance of finding a job. This finding is explained by the high degree of poverty in many households. [33]

One important factor, related to civil status, is the number of children. One child does not reduce educational attainment in a statistically significant way, but two or more children do. This seems to be a key variable from a policy point of view and the

[29] Mothers are more important than fathers in this respect because they live closer to their children and the informal transmission of cultural notions and values is easier and more direct.

[30] In addition to the ordinary least square (OLS) estimates, an ordered probit estimate is carried out. This is a model for discrete and qualitative dependent variables with ordered outcomes.

[31] Given the aims of this report, no other methodological detail is provided in the text, but it is available on request from the author.

[32] Unfortunately, the SWTS of Mongolia does not provide information on the type of university degree achieved. If women have a higher probability to enrol in, say, humanities, they might experience *ceteris paribus* greater difficulties later to find a job when they enter the labour market.

[33] This result should not be biased because of the drop-outs, since they are included in the base category.

implication might be that there should be childcare for students, social welfare benefits and special study grants for those with family responsibilities.

Another factor affecting educational attainment is whether the individual is a migrant or not. Four different categories of migrants are detected in the SWTS: (i) those migrating with their family; (ii) those who migrate in search of a better place to study; (iii) those migrating to take up a job; and (iv) those migrating in search of a job. The first category has, more or less, the same educational chances as permanent residents. The second and third categories both have greater educational attainment than permanent residents. However, while for the second category the impact is higher among teenagers, suggesting that moving is important in the early stages of education, for the third category the impact is greater for young adults and the remaining group of the under 30s. The fourth category *ceteris paribus* has lower educational attainment, which might mirror their initial disadvantage and the need to migrate in search of a job.

Family background affects educational choices. Estimates include controls for the educational level of both parents. The baseline is whether the father or mother has no educational attainment. The findings confirm theoretical expectations. It is particularly important when the father has secondary education, or above, and the impact is dramatic for fathers with tertiary education, or above and the educational level of the mother is greater than the father at every level. Another important aspect of family background is number of siblings, which is a measure of the poverty level of households and also of the relative cost of education across households of different size.

The findings confirm that *ceteris paribus* an individual's educational attainment depends on the number of siblings. The negative impact on educational attainment of more than four siblings is significant. This is especially true for the oldest segment, suggesting that the cost of education for larger households is particularly severe in post-compulsory education. Since fertility is an important resource in the country, where the density of population is the lowest in the world, the policy implications of the previous finding would not be to decrease family size. Rather, it would be to help large families by providing their children with special study grants, bonuses to buy books and other materials necessary for school. However, most policy interventions suggested have a high cost to the State, which might be difficult to afford.

The fight against poverty requires a trade off between short- and long-term objectives. The best pro-poor policy is to increase the employability of young people, making as many of them as possible economically independent and able to contribute to the state budget.

Furthermore, some degree of redistribution from rich to poor families might be implemented by introducing more progressive university fees. In particular, it would be advisable to make education free for children belonging to poor families. [34] While sometimes difficult to accept from a political point of view, redistributive policies can be considered Pareto-optimal if they increase the employment opportunities of young people from poor families and makes them taxpayers.

[34] One objection to this is the high share of the informal sector in Mongolia. This would account for about a third of GDP. Incomes coming from the informal economy might cause important distortions in the implementation of pro-poor and redistributive policies from rich to poor households. One way to prevent this would be to use different indicators of welfare rather than household income, such as number of siblings, having children, holding property and so on. All these factors significantly affect poverty and might be easier to measure than the declared level of income.

Lastly, educational attainment is twice lower in rural areas. This disadvantage is especially high for those in post-compulsory education. However, it is difficult to say whether this is a matter of concern, since it might simply reflect the lower demand for skills acquired in school for agricultural activities. The disadvantage is much lower for teenagers and amounts to a 27 per cent lesser chance of obtaining a higher degree. In addition, from a policy perspective, one implication that the number of educational establishments in rural areas should be increased and made more attractive to young people by offering subjects in demand, such as agricultural and veterinary studies.

A question spontaneously arising from observation of the relatively low level of educational attainment of young people in Mongolia is, whether it is demand or supply-side driven? Does it depend on the low demand from the productive sectors or on the hardship and failure of the educational system in effectively integrating young people? A low educational endowment might be both the consequence of low demand for skilled labour due to the traditional, backward production structure of the country and also of educational systems that are too rigid, unable to satisfy demand composition for skill, or are not sufficiently oriented to the market for skills. It could also be the result of the low capacity to pay for or maintain a good system, as well as the Government's policy priorities. Understanding the reasons for low educational attainment is of vital importance not only to increase the welfare of young people, but also to increase long-term productivity and growth prospects, as the recent new growth literature suggests.

In developing countries, there is a strong trade off between helping poor households satisfy their basic needs in the short term and helping their children escape the poverty trap by providing them with better educational opportunities in the long term. It is crucial that the Government tackles this trade off and allocates at least part of the scarce available resources to long-term objectives, such as increasing the supply of skills in the country.

2.5. Vocational training and technical education

An important, specific aspect of the educational system is its provision of vocational education and training (VET). There is an increasing awareness of VET's importance all over the less developed world (Gill et al., 2000). General education is less negatively affected by structural change than VET. Nonetheless, VET is necessary for the efficient functioning of new production systems and raises the employability of those young people with no intention of going to university. VET was common and well organized during socialism. It was based on on-the-job training and considered equal to formal high secondary education. With the dismantling of the socialist system and the emergence of private firms, its cost became very important, representing a challenge for its survival and development.

This report highlights a number of VET's shortcomings. Above all is its scant supply, most likely due to its increasing cost and the withdrawal from VET of the State and state-owned firms. This explains the low share of young people with vocational high school diplomas. Only 3.4 per cent of young people in the SWTS sample have vocational technical education (table 2.4.1), compared to about 8 per cent of their parents (table 2.2.3). This confirms the hypothesis of a reduction in the supply of technical skills during the last decades. In addition, there seems to be an apparent mismatch between the supply of and demand for VET. In the meantime, formal vocational education is less and less integrated with on-the-job training.

Evidence in support of the hypothesis that the quality of vocational education is low is also found in the following sections. Young people with a vocational diploma have higher activity rates, but less chance of finding employment, compared to those with high secondary education. Moreover, the share of long-term and very long-term unemployment

is much higher among those with compulsory education or below and, even higher, for those with a vocational technical diploma. Furthermore, those with diplomas have lower earnings than those declared by workers with compulsory education only.

These findings contrast sharply with those from the employers' module of the SWTS (see Chapter 4). An important share prefers individuals with a vocational diploma not only to fill vacancies in manual jobs, but also professional, suggesting that it is still in demand, but the supply is unable to satisfy this. Employers are not always satisfied with the level of skills and the quality of vocational education, denoting perhaps, a mismatch between its demand and actual supply.

The shortcomings of the Mongolian VET have negative effects on several of the weakest groups, including those who drop out of school immediately after compulsory education and before accessing high secondary education. VET could represent an important alternative if there was a greater integration between the educational system and firms, thereby reducing its cost and encouraging a return to it. Employers' associations and unions could play an important role to renovate, modernize and improve its effectiveness.

2.6. Preparation for school-to-work transition: The youth still at school

Young people still at school are a specific group preparing for school-to-work transition and are considered outside of the labour force, according to ILO's strict definition of labour market statuses. [35]

About half of the sample was still at school at the time of the interview. The share of those still at school decreases with age and represents 78.8 per cent of teenagers, 27.2 per cent of young adults and 7 per cent 25–29-year-olds. These important shares suggest that young Mongolians aim for higher education, confirmed by comparison to the level of education of parents (table 2.2.2) and their children (table 2.4.1).

Table 2.6.1. Young people still at school

	15–19	20–14	25–29	Total
Yes	78.77	27.2	6.97	43.2
No	21.23	72.8	93.03	56.8
Number of observations	2 671	2 007	1 737	6 415

Source: Own elaboration based on SWTS database, NSO Mongolia.

Determinants of the decisions to stay at school. The determinants of being at school rather than in other labour market statuses have been estimated by logistic regression. This is a type of estimator adopted when the dependent variable is not continuous. [36]

[35] Staying in school cannot be considered any worse than accessing the labour market early in a young person's life with very little chance of finding a decent job in the immediate future.

[36] For methodological details, see Hosmer and Lemeshow (2000). Here, the dependent variable is binary, has an outcome of 1 for those still at school and of 0 for those who have left school and are in the labour market. All other labour market statuses are pooled together, including unemployment, self-employment, unpaid family work, paid employment and inactivity.

Table A.2.6.1 in the Statistical Annex shows the coefficients of these estimates not only for the entire sample, but also for different age groups, and by gender. It is expected that the determinants of the probability to be at school are different according to age group and gender.

The discussion of results will be organized by groups of determinants: (a) age groups; (b) gender; (c) educational levels; (d) number of siblings; (e) the condition to study and work; (f) the civil status and having children; (g) being a migrant; (h) family background; and (i) location.

Age groups. As noted previously, the share of young people still at school reduces with age and is radically different for each age group. Given the sharp differences across age groups, different estimates have been run for each group, allowing an understanding of the determinants applying to young people's decision to stay in education which change with age. Young adults have 0.11 times the chances of teenagers (the baseline group in this case) to be at school rather than in the labour market. This confirms the previous finding that the share of young adults still at school is much lower than teenagers.

Differences in coefficients by age groups will be brought to the fore for each point under discussion.

Gender. As already noted, women are twice as likely to be at school as men and this probability increases among teenagers (about 2.15 times more than in the other age groups). Gender differences are important and suggest, therefore, running separate estimates for men and women in order to capture the different impacts on these two groups.

Educational levels. The baseline is those individuals who have attained compulsory education only. All those holding other educational diplomas have a lower chance of being at school, as shown by negative coefficients, confirming that, with increasing educational attainment, the aspiration to further education decreases. This might depend on the decreasing marginal return to education in the labour market in terms of employment opportunities and earnings. This result holds for different age groups, both men and women, though the statistical significance of coefficients slightly reduces.

One interesting result stands out; the chances of being at school are not decreasing monotonically by educational attainment. The group with the lowest chance of being at school is that of young people with a diploma of vocational education as this type of qualification rarely leads to tertiary education, but tends to be the final step of a student's educational career. This is another bottleneck in the educational system and suggests that policy-makers should reduce the institutional and economic constraints that those holding vocational diplomas have to face when accessing further education. This is also important in the light of results shown in the following sections.

Number of siblings. The odds ratio becomes statistically significant when there are two or more siblings and the probability of being at school goes down to 0.3 times lower when the number of siblings is at least five. The impact of the number of siblings on the probability to postpone labour market entry is much higher among young adults. The impact of siblings on the probability to be at school is higher in the sample of women. When a household has more children and is, therefore, poorer, education cuts from the family budget are more likely to adversely affect women. An increasing number of siblings mean a lower probability of them staying at school.

Study and work. In view of the previous discussion, it is not surprising that about 6.2 per cent of those who study also work. This enables many young people from poor families to continue in education. Results confirm that working while studying increases

the probability of postponing labour market entry. Doing some type of work increases the chance of staying at school by a factor of 1.8. This odds ratio goes up by age, reaching a value of 2.3 and 2.7 in the case of those aged 20−24 and 25−29 years, respectively. Moreover, the odds ratio of being at school for female students who work is higher and equals almost 2. While studying and working is the only option for some to continue their studies, there is now a vast literature suggesting that this dramatically reduces the quality of education. [37] It is, therefore, important to identify this group of students and help them overcome the higher perceived cost of education.

Civil status and having children. Due to the small number of observations relating to young people who are divorced, separated, widowed or living together, only one category is included in the estimates, that of singles. Being in a couple dramatically reduces the probability of being at school. Married individuals have about 0.19 times the chance to be at school compared to singles and single parents have an even lower chance than the rest. The negative impact of having a family on the probability of being at school is increased for the youngest segments and women. Women marry early and few remain at school after marriage, but, nevertheless, have a higher educational attainment than men. This is evidence of women's strong motivation to invest in education.

Being a migrant. Being an in-migrant does not seem to have any impact on the probability to be at school. This confirms previous findings that migration is very common and well received in Mongolia.

Family background. The impact of family background proves, yet again, the importance of this predictor in explaining young people's motivation in pursuing their education. The rationale for this is to be found in the intergenerational transfer of preferences regarding decisions to invest in education, as ascertained by a wide literature. Parents with a high educational achievement weigh less the cost and more the benefit of education, compared to the rest. Moreover, they tend to have higher incomes and, therefore, the cost of their children's education is relatively lower. They are also more able to suggest ways in which their higher level of education can be used in the labour market, therefore, increasing expected returns.

The role of intergenerational transfer of education across different age groups has a greater impact on the youngest segment. It suggests that a teenager whose father has tertiary education or above has about 5.5 times the chance to still be at school. If the mother also has a university degree, this rises to about 10 times higher than the reference group. Overall, this discussion highlights the importance of the intergenerational transmission of human capital and is a warning to the general educational system and policy-makers that access to education of especially poor young people needs support.

Location. Four different types of location are considered. The baseline is constituted of residents in the capital city. Young people living in *aimag* centres, in *soum* centres and in rural areas represent the other cases. The chance of investing in education rather than starting their school-to-work transition is greater in the capital city compared to all other locations. Nonetheless, those living in *aimag* centres do not show up as having significantly lower chances compared to their contemporaries living in Ulaanbaatar. Young people living in *soum* centres have about 0.42 times, and those living in rural areas

[37] Elsewhere in this report (see, for instance, Chapter 3), it is claimed that a dual educational system, where young secondary school students are required to have some training while studying, increases the quality of education as well as the chances to find employment after finishing school. However, the dual educational system should not be confused with the tendency of some students to do some type of very low paid work, often in sectors that are unrelated to their field of study and with very poor training content.

0.19 times, the chance of their peers living in the capital city to be still at school. This might be the effect of the insufficient supply of education in rural areas and in *soum* centres and calls, therefore, for policy intervention.

2.7. Employment status and training

Labour market status of the youth population. Wage employment represents about 16.2 per cent of the sample population, about 34 per cent of the workforce (employed plus unemployed) and 48.2 per cent of total employment (table 2.7.1.). The temporarily absent from work are small in number as are part-time workers. Together, they represent less than 1 per cent of the sample population. The share of part-time work, typically higher among women, is slightly higher among men in Mongolia. Wage employment is much more common in the oldest age segments. Only about 2 per cent of teenagers are engaged in wage employment. The comparable figure goes up to 19.1 for young adults and 31.8 for the 25−29-year-olds, respectively. The other components increase slightly with age. Wage employment is more common in urban than rural areas, where it represents about 4.5 per cent of the sample population; this very low share in rural areas is not due to greater unemployment, in fact, lower than in urban areas, but rather to a sizeable share of self-employed in unpaid family business. The share of wage employment is very similar in the other locations, going from 17.4 per cent in the capital city to 19.7 per cent in the *aimag* centres and to 20.1 per cent in *soum* centres.

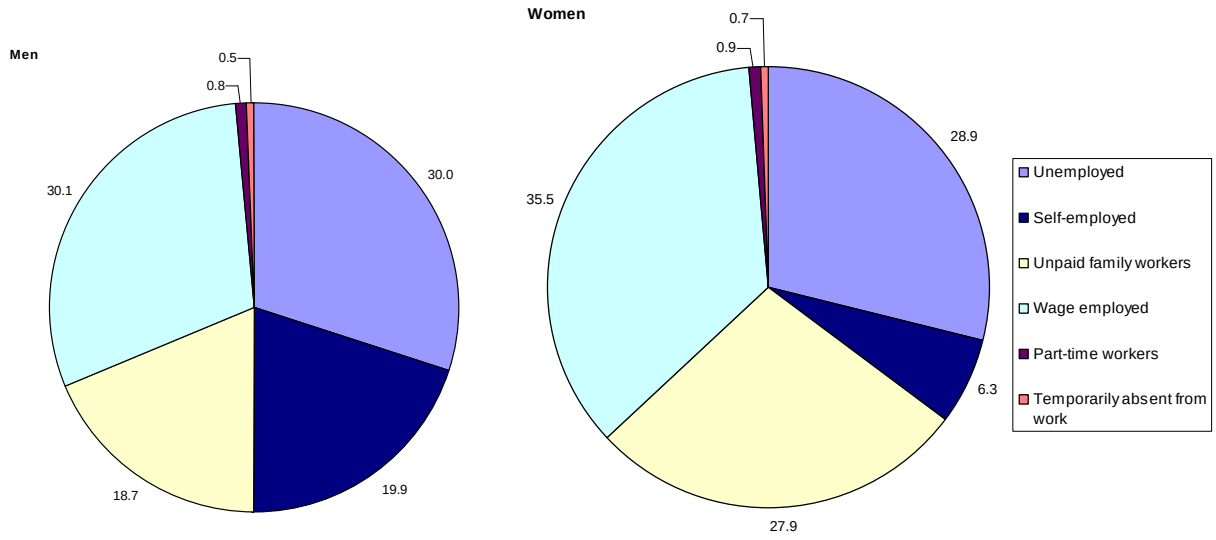
Table 2.7.1. Distribution of the youth population by labour market status (%)

	All	Men	Women	15–19	20–24	25–29	Ulaanbaatar	*Aimag* centre	*Soum* centre	Rural area
In school	41.7	40.2	43.1	78.4	25.2	4.4	55.08	48.52	37.74	17.89
Engaged in home duties	7.7	5.5	9.9	4.2	9.0	11.7	6.70	6.01	7.66	10.77
Took care of family members	2.0	0.6	3.5	0.3	2.8	3.9	2.37	2.22	1.88	1.52
Self-employed	6.5	10.5	2.7	0.7	7.5	14.3	3.76	3.60	5.08	14.78
Unpaid family worker	10.9	9.8	11.9	5.7	14.9	14.2	0.61	1.66	3.97	41.92
Wage employment	15.5	15.8	15.2	2.1	19.1	31.8	17.39	19.69	20.06	4.49
Part-time work	0.4	0.4	0.4	0.1	0.7	0.6	0.41	0.28	0.56	0.35
Temporarily absent from work	0.3	0.3	0.3	0.1	0.2	0.8	0.12	0.92	0.14	0.21
On sick leave or leave of absence	1.0	1.3	0.7	0.6	1.2	1.4	1.14	1.02	1.11	0.62
Unemployed	14.0	15.7	12.4	8.0	19.6	16.8	12.41	16.08	21.8	7.46
Number of observations	*6 415*	*3 167*	*3 248*	*2 671*	*2 007*	*1 737*	*2 449*	*1 082*	*1 436*	*1 448*

Source: Own elaboration based on SWTS database, NSO Mongolia.

Composition of the youth workforce. Looking at this composition by gender in figure 2.7.1., it appears that the unemployment rate is similar. The main difference is in the composition of employment. Women are wage employed more frequently than men, with shares of 35.5 per cent and 30.1 per cent, respectively. This is most likely because of greater job stability and the possibility to better control work commitment in terms of hours and effort. For similar reasons, men are more often self-employed, whereas women are more often unpaid family workers.

Figure 2.7.1. Status of the youth workforce by gender (%)



Source: Own elaboration based on the results of the SWTS, NSO Mongolia.

Table 2.7.2. Distribution by gender of different labour market statuses (%)

	Unemployed	Self-employed	Unpaid family workers	Wage employed	Part-time workers	Temporarily absent from work	Total
Men	55.4	79.2	44.5	50.4	53.9	50.0	54.5
N	*498*	*331*	*310*	*500*	*14*	*9*	*1 662*
Women	44.6	20.8	55.5	49.6	46.2	50.0	45.5
N	*401*	*87*	*387*	*492*	*12*	*9*	*1 388*
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	*899*	*418*	*697*	*992*	*26*	*18*	*3 050*

Source: Own elaboration based on SWTS database, NSO Mongolia.

The distribution by age groups shows marked differences in terms of the unemployment rate. It is monotonically decreasing with age (table 2.7.3.). *Labour market status and education.* Education endowment is one of the main determinants of belonging to a given labour market status. One of the returns to education is to increase employability and reduce the chance of being jobless. Table 2.7.4 provides a snapshot of labour market statuses by educational attainment for the entire sample of the SWTS. Both stocks and rates are reported. The table shows that the activity and employment rates are a positive and the unemployment rate is a negative function of education. There are, however, exceptions. The activity rate, for instance, is relatively higher for those with primary education or below, compared to those with low and high secondary education, though the most educated (vocational education or above), tend to have a higher activity rate. The employment rate has the same tendency, while the unemployment rate is the reverse: it increases for those with secondary education before decreasing again for those with specialized secondary education or above. The simple explanation for this finding is that those holding a secondary school diploma are most likely to be involved in further education, whereas those with the lowest educational endowment cannot access further education and are, therefore, already in the labour market or have been there for years at the time of interview.

Table 2.7.3. Status of the youth workforce by age groups

	Unemployed	Self-employed	Unpaid family workers	Wage workers	Part-time workers	Temporarily absent from work	Total
Teenagers (15-19)	214	19	152	55	2	2	444
	48.20	4.28	34.23	12.39	0.45	0.45	100
	23.80	4.55	21.81	5.54	7.69	11.11	14.56
Young adults (20-24)	393	150	298	384	13	3	1 241
	31.67	12.09	24.01	30.94	1.05	0.24	100
	43.72	35.89	42.75	38.71	50	16.67	40.69
Aged 25–29	292	249	247	553	11	13	1 365
	21.39	18.24	18.10	40.51	0.81	0.95	100
	32.48	59.57	35.44	55.75	42.31	72.22	44.75
Total	899	418	697	992	26	18	3 050
	29.48	13.70	22.85	32.52	0.85	0.59	100
	100	100	100	100	100	100	100

Source: Own elaboration based on SWTS database, NSO Mongolia.

Informal and temporary employment. The SWTS asks whether the interviewees who are employed have a contract for their current job, limited or unlimited in time. This is an important question to detect the extent of informal and temporary employment. Table 2.7.5 answers these questions by gender. About 10 per cent more women than men have a contract: the portion of women with a contract is 45.6 per cent and for men 36.3 per cent. The vast majority are fixed-term contracts. The share of temporary employment is constant by gender and represents about 74 per cent of contract holders. This is an apparent sign of the low quality of jobs offered to young Mongolians, an issue that will be taken up in Chapter 3. There seems to be slightly greater job stability for women. This female

Table 2.7.4. Young people's employment status by education level

Education	Total (thous.)	U	E	I	u	e	i	a
Total	808.80	45.12	276.40	487.28	14.03	85.97	60.25	39.75
Uneducated	26.98	1.26	14.37	11.35	8.06	91.94	42.05	57.95
Primary	97.21	3.78	45.02	48.41	7.75	92.25	49.80	50.20
Basic (Grade 4–8)	264.64	10.33	59.01	195.29	14.90	85.10	73.80	26.20
Secondary (Grade 9–10)	270.06	16.76	59.90	193.41	21.87	78.13	71.62	28.38
Vocational technical education	27.74	2.77	15.38	9.58	15.27	84.73	34.54	65.46
Diploma, specialized secondary	18.41	1.01	11.47	5.92	8.08	91.92	32.19	67.81
Tertiary/bachelor	100.74	9.07	68.97	22.69	11.63	88.37	22.52	77.48
Masters degree and above	3.03	0.13	2.27	0.63	5.26	94.74	20.83	79.17

Note: Capital letters (U, E, I) represent stock measures of unemployed, employed and inactive young people. Lower case letters (u, e, i, a) measure the rates of unemployment, employment, inactivity and activity. As usual, the unemployment rate is obtained as $u=\frac{U}{E+U}$; the employment rate as $e=\frac{E}{E+U}$; the inactivity rate as: $i=\frac{All-E-U}{All}$; and, finally, the activity rate as a = 1 – i.

Source: Own elaboration based on SWTS database, NSO Mongolia.

Table 2.7.5. Informal and temporary employment by gender

	Male	Female	Total
No contract	750	552	1 302
%	63.67	54.44	59.40
Contract	428	462	890
%	36.33	45.56	40.60
Number of observations	1 178	1 014	2 192
Fixed-term contract	316	340	656
%	73.83	73.59	73.71
Permanent contract	112	122	234
%	26.17	26.41	26.29
Number of observations	428	462	890

Source: Own elaboration based on SWTS database, NSO Mongolia.

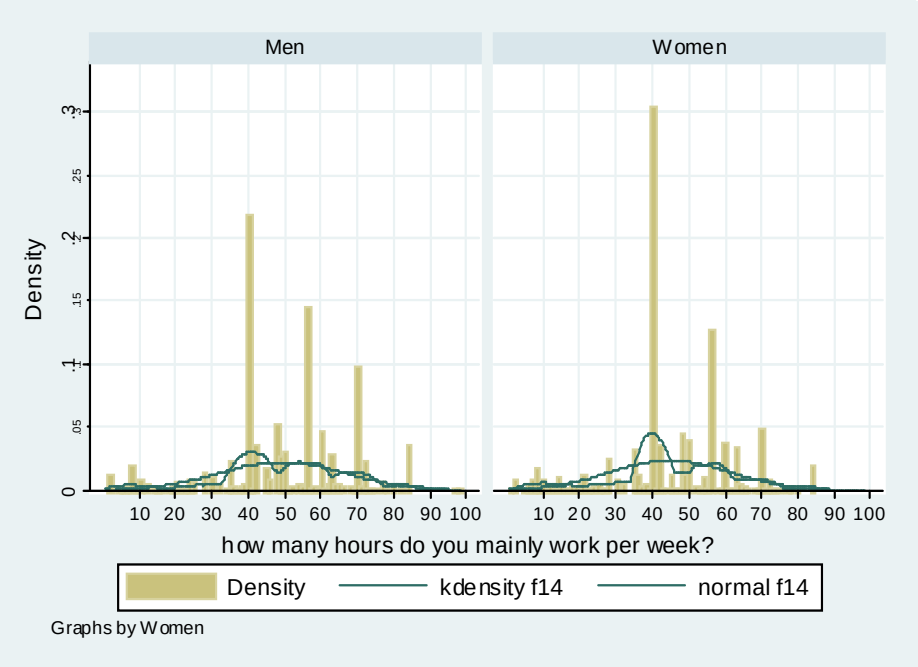
advantage might be due either to their higher educational level, or to their tendency to seek jobs able to provide, for instance, paid maternity leave, despite only 11 per cent of employed women declaring that their job provides childcare allowances. The comparable figure for men is 9.2 per cent.

Working hours. Figure 2.7.2 shows that the distribution is very dispersed for men and women, suggesting that the work effort is very different across individuals with different occupations. The peak is for those working 40 hours per week, the typical working hours envisaged in labour agreements: 21.8 per cent of men and 30.3 per cent of women work 40 hours a week. However, the distribution is clearly multi-modal, with apparent peaks at 40, 55 and even 70 hours worked per week. Particularly striking, and worrying, is the high share of young people working extremely long hours. About 56 per cent work more than 40 hours and 40 per cent work more than 50 hours. Men are more frequent among those with the heaviest workload. Among women, about 50 per cent work more than 40 hours and 33 per cent work more than 50 hours; among men, the comparable figures are 63 per cent and 45 per cent, respectively. This is typical of certain activities, such as pasturage, common among young people, and where productivity is low. An extremely high number of hours worked is an important indicator of the low quality of work, as shown in Chapter 3.

Women working part time (less than 40 hours) are a small number. This partly depends on the relatively small number of young women with dependent children which, as noted above, is about 30 per cent. However, this is also due to the extreme poverty of the country, where part-time work is not an option for many firms, due to its high cost. In addition, as is typical of several developing and transition countries, [38] in Mongolia, many women prefer long maternity leave (up to three years), to part-time work.

[38] See, for instance, Pastore and Verashchagina (2007); and Malisheva and Verashchagina (2007).

Figure 2.7.2. Hours worked per week by gender



Source: Own elaboration based on SWTS database, NSO Mongolia.

Factors affecting the probability to be employed. What are the factors of success in accessing a job? This subsection will attempt to succinctly answer this question by looking at the factors affecting the probability. The next sections will consider the risk factors of unemployment and inactivity. The analysis is based on Panel (c) of tables 2.7.1 and 2.7.2 of the Statistical Annex. Those who are unpaid family workers constitute the baseline group and, therefore, the coefficients I n Panel (c) should be considered as measuring the relative risk (or odds ratio) to be employed rather than being unpaid family worker due to the given characteristics. Women have a lower chance of being employed than being unpaid family workers. The returns to education in terms of probability of finding a job rather than being an unpaid family worker are important and increase with education. A young person with a university degree has dramatically higher chances of finding employment than a peer with primary education or below.

2.8. Wage employment

Introduction. This section discusses different aspects of wage employment of young people. It starts from the analysis of the composition of employment by sector of industry. The information is broken down along different dimensions, including age groups, gender, urban/rural areas. The ensuing part of the section focuses on earnings distribution. After having a look at the wage distribution by educational level, Mincerian earnings equations provide a tool to measure returns to education and returns to different educational levels. The analysis considers different aspects of the wage distribution among young people, including work experience, civil status, having children, formal/informal work, methods of job search, industry and location. A special focus is on gender differences in wages. The gender wage gap (GWG) is decomposed into differences in characteristics and coefficients. Overall, this allows not only a vivid and detailed picture of earnings distribution, but also several policy suggestions.

Sectoral composition of employment. The most striking fact that table 2.8.1 illustrates is the highest share, over 40 per cent, of young people employed in the livestock sector.

The livestock, and more generally, the agricultural sector has, in fact, further expanded since the start of transition and the ensuing fall in output experienced in urban areas, where the bite of reforms has been stronger. This has also caused, in rural areas, a revival of traditional activities in the primary sector, which has always been one of the most important sectors (for an in-depth analysis of the post-transition transformation of the production structure in Mongolia, see Morris and Brunn, 2005). The data highlight a dramatic polarization of economic activities around the primary sector: including other minor subsectors, the primary sector accounts for 45 per cent of total employment. All other sectors are of lesser importance.

Table 2.8.1. Sectoral composition of employment by gender and age group

	All	Men	Women	15-19	20-24	25-29
Agriculture	0.73	0.93	0.49	0.87	0.23	1.09
Livestock	40.60	43.29	37.48	68.26	41.76	33.91
Forestry	0.68	0.85	0.49	1.30	0.70	0.55
Fishery	0.18	0.25	0.10	0.43	0.12	0.18
Mining and quarrying	2.74	3.82	1.48	3.48	3.36	2.09
Manufacturing	3.88	3.14	4.73	2.61	3.60	4.36
Electricity, gas and water supply	1.96	2.89	0.89	1.3	1.39	2.55
Construction	2.92	4.33	1.28	2.17	3.25	2.82
Wholesale and retail trade and household goods	7.62	5.77	9.76	5.22	6.73	8.82
Hotels and restaurants	3.51	1.44	5.92	6.09	4.52	2.18
Transport and storage	3.92	6.03	1.48	1.74	3.48	4.73
Tourism	0.82	0.85	0.79	0	0.81	1
Telecommunication	0.87	0.51	1.28	0	0.35	1.45
Financial services	3.28	2.72	3.94	0.43	3.13	4
Real estate, renting and business activities	0.78	0.59	0.99	0	1.04	0.73
Public administration, defence, compulsory social insurance	7.85	9	6.51	1.74	7.54	9.36
Education	8.44	4.67	12.82	0	7.77	10.73
Health and social security	2.19	1.44	3.06	0.43	2.67	2.18
Community, social and personal services	5.06	5.09	5.03	2.61	5.45	5.27
Other	1.96	2.38	1.48	1.30	2.09	2
Number of observations	2 192	1 178	1 014	230	862	1 100

Source: Own elaboration based on SWTS database, NSO Mongolia.

The manufacturing sector, for instance, employs about 4 per cent of the youth workforce, a share lower than the wholesale and retail trade (7.6 per cent), and similar to the hotels and restaurants sector (3.5 per cent) as well as the transport and storage sector (3.9 per cent). The state sector share of employment is small. The public administration employs 7.8 per cent, the educational sector 8.4 per cent and the communal services 5.1 per cent of total youth employment.

Among other things, the composition of employment provides a first answer to the question posed in section 2.4 on the reasons for the low supply of skills in Mongolia. It is apparent that as a consequence of the transition and quasi disappearance of the manufacturing sector, the demand for skills is now relatively low. After the transitional recession, the population tended to move to the informal sector in urban areas and to herding, mainly in rural areas.

More men than women work in the livestock sector. In addition, herding is much more common among teenagers and young adults. The reduction in the share of young people employed in the livestock sector by age might be suggestive of a tendency for them to use this type of employment as a temporary solution. It might also suggest that many teenagers leave school to work as herders and, therefore, dropping out is closely related to child labour or, more generally, to labour at a very young age in this sector. Also work in the manufacturing sector, as well as in all other sectors, increases with age. This is a consequence of the strong concentration of teenagers in herding. In a similar vein, since men are more frequent than women in herding, the opposite holds true for the other sectors. For instance, more women than men work in the manufacturing sector.

Formal/informal work. Informal work represents a constraint to the development of the local economy, hindering the development of the formal sector and reducing tax revenues that are vital to the development of public services. In addition, informal work almost always means very low incomes, especially for young people, forcing them into the poverty trap. Low incomes and employment instability negatively affects fertility, health and, as recent research has shown, also happiness. Informal work is very common in Mongolia. Column 2 of table 2.8.2 shows the composition of informal work across sectors, while the other columns provide information on formal work and, in particular, on whether the work contract is written or oral, allowing a comparison of different degrees of formality. About 60 per cent of the entire youth employment is informal. This is a very high share and confirms the poor employment prospects of young people. As shown in the remainder of the section, according to the results of estimates of earning equations reported later, informality implies a statistically significant wage loss of between 19 and 30 per cent. It is not only a tax loss for the Government, but also, as Chapter 3 will indicate, an important cause of work dissatisfaction: many young people working informally wish to change their job, contributing to job instability and slowness of school-to-work transition. Informal work is evenly distributed across industrial sectors, but there are several important exceptions. In particular, and expectedly, it is much more common in the livestock sector, whereas it is almost absent in the state sector and less frequent in the manufacturing and mining sector.

Almost 70 per cent of the young people employed in the livestock sector work informally. Most contracts that are held are only oral or temporary. Informal workers in the livestock sector in rural areas are a very weak group; they have between a quarter and half of the average wage of young people, which is already lower than adults. [39] Therefore, these groups deserve attention from policy-makers. Not only do they live in extreme long-term poverty, but this poverty is also likely to trap the next generation. The distribution of informal work by age groups makes it apparent that it is more common among teenagers. There are more of them working informally than there are in total youth employment. This is surely related to the greater than average share of them in the livestock sector. The share of the young adults over total informal employment is about the same as the total. Similarly, written contracts are more common among those aged 25−29 years and oral contracts more common among teenagers.

Overall, analysis of informality of working conditions confirms that teenagers tend to be the weakest group. Whether informality of employment is a consequence or a cause of this further weakness is difficult to say, but policy-makers should be aware that teenagers leaving the educational system tend to find less decent jobs and, therefore, become trapped in poor employment positions for the rest of their lives. Men work informally more

[39] The wage penalty for working in the livestock sector is between 40−140 per cent, that for working in rural areas is 40 per cent and that of working in the informal sector of between 19 and 30 per cent. Overall this is a huge wage gap.

Table 2.8.2. Composition of employment by type of contract

	Total (%)	Of which			
		Without contract (%)	With contract		
			Total (%)	Written (%)	Oral (%)
Total	100.0	100.0	100.0	100.0	100.0
Agriculture	0.7	0.7	0.8	0.8	–
Livestock	40.6	67.4	1.3	0.8	17.2
Forestry	0.7	1.1	0.1	0.1	–
Fishery	0.2	0.2	0.1	0.1	–
Mining and quarrying	2.7	2.1	3.7	3.8	–
Manufacturing	3.9	2.1	6.5	6.5	6.9
Electricity, gas and water supply	2.0	0.3	4.4	4.5	–
Construction	2.9	1.9	4.4	4.3	6.9
Wholesale and retail trade and household goods	7.6	9.1	5.5	5.1	17.2
Hotels and restaurants	3.5	3.1	4.0	3.4	24.1
Transport and storage	3.9	3.5	4.5	4.4	6.9
Tourism	0.8	0.3	1.6	1.5	3.4
Communication	0.9	0.1	2.0	2.1	–
Financial	3.3	0.3	7.6	7.9	–
Real estate, renting and business activities	0.8	0.7	0.9	0.9	–
Public administration, defence, compulsory social insurance	7.8	1.2	17.6	18.0	6.9
Education	8.4	0.5	20.1	20.8	–
Health and social security	2.2	0.2	5.2	5.3	–
Community, social and personal services	5.1	3.3	7.6	7.5	10.3
Others	2.0	2.0	1.9	2.0	–
Total	100.0	100.0	100.0	100.0	100.0
15–19	10.5	15.6	3.0	2.8	10.3
20–24	39.3	39.9	38.4	38.1	48.3
25–29	50.2	44.5	58.5	59.1	41.4
Total	100.0	100.0	100.0	100.0	100.0
Male	53.7	57.6	48.1	48.1	48.3
Female	46.3	42.4	51.9	51.9	51.7
Total	100.0	100.0	100.0	100.0	100.0
Urban	38.8	21.3	64.5	64.7	58.6
Rural	61.2	78.7	35.5	35.3	41.4
Total	100.0	100.0	100.0	100.0	100.0
West region	19.5	26.6	9.1	9.1	10.3
Khangai region	25.8	29.9	19.8	19.9	17.2
Central region	18.1	15.4	21.9	22.2	13.8
East region	11.4	13.7	7.9	7.7	13.8
Ulaanbaatar region	25.3	14.4	41.3	41.2	44.8
Total (thousands)	276.4	164.2	112.2	108.6	3.7

Source:Own elaboration based on SWTS database, NSO Mongolia.

frequently than women. Informal work is also more common in rural than in urban areas. About 80 per cent of informal work is concentrated in rural areas. In urban areas, written contracts are more frequent than oral contracts, whereas it is the opposite in rural areas. Informal work is more common in the western region and also partly in the Khangai region, whereas it is less frequent in the others, especially in the capital city. Only 14.4 per cent of total informal youth employment is in Ulaanbaatar, against a share of 25.3 per cent of total employment.

Returns to education. An important strand of the literature on economic transition has asked whether wage determination obeys productivity considerations in new market economies. Moreover, assuming that in mature market economies human capital is the main determinant of labour productivity, what is its role in transition economies? Previous studies have also asked what the role is, in the context of transition economies, of other typical factors affecting wages in mature market economies, such as gender, civil status, sector of industry, location. Empirical studies have documented an increase in the returns to education and work experience during transition, especially in the early stages of economic transition (Munich, Svejnar and Terrell, 2005). This would tend to prove that market forces have come into play and that the emphasis of former socialist countries on equality of outcomes is being abandoned. Indeed, in a market economy, wages are supposedly paid on merit, which depends, usually, on human capital endowment, whatever the theoretical assumptions of the analysis. In fact, profit-seeking firms would be interested in paying higher wages to those employees that contribute more to production (see, among others, for comparative studies, Newell and Reilly, 1999; Trostel et al., 2002; and Flabbi et al., 2007).

In Mongolia (Ulaanbaatar), Darii and Suruga (2006) found a rate of return to a year of schooling of 7.2 per cent, which is higher than in most transition countries. The rate of return to university education in Mongolia is the highest among transition economies and the returns to other educational qualifications are comparable with those previously found relative to CEE and FSU countries. The authors also found a specific wage premium of about 9 per cent over the median wage for people aged below 35 years, though the coefficient is statistically significant only at the 10 per cent level. [40]

Before looking at returns to education, it is of some interest to consider the unconditional wage distribution by educational levels and by gender, namely the wage distribution before controlling for other variables that might affect wages. Tables 2.8.3 and 2.8.4 provide summary statistics on monthly wages from the main job and their log transformation. The tables clearly show that the average wage increases with educational levels, the only exception being those with vocational secondary education. However, the

[40] This finding is consistent with Pastore and Verashchagina (2006, p. 100) for Belarus. As they note, a largely anecdotal literature depicts young people as the true winners of transition. The rationale would be that, holding the educational level constant, young people possess fresh human capital formed during the new era, while older people's knowledge was formed previously and is no longer suitable to the needs of the market economy. To test this hypothesis in Belarus, the authors include in mincerian earnings equations a dummy for individuals aged 30 or below. The coefficient is negative, but not statistically significant. This is hardly surprising as young people earn universally lower wages as a consequence of their lack of work experience. As a further test, they interact the dummy relative to young people with dummies representing various levels of education attainment. The results relative to 1996 confirm anecdotal evidence: *ceteris paribus*, young people holding a university degree have a wage premium of about 17 per cent. This gap disappears when other educational groups are considered, for which the coefficient is not significant. In 2001, the advantage of young people with tertiary education dramatically decreases, with the coefficient becoming insignificant. Instead, a statistically significant youth wage premium appears for those with vocational (22.4 per cent) and general secondary (14.8 per cent) education

small number of observations available might affect this result. Note also that the degree of dispersion of wages by educational category is very high, which might also affect the mean value. The median wage distribution by education in table 2.8.4 presents a more stable picture, with the median wage increasing strictly with education, including those holding a vocational education or a master degree. These results are in line with Darii and Suruga's findings (2006).

However, unconditional differences in wages might hide the real nature of the relationship between education and earnings, and to obtain a measure of the wage effect of each educational qualification, it is necessary to take into account differences among individuals working in different places and industrial sectors, as well as with different degrees of work experience. The higher wages of those holding a university degree might be explained by their greater work experience or working in highly paid sectors.

Table 2.8.3. Wage levels by education (monthly wages and its natural log)

	Monthly wages from main job (thous. TUGs)				
	Obs	**Mean**	**Std dev.**	**Min**	**Max**
Uneducated	114	30.72895	38.22403	0	226
Primary	357	201.1969	3174.023	0	60 000
Basic	468	255.4671	4620.777	0	100 000
Secondary	475	384.0992	4566.341	0	85 000
Vocational	122	76.33689	51.11727	0	256
Diploma	91	2468.811	14040.78	0	100 000
Tertiary	547	1553.286	15113.5	0	185 000
Masters	18	125.0556	32.84629	80	200
	Natural log of monthly wages from main job				
	Obs	**Mean**	**Std dev.**	**Min**	**Max**
Uneducated	79	3.495897	0.764798	1.740466	5.420535
Primary	249	3.60847	0.900717	0.693147	11.0021
Basic	385	3.634301	0.919429	0.693147	11.51293
Secondary	433	4.14055	0.919425	0	11.35041
Vocational	114	4.222901	0.64106	1.94591	5.545177
Diploma	89	4.602225	1.436821	0.693147	11.51293
Tertiary	539	4.730388	0.883049	0.693147	12.12811
Masters	18	4.797913	0.252885	4.382027	5.298317

Note: The observations relative to the log transformation are less numerous because some individuals declare a wage lower than 1 or 0. Negative values have been dropped. As to 31 May 2007, the nominal exchange rates of the TUG to the euro and the US dollars were as follows: 1 euro = 1566.8700 TUG; 1 TUG = 0.0006 euro; 1 US dollar = 1164.6993 TUG; 1 TUG = 0.0009 US dollars.

Source: Own elaboration based on SWTS database, NSO Mongolia.

Table 2.8.4. Summary statistics on the wage distribution by education

	Uneducated		Primary		Basic		Secondary		Vocational		Specialized secondary		Tertiary		Master		Total	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Mean	3.50	30.73	3.61	201.20	3.63	255.47	4.14	384.10	4.22	76.34	4.60	2468.81	4.73	1553.29	4.80	125.06	4.14	667.52
Median	3.40	20.00	3.43	24.00	3.64	30.00	4.22	60.00	4.35	70.00	4.44	85.00	4.61	100.00	4.79	120.00	4.25	60.00
Variance	0.58	1461.08	0.81	10100000	0.85	21400000	0.85	20900000	0.41	2612.98	2.06	197000000	0.78	228000000	0.06	1078.88	1.05	76200000
10th percentile	2.51	0.00	2.71	0.00	2.71	0.00	3.00	9.50	3.40	20.00	3.91	30.00	4.25	70.00	4.50	90.00	3.00	0.00
90th percentile	4.61	80.00	4.61	90.00	4.61	90.00	4.94	130.00	5.01	140.00	5.19	170.00	5.30	200.00	5.19	180.00	5.01	150.00
Skewness	0.19	2.22	2.07	18.81	1.30	21.56	1.76	16.22	–0.69	1.12	2.76	6.18	4.59	10.65	0.31	0.73	1.89	16.43
Iqr	1.01	40.00	1.10	50.00	1.25	45.00	0.76	59.00	0.69	55.00	0.54	56.00	0.56	60.00	0.41	50.00	1.05	78.00
Kurtosis	2.63	9.58	20.21	354.89	16.75	465.92	21.30	278.96	4.04	4.97	15.73	40.40	44.64	116.56	2.22	2.75	19.44	291.39

Note: (1) natural log of monthly wages from the main job; (2) monthly wage from the main job in thousands of TUGs.

Source: Own elaboration based on SWTS database, NSO Mongolia.

Mincerian earnings equations: A short methodological note. Table A.2.8.1 in the Statistical Annex presents the results of OLS earnings equations for all young people in the SWTS. Separate estimates are presented for different age groups, as well as for men and women. The equations study the determinants of net monthly wages, while the log of the number of hours worked per week is used as an independent variable. [41] The equations are augmented to consider not only human capital variables, but also a number of other individual and environmental characteristics, namely gender, civil status, formal/informal employment, the status of migrant, union membership, past experiences of training, type of search method adopted to get the job, the industrial sector of activity, the location and whether one is living in a rural/urban area. The table provides the coefficients for the entire specification. [42]

For their flexibility, Mincerian earnings equations are an important source for policy-oriented analysis because they allow the testing of different hypotheses coming from the political debate and for which there is often no evidence. What is the role of education on earnings? Are more educated people better off? What is the role of work experience for young people? How much work experience is necessary for a young person to close the youth experience gap? Does informal work convey a wage premium or a wage penalty? And training? And migration? And finding a job through the informal channel of family and friends? The Mincerian earnings equations allow answers to these questions in a clear and accurate way.

Human capital variables: years of education. What is the annual rate of return to education and how can it be measured? The literature provides two alternatives. The traditional way is by including years of education as an independent variable in Mincerian earnings equations. The coefficient of the years of education can be considered a direct measure of the internal private rate of return to a year of education. The translation of qualifications into years of education is as follows: 0 for the uneducated; 4 for primary education; 8 for basic or incomplete secondary education; 10 for complete secondary education; 12 for vocational and technical secondary education; 13 for specialized technical secondary education; 17 for university degree; and, 19 for a master degree. To see the curricular years of education related to each diploma, see Appendix A.1, which also provides a short description of the educational system and its recent reforms.

Table 2.8.5 provides estimates for different age groups and by gender, including the same controls as in table A.2.8.1 in the Statistical Annex, though for brevity the coefficients of other control variables have been omitted. The estimates give an annual rate of only 4.2, which is stable across different age groups and gender, and is much lower than that of 7.2 found by Darii and Suruga (2006). One possible explanation of this difference is the age of the individuals included in the two samples, since this study uses information

[41] Log of monthly wages are preferred as dependent variables to using log of hourly wages to test for the statistical significance of the number of hours actually worked

[42] The coefficients measure the percentage increase of the dependent variable, which is the log of monthly net earnings, for any unit increase of the independent variable. Since the Mincerian earnings equation is a log-linear transformation of an exponential function, coefficients have a semi-elasticity interpretation. In case of independent dummy variables, the semi-elasticity interpretation is partly flawed and the interpretation is that provided in a previous footnote relative to the study of determinants of educational choices. If the independent variable is expressed in log terms, the coefficient measures the elasticity, i.e. the percentage change of the independent variable for any percentage change of the independent variable.

only on young people.[43] Another explanation is that the classification adopted here is slightly different from that used in Darii and Suruga (2006). They have a much flatter measure of years of education, which may cause higher returns compared to the one adopted here.[44] A possible further explanation might be found in the specific sample survey they use, which referred only to those working in the capital city, where wages are generally higher than in other *aimags*, as suggested by the previous discussion. To check this hypothesis, the same estimates presented in table A.2.8.1 in the Statistical Annex were run only for those living in Ulaanbaatar. In this case, the annual rate of return to education is very close to that found by Darii and Suruga. It equals 7.6 for the entire sample, 6.8 for men and 8.3 for women. It is interesting to note that in the capital city, women have slightly higher rates of return than men, as is typical of many other countries (Psacharopoulos, 1994; Pastore and Verashchagina, 2005).

Table 2.8.5. OLS and IV estimates of the annual rate of return to education by gender and age

Variable	All	15-19	20-24	25-29	Men	Women
Years of education (OLS)	0.0420***	0.0087	0.0394***	0.0409***	0.0398***	0.0410***
Years of education (Instrumental variables)	0.1085***	–0.1912	0.1366**	0.1092***	0.1090***	0.0757*
N	1 900	138	548	691	771	606

Note: The estimates include controls for the same variables included in table 2.8.1. Instruments are the years of education of father and of mother.

Source: Own elaboration based on SWTS database, NSO Mongolia.

Returns to education or returns to skill? According to the theory of signalling, education would not be a cause of increased productivity, as one would expect, assuming that higher education causes higher wages. Instead, it would be a signal of pre-school innate ability. More skilled individuals would understand that higher education means higher wages and would strive to increase their educational level to achieve this. If this were the case, the correlation between wages and education would be not explained by the presumably higher productivity of the most educated individuals, but by their innate ability. This would mean that education attainment is endogenously determined by wages and, therefore, the OLS estimation method adopted so far would be flawed.

The typical methodology to test for endogeneity of education is by using instrumental variable (IV) techniques.[45] In cross-section estimates, such as those provided here, the

[43] Young people might have lower returns to education than adults, simply because they lack work experience and it is the combination of education and work experience that makes human capital increase an individual's productivity. Nonetheless, in both studies, the estimates are augmented to consider all observable differences across individuals, including work experience. This suggests that there should be sufficient control for work experience and other factors.

[44] The classification they adopt, considering individuals under the age of 30 and therefore following the 4-4-2 educational scheme is: 0 for the uneducated; 4 for primary education; 8 for basic or incomplete secondary education; 10 for complete secondary education; 11 for vocational and technical secondary education; 10.5 for specialized technical secondary education; 15 for university degree. Moreover, they do not take into account a separate category for individuals with a master degree. For comparison, all the augmented earnings equations have been run according to all the different classifications adopted by Darii and Suruga, but the annual rate of return to education provided here does not change in any significant way. It is stubbornly stable at between 4.2 and 4.8 depending on the specification adopted.

[45] Without going into methodological details, it is sufficient to say here that the IV methodology consists of making exogenous, the supposedly endogenous independent variable, namely education,

educational level of parents are generally used as instruments. Indeed, parents' education does affect children's education, but not their wages.[46] The previous literature confirms the existence of endogeneity bias, which generally increases the annual rate of return to education by about 20 per cent. This would in part confirm that higher wages for higher education are a consequence of greater skills, rather than of greater productivity (Card, 1999; Ashenfelter et al., 1999). It is worth noting that previous estimates rarely considered samples of only young people, as is the case of table 2.8.5. This also provides IV estimates of the corrected annual rate of return to education, using as IVs the years of parents' education. The results suggest a much greater positive endogeneity bias than that previously found in the literature. The annual rate of return to education based on IV estimates is more than double that based on OLS estimates in all cases, but for women the increase is a little lower. As Card (1999) notes, part of the explanation for this finding may be that marginal returns to schooling for certain subgroups – particularly relatively disadvantaged groups with low educational outcomes – are higher than the average marginal returns to education in the population as a whole.

Human capital variables: educational qualifications. The problem with years of education is that measurement errors could dramatically affect the results. These arise from the need to assign the same number of years to different individuals and also the difference between official and actual years needed to attain a degree and on possible reforms changing the official number of years assigned to each educational qualification. Hence, there might be a problem of overestimation of the returns in those that spend more years in education to attain a given degree or, vice versa. In addition, educational reforms might change dramatically the number of years necessary to attain a given diploma or to complete compulsory education. These changes may or may not cause a change in the private return to a year of education.[47]

With these caveats in mind, following Psacharopoulos (1994), educational qualifications are used instead of years of schooling. Educational categories are the usual ones, as described in Appendix A.1. The baseline group is constituted of those holding basic education or below. The coefficients measure the so-called "wage effects" of educational qualifications, or the percentage increase in earnings for any educational qualification achieved compared to having basic education or below. In this case, the annual rate of return to education is deducted from wage effects of different educational qualifications by dividing the overall effect by the number of years spent to achieve that type of post-compulsory diploma in addition to the number of years necessary to attain compulsory education. The results confirm the expectations that education positively affects earnings. Indeed, the effect of education on earnings is monotonically increasing with educational attainment. The impact is the highest for individuals holding a master degree, whose wage effect amounts to about 100 per cent compared to the baseline group.

in order to estimate its true impact on earnings. To make education exogenous, it is necessary to use exogenous independent variables that affect the endogenous variable, but do not correlate with the dependent variable. In this specific case, it is necessary to find a variable, which affects education attainment, but not wages.

[46] Section 2.4 proved that the educational attainment of parents does affect that of their children. Moreover, omitted results of similar Mincerian estimates of the determinants of youth wages including years of education of parents allow us to reject the hypothesis that they correlate with children's wages.

[47] An interesting study by Groot and Oosterbeck (1994) shows that taking into account the actual number of years needed by individuals to attain a degree, does indeed affect the returns to education, as one would expect if years of education, rather than the qualification attained, increase productivity.

The impact of tertiary education is about 85 per cent higher compared to the same reference group.

This means that the annual rate of return to education equals 9.5 per cent for those with a university education.[48] This is lower than the 12.7 per cent found by Darii and Suruga (2006). The explanation of this difference may be found in the specific selection of their sample, which includes only individuals living in Ulaanbaatar. In any case, both the previous estimates and the ones presented here are much higher than those typical of medium-income countries found by Psacharopoulos (1994) in an analysis considering many countries at a different level of development.

The wage effects of different educational qualifications are roughly comparable to those obtained by Darii and Suruga (2006) in most cases, except for specialized secondary education: 0.159 compared 0.494 in the case considered here. A specialized secondary school diploma increases wages by 64 per cent compared to the median wage of young people with compulsory education. The results also suggest that those with vocational education, especially men, have a very low wage premium compared to those with compulsory education or below. Only women with vocational education have significantly higher wages compared to those with compulsory education. This weakness of vocational education is a consequence of the specific type of knowledge provided to young people, which quickly becomes obsolete in periods of dramatic structural change.

Higher returns to education of women is a typical finding of the relevant literature for all countries (Psacharopoulos, 1994), including transition countries (see, among others, Pastore and Verashchagina, 2006). This is also true for Mongolia, except for tertiary education where men's returns are higher than for the women. The impact of education across different age groups is higher for young adults compared to the oldest age group, probably because work experience becomes more important for the latter. This analysis provides evidence that the relative demand for skills is high in Mongolia and, indirectly, provides support to the claim that it is worth investing in education, despite the high level of poverty in the country. This is an important policy suggestion for policy-makers.

Human capital variables: Work experience and tenure. The human capital variables are as follows. Work experience is measured by the number of years in the current job. In a way, this variable is a measure of job tenure rather than of generic work experience. However, considering the high share of fixed-term contracts noted previously (section 2.7), job tenure is also a good approximation of work experience. The reference category is constituted of those with less than a year of work experience. The survey distinguishes between young people with one through four years of work experience and more than five years. Declared work experience is to be preferred to the more usual measure of potential work experience (age, years of education, age when starting school), due to the high youth unemployment rate and to control for ease of school-to-work transition.[49]

[48] This figure is obtained dividing the coefficient for university education (β_u) by the nine years that are necessary on average to obtain a university degree after finishing basic education ($Y_u - Y_b$): $r = \frac{\beta_u}{Y_u - Y_b}$. Multiplying this value by 100 gives the percentage change for every year of additional education.

[49] Potential work experience is too flat across individuals to measure the actual degree of work experience at that young age. Moreover, in the case of young people, the hypothesis of linearity in work experience cannot be rejected in favour of a concave profile of earnings by work experience, as is typically the case of samples including also the adults.

The estimated coefficient of work experience is generally statistically significant only when longer than four years. Having more than five years means an increase in earnings of about 25 per cent with respect to those having less than one year, and with respect to those having four years or less. This effect is almost equally distributed by gender, with a slightly higher effect for women. In the oldest age segment, the wage effect of work experience between one and four years is about 25 per cent, and the wage effect of five years or more is about 50 per cent, with respect to those with one year or less. This analysis confirms the importance of having work experience for young people. As noted in Appendix A.2, the youth experience gap is behind the lower productivity of young people and, therefore, also their lower earnings and employment chances.

The gender wage gap (GWG). A dummy for women measures the GWG conditional on controls for all the other variables. The gender gap represents the difference in wages between men and women. The literature distinguishes the unconditional from the conditional (sometimes called adjusted or *ceteris paribus*) global change to GWG. The former does not take into account differences in productivity characteristics of men and women and the latter does. Therefore, the unconditional GWG is a measure of the extent to which, on average, women have lower wages. The conditional gender gap might be lower than the unconditional, suggesting that part of the average gender gap is due to the lower productivity of women, for example, less hours worked, lower human capital endowment, less work experience because of maternity leave, working in low productivity jobs and low pay sectors. On the contrary, when the conditional gender gap is greater than the unconditional, it means that women possess productivity characteristics to a greater extent than men, but are paid less

According to Pastore and Verashchagina (2007), [50] economic transition has generated different outcomes on female wages, with important cross-country differences. During transition, the conditional GWG has remained constant in CEECs, due to greater labour market withdrawal of women, compared to FSU countries, where female wages decreased markedly, while their participation remained more stable. The stability of wages in CEECs has been reinforced by the selection of more skilled women into jobs. If only more skilled women remain employed, then average female wages might increase, not decrease, compared to men.

For young people, the literature's predictions are slightly different as the females have not yet had children, reducing their disadvantage in terms of lower work experience due to maternity leave and increasing their motivation. Therefore, wage differences by gender are lower than among adults.

Elsewhere, it has been shown that young women have an advantage in terms of higher educational levels (section 2.4), of better employment prospects and lower risk of unemployment (section 2.10), but when unemployed, they remain so longer than men (section 2.10). Women have roughly the same average hours of work than men, but a slightly greater chance of holding a contract (section 2.7). Overall, except for longer unemployment duration, women have an advantage compared to men in the labour market. However, a possible explanation for this might be that women tend to self-select themselves into low paid jobs, exchanging greater job stability, less commitment to work and provision of childcare allowances, for lower pay. We test here whether this is the case.

In unreported estimates, the unconditional GWG, is equal to –0.02 and is statistically insignificant. On average, therefore, young women and men have the same wages independent of their characteristics. Adding hours of work to the estimates, slightly

[50] See also the literature quoted in Pastore and Verashchagina (2007).

increases the wage gap, but only by a small amount, up to –0.04, and remains statistically insignificant. This suggests that the hours actually worked have little effect on gender differences in wages. However, in the augmented earnings equation, the gender dummy conveys a conditional GWP of –0.22, suggesting that the median wage of women is about 25 per cent lower than men with the same characteristics. [51] When controlling for individual characteristics, it appears that women have a statistically significant and sizeable wage differential compared to men.

This gap suggests that women have better characteristics than men, but are paid less. Previous analysis has shown, for instance that women have higher educational qualifications, while working roughly the same number of hours as men. [52] However, this is not necessarily evidence of discrimination against women. The gap is especially sizeable for the 25−29 age group, lower among young adults and not statistically significant among teenagers. The increase of the conditional GWG by age might be a consequence of the increased frequency of women who marry and have children, as shown in section 2.1. The rationale could be that with time passing, women reduce their commitment to market work and invest more time in the household. This, in turn, is mirrored in lower pay for similar characteristics.

Policy implications regarding gender differences. The above analysis provides evidence supporting the hypothesis that Mongolian employers pay lower wages to women than men with the same characteristics. This is not only unfair, but also inefficient, inasmuch as it not only reduces the overall productivity of the country, by discouraging the effort of women, but might also reduce employment and participation rates of the least motivated women. The most motivated women, therefore, may decide to pursue their careers, postpone marriage and children, and thereby reduce the fertility rate in a country where the population is small and ageing.

Reducing the degree to which women are paid less should be an important policy objective. Implementing an equal pay policy can do this, requiring strengthening the legal framework and providing legal assistance to women reporting discrimination practices. Local authorities could provide this assistance and have an important effect on local communities. In addition, action should be taken to help women overcome barriers to better jobs and career prospects. This type of positive action would be an important psychological and social factor and affect female labour market behaviour in the long term.

The Government should, of course, maintain childcare facilities and employers should guarantee fully paid maternity leave. The role of tripartite agreements is very important to effectively implement equal pay policies.

Studying while working. We test whether to study and work has a positive effect on productivity because of the increase in the level of human capital or whether it has a negative effect on productivity due to the time spent studying that is subtracted from working. These two effects are generally contemporaneous and the overall effect of studying while working on earnings is a matter for empirical testing. Studying while working does not affect in any statistically significant way earnings in any of the estimates considered. This seems to reject the hypothesis that studying might reduce productivity and, hence, earnings and the hypothesis that further education might increase productivity

[51] Darii and Suruga (2006) found a coefficient of the gender dummy of 0.203 in a specification with only human capital variables and few other controls.

[52] This result is not isolated in the transition literature on gender wage differentials. See, for comparison, the case of Belarus: Pastore and Verashchagina (2005 and 2007)

level. Indirectly, this coefficient sounds like a confirmation of the existence of sheepskin effects, since continuing education without a degree does not affect earnings. [53]

Formal versus informal employment. A contract is a sign of stability and quality of work compared to informal work. There is strong evidence that contract jobs are of better quality and, therefore, pay higher wages. To test this hypothesis, the estimates include a dummy to capture those who have a fixed-term or permanent contract. The coefficient in this case measures the wage effect of this factor compared to the baseline. [54] A contract increases young people's wages, especially if it is temporary. The fixed-term contract wage gain compared to those with no contract is about 30 per cent while, in the case of permanent contracts, it is about 19 per cent. In other words, no matter what the level of education and work experience is, if they work informally, they will receive much lower wages. In both cases, the wage premium for formal work is sizeable. Teenagers and men especially benefit financially from holding a contract. However, while teenagers have a higher premium in the case of a permanent contract, a fixed-term contract provides a higher gain for young men.

Civil status and children. The civil status of a young person can be an important factor to improve commitment and motivation to work on the supply side. On the demand side, employers often consider that the married employee has greater motivation and, therefore, productivity. Moreover, having an established family implies a greater need of income and a higher opportunity cost of joblessness. For similar reasons, living with a partner, without having established a household, might have a similar supply and demand side impact. Similar considerations might apply to individuals who are divorced, widowed or separated, though to a lesser extent. Here the baseline group is constituted of single individuals and the coefficients of the dummy variables measure the wage effect of being married, living together, being divorced, widowed or separated, on earnings.

Being a single parent implies notable hardship in reconciling the labour market and family, and might be a factor in reducing productivity, but there is no statistically significant wage effect. Couples have higher wages than singles. There is no wage premium for the divorced, widowed or separated. The premium is essentially a male effect. There is no wage effect for married women and those with partners. This is a typical finding of the literature on determinants of earnings.

Wage gap or wage penalty for migrants? The literature suggests that immigrants might have a wage penalty due to difficulty in finding a suitable job, lack of local knowledge and language. As noted in section 2.4, the SWTS provides information on different types of immigrants for which we control in the estimates. Interestingly, although always showing a negative sign, there is no statistically significant wage loss for immigrants, whatever the reason of migration, except in the case of teenagers migrating in search of a job and men migrating after their family. In the latter case, the wage loss amounts to about 23 per cent. In the case of women only, migration for educational purposes causes a statistically significant and sizeable wage gain of around 54 per cent.

Union membership. This typically involves a wage premium in many countries. The literature again suggests supply and demand side explanations for this. The main explanation is that union members have a higher than average educational level and are

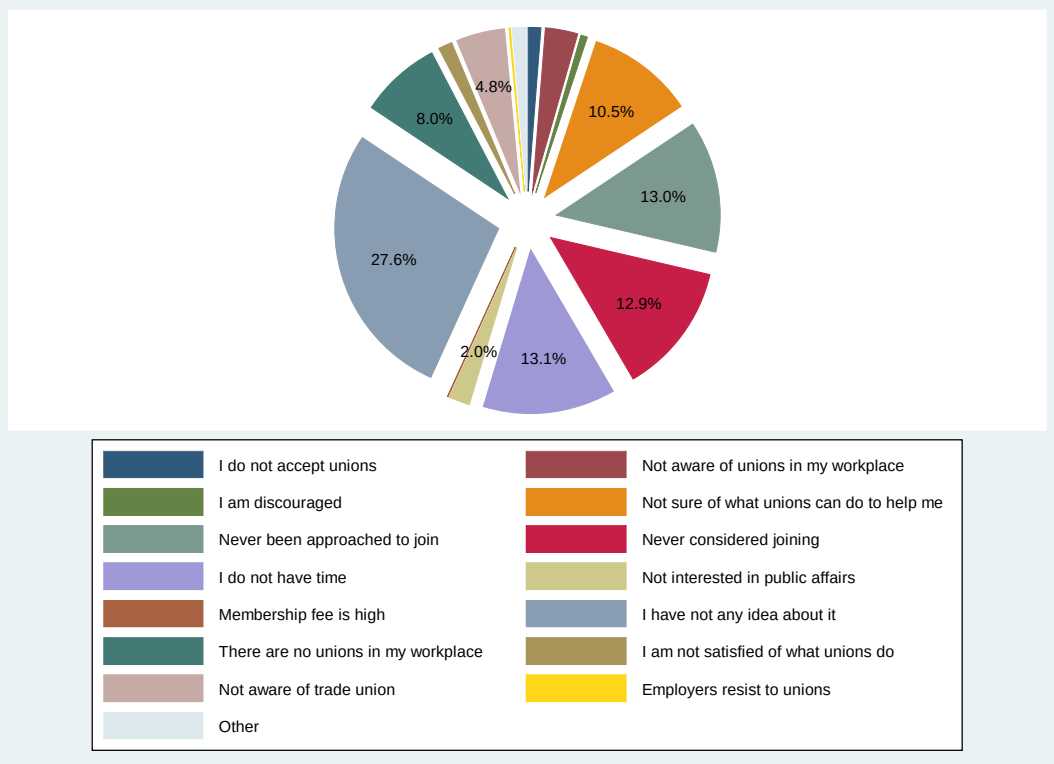
[53] Note that against the importance of the former effect is the so-called sheepskin argument, according to which, education increases earnings only when a final qualification is achieved. Unfinished years of education have no effect on earnings.

[54] In fact, it is not uncommon to also find a wage premium for some specific types of informal works. For a survey of the literature and an application in the case of Ukraine, see Maloney (2004).

more involved with employers and managers. In Mongolia only about 8.1 per cent of employed young people are union members (women 8.7 per cent and men 7.6 per cent). This is not a high share, but typically young people tend less to be union members than adults. The results of mincerian earnings equations suggest that all other factors being equal, the wage effect of being a union member is negative, not positive in Mongolia. However, the coefficient is not statistically significant. The only category for which union membership shows a positive coefficient is teenagers, with a wage premium of about 40 per cent, but again the coefficient is not statistically significant.

Figure 2.8.1 breaks down the reasons why over 90 per cent of the sample does not belong to a union. It shows that about 10 per cent believe unions cannot do anything for them, 13 per cent have never been approached by unions and 8 per cent work in establishments where there are none. This helps explain the weakness of union membership among young Mongolians. About 27.6 per cent have no idea what unions do, 13.1 per cent have no time to join and 12.9 per cent never considered joining, which is worrying not only for the development of unions, but for the development of well-functioning labour market institutions.

Figure 2.8.1 Reasons not to be a union member



Training. On-the-job training should work like education and increase earnings via an increase in the productivity level. Attending on-the-job training might also be a signal of low productivity and low work experience. The SWTS distinguishes training of different lengths: less than one week; one to four weeks; five to eight weeks and more than eights weeks. Training does not seem to impact on productivity. Rather, the training variables are negative, though not statistically significant, suggesting that if there is an effect of training it signals low skill levels.

Methods of job search: The role of informal networks. The SWTS provides information on the method of job search adopted by each employee. Recent literature suggests that in the United States, relying on the informal network of friends and relatives has a positive impact on earnings. This implies that, in the United States in particular,

informal networks channel correct information from family and friends to employers, therefore, revealing the actual skill level of potential employees (Montgomery, 1991).

However, as the empirical literature of other countries (such as Italy, Pistaferri, 1999; Mendolicchio and Meliciani, 2006) shows, "rumour" might distort the information on productivity characteristics of jobseekers relying on informal networks because these networks tend to be lobbies rather than neutral channels of communication. In this last case, relying on an informal network might be a signal of low, not high productivity, and might convey something different from skills. The wage premium, therefore, becomes a wage penalty.

Before looking at the impact of informal networks on wages, it is interesting to measure the extent to which they are important in getting a job. This can be considered another form of return to informal networks. Table 2.8.6 provides the distribution of employees by their method in finding a job. [55] Most employees got their job after assistance from their relatives and friends (33 per cent). A slightly lower share directly applied to employers (31.5 per cent) and about 19.4 per cent answered job offers from employers. This is clear evidence of the high return to informal networks as a job-search method and is in stark contrast to the evidence provided in Chapter 4 on methods of recruitment adopted by employers.

Table 2.8.6. Ways to look for a job for wage employees, by sex and urban/rural area

	Wage employees (thousands)	(%)	**Of which** (%)			
			Male	**Female**	**Urban**	**Rural**
Total	124.2	100.0	49.4	50.6	65.9	34.1
Through PES	2.0	1.6	50.0	50.0	62.5	37.5
Through advertisement (in radio, TV, newspaper, etc)	8.2	6.6	53.8	46.2	86.2	13.8
Directly applied to employers	39.1	31.5	46.5	53.5	48.1	51.9
Checked at worksites, farms, factory gates, market or other assembly place	7.2	5.8	50.9	49.1	68.4	31.6
Got assistance from friends and relatives	41.0	33.0	49.5	50.5	80.6	19.4
Soak technical and financial sources to run own business	1.0	0.8	50.0	50.0	87.5	12.5
Through job fairs	1.3	1.0	50.0	50.0	70.0	30.0
Suggestion of employers	24.1	19.4	51.8	48.2	62.3	37.7
Other	0.4	0.3	66.7	33.3	–	100.0

The results of the earnings equations suggest that in Mongolia, relying on a network of family and friends to find a job results in a wage loss of about 12 per cent. The loss is slightly higher for men than women and for the oldest segment of young people than for the others. This suggests that informal networks are not able to vehicle correct information on the actual skill level of young people. Having established a direct contact with the employer before being hired does not affect wages.

[55] Chapter 3 provides information on job-search methods of unemployed and at-school young people. Chapter 4 looks at recruitment methods adopted by employers in the employers' module of the STWS.

This wage penalty related to informal networks suggests that the youth labour market is not matching efficiently labour demand and supply. The public employment services should provide more information on available vacancies and advise young people on ways to access such vacancies.

Industry wage differentials. The estimates control for 20 sectors (see table A.2.8.1 in the Statistical Annex). The baseline is constituted of workers in the livestock sector, representing about 40 per cent of total employment, by far the most important sector of employment for the post-transition generation. The industry wage gap is sizeable, especially against workers involved in the livestock sector. Young people employed in any other sector, except fishery and, partly tourism, receive, *ceteris paribus*, higher wages. The wage differential is greater in favour of young people involved in high risk activities, like the mining sector (+140 per cent), and in other sectors such as hotels and restaurants (+70 per cent), internal trade (+74 per cent), transportation (+85 per cent), and in some specialized service sectors, such as health (+86 per cent). In tourism, there is a positive and sizeable wage differential (120 per cent), but this effect is not statistically significant, due perhaps to high heterogeneity of wages. In other sectors, though still positive compared to the livestock sector, the differential is lower between 40–50 per cent.

This effect is even greater considering that the estimates also contain a specific control for working in rural areas, which is negative, statistically significant and sizeable, and several other controls for the *aimag* of residence. *Ceteris paribus*, young people working in rural areas experience a wage loss of about 41 per cent. This is especially sizeable for women (–73 per cent) compared to men (–28 per cent).

Overall evaluation. The overall significance level is more than satisfactory for this type of estimate, with the R^2 always more than 0.38. The R^2 is especially high in the case of teenagers, probably because of the smaller number of observations. The statistical insignificance of the variable measuring the log of weekly hours confirms a priori expectations that the hours actually worked do not affect young people's earnings, independent of age and gender. The oldest segment is the only exception: in this case, a 1 per cent increase in the number of hours worked increases earnings by 17 per cent, though the coefficient is statistically significant only at the 10 per cent level. The estimates seem to suggest that the market gives a sufficient reward to human capital, though this is generally higher in urban areas, especially in the capital city. The urban/rural divide is strong and also affects the market for skills. In rural areas, the demand for labour is very much oriented to low skilled jobs and activities, suggesting a lower return to education and insufficient incentive from the demand side to invest in further education.

The lower wages in this sector might, in future, provide an incentive for young people to obtain higher education. However, the tension between the quality of job opportunities offered and the aspirations of young people for more education and higher quality jobs represents an important factor affecting the potential for migration to urban areas. In urban areas, the estimates show that the return to education is sizeable, suggesting investment in human capital has strong incentives to increase, but the risk there is that the aspirations of young people for better and higher quality education and jobs find a bottleneck in the educational system.

2.9. Self-employment

Employed in own business: size and components. As already shown in table 2.7.1, self-employment has a share of 6.5 per cent of the entire sample population, 13.7 per cent of the workforce and 19.4 per cent of employment. On average, self-employment involves men rather than women. In addition, it is more common among those aged 25–29 years and in rural areas, where it represents about 15 per cent of the sample population compared

to the capital city, where it is only 1.7 per cent. In *aimag* and *soum* centres, self-employment is slightly more common than in Ulaanbaatar, with shares of 3.6 per cent and 5.1 per cent, respectively. Overall, this suggests that this component of self-employment is not so much related to trade, services and professional activities as to agriculture.

Table 2.9.1 provides further details on self-employment, important to complete the picture. It shows distribution of self-employment by educational attainment and highlights that those with less education choose self-employment, as expected considering its diffusion in rural areas. Being self-employed is very common among those who have primary education or below, but less common among those with basic or secondary education. [56] Nonetheless, it is also common among those with vocational technical education or above. This shows that it has two distinct identities: generally linked to agriculture in rural areas; more related to entrepreneurial and professional activities in urban areas. Those with high educational attainment make up the majority of this second type. The table also shows share of self-employment relative to the labour force, rather than the entire population, giving a slightly different perspective. Above all, the share of the labour force is much higher, suggesting that it represents an important opportunity for many young people who have started their school-to-work transition. Approximately, 13.7 per cent of the youth labour force is self-employed and increases with age reaching 18.2 per cent for those aged 25–29 years.

About 21.1 per cent of the uneducated are self-employed increasing to 23.4 per cent for those with primary education. Over 60.9 per cent of those with basic education or below run their own business. This is important for policy-makers: self-employment is an alternative to paid employment, especially for the least skilled and hard to employ. The last columns of the table confirm the two sidedness of self-employment, showing that the least educated self-employed operate in rural areas, whereas the more educated in urban areas. Note that self-employed women are more frequent among those with high educational attainment.

Table 2.9.1. Self-employment by age group and educational attainment (%)

	Share of the youth population	Share of the youth workforce	Of which			
			Male	Female	Urban	Rural
Total	6.5	13.7	79.2	20.8	31.3	68.7
15–19	0.7	4.3	84.2	15.8	10.5	89.5
20–24	7.5	12.1	79.3	20.7	34.7	65.3
25–29	14.3	18.2	78.7	21.3	30.9	69.1
Uneducated	15.9	21.1	100.0	–	2.9	97.1
Primary	13.4	23.4	97.1	2.9	5.8	94.2
Basic (Grade 4–8)	5.2	16.4	92.6	7.4	14.8	85.2
Secondary (Grade 9–10)	4.3	10.8	58.2	41.8	53.8	46.2
Vocational technical education	10.0	12.9	63.6	36.4	59.1	40.9
Diploma, specialized secondary	11.0	15.0	56.3	43.8	81.3	18.8
Tertiary/bachelor	5.5	6.8	47.7	52.3	75.0	25.0
Self-employed youth (thous)	52.7		41.7	11.0	16.5	36.2

[56] The strong correlation between incomplete compulsory education and self-employment might suggest that there is a two-way causality chain between these two phenomena: on the one hand, low education pushes towards self-employment; on the other hand, having their own business might strongly reduce the incentives to invest in education.

Who is self-employed? The previous analysis did not allow controlling for the contemporaneous presence of all the determinants of self-employment. This can be done with the help of Panel (b) of table A.2.7.1 in the Statistical Annex. This is the result of a multinomial logit estimate of belonging to one of several labour market statuses excluding from the sample young people still in education. The thinking is that this is a specific group, often still at an early stage of their school-to-work transition.[57] The same estimates are replicated for different age groups, by gender and urban/rural areas. The multinomial logit model is simply a way to measure the *ceteris paribus* impact of many factors at once, which is not possible in tables that only focus on a few dimensions. The independent variables include not only the characteristics of individuals, but also households, such as educational level of parents, and location. Note that the exponential of estimated coefficients should be taken as the odds ratio of being self-employed rather than unpaid family workers. With this in mind, it is easy to see the richness of information in the table.[58]

Comparing the coefficients of each variable for men and women, it is clear that only a few, such as age, have the same impact on the probability to be self-employed. The impact of other factors is very different across gender, confirming the previous finding that female self-employment is almost only ever present in urban areas and for those types of jobs requiring a high level of education. For instance, women with tertiary education have a greater chance of being self-employed than their peers with compulsory education or below. Married women have less chance of being self-employed than single women. The opposite is true for men.

In addition, the level of a father's education is irrelevant for both genders, whereas a mother's is more important for women than men. In their case, self-employment can either be in urban or in rural areas, with very different characteristics. Once controlling for other characteristics, the analysis suggests that self-employment is more common in urban than rural areas. For men, this result is partly at odds with the previous discussion highlighting that self-employment is more common in rural areas. A possible explanation of the difference between unconditional and conditional results is probably that the multinomial logit explains self-employment in urban more than in rural areas. Moreover, the reference group here is unpaid family work. The last two columns would indicate that few determinants are really important, suggesting that other factors are not captured in the data.

Table A2.7.2 in the Statistical Annex presents the same estimates as table A2.7.1, using as independent variable their occupation. The SWTS distinguishes different types of occupations of parents. The other determinants are exactly the same as in table A.2.7.1. The other variables do not seem to be statistically significant, although the sign and the coefficients are very different from one occupation to the next.

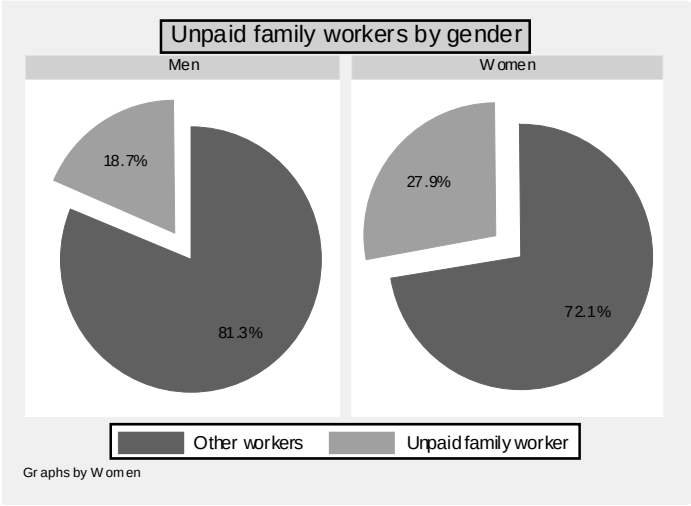
Unpaid family workers. Self-employment also includes young people who work for family gain, but are not directly paid for their work. As already shown in table 2.7.1, they are 10.9 per cent of the entire sample population, 22.9 per cent of the workforce and 32.4 per cent of employment. This is, therefore, an important component of employment. More women than men work in the family business: 11.9 and 9.8 per cent of the population, respectively. This small difference is magnified when taken as a share of the workforce (figure 2.9.1). In this case, the percentage of female unpaid family workers

[57] Section 2.6 gives a specific analysis of young people who are still in school.

[58] Section 2.6 gives more information on the interpretation of coefficients in the multinomial logit model, interpretation which is similar to that of the logistic regression, with the only difference that in the former case the baseline is only one of the outcomes. In the multinomial logit regression, one specific labour market status has to be used as the baseline.

reaches almost 30 per cent of the female workforce and is about 10 per cent higher than that of men. These figures confirm the importance of this type of employment for women.

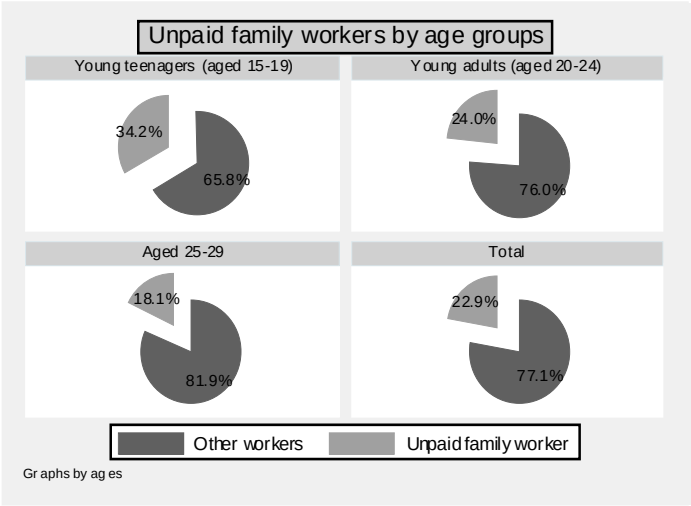
Figure 2.9.1. Unpaid family workers as a share of the workforce, by gender



Source: Own elaboration based on SWTS database, NSO Mongolia.

Being employed in a family business is more frequent among teenagers than other age groups. About 34.2 per cent of them are unpaid family workers. The comparable figure for those aged 25–29 years goes down to 18.1 per cent.

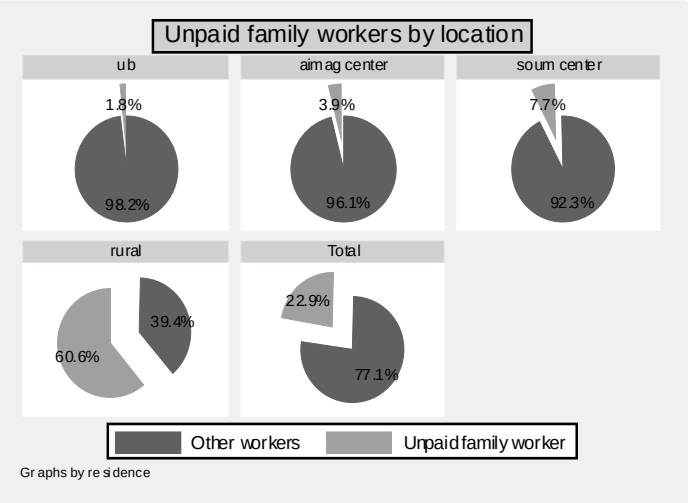
Figure 2.9.2. Unpaid family workers as a share of the workforce, by age group



Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 2.9.3 provides evidence that unpaid family work is essentially a rural phenomenon. Less than 2 and 4 per cent of the youth workforce choose this type of self-employment in the capital city and in *aimag* centres, respectively. In rural areas, unpaid family work is the predominant form of youth employment with 60.6 per cent of the total.

Figure 2.9.3. Unpaid family workers as a share of the workforce, by location



Source: Own elaboration based on SWTS database, NSO Mongolia.

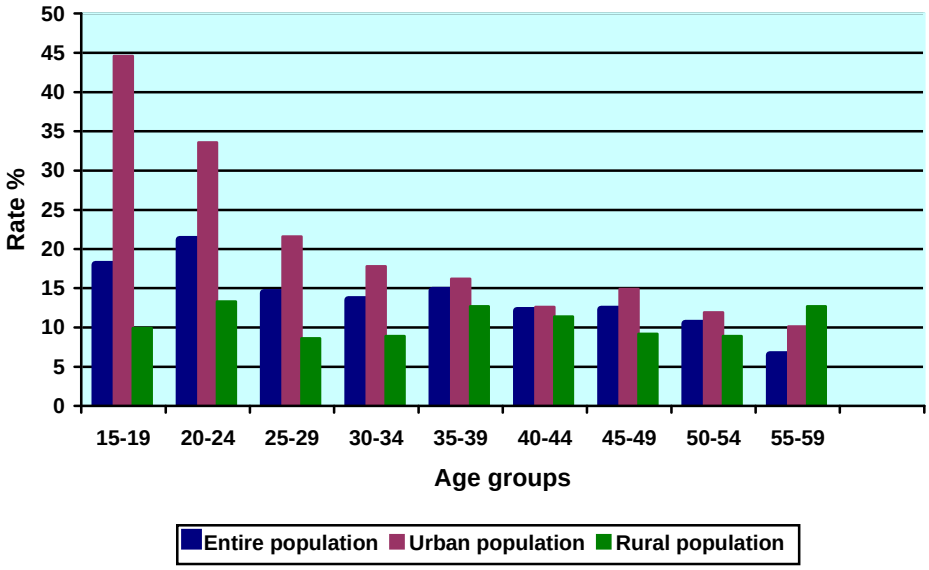
2.10. Unemployed

According to the SWTS data, the youth unemployment ratio is 14 per cent and the youth unemployment rate is 29.5 per cent (table 2.7.1). The unemployment rate of young adults is higher than that of teenagers. In urban areas, the opposite is true and the teenage unemployment rate is extraordinarily high at around 45 per cent (Figures 2.10.1 and 2.10.2). This is an unambiguous indication of the problem of the educational system to integrate teenagers who, if they drop out have, in fact, fewer chances of finding gainful and stable employment and, therefore, join the unemployment pool.

The urban/rural divide. As the National Tripartite Plus Youth Committee (2005) already noted in their study of the youth labour market based on the labour force survey data, in Mongolia, youth unemployment is especially an urban phenomenon. Indeed, as Figure 2.10.1 shows, the youth unemployment rate is much lower in rural than in urban areas for every class of age. The urban/rural divide in terms of the unemployment rate is negligible for the over 35 years. This is surprising considering the evidence available relative to some other CEE transition countries, where the unemployment rate is typically higher in rural areas (Boeri, 2000; Beleva et al., 2001; Ingham et al., 2005). However, there are also many examples of transition countries where the unemployment rate is lower in rural areas due to a relatively lower degree of industrial restructuring. There are also rural areas where the reform process is slower and the economic structure more stable. A lower degree of structural change might explain the greater job stability of young people.[59] Consequently, the ratio of youth to adult unemployment rate is much higher in urban than rural areas where it is close to one, suggesting that young and adults have the same chance of being unemployed as those actively seeking jobs. This is the ideal situation when the youth disadvantage is cancelled out, and is typical of places and economic conditions where activities requiring essentially unskilled manual labour are as important as work experience.

[59] This is especially the case for young females since, during restructuring, firms tend to fire young women more frequently (according to the principle "last-in-last-out") and, above all, to hire them less frequently (Stefanova et al., 2007).

Figure 2.10.1. Unemployment rate by age group and urban/rural area

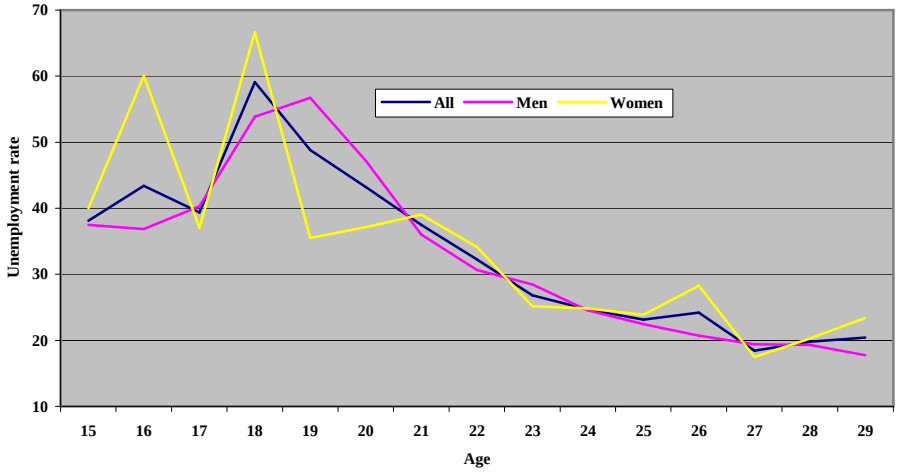


Source: National Tripartite Plus Youth Committee (2005).

In urban areas, the ratio is close to 3 for teenagers, slightly greater than 2 for young adults and about 1.5 for those under 30 years. Young adults and the oldest segment have, on average, a higher educational level, making them more employable. The youth experience gap disappears with age, because they accumulate work experience. While the youth unemployment rate is higher in urban areas, the share of long-term unemployment is higher in rural areas (see table 2.10.1). Only about 39 per cent of those unemployed in urban areas experience this for longer than a year, whereas in rural areas, the comparable figure is 60.5 per cent. This is probably because of the greater labour turnover in urban compared to rural areas where unemployment is concentrated in the low motivated and unskilled workers. Therefore, rural areas provide some kind of employment for the young because of the lower skill requirement in the agricultural sector, but in urban areas, they experience an increasingly difficult school-to-work transition, due to the greater skill requirement since the reform process.

In addition, in rural areas unemployment is low, but young people are forced to work in low productivity jobs. There is incontrovertible evidence of very low quality jobs offered to young people in rural areas, suggesting that the potential for migration to urban areas or abroad is very high. In urban areas, economic transition and the ensuing processes of industrial restructuring and labour reallocation from traditional manufacturing to more advanced and diverse sectors (Morris and Brunn, 2005), means that employment opportunities for young people are rarer.

Figure 2.10.2. The youth unemployment rate by age and gender



Source: SWTS, NSO (2006).

Overall, this suggests that any type of employment policy should take into careful consideration the urban/rural divide. Training programmes should be targeted to young people in urban areas and the long-term unemployed in rural areas, to increase their qualifications and skills level. To reduce the potential leakage in the workforce from the already low populated rural areas, it is important to increase job quality by, for instance, increasing the supply of schools to promote educational attainment and favour the development of more productive agricultural activities. If oriented towards the formation of skills used in the agricultural sector, schools might be used as a channel for new production methods.

Another explanation of low youth unemployment in rural areas is, however, in the higher inactivity rate. In transition countries these areas are a reservoir of labour that survives in subsistence agricultural activities, especially where privately owned land is organized in small plots (extensive agriculture), and the unemployment rate is very high in the urban areas, therefore, incentives to migrate are lower. [60] The role of inactivity will be discussed in more depth in the next section. However, it is worth remarking that unpaid work on the family farm is insufficient to achieve a decent livelihood and young people should be offered some form of unemployment benefit to cope with their low income and also offered opportunities to invest in the development and accumulation of new skills.

The gender gap in employment opportunities. Table 2.7.1 has shown that men have a higher unemployment to population ratio than women: 15.7 per cent compared to 12.4 per cent. However, as can be seen, the advantage of women almost vanishes when looking at the unemployment rate: female 28.9 per cent male 30 per cent (table 2.7.2). This is obviously due to the higher inactivity rate of women: female 57.3 per cent male 47.5 per cent. The unemployment rate of men and women is similar at all ages, as shown in figure 2.10.2.

[60] Incentives to migrate from rural to urban areas are low if the unemployment rate is higher in urban areas. Unemployment gaps, more than wage gaps are behind migration flows.

Table 2.10.1 based on the SWTS, shows youth unemployment by time taken to find a job. Gender, different age groups, and territorial units are the dimensions along which the information is broken down. [61] Similar to other transition countries, youth unemployment is more common among men. [62] However, the female advantage in terms of lower unemployment rates disappears for the oldest segments of the sample and is mainly due to family commitments. That women invest more in education suggests that even in a country where traditional gender roles are still very strong they aim to attain decent jobs in their adult lives and are not prepared to be relegated to unpaid family work.

From a policy point of view, equal pay opportunities should be implemented and enforced by the Government to help reconcile work and household activities. This implies provision of maternity leave and help for unemployed mothers.

Long-term unemployment. Short (even repeated) periods of unemployment are likely to have relatively limited long-term consequences. However, extended periods early in working life may have negative consequences. To understand the importance of preventing long unemployment spells, it is important to recall one key point of the European Union Employment Guidelines: young people should receive some opportunity for training, education or work experience before being unemployed for six months. Keeping this in mind, this section now looks at the duration of unemployment of young people.

At the time of the survey, 57.8 per cent of unemployed youth had experienced an unemployment spell of longer than six months, those with long (12–24 months) and very long (more than 24 months) spells is 48.6 per cent, high compared to other transition countries (see table 2.10.1). [63] Typically, young people are unemployed for less time than adults because of their higher labour turnover in an attempt to gain experience by moving from employment to periods of unemployment, education and training. In Mongolia, the high share of youth long-term unemployment might be not only because of the large unemployment pool, but also on a low degree of labour market flexibility and scarcity of educational and training opportunities.

The share of long-term unemployment is higher for those aged 25–29 years as, once they have found employment, it tends to be more stable. However, those who are unsuccessful in finding a job remain unemployed longer. This would suggest that policy-makers should emphasize education, training or, better still, employment opportunities. For the younger segments, reduction of the drop out rate would be more effective in reducing the length of unemployment. For teenagers and young adults, investment in human capital is important to increase their chances of employment in the future.

[61] The table shows the number of unemployed. Assuming that the sample of the STWS is nationally representative, not only the youth unemployment rate, but also the number of unemployed is higher for young adults compared to teenagers. However, despite the lower unemployment rate of the 25–29 years, the number of unemployed is higher than that of teenagers. This does not mirror the distribution by age of the sample, but rather that the unemployment rate is computed over a larger volume of labour force for those aged 25–29 years, simply because the employment share is higher in their case, explaining the higher unemployment rate and lower number of teenagers unemployed compared to that of the under-30 years.

[62] This is also a typical finding in many OECD countries. There are also several examples of the opposite situation of countries where women have higher unemployment rates than men.

[63] Beleva et al. (2001) find that 49.9 per cent of Bulgarian unemployed youth had spells longer than a year and 72.3 per cent longer than six months.

Table 2.10.1. Unemployed youth by time to find a job,

	Unemployed youth (thous)	Out of which: time to find a job (per cent)						
		Less than a week	1–4 weeks	1–2 months	3–6 months	7–11 months	12–24 months	More than 24 months
Total	45.1	2.8	5.9	13.4	20.1	9.2	25.7	22.9
15–19	8.7	2.9	7.2	18.8	26.1	10.1	29.0	5.8
20–24	21.0	3.0	6.0	15.0	22.2	7.2	26.3	20.4
25–29	15.4	2.5	4.9	8.2	13.9	11.5	23.0	36.1
Male	25.6	4.4	7.4	12.3	19.7	9.9	24.6	21.7
15–19	5.5	4.5	6.8	20.5	22.7	11.4	27.3	6.8
20–24	12.4	5.1	8.2	13.3	22.4	8.2	23.5	19.4
25–29	7.7	3.3	6.6	4.9	13.1	11.5	24.6	36.1
Female	19.5	0.6	3.9	14.8	20.6	8.4	27.1	24.5
15–19	3.2	–	8.0	16.0	32.0	8.0	32.0	4.0
20–24	8.7	–	2.9	17.4	21.7	5.8	30.4	21.7
25–29	7.7	1.6	3.3	11.5	14.8	11.5	21.3	36.1
Urban	25.3	4.0	7.0	15.4	22.9	11.4	20.9	18.4
15–19	5.3	4.8	7.1	21.4	26.2	14.3	26.2	–
20–24	11.2	4.5	6.7	16.9	29.2	7.9	18.0	16.9
25–29	8.8	2.9	7.1	10.0	12.9	14.3	21.4	31.4
Rural	19.8	1.3	4.5	10.8	16.6	6.4	31.8	28.7
15–19	3.4	–	7.4	14.8	25.9	3.7	33.3	14.8
20–24	9.8	1.3	5.1	12.8	14.1	6.4	35.9	24.4
25–29	6.6	1.9	1.9	5.8	15.4	7.7	25.0	42.3
Ulaanbaatar	16.3	3.9	10.1	16.3	26.4	11.6	15.5	16.3
Aimag centre	9.1	4.2	1.4	13.9	16.7	11.1	30.6	22.2
Soum centre	15.6	1.6	4.8	11.3	14.5	6.5	32.3	29.0
Uneducated	1.3	–	–	30.0	20.0	–	30.0	20.0
Primary	3.8	10.0	10.0	3.3	10.0	10.0	26.7	30.0
Basic (Grade 4–8)	10.3	1.2	6.1	11.0	11.0	8.5	30.5	31.7
Secondary (Grade 9–10)	16.8	3.0	4.5	14.3	22.6	10.5	22.6	22.6
Vocational technical education	2.8	–	9.1	–	13.6	4.5	40.9	31.8
Diploma, specialized secondary	1.0	12.5	–	25.0	12.5	25.0	12.5	12.5
Tertiary/bachelor	9.1	1.4	6.9	19.4	31.9	8.3	22.2	9.7
Masters degree and above	0.1	–	–	–	100.0	–	–	–

Female long-term unemployment. Women have lower unemployment rates than men, but the opposite is true of their periods of unemployment. The hypothesis is that women seek stable employment more frequently than men and are, therefore, less mobile in the labour market. If stable employment cannot be found, they prefer to wait, rather than going into the informal sector. As noted in section 2.7, although temporary work is evenly

distributed by gender, men accept informal work more frequently. Table 2.10.2 gives the distribution of long-term unemployment by gender for those young people who have children. It shows that the share of very long-term unemployment is much greater for women with children then men with children. As unemployed women with children are the larger number, this might be an important factor to explain the longer unemployment duration of women.

Table 2.10.2. Duration of unemployment for youth with children, by gender (%)

	Men	Women	Total
Less than a week	2.1	0.0	0.9
N	*1*	*0*	*1*
1–4 weeks	12.5	3.2	7.3
N	*6*	*2*	*8*
1–2 months	10.4	11.3	10.9
N	*5*	*7*	*12*
3–6 months	20.8	12.9	16.4
N	*10*	*8*	*18*
7–11 months	8.3	8.1	8.2
N	*4*	*5*	*9*
12–24 months	22.9	32.3	28.2
N	*11*	*20*	*31*
More than 24 months	22.9	32.3	28.2
N	*11*	*20*	*31*
Number of observations	*48*	*62*	*110*

Source: Own elaboration on SWTS of Mongolia, NSO.

The provision of more part-time jobs would help women and men to reconcile work and family responsibilities and reduce long-term unemployment. Part-time work could be considered an alternative to unemployment or to working in the informal sector. However, as this is costly for firms that have to hire two people instead of one, there is a need to implement and enforce equal pay/equal opportunity arrangements, while promoting low-cost childcare facilities and maternity leave.

Youth long-term unemployment and education. The level of human capital endowment is an important dimension of long-term youth unemployment. It is a proxy of the observed skills that young people possess. Table 2.10.1 clearly shows that education is an important dimension of (long term) unemployment. The return to education in terms of a smaller chance of remaining in the unemployment pool is high, not only for those with tertiary education or above, but also for those with general secondary and specialized secondary education. This finding confirms the decisive role of education as a leverage to reduce (long term) youth unemployment in the future.

Vocational education. The share of those with unemployment spells longer than 12 months is over 70 per cent among the unemployed holding diplomas of vocational secondary education. Women with vocational educational diplomas still have a sizeable wage premium. However, men's wages are not significantly different from a statistical point of view compared to those men with compulsory education only. The low return to education in terms of wages and employment opportunities for those with vocational education only highlights the problem of its quality. As vocational education is very specific, it is more likely to become obsolete during transition. From a policy perspective,

this calls for in-depth reforms to address issues of mismatch between supply and demand of vocational skills and updating of curricula. Vocational schools should change their specialization and adapt their subjects to meet the needs of a quickly changing labour market.

Determinants of youth unemployment. What are the risk factors that might affect the probability of being unemployed? The panels (a) of tables A.2.7.1 and A.2.7.2 in the Statistical Annex provide the means to tackle this issue. As already shown in section 2.7, [64] these tables measure the factors affecting the "choice" to be in a given labour market status and the extent to which unemployment and the ensuing poverty is transferred from parents to children, creating a poverty trap. Those with general secondary and tertiary education are more at risk of becoming unemployed than those with primary education or below. This finding contrasts with the composition of labour demand analysed in Chapter 4. [65] The negative effect of secondary and tertiary education on the risk of unemployment is similar for almost all subgroups of the sample population and, in rural areas, is 22.8 times higher. An explanation is that general secondary education alone is not seen by employers as providing any specific skills and is, therefore, only an access to university. Section 4.2 confirms this impression.

However, this is not the case for tertiary education, when young people look for better jobs and their search takes time. This hypothesis would find support in the low statistical significance of the coefficient for tertiary education among the oldest segment in the sample.

Immigrants are less at risk of unemployment than residents. The high positive sign for the location variables confirms the already noted strong regional unemployment differential existing in the country. This suggests looking at whether the risk factors of unemployment are the same or different in urban and rural areas. Holding only a diploma of specialized secondary education is a risk factor in rural, but not urban areas.

The risk of unemployment is lower in larger households, perhaps related to a family allotment. A way to capture the extent to which unemployment is the result of intergenerational transfer is to look at the role of parents' education on the risk of unemployment of their children.

Table A.2.7.2 gives the coefficient of parents' occupations on the probability of a young person being unemployed and the results show that the impact of parents' occupations is not particularly strong on the risk of being unemployed rather than being an unpaid family worker. This again might be due to the baseline adopted and to unpaid family work being a very similar status to unemployment. Even if a variable is not significant it does not mean that it has no affect on the probability of being unemployed altogether. An unemployed father seems to be irrelevant to the choice of young people between unemployment and unpaid family work. This is not true of those whose mother is unemployed or an unpaid family worker. These seem to be factors of risk of unemployment. A young Mongolian whose mother is unemployed is four times more likely to be unemployed. This effect is particularly strong for teenagers and young adults,

[64] Refer to section 2.7 also for methodological details and for the interpretation of coefficients in the multinomial logit model.

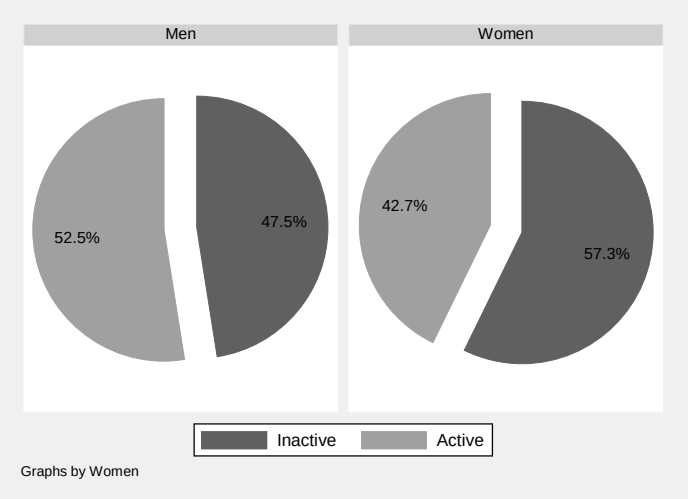
[65] One possible explanation of this apparently surprising result could be the baseline adopted in the analysis: the coefficient would tell us that those with secondary or university education are more likely to be unemployed than unpaid family workers. The coefficient should not be read as a risk of individuals with secondary or tertiary education being unemployed rather than employed. In fact, tertiary education increases the chances of being employed either in paid work or in own business.

but reduces with age. It is also more frequent for women, confirming that their behaviour is more affected by their mothers' characteristics and the behaviour of boys by their fathers' characteristics. Intergenerational unemployment traps are higher in rural than urban areas.

2.11. Outside of the labour force

Size and components of inactivity. The SWTS disentangles different reasons for young people to be outside the labour force: (a) engaged in home duties; (b) on sick leave; and (c) taking care of children (d) in school (table 2.7.1). Overall, the inactivity rate equals 52.5 per cent for the entire sample. However, as noted earlier, much of inactivity is due to young people still at school. Excluding this last group, the average inactivity rate becomes about 10.8 per cent. Women's inactivity rate is higher than men's (figure 2.11.1.). Excluding young people in school, the inactivity rate of women is 13.3 per cent, while it is 7.3 per cent for men. The difference is due to women being outside the labour force more frequently to take care of children (table 2.7.1).

Figure 2.11.1. Youth activity rate by gender

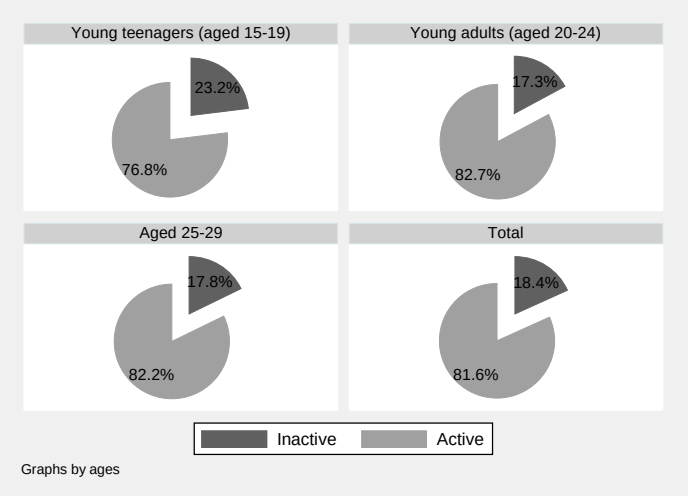


Source: Own elaboration based on SWTS database, NSO Mongolia.

The overall inactivity rate reduces strictly with age (table 2.7.1), perhaps due to the high share of teenagers and young adults still at school. When excluding young people at school, it appears that the inactivity rate is still lower for older ages, but the gap dramatically reduces. Figure 2.11.2 shows that the youth inactivity rate for teenagers is up to 23.2 per cent, which is only about 5 percentage points higher than average.

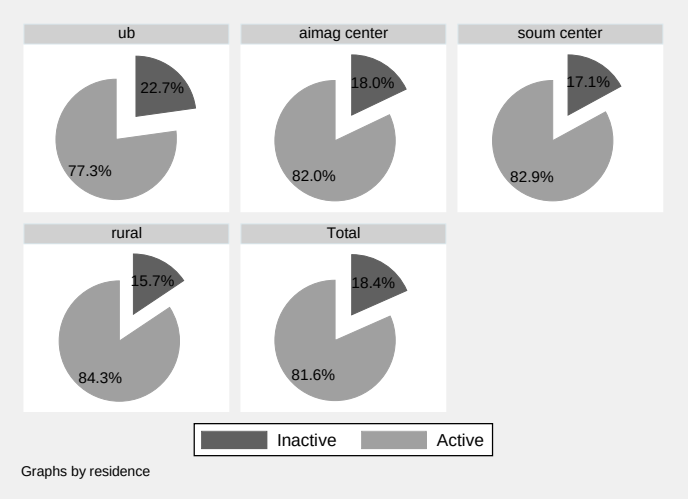
Overall, the inactivity rate is much higher in urban than rural areas, mainly because of the higher share of young people still at school. Youth inactivity reached 65.3 per cent in urban areas and only 30.8 per cent in rural areas (table 2.7.1), confirming the impression that urban areas are unable to offer employment opportunities to young people, as already shown by the spatial distribution of unemployment. In urban areas, where the supply of education and unemployment are both higher, young people might prefer to be at school rather than be unemployed or inactive. However, the lower inactivity rate in rural areas is mainly due to working in family businesses, often unpaid. Figure 2.11.3 corroborates this; it shows inactivity rate by location excluding young people at school

Figure 2.11.2. Activity rate by age group excluding young people at school



Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 2.11.3. Activity rate by location excluding young people at school



Source: Own elaboration based on SWTS database, NSO Mongolia.

Risk factors of inactivity. Which factors affect the probability of being inactive? Panels (d) of tables A.2.7.1 and A.2.7.2 in the Statistical Annex allow controlling for different types of risk factors, [66] showing that women are as likely to be inactive as men. All other things being equal, having three children or more, increases the chance of being inactive by about three times. Moreover, the father's level of education slightly reduces the risk of being inactive. Inactivity appears to be higher in urban than rural areas. Some of this inactivity is captured by other variables, such as the parents' level of education, which is higher in urban areas. Moreover, in rural areas, the share of unpaid family work (the reference category), is much higher than that of inactivity, compared to urban areas. As shown in table 2.7.1, the share of unpaid family workers is about 41.9 per cent in rural areas and only 0.6 per cent in Ulaanbaatar.

[66] See section 2.7.1 for methodological details about the way this table was built.

Chapter 3. Stages of school-to-work transitions

Introduction

Young people differ from adults in their approach to the labour market because they lack work experience. Some young people still at school are already looking for work and many "inactive" young people are also looking, although not actively, because they are discouraged and feel their work experience insufficient to appeal to employers, especially in periods of economic distress. In addition, when some form of employment is found, many consider this only as a tool to fill their work experience gap in the hope of accessing better quality jobs later. As a consequence, they are classified as "employed", but are actually seeking other work or planning to return to education.

This suggests that only looking at employment, unemployment and inactivity rates might be insufficient to understand the real nature of the youth labour market problem The ILO (2004) suggested not only looking at the number of hours spent in paid work, but also at the transition stage reached and to consider a school-to-work transition completed only when the young person has accessed "decent work". The ILO defines "decent work" as work that is productive, generates adequate income and guarantees rights at work and social protection. Very often, young people work with informal, intermittent and insecure arrangements, meaning low productivity, earnings and employment protection, or they are simply underemployed.

This chapter aims to complement the findings of previous chapters by looking at the stages of school-to-work transition. Three different statuses have been identified: (a) transition not yet started; (b) in transition; and (c) transition completed. This approach represents a new and very fruitful perspective, not only to better understand labour market behaviour, but also to define an optimal youth employment policy.

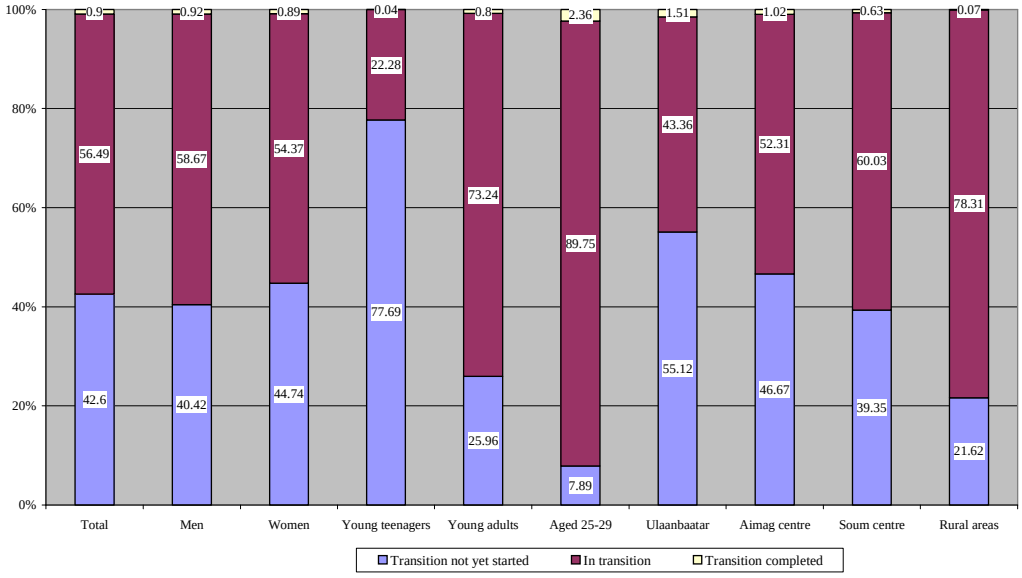
For the first time in Mongolia, the ILO classification of school-to-work transition is used based on the SWTS data. The main conclusion is that only about 1 per cent of the sample has completed their transition to decent work. About 56.5 per cent are still in transition, meaning they are still looking for decent work, whether they are employed, unemployed or inactive. Of the employed, 47.8 per cent feel they would like to change their job and 49.6 per cent experience a decent work deficit. The share of employed in transition is about 32.6 per cent of the sample population, twice the unemployment ratio of 14 per cent. This suggests strong competition for jobs, involving all three categories. This mass of jobseekers exerts a potentially important downward pressure on already very low wages. There is a vicious circle in place enabling only a few young people to complete their school-to-work transition and the lack of alternatives causes, in turn, increasing precariousness in employment relationships.

The outline of the chapter is as follows. Section 1 gives the definition of stages of school-to-work transition and also gives the per cent distribution of the sample according to transition stage, by sex, age group, urban/rural area, educational level and household average monthly income. Section 2 will discuss the main characteristics of youth who have not yet started their transition, distinguishing those in school from the inactive. Section 3 will focus on youth in transition, divided by nature of transition (inactive, unemployed, in temporary/non-career employment) and length of the transition period. Section 4 studies the distribution of transited youth according to ease of transition, by sex and age group, education level, occupation, economic sector, status in employment, formal or informal sector and job search method.

3.1. The school-to-work transition approach

The detailed questionnaire of the Mongolian SWTS allows disentangling the three different stages of transition. Group (a) is subdivided into two distinct subgroups: (a1) in school, not seeking work; and (a2) inactive, not seeking work. Group (b) is subdivided into six subgroups: (b1) in school, but seeking work; (b2) inactive, but seeking work; (b3) unemployed; (b4) employed, but considering themselves unemployed; (b5) employed, but wishing to change job; and (b6) employed not wishing to change their job, but: (1) working more than 50 hours per week; or (2) working with no contract; or (3) working with a fixed length contract; or (4) working, but not paying taxes for their work. Group (c) includes all youth who have been able to access decent work. In this study decent work is obtained as a residual including all those employed not falling into any of the previous categories. Figure 3.1.1 provides a synopsis of the percentages of the three main components of the sampled population. The first feature of this figure is the very small segment of those who have completed their transition. It is more or less stable across gender, but changes dramatically across age groups. It is lowest among teenagers (0.04 per cent) and increases up to 2.4 per cent for those aged 25–29 years and is higher in urban than rural areas. In the last geographical location, very few respondents had completed their transition. This confirms how misleading it can be to only look at the employment share.

Figure 3.1.1. Youth by transition stage by gender, age group and location



Source: Own elaboration based on SWTS database, NSO Mongolia.

The second most apparent feature is that many young people, who seem to be inactive, are, in fact, seeking work in some way or another. They are considered to be "discouraged workers". This share of discouraged workers is anti-cyclical, because when the economy is growing, less feel discouraged, whereas when the economy is in a downturn, they withdraw from actively seeking work. Overall, those who have not yet started their school-to-work transition are about 42 per cent of the sample. More women are at this stage, while teenagers are more frequently in the pre-transition stage than the oldest age segments. In addition, the pre-transition portion is more frequent in urban than rural areas. This finding is related both to the higher share of young people at school in urban areas and the greater availability of job opportunities, albeit unsatisfactory, in rural areas. With the exception of teenagers, the largest portion is in transition. This share represents about 90 per cent of the sample of 25–29-year-olds and about 80 per cent of those in rural areas. These findings confirm the impression that the traditional category of

"employment" is misleading. Most of the employed youth have jobs they consider unsatisfactory and want to change as soon as possible, either to return to education or training, or to seek a better quality job.

Table 3.1.1 compares the two ILO classifications and shows that about 10 per cent of the inactive in the traditional ILO definition are actually seeking work: the two comparable figures are 52.5 per cent for the inactive and 42.6 per cent for those whose transition has not yet started. About 82.7 per cent of the inactive jobseekers are in school. Discouraged workers are only about 1.7 per cent of the total sample. Generally, the component of inactive job seekers is very high, compared to other countries.[67] Almost all workers in the traditional category of "employment" are, in fact, "in transition" towards decent work. That is why, while the employment to population ratio is 33.5 per cent and the employment rate 70.5, the portion that have completed their transition is only 0.9 per cent. Those in transition are 56.5 per cent of the sample and around 16 per cent of those employed wished to change jobs. Almost all the rest (16.8 per cent) had decent work deficits.

Table 3.1.1. ILO traditional and school-to-work indicators

Traditional labour market indicators		School-to-work transition indicators			
Inactivity rates	52.5	Transition not yet started	42.6	In school	40.0
				Inactive	2.6
Unemployment rate	29.5	In transition	56.5	Discouraged workers	1.7
Unemployment ratio	14.0			In-school, but job searching	8.1
				Unemployed	14.0
				Workers considering themselves unemployed	0
				Workers wishing to change	16.0
				Workers with decent work deficit	16.6
Employment rate	70.5	Transition completed	0.9	Employed in decent work	0.9
Employment ratio	33.5				

Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.1.2 disentangles the two components, not yet in transition and in transition. The main difference between men and women is that there are more women at school, either seeking or not seeking work, than men. About 42 per cent of women and 38.2 per cent of men are at school, whereas 3.1 per cent of women and 2.2 per cent of men are inactive. The portion that is discouraged is equal across gender and 11.1 per cent of women and 5.1 per cent of men seek work while at school. This reflects the lower job opportunities of women.

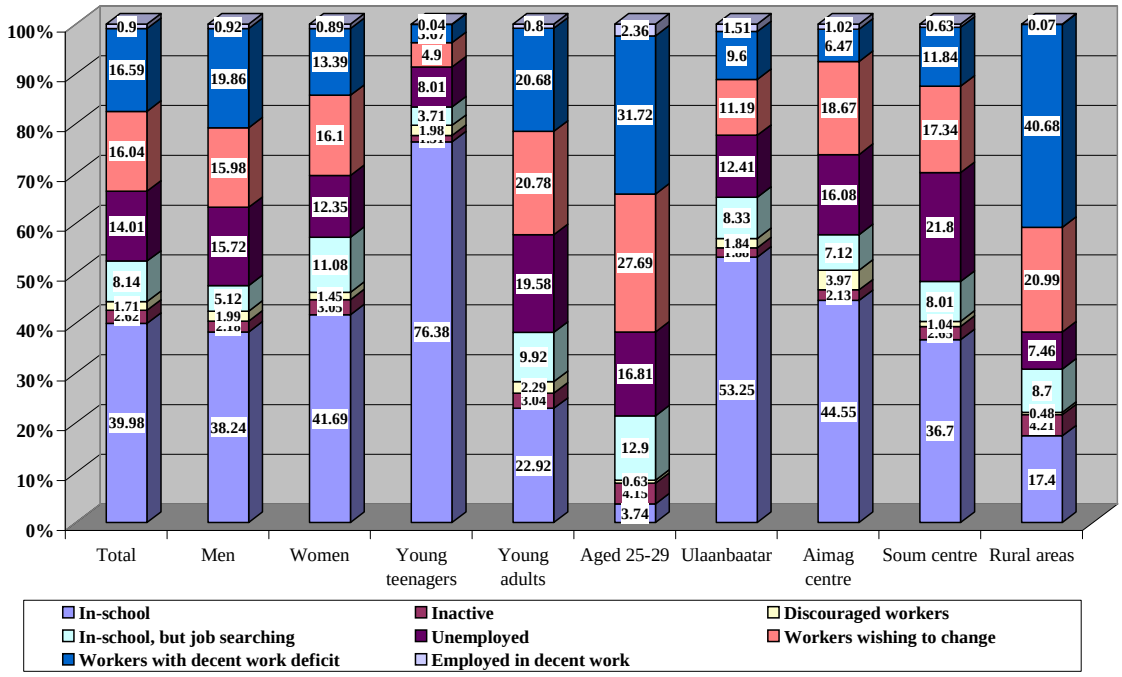
Within the in transition group more men than women are unemployed or have work deficits. Men enter the labour market earlier and, consequently, are more frequently unemployed, have jobs they wish to change, or have important work deficits. The share of employed women and men wishing to change jobs is very similar. However, considering the lower employment rate of women, in relative terms women wish to change their jobs more often than men, 37.7 per cent and 30.4 per cent, respectively. In general, women

[67] See, for instance, the case of Kosovo (Corbanese and Rosas, 2007, p. 31).

experience greater hardship in finding a job and are dissatisfied and wish to change more often. This is obviously related to the higher share of women at school. [68]

Geographical differences are important and there are very different models of school-to-work transition in urban and rural areas. In Ulaanbaatar, perhaps, due to lack of job opportunities, 53.3 per cent of young people are at school compared to 17.4 per cent in rural areas. In rural areas, 21 per cent wish to change jobs and 40.7 per cent experience decent work deficit. The comparable figures in the capital city are only 11.2 per cent and 9.6 per cent. The *aimag* and the *soum* areas are intermediate cases.

Figure 3.1.2. Youth by transition stage by gender, age group and location



Source: Own elaboration based on SWTS database, NSO Mongolia.

3.2. Youth who have not yet started transition

The group who had not started their transition at the time of the survey differs from the ILO definition of inactive inasmuch as it does not include the inactive or those at school already seeking work. The inactive that seek work are "discouraged workers" and represent 1.7 per cent of the sample and 57.3 per cent of them are men. Those still at school but already seeking work represent 8.1 per cent and only 31 per cent of them are men.

The overwhelming majority of teenagers who have not yet started their transition are still at school (76.4 per cent). Only 1.3 per cent of those in the pre-transition stage are inactive. The comparable figures for young adults are respectively 22.9 per cent and 3 per cent. For those aged 25–29 years, the proportions revert in favour of the inactive,

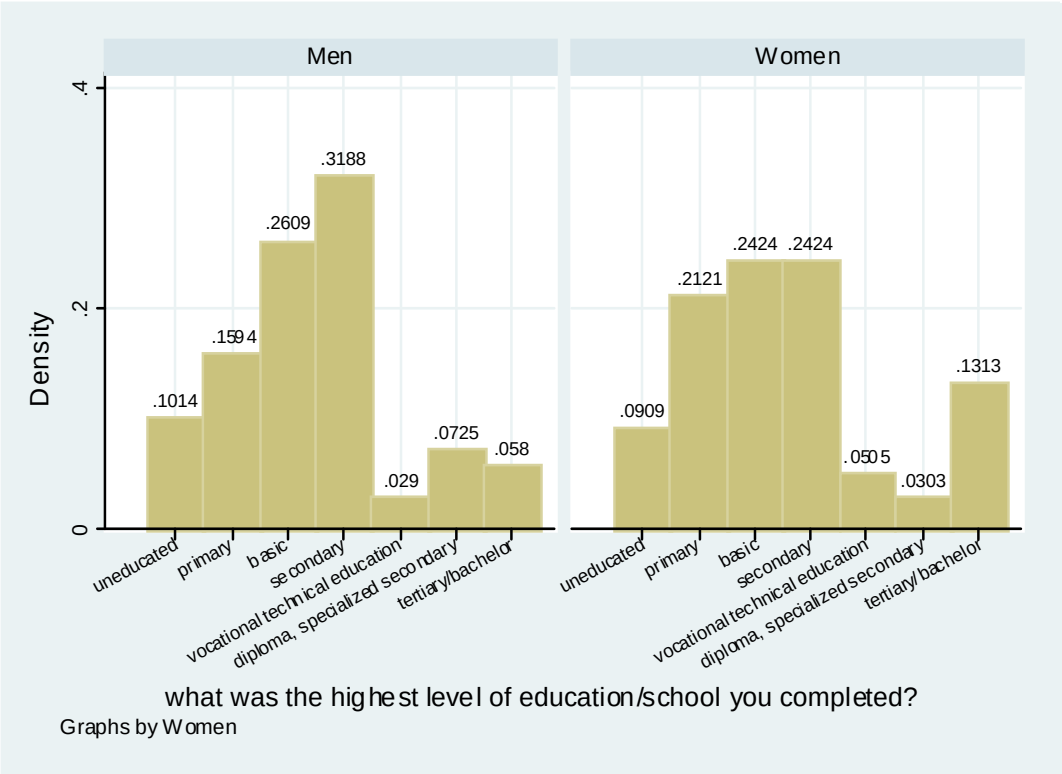
[68] Whether the lack of decent work is an incentive or a disincentive for investment in education depends on which of the following two effects prevails. Unemployment and, more generally, the lack of decent work opportunities tend, on the one hand, to reduce the returns to education and, on the other hand, to reduce the alternative cost of education (see, for instance, Pastore, 2005). This issue will be the object of future research.

representing 4.2 per cent of the total, against the 3.7 per cent of those at school. Rural areas have the largest share of inactive and the smallest share of at school, 4.2 and 17.4 per cent, respectively. In the capital city, however, at school is 53.3 per cent and inactive is 1.9 per cent. The *aimag* and *soum* centres represent intermediate cases between the rural areas and Ulaanbaatar. The reduction in the supply of education when moving from urban to rural areas explains these geographical differences.

What is the educational level of those who are inactive and have not yet started their transition? Figure 3.2.1 answers this question by providing the distribution by educational level. It shows that the vast majority, namely 84 per cent of men and 78.8 per cent of women have general secondary education or below. This reaches a peak for young people holding general secondary education, 31.8 per cent of men and 24.4 per cent of women. A large share of the inactive has basic education, 26.1 per cent for men and 24.2 per cent for women. This distribution mirrors closely that of the overall sample (see table 2.4.1).

This represents another return to education as, not only do those with higher educational levels have lower unemployment rates and higher earnings, but they are also less likely to be inactive. Notice also that the lowest share of inactive are those holding a diploma of vocational technical education, 2.9 per cent of men and 5.1 per cent of women. This reflects the high relative demand for this type of educational qualification, as Chapter 4 will highlight. The share of inactive with a diploma of specialized secondary or tertiary education is about 7.3 per cent of men and 3 per cent of women. It is interesting to note that 5.8 per cent of men and, more importantly, 13.1 per cent of women in this group hold a university degree. The high share of inactive women with university degrees is most probably linked to the hardship they experience in finding decent work and reconciling it with the household. It is worrying that women, who have invested in their education and are highly motivated are inactive. Policies aimed at promoting equality of opportunities for women will reduce this.

Figure 3.2.1. Inactivity by educational levels

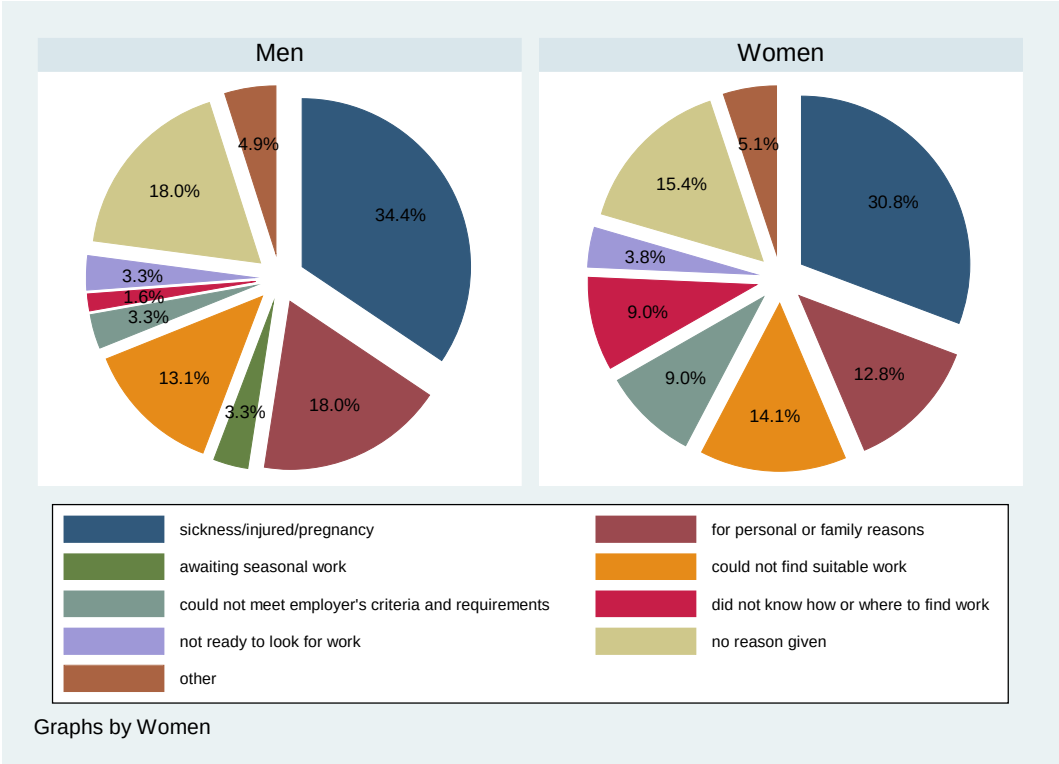


Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.2.2 shows that sickness, injury or pregnancies are the cause of inactivity for 34.4 per cent of men and 30.8 per cent of women. [69] This suggests prompt policy interventions aimed at promoting employment for young people with disabilities or health problems, envisaging, for instance, special quotas. The presence of a large number of pregnant women among the inactive depends on the young average age at first birth. It would be important to assess the extent to which, after giving birth, women return to the labour market. Some women who start a family before finding work might stay out of the labour market or unemployed for a long time. [70] Policies promoting employment for women with children could be important to help reduce the risk of remaining jobless in the future.

Personal or family problems are the second most important cause of inactivity, 18 per cent of men and 12.8 per cent of women. Other factors of inactivity are indications of the specific difficulty some have in seeking work and represent a factor of inactivity of 18 per cent of men and 32.1 per cent of women. A share as high as 13.1 per cent of men and 14.1 per cent of women could not find suitable work, while 3.3 per cent of men and 9 per cent of women could not meet employer's criteria and requirements. Of men, 1.6 per cent and 9 per cent of women did not know how or where to find work. This difficulty in finding suitable work reflects not only a low demand for labour, but also the lack of decent jobs (section 3.1). It is, therefore, of the utmost importance that employers and the Government increase the quality of jobs available, by introducing and implementing arrangements

Figure 3.2.2. Reasons of inactivity by gender



Source: Own elaboration based on SWTS database, NSO Mongolia.

[69] Unfortunately, the STWS does not allow disentangling these three causes of inactivity. In particular, it is not possible to quantify the share of the inactive that are disabled or pregnant.

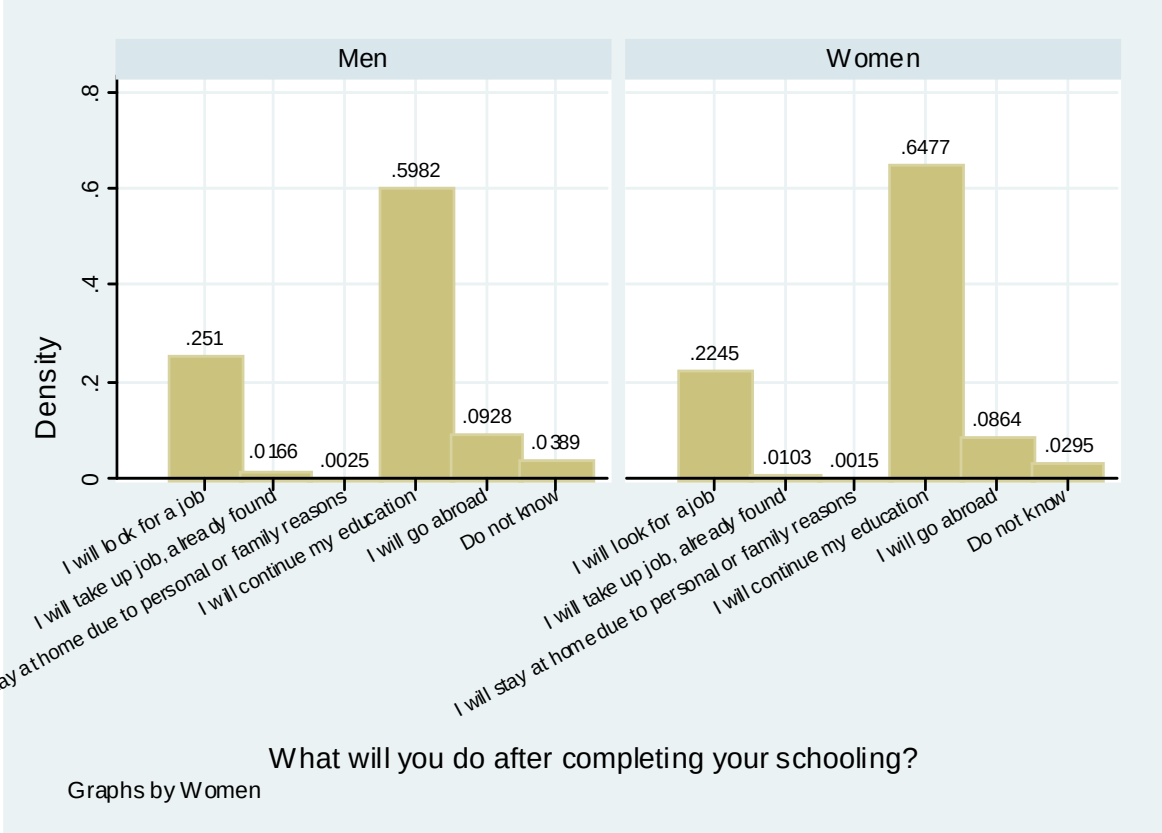
[70] To verify this hypothesis longitudinal data are necessary and should be gathered in another survey.

aimed at reducing the long working hours and introduce fiscal incentives to foster the adoption of official work contracts of longer duration.

In addition, policy-makers could provide counselling services, especially for women, to assist them to search and apply for job vacancies. It is difficult for the public employment services (PES) to reach this group if they are not registered and actively seeking work. However, improving the services might also be an incentive for the inactive to register in the medium and long term. Closer links between employers and PES could also help spread information on available vacancies, reaching not only the unemployed, but the inactive. Employers should also use different channels to spread information of vacancies so as to reach young people not actively seeking work.

A specific question in the SWTS asks those at school about their immediate plans on completion of their studies and figure 3.2.3 shows that most of those who have not yet started their transition wish to continue their education. This option is chosen by 65 per cent of women and 60 per cent of men. However, the number wishing to continue their studies is very positive, suggesting that more and more young people aim for a better education and this corresponds with the expectations of employers, as Chapter 4 will show. It also suggests that they understand the lack of opportunities in the labour market and, even if they find a job it will be of low quality, therefore, they feel that further study is their best option. Only 25 per cent of men and 22.5 per cent of women wish to look for a job after completing their studies. An important component of 9.3 per cent of men and 8.6 per cent of women, wish to go abroad on completion of their studies. Employers, trade unions and the Government, at all levels, should act to avoid further reduction in the workforce in future.

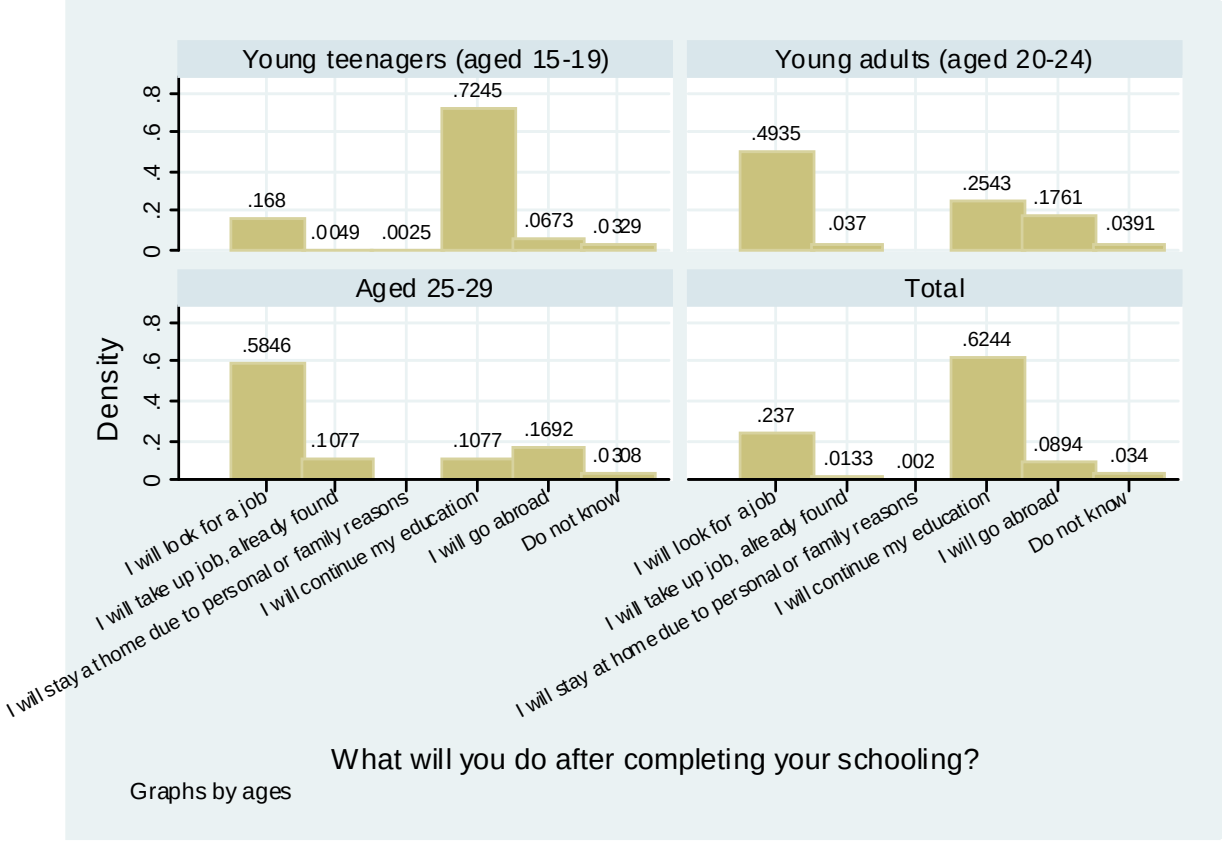
Figure 3.2.3. Future plans of at-school youth by gender



Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.2.4 provides answers to the same questions as figure 3.2.3, but by age group. As expected, answers depend strictly on age. In particular, the share of those wishing to continue their studies shrinks from 72.4 per cent to 10.8 per cent when going from teenagers to those aged 25–29 years. Conversely, the share of those wishing to seek work increases from 16.8 per cent to 58.5 per cent for the same age groups. A more worrying aspect is the increase in the share of those wishing to go abroad, 6.7 per cent for the youngest segment and 16.9 per cent for the oldest. This, yet again, reflects the scarcity of job opportunities.

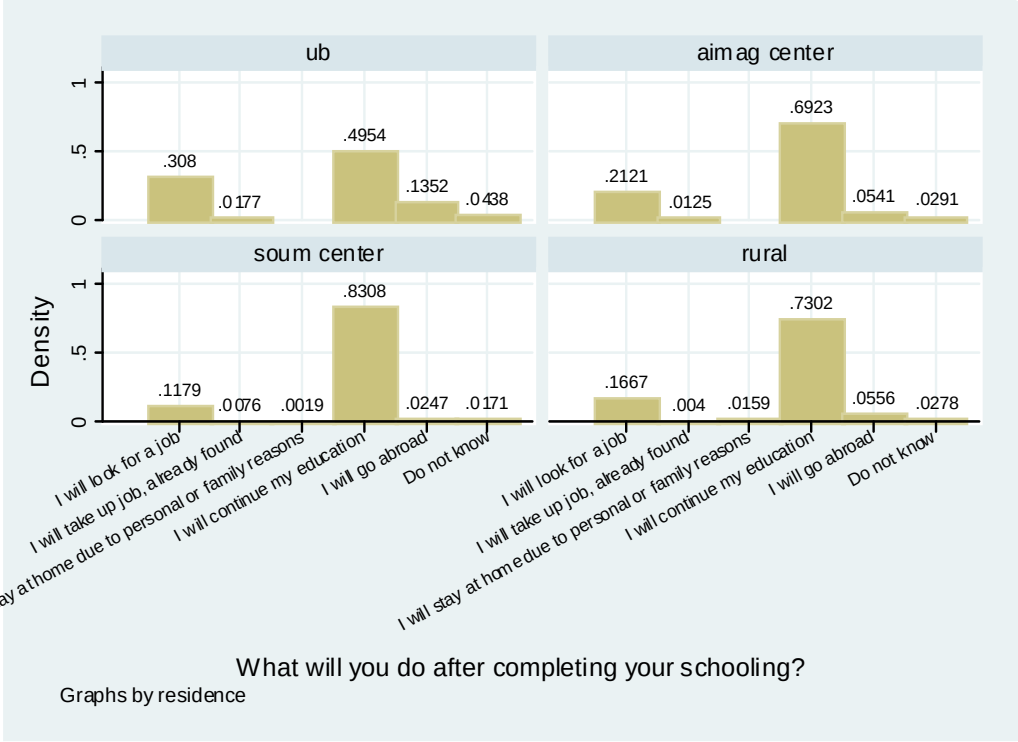
Figure 3.2.4. Future plans of in-school youth by age group



Source: Own elaboration based on SWTS database, NSO Mongolia.

When looking at the post-school decisions of young people in different locations (figure 3.2.5), it appears that in rural areas the share of those wishing to continue their studies is larger and those wishing to seek work smaller than in urban areas, with the exception of *soum* centres. The gap in terms of percentage of the latter category in the capital city and in rural areas is about 15 per cent, or half of the share in urban areas. This clearly confirms the impression that the intentions of young people at school are strongly influenced by their perception of job opportunities, which are less appealing in terms of quality of work in rural areas. The figure also shows that most of the migration potential is in the capital city, where those wishing to move abroad reaches a high of 13.5 per cent, almost one and a half times greater than average. This, in turn, depends on the high unemployment rate typical of the capital city and the perception of lack of work opportunities there.

Figure 3.2.5. Future plans of at-school youth by location

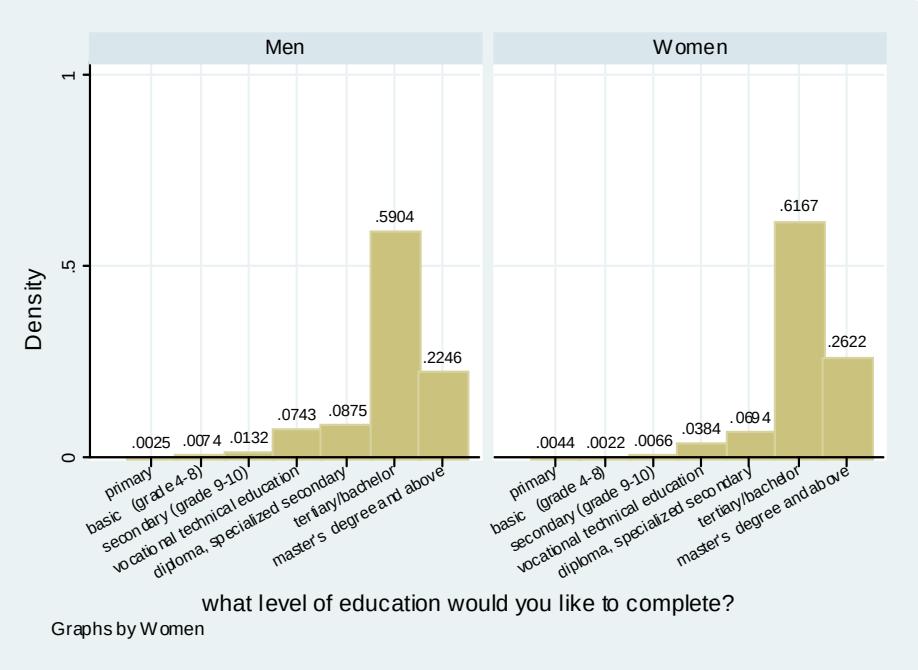


Source: Own elaboration based on SWTS database, NSO Mongolia.

It is interesting that the majority of those at school in the transition category "not yet started" aim to achieve at least tertiary education, 61.7 per cent of women and 59.0 per cent of men. If those aiming to reach postgraduate studies are included, it appears that almost 90 per cent of women and over 80 per cent of men aim to further their education, corresponding to the expectations of prospective employers as the next chapter will show. Nonetheless, these findings contrast with the relatively low share of young people with high educational attainment and suggest that there is some sort of supply constraint on education. This is an important indication for policy-makers on the need to fulfil the aspirations of employers and students for more and better education, especially in rural areas.

The policy implications of these findings are in favour of a reform of the educational system aimed at reducing the cost of education for the poorest segments of the population, especially in rural areas. Policies aimed at stimulating employment growth for the young generation, especially in urban areas, are important to avoid further migration flows. As shown in the previous chapter the unemployment rate is much higher in urban than rural areas, whereas job opportunities offered in rural areas are of very low quality. As a consequence, there is an important migration potential in urban areas and aspirations for higher education in rural areas.

Figure 3.2.6. Type of education desired by pre-transition youth in school



Source: Own elaboration based on SWTS database, NSO Mongolia.

3.3. Youth in transition

The number of young people in transition is 56.5 per cent of the population, which compares to a youth unemployment ratio of 14 per cent. There is, hence, a ratio of about 4 between the new indicator of "in transition" and the traditional indicator of "unemployment". [71] The share of those wishing to change their job, or of respondents with a decent work deficit, is over 16 per cent each and, therefore, greater than the unemployment ratio. This confirms that looking at the traditional indicators of labour market status is misleading if there is an interest in understanding the degree of stability of employment and of job satisfaction. Looking at the group in transition is expected to shed new light on the actual degree of labour market stability, which can be seen as a precondition for adult life.

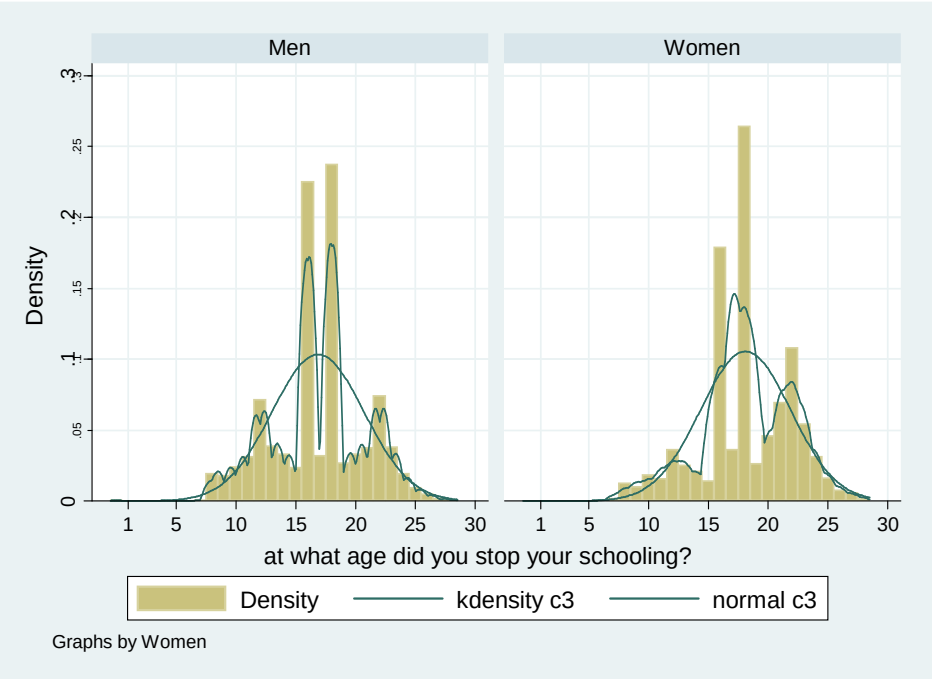
Figure 3.1.2 shows that there are more men in transition. The other components of the in transition status are similar across gender, suggesting that an important portion of Mongolian women consider education an alternative to inactivity, open unemployment or employment with work deficits. The same figure also shows that teenagers are, in general, still at school, but about 1.3 per cent of them have plans to work. However, it is also true that the share of young people not at school under the age of 19 is still relatively high compared to OECD countries (see, for a detailed report on this issue, del Rosario, 2005).

Figure 3.3.1 shows the distribution of young people by gender and age on leaving school. An important number of them leave school before the completion of compulsory education and also a large number leave the educational system after the age of 22, either because they complete college education later or because they go back to school. Women

[71] This is a very high ratio, greater than that found in previous studies relative to countries where youth unemployment is a major issue. See, for comparison, the case of Kosovo in Corbanese and Rosas (2007).

tend to stop their schooling later than men, confirming their higher educational attainments.

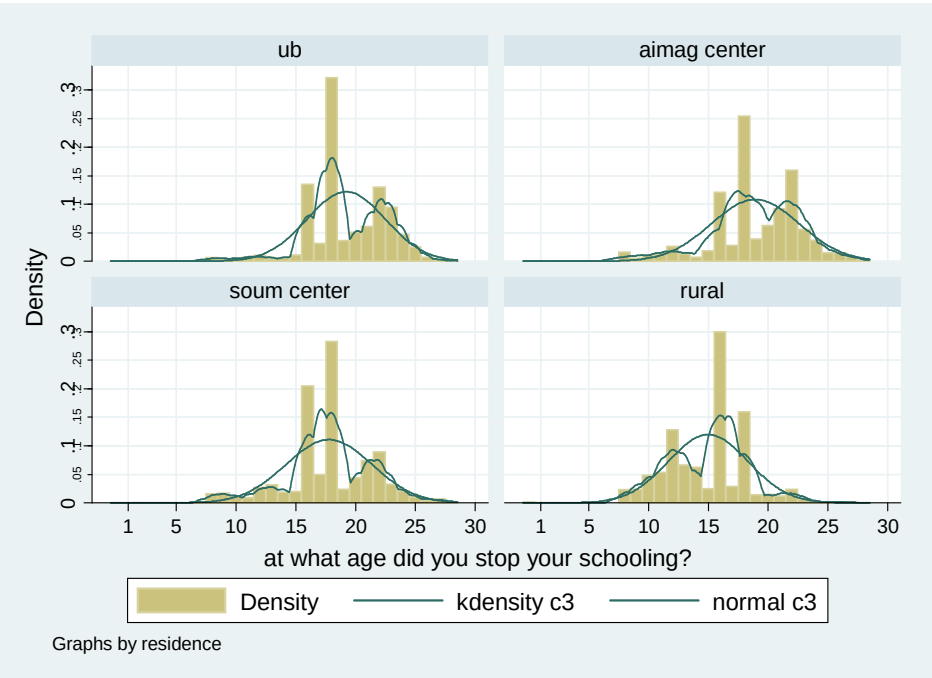
Figure 3.3.1. Age at which young people have left school, by gender



Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.3.2 shows the same information as figure 3.3.1, but by location of the interviewee. As expected, in rural areas young people stop their schooling earlier, confirming the previous impression that child labour, especially related to herding is a major cause of dropping out of school. The peak of 12 years old is typical of those who leave school to help with herding.

Figure 3.3.2. Age at which young people have left school, by location



Source: Own elaboration based on SWTS database, NSO Mongolia.

Type of search methods of young people who are at school. Table 3.3.1 shows that young people, who are still at school, adopt very different search methods, with two being most common. The largest share of 40.9 per cent look at vacancy announcements in newspapers and Internet web sites. Relying on their personal network is the second most common method and preferred by 30.9 per cent, and is more common among women in urban areas. Men prefer to look for jobs through advertisements. Registering at the PES is the third most common method. About 9 per cent, with a slightly higher share of men, rely on this. Only a few individuals apply direct to employers.

Two observations can be made. First, job search methods of those still at school differ from those of the unemployed and also employees. Differences might reflect the intensity of job searching and the greater experience of the unemployed. Second, differences exist with respect to recruitment methods of employers as discussed in the next chapter.

These findings suggest that jobseekers still at school should be helped in several ways, including improving the labour market relevance of educational outcomes, providing skills more in demand, improving relations with firms and unions and providing career guidance services.

Discouraged workers. They represent about 2 per cent of the sample population, with a slightly higher share of men. Age differences are relatively small, but it is noteworthy that the portion of discouraged workers goes from 2.3 per cent among teenagers to 0.6 per cent among those aged over 25 years. The rate of discouragement is higher in the *aimag* centres, at about 4 per cent, and lower in rural areas, at about 0.5 per cent. In the capital city, the share is relatively lower than in the *aimag* and *soum* centres, but much higher than rural areas, at about 1.8 per cent. Even if discouraged workers make up only a small part of the youth population, policy-makers should, nevertheless, make them an important policy objective.

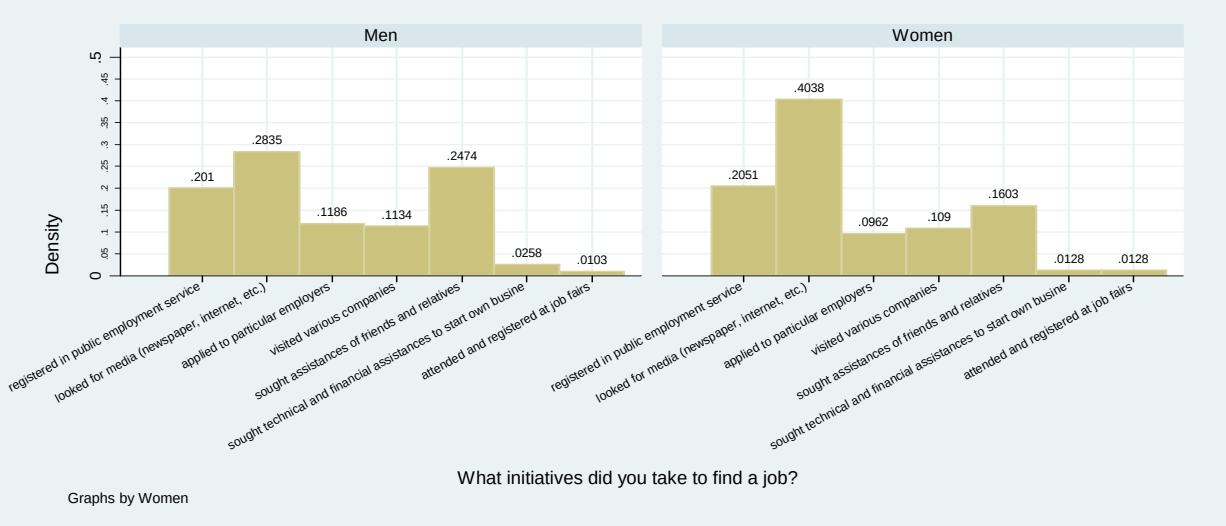
Table 3.3.1. Still at-school youth by approaches to jobseeking by gender and urban/rural area

	Youth seeking work while still at school (thous)	Of which (%)								
		Whole country			Urban			Rural		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	12.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Registered in public employment service	1.1	9.1	9.5	8.5	5.7	6.3	5.0	22.7	20.0	28.6
Looked for media (newspaper, Internet, etc.)	5.2	40.9	46.0	34.0	44.3	52.1	35.0	27.3	26.7	28.6
Applied for particular employers	0.5	3.6	–	8.5	3.4	–	7.5	4.5	–	14.3
Visited to various entities	0.7	5.5	4.8	6.4	5.7	6.3	5.0	4.5	–	14.3
Seek assistances of friends and relatives	3.9	30.9	25.4	38.3	31.8	22.9	42.5	27.3	33.3	14.3
Soak technical and financial assistances to start own business	0.3	2.7	3.2	2.1	2.3	2.1	2.5	4.5	6.7	–
Attended and registered to job fairs	0.2	1.8	1.6	2.1	2.3	2.1	2.5	–	–	–
Other	0.7	5.5	9.5	–	4.5	8.3	–	9.1	13.3	–

Job search methods and intensity of job search of unemployed youth. This subsection adds information on job search methods and its intensity by looking at the number of

applications submitted and the number of interviews. The preferred job search method of the unemployed by gender are presented in figure 3.3.3. About 20 per cent use PES. Differences by gender are concentrated in the use of media and networks of friends and relatives. This suggests that men tend to use informal networks more frequently. The young unemployed prefer informal networks. In addition, as noted in the previous chapter, informal networks entail a wage loss.

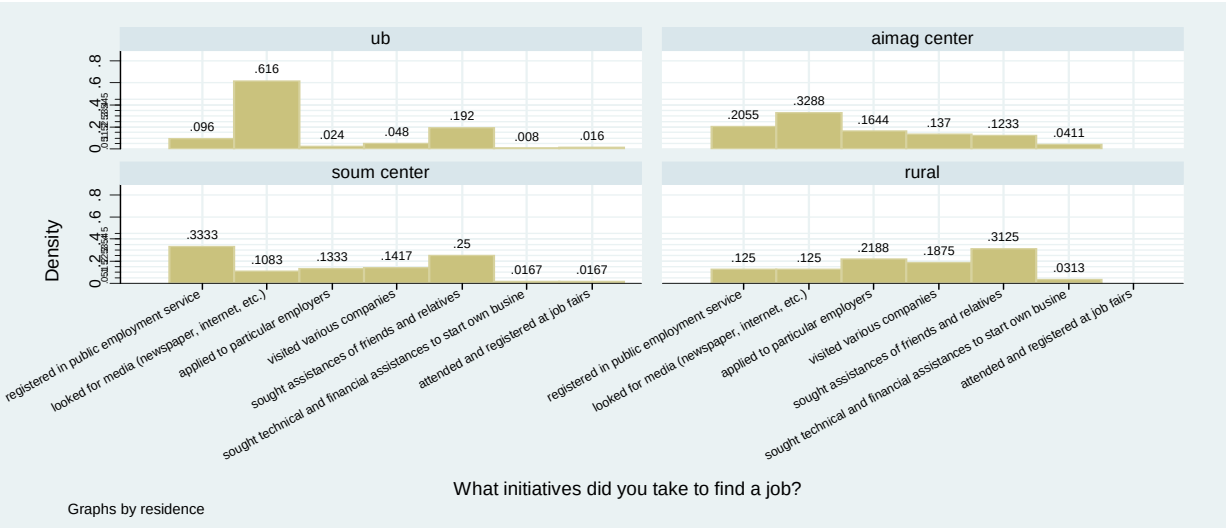
Figure 3.3.3. Job search methods of unemployed Mongolian youth by gender



Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.3.4 provides answers to the same question, but by location. Informal networks are common among young unemployed in rural areas, over 30 per cent. In urban areas, the use of the media is most common, over 60 per cent. This may be due to the size of the youth labour market in the capital city, where other job search methods are almost never used. However, in smaller rural labour markets, personal networks tend to provide information on vacancies and PES are used to a greater extent in *aimag* and in *soum* centres.

Figure 3.3.4. Job search methods of unemployed youth by location

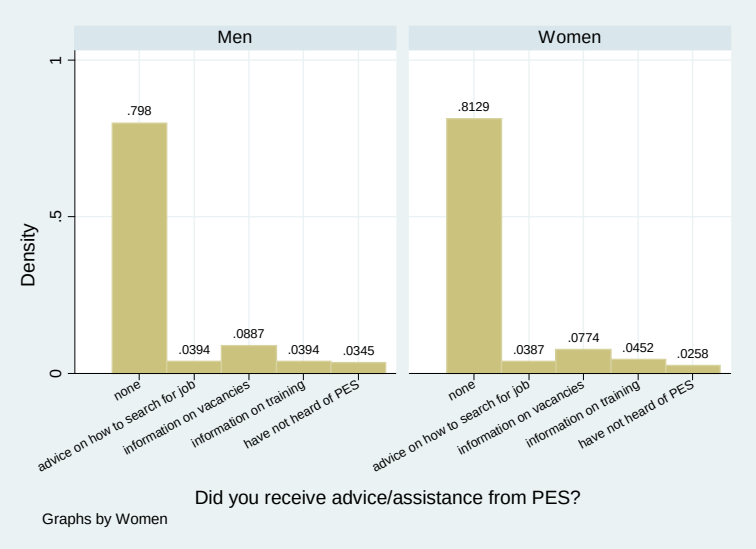


Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.3.5 might provide an answer as to why only about 20 per cent of the sample register with the PES. It does not provide any assistance to about 80 per cent and only

about 4 per cent of the unemployed youth received advice on job search, 9 per cent received information on vacancies and about 4 per cent received information on training courses. A small share of around 3 per cent did not even know of the PES. This is clearly an important area of policy intervention. A more active role of the PES might help reduce the time necessary for young people to accomplish their transition or, at least, find some form of employment.

Figure 3.3.5. Assistance provided by PES to young unemployed by gender

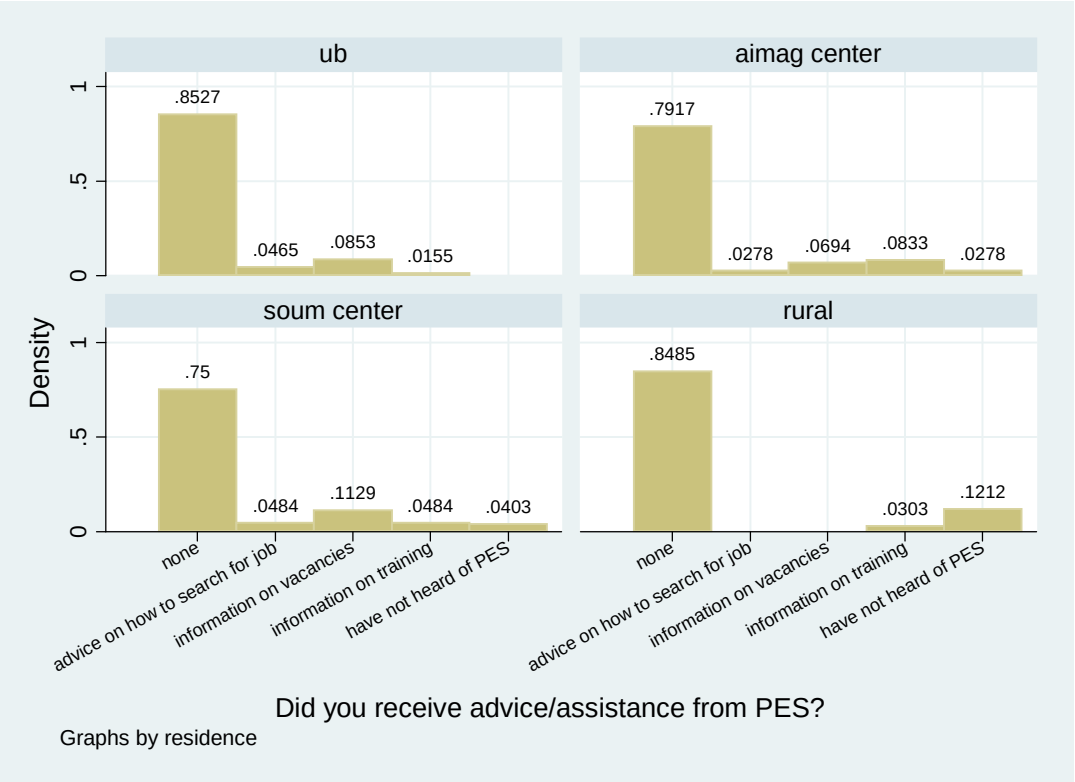


Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.3.6 shows the distribution of beneficiaries of the activities of the PES by location. It is more active in *aimag* and *soum* centres than in the capital city and rural areas. About 85 per cent of unemployed youth in Ulaanbaatar and in rural areas received no assistance from the PES. In rural areas, a share as high as 12.1 per cent did not even know of its existence. In the capital, the PES provides information on vacancies for 8.5 per cent of the sample and advice on jobseeking for 4.7 per cent. Training programmes are almost absent, denoting the PES inactivity in the capital. Training programmes are concentrated in the *aimag* and *soum* centres and there is more information available on vacancies and assistance in jobseeking.

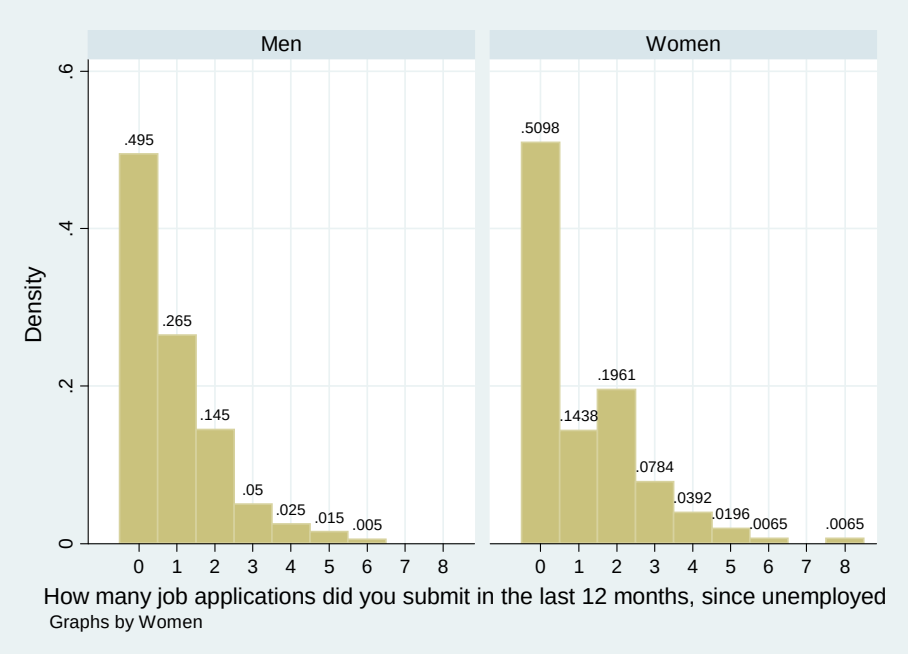
One way to assess the intensity of job searching is to measure the number of applications submitted and job interviews attended. Figure 3.3.7 clearly shows that this intensity is not very high. About 50 per cent had not applied for a job directly in the 12 months preceding the interview. Less than 15 per cent had made more than two applications. Men sought work more actively than women, but became discouraged more easily. The share of women who had submitted at least one application in the last 12 months before the interview was only 14.4 per cent, compared to 26.5 per cent of men, but the share of women submitting more than one application was more than that of men.

Figure 3.3.6. Assistance provided by PES to young unemployed by location



Source: Own elaboration based on SWTS database, NSO Mongolia.

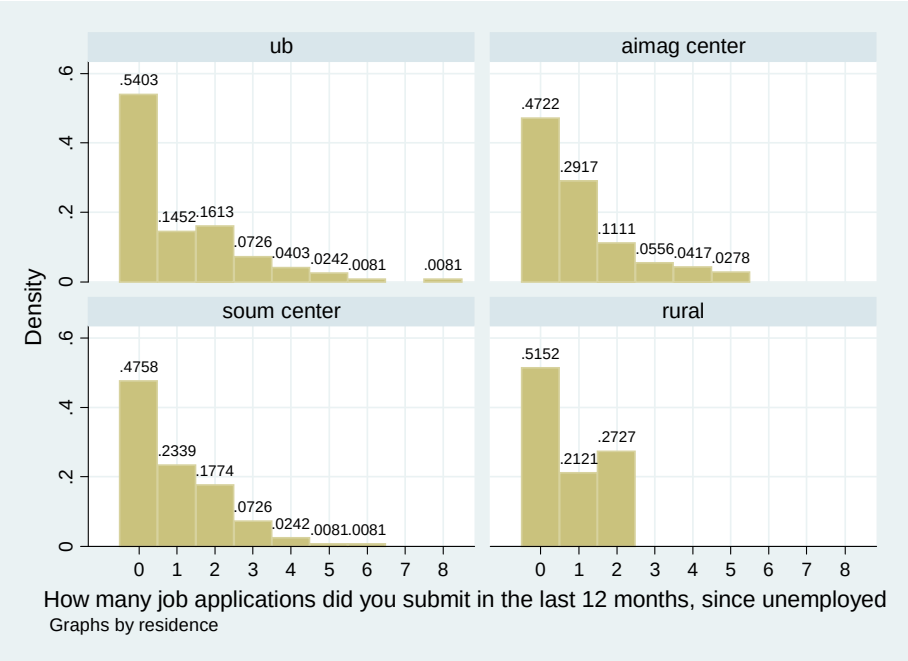
Figure 3.3.7. Number of job applications in the 12 months preceding unemployment, by gender



Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.3.8 suggests that the intensity of job search is much higher in *aimag* and *soum* centres than in the capital city and, even more so, in rural areas. In rural areas, youth unemployed submitted, at most, two applications. Over 50 per cent of them submitted no applications at all. In the capital city, compared to other urban areas, there is a lower share of youth unemployed who submitted more applications, perhaps because of the higher unemployment rate there.

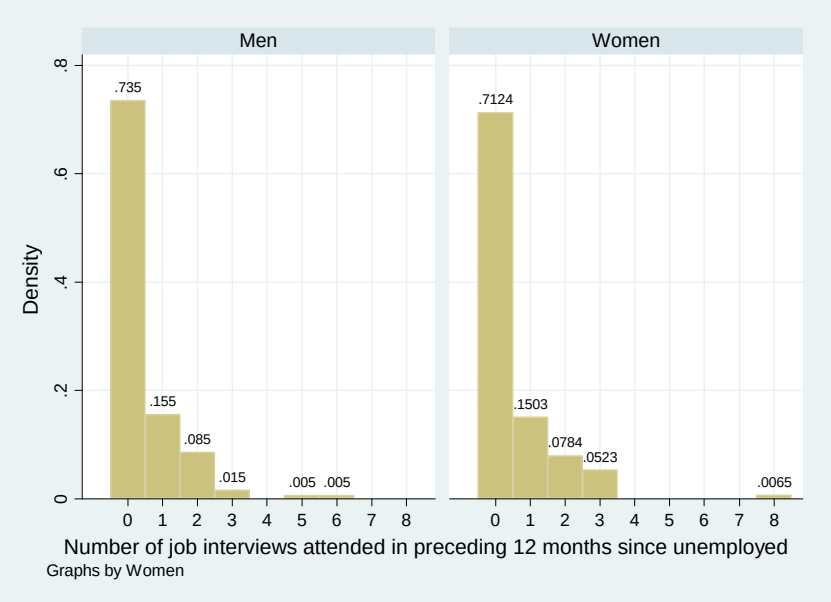
Figure 3.3.8. Number of job applications in the 12 months preceding unemployment, by location



Source: Own elaboration based on SWTS database, NSO Mongolia.

The intensity of job search is not high when measured by the number of job interviews attended in the last 12 months of unemployment. Over 70 per cent never reached the stage of a job interview, while only about 15 per cent attended one interview. The share of those with more than two interviews was very low and there were small differences between men and women.

Figure 3.3.9. Number of job interviews attended by youth unemployed in the preceding 12 months, by gender

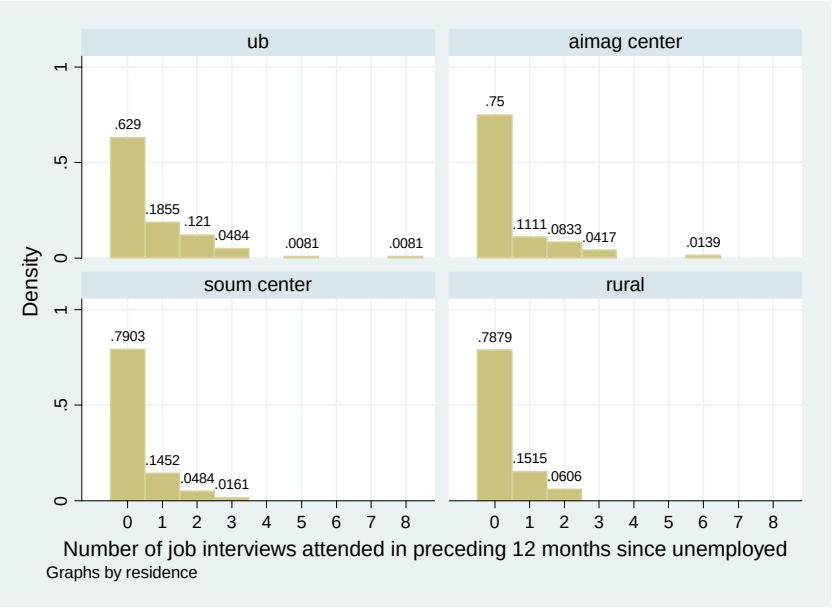


Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.3.10 shows the distribution of answers to job interviews by location of the respondent. It paints a slightly different picture compared to that highlighted by the number of applications. The indicator of search intensity considered here suggests a greater intensity in the capital city and in the *aimag* centres than in the *soum* centres and rural

areas. In particular, the share of the unemployed in the capital who had not had any job interview was only 62.9 per cent, about 10 percentage points smaller than in *soum* centres and rural areas.

Figure 3.3.10. Number of job interviews attended by youth unemployed in the preceding 12 months, by location



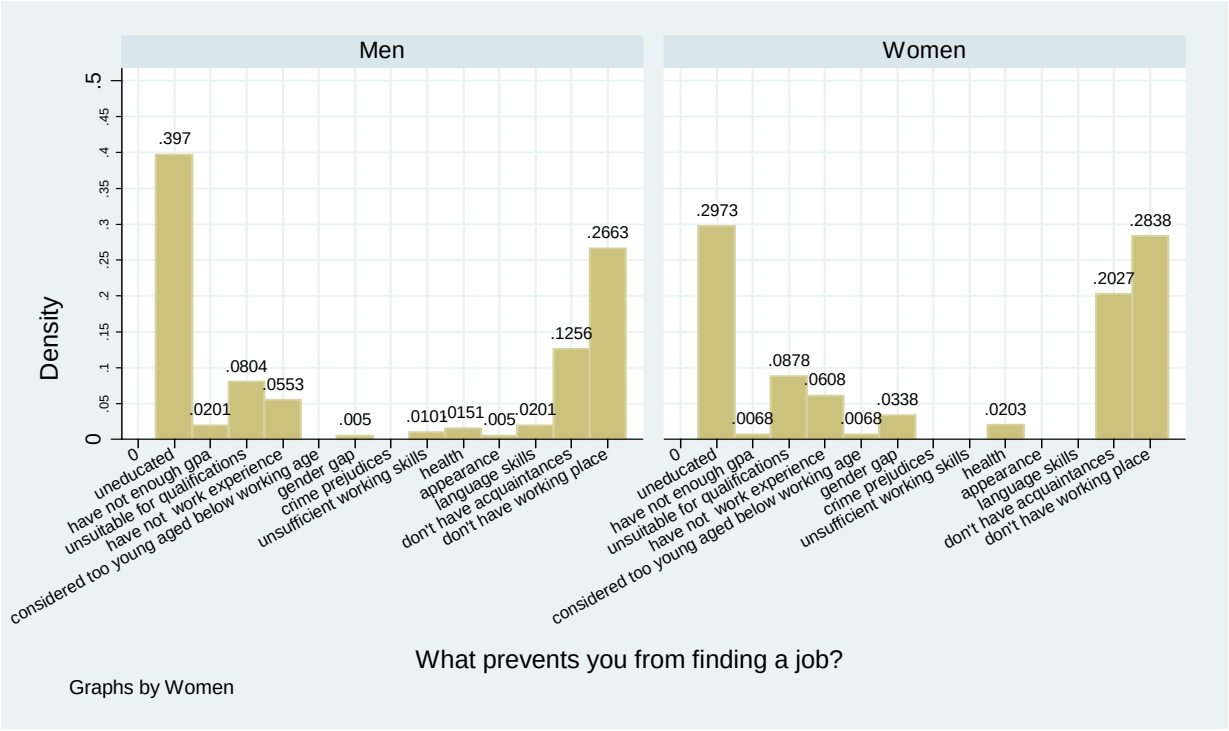
Source: Own elaboration based on SWTS database, NSO Mongolia.

Looking at the perceived obstacles to finding a job could provide important indications for policy-makers. The SWTS contains a specific question and the distribution of answers is shown in figure 3.3.11. The largest portion of unemployed, about 39.7 per cent of men and 29.7 per cent of women, consider the lack of education a major obstacle to finding a job and others feel that the lack of suitable qualifications is an obstacle. Overall, this is a clear suggestion that education is perceived as an important vehicle to finding a job. Young people also feel their qualifications are insufficient, suggesting that the educational system should be closer to labour market needs. There is also an important proportion who believes that the economy is not providing enough jobs, over 25 per cent of both men and women. The share of those youth unemployed (more women than men), who believe that not being part of a sufficiently large informal network reduces their chances of employment, is also significant. About 5.5 per cent of men and 6 per cent of women feel their work experience is not sufficient for them to appeal to employers.

Obstacles to finding a job differ geographically. Despite, a youth unemployment rate higher in urban areas, the share of those who feel there are no jobs available is actually higher in rural areas and in *soum* centres, confirming that the available jobs in rural areas are of such low quality, they are considered to be worthless.

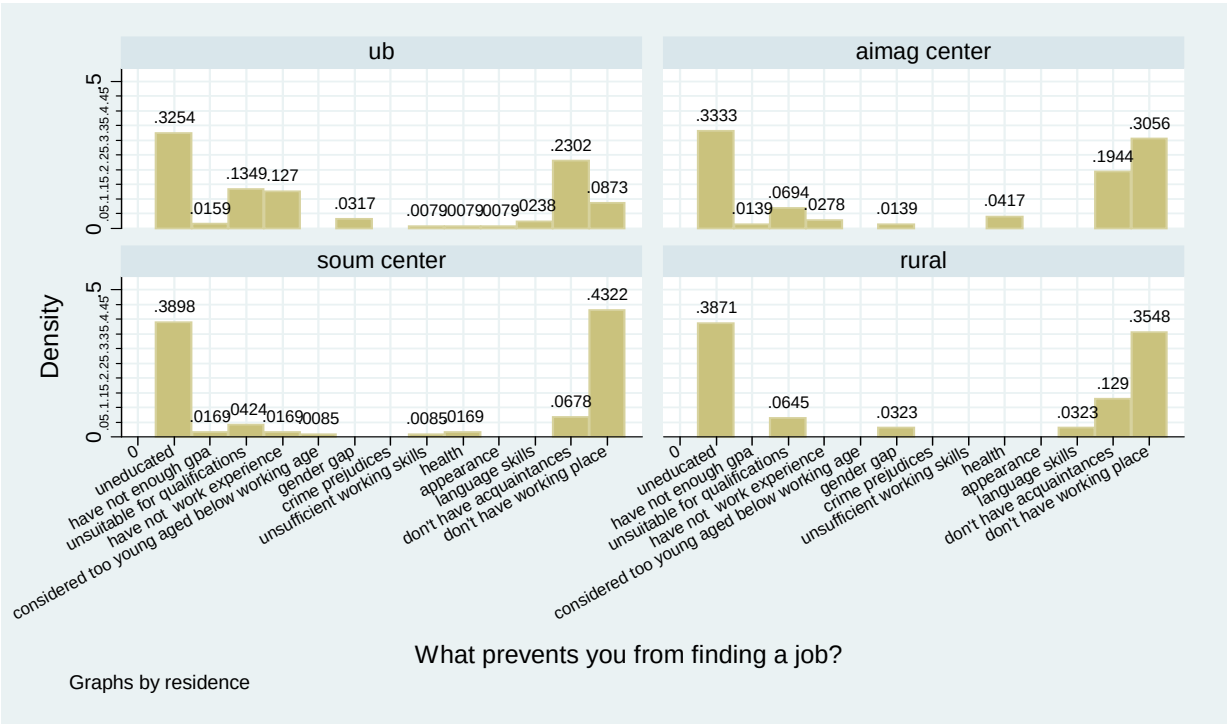
The perceived gap of education is higher in rural than in urban areas, hiding supply rather than demand side explanations. In other words, young people in rural areas actually have a low level of education compared to the demand. Nevertheless, in urban areas, and especially in the capital, a larger fraction of youth unemployed feels their qualifications do not match those required by employers. Also higher in urban areas is the perceived experience gap. About 11.3 per cent of youth unemployed in Ulaanbaater feel they have insufficient work experience compared to less than 3 per cent in other areas, which is most likely, a reflection of the higher skill content of jobs available in the capital.

Figure 3.3.11. Perceived obstacles in finding employment, by gender



Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.3.12. Perceived obstacles in finding employment, by location

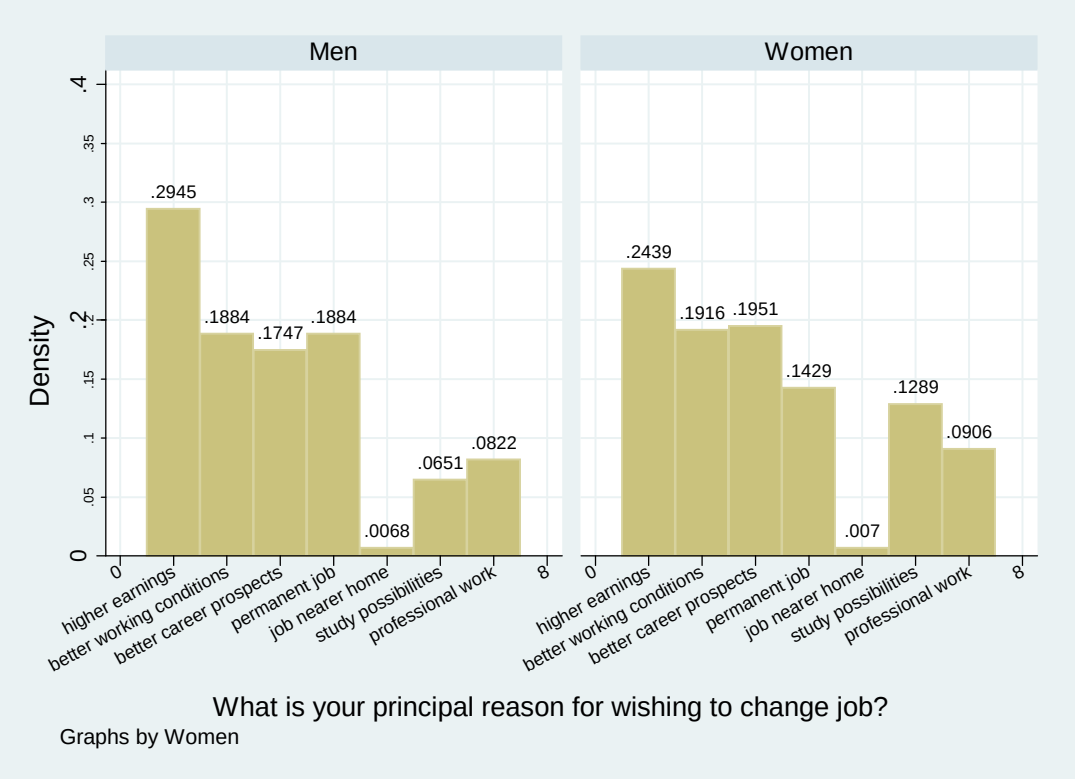


Source: Own elaboration based on SWTS database, NSO Mongolia.

Those who wish to change their job or have important decent work deficits are the second largest group in Mongolia. Not surprisingly, a proportion of those employed wish to change their job due to dissatisfaction. Answers to a question on job satisfaction show that 61.3 per cent of those employed enjoy their work, 13.4 per cent are dissatisfied and 20.9 per cent are partly satisfied.

Figure 3.3.13 shows the distribution of answers to the question on reasons for wishing to change jobs. Around 30 per cent of men and 24.4 per cent of women would like to find a job paying more. An important share of male (18.8 per cent) and of female (14.3 per cent) workers would like to have a permanent job, confirming that young people consider temporary jobs unsatisfactory. Other youth employed would like better working conditions and better career prospects. About 13 per cent of female workers would like to change their job to enable them to continue their studies. Only a small proportion wishes to change to find a job closer to home.

Figure 3.3.13. Reasons for wishing to change job, by gender



Source: Own elaboration based on SWTS database, NSO Mongolia.

Employed workers with important work deficits. Four sources of work deficit have been identified: (1) working more than 50 hours per week; (2) working with no contract; (3) working with a fixed-term contract; and (4) working, but not paying taxes. For many, more than one deficit is present at any given time. This component is 16.9 per cent of the entire sample. As shown in sections 2.7 and 2.8, about 60 per cent have no contract and about 74 per cent have a fixed-term contract. In addition, 12 per cent of those with a contract do not pay taxes, meaning they have no access to pension schemes and other social security services, therefore, a large number of young Mongolians work in very unstable conditions. About 40 per cent of employed workers work more than 50 hours per week.

This section has shown that many young Mongolians belong to the "in transition" group. This is an important issue that should be addressed vigorously by policy-makers and social actors, involving introducing more rights at work for young people. Moreover, an effort should be made to promote the adoption of contract work with permanent jobs, an important condition for greater job satisfaction and, in turn, for their level of productivity and for the growth prospect of the country. Rights at work should be promoted not only by the Government, but also by all institutions operating in the labour market, including the educational system, the PES and social partners. The educational system should increase awareness of the importance of decent work, while the PES and the social partners should

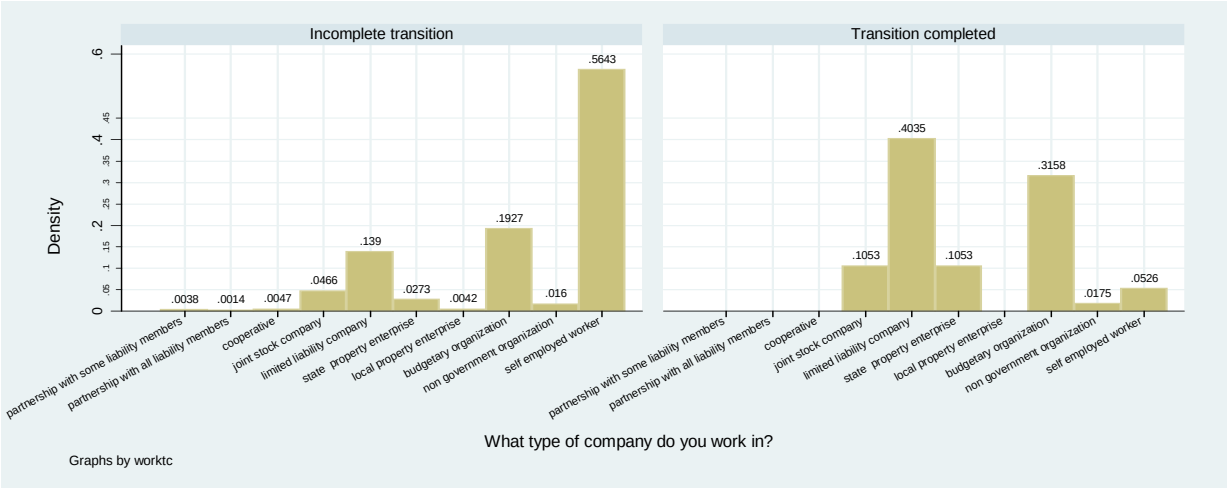
influence the behaviour of employers. Trade unions should promote more actively employment protection and the Government should improve the legal framework.

3.4. Characteristics of a successful transition

Young people who have successfully completed their school-to-work transition are those with a career or permanent job, enjoying decent working conditions and social protection. Only 0.9 per cent is in this category, with no gender differences. Age is an important predictor; the share of "transited" youth aged 25–29 years is more than double, reaching 2.4 per cent. Most young people with decent and productive work reside in the capital, where the share reaches 1.5 per cent. There is almost no one in the sample, who has completed transition, living in rural areas, confirming that jobs there are of very low quality.

What are the determinants of successful transitions? Are there specific sectors or individual characteristics distinguishing the employed in decent jobs from the rest? The remainder of this section compares the characteristics of successful transitions with those of the rest of the "in transition" group. The ownership of a company or firm is the first characteristic looked at. Figure 3.4.1 shows that "transited" individuals are employed in very different types of companies from the others. Most are employed in limited liability companies (40.4 per cent), in budgetary organizations (31 per cent), in joint stock companies (10.3 per cent) and in the state sector (10.3 per cent). A smaller proportion is self-employed or employed in non-governmental organizations. However, most of the youth employment is concentrated in self-employment.

Figure 3.4.1. Employment by ownership type and transition stage

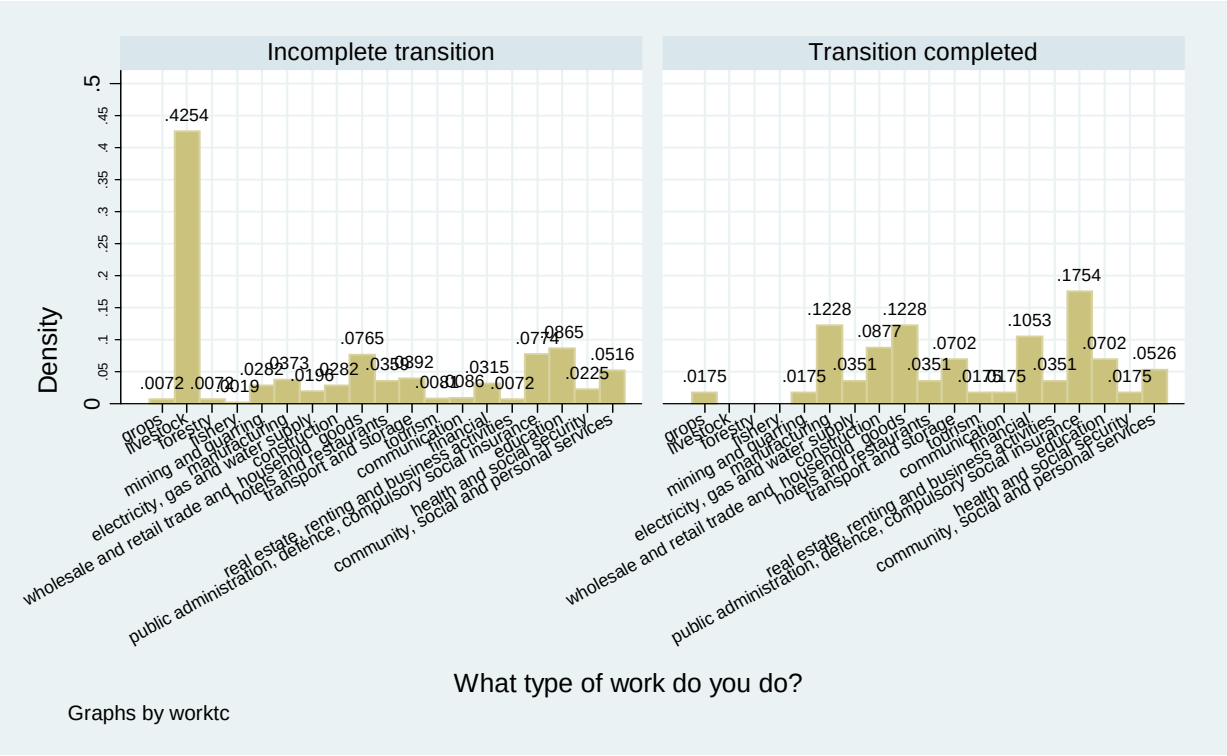


Source: Own elaboration based on SWTS database, NSO Mongolia.

The livestock sector offers the majority of jobs to those "in transition", but none to the "transited" group, where 17.6 per cent are employed in the public services sector or in other public services and communal utilities (figure 3.4.2).

About 10.3 per cent of the "transited" group belong to a union, a slightly higher share than the average of 8.1 per cent, suggesting that, although not providing any wage premium, union membership is sometimes associated with better working conditions.

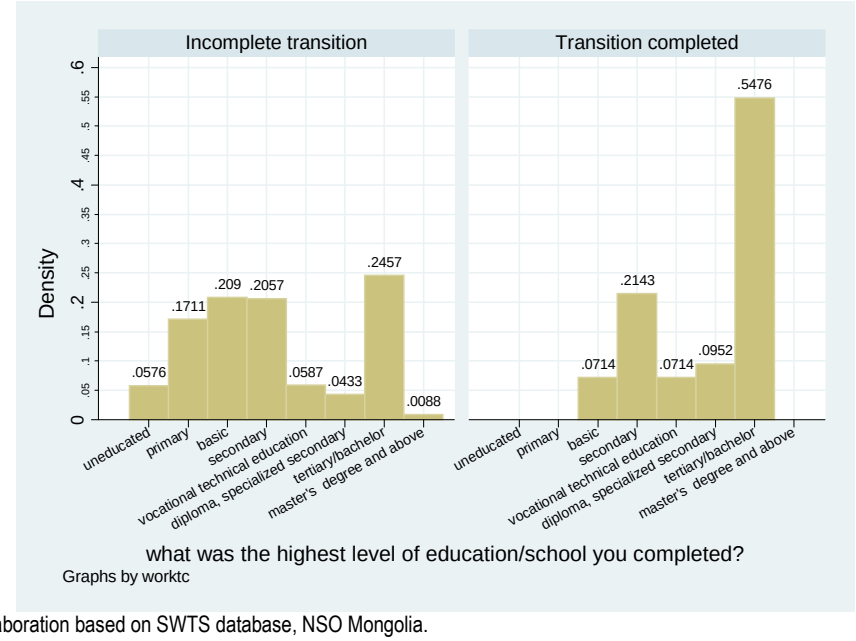
Figure 3.4.2. Sectors of employment by transition stage



Source: Own elaboration based on SWTS database, NSO Mongolia.

When looking at the individual characteristics of successfully "transited" individuals, one single factor stands out: education. About 53.5 per cent of the "transited" youth hold a university degree, a much higher share than average, even when considering only the employed young people. This finding confirms the importance of education as an instrument, not only to access jobs and higher than average wages, but also to successfully complete the school-to-work transition.

Figure 3.4.3. Educational attainment by transition stage

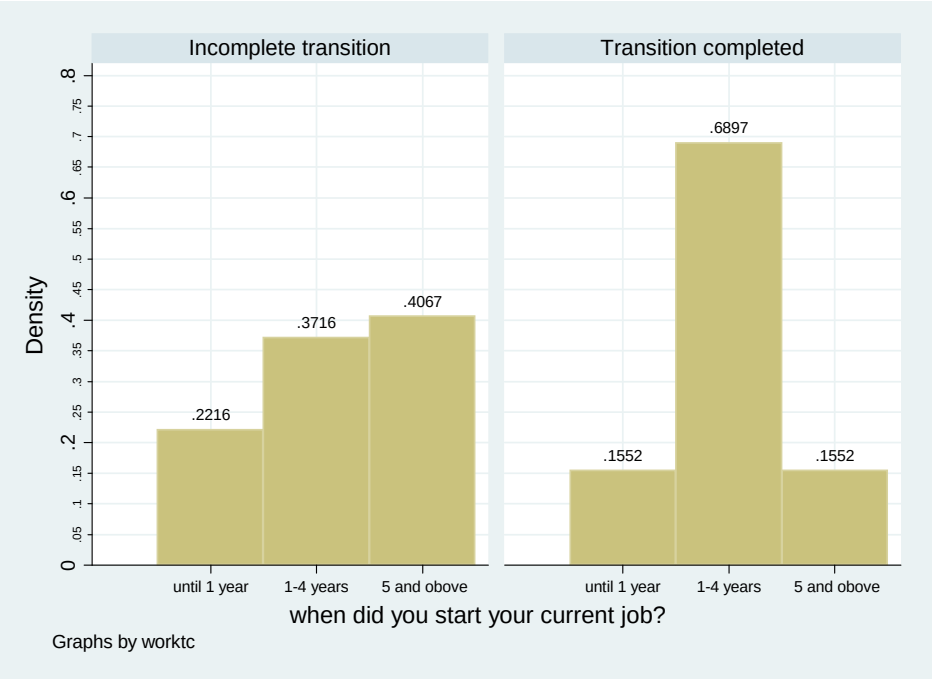


Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.4.4 shows that young people who have successfully completed their transition, have lower than average job tenure. About 68.9 per cent have tenures of one to

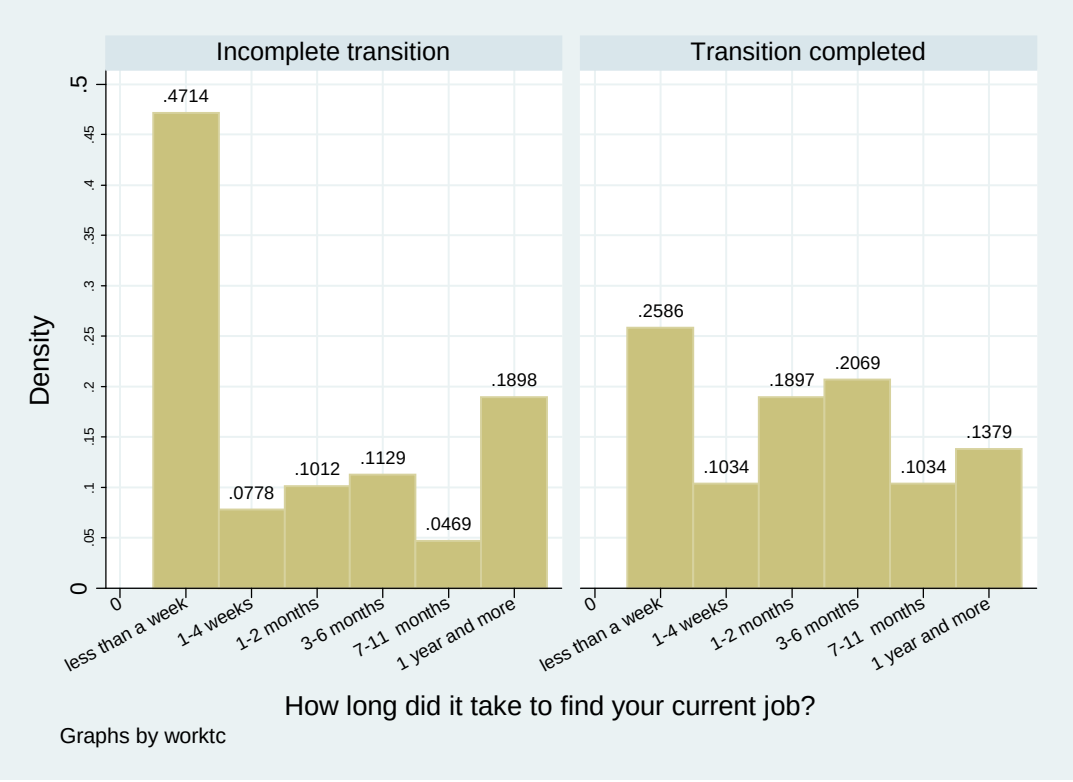
four years and only about 15 per cent have shorter or longer tenure. This suggests that more time is necessary to access decent work than other jobs. It is also due to the time it takes to complete higher education.

Figure 3.4.4. Job tenure by transition stage



Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.4.5. Length of job search by transition stage



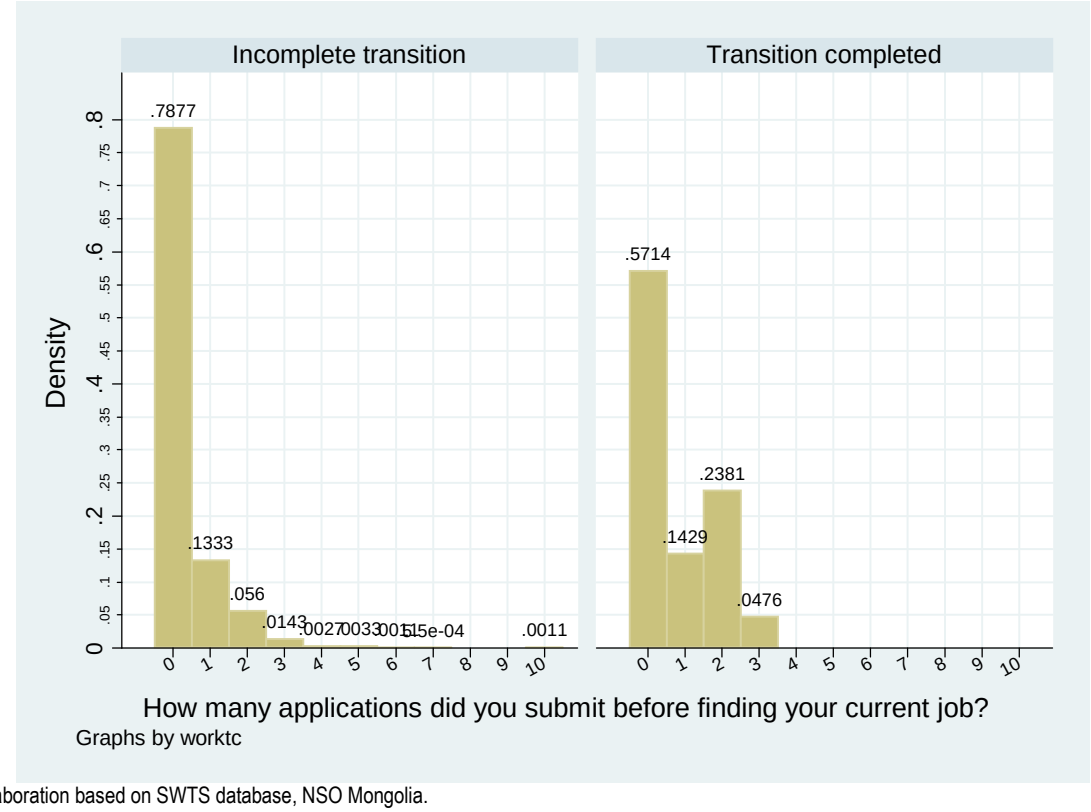
Source: Own elaboration based on SWTS database, NSO Mongolia.

To access decent jobs, it appears that those with successful transitions experienced longer than average unemployment spells (figure 3.4.5). Most young people in the "in transition" stage needed a very short time to access their current job: 47.1 per cent in less than one week, but probably these jobs were of low quality and often in family businesses.

Others in the "in transition" group waited much longer: 24 per cent for more than 6 months and 19 per cent for more than a year. For "transited" young people, 75.9 per cent waited less than 6 months before finding their current job, 24 per cent more than 6 months and 13.8 per cent more than a year. In summary, young "transited" individuals waited a slightly longer time to access their decent jobs, but this has to be considered as a sign of job quality. These findings support the hypothesis that the urgency to earn some income pushes many young people to take the first available job, resulting in many ending up in dead-end jobs.

Figure 3.4.6 shows that job search methods are not an important discriminator between incomplete and completed transitions. If any significant difference does exist, it is in the relatively higher share of those who accessed their current job through the PES among the "transited" compared to the "in transition": 7.6 against 1.7 per cent. Moreover, a slightly higher share of the "transited" used informal networks (35.9 against 32.9 per cent) and a slightly lower share followed employers' suggestions (15.1 against 19.7 per cent). The share of those who found a job by applying directly to employers is high in both cases at about 32 per cent. Overall, these findings mean that informal networks are not only important to access jobs, but also to access decent jobs. This result suggests a slightly different view from that of employers, as discussed in Chapter 4. However, the findings also confirm the importance of direct applications to employers and also the potential role of PES, which should be improved to reduce imperfect and asymmetric information in labour market entry, thereby reducing unemployment spells and favouring a better match between labour demand and supply. The important role that informal networks seem to

Figure 3.4.6. Job search method by transition stage

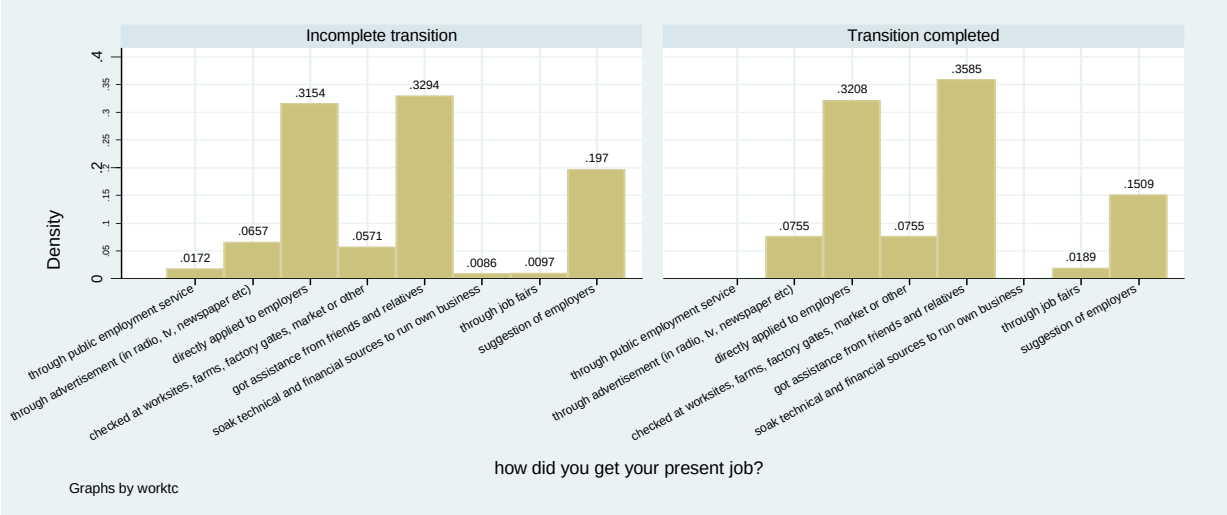


Source: Own elaboration based on SWTS database, NSO Mongolia.

have is a sign of the unsatisfactory working of the youth labour market in informing young people of vacancies and also employers on the characteristics of potential candidates.

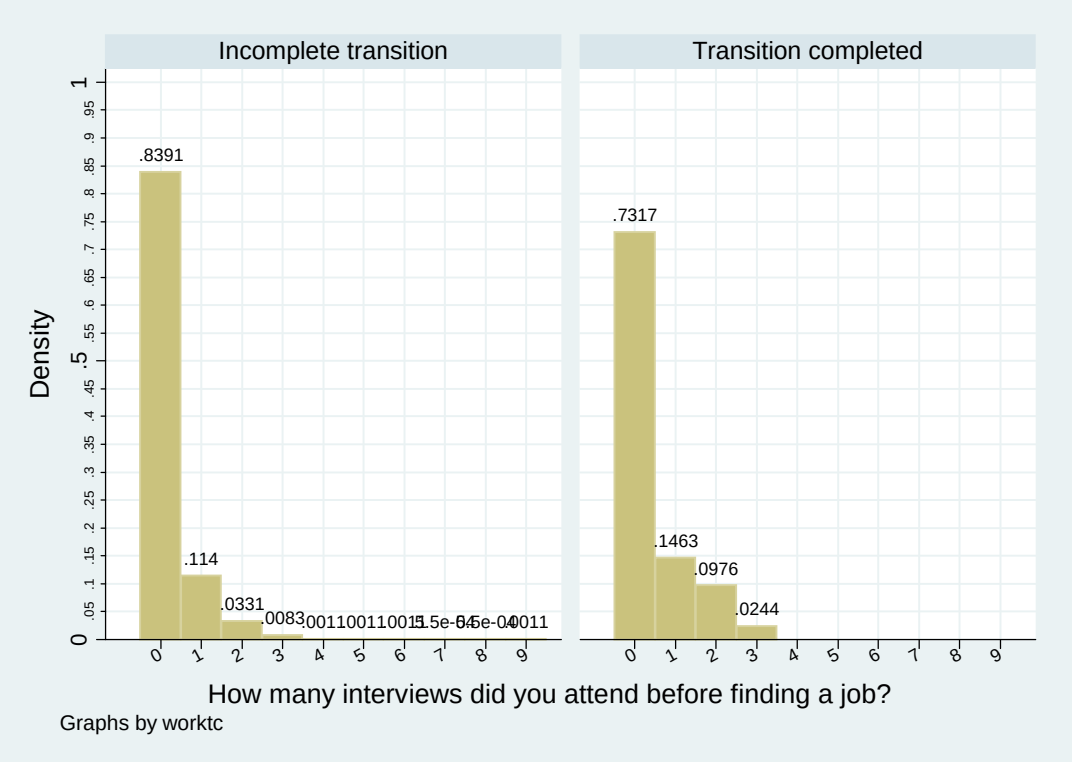
Did successful jobseekers search more intensively than those in the "in transition" group? The evidence based on the SWTS supports a positive answer, whatever the indicator of job search adopted. As figure 3.4.7 shows, about 78.8 per cent of the "in transition" group submitted no application. The comparable figure for the "transited" group is 57.1 per cent. As a consequence, the shares of those in the "transited" group who have submitted one or more applications is higher. Again, this finding confirms that those who spend more time and effort in jobseeking are more successful. About 84 per cent of the "in transition" group did not attend any job interview before finding their current job. The comparable figure for those who have completed their transition is 73.2 per cent.

Figure 3.4.7. Number of applications by transition stage



Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 3.4.8. Number of job interviews by transition stage



Source: Own elaboration based on SWTS database, NSO Mongolia.

Chapter 4. Creating jobs for young people: The employers' perspective

Introduction

This chapter provides information on labour demand using the employers' survey on a sample of enterprises. The employers and managers' questionnaire provides information on the characteristics of firms, their methods to fill vacancies, their skill requirements, including educational attainment, gender and work experience:

(a) employer by sector and number of employees;

(b) employer by type of enterprise and number of employees;

(c) preferred hiring age by industry and occupation;

(d) preferred hiring gender by industry and occupation;

(e) preferred level of education by occupation (administrative, professional and manual);

(f) assessment of skills of young employees or job applicants;

(g) most important factors considered by employers in their hiring decisions.

This information is very detailed and valuable as it shows the degree to which young people's investment in the acquisition of skills matches the actual requirements of firms. It is of decisive importance to understand the mismatch between the demand for and the supply of skills in the youth labour market. It can be used by policy-makers interested in reforming the labour market, as well as the educational and training system.

Section 1 provides a description of the characteristics of firms. Section 2 focuses on the recruitment methods and practices by employers. Section 3 discusses the extent to which job applicants match the employers' requirements and expectations. Section 4 discusses the way employers deal with mismatch between their expectations and actual skills. They might provide, for instance, training programmes for their employees.

4.1. Characteristics of enterprises

Sector of activity. The enterprises in the employers' survey belong to many different sectors. Enterprises in wholesale and retail trade and household goods and in education have the largest share. Other sectors where enterprises in the sample are concentrated are manufacturing, hotels and restaurants, public administration, defence, compulsory social insurance and others. Enterprises in the livestock sector are only a small share of the total for, at least, three reasons: first, these are family run businesses; second, they are not the most in demand, especially after the recent crisis of the agricultural sector; third, they do not have particular skill requirements.

Firms are almost equally distributed in terms of size. The smallest category with one to nine employees is 28.7 per cent of the total; ten to 19 is 19.1 per cent; 20 to 49 is 29 per cent; and, more than 50 is 23.2 per cent. Half of those answering the employers' module of the SWTS were women. Almost all the employers belong to a union of workers or of employers. This is a much higher share than that of young people. Men are more frequently members of employers' associations than women.

Table 4.1.1. Enterprises in the employers' survey by sector of activity

	Total	Share (%)
Agriculture	35	4.6
Livestock	15	2.0
Forestry	4	0.5
Mining and quarrying	12	1.6
Manufacturing	56	7.4
Electricity, gas and water supply	35	4.6
Construction	37	4.9
Wholesale and retail trade and household goods	125	16.6
Hotels and restaurants	55	7.3
Transport and storage	16	2.1
Tourism	2	0.3
Communication	19	2.5
Financial	21	2.8
Real estate, renting and business activities	13	1.7
Public administration, defence, compulsory social insurance	60	7.9
Education	95	12.6
Health and social security	71	9.4
Community, social and personal services	33	4.4
Others	51	6.8
Total	755	100.0

Source: Own elaboration on SWTS of Mongolia, ILO.

Table 4.1.2. Employers by gender and union membership

	Sex						Total	
	Male			Female				
	Total	Share to subtotal (%)	Share to total (%)	Total	Share to subtotal (%)	Share to total (%)	Total	Share to total (%)
Only trade union	72	40.0	20.5	108	60.0	26.7	180	23.8
Only employers' association	257	47.9	73.2	279	52.1	69.1	536	71.0
Both	19	59.4	5.4	13	40.6	3.2	32	4.2
Not any	3	42.9	0.9	4	57.1	1.0	7	0.9
Total	351	46.5	100.0	404	53.5	100.0	755	100.0

Source: Idem.

Firms in the survey are relatively young: almost 50 per cent were established in the ten years prior to the survey; 20 per cent between 11 and 20 years; the rest are older. The oldest segment, with 51 or more years, is 11.7 per cent of the sample. With regard to their legal status, table 4.1.3 shows that most of them are privately owned with, however, an important share still supported by the State. Limited liability companies are 42 per cent, but budgetary organizations are about 30 per cent of the sample. State-owned enterprises and organizations owned by local authorities are a minority share. Cooperatives are a large

share of small-sized enterprises. Enterprises with 50 or more employees are mainly limited liability companies, budgetary organizations or joint stock companies.

Only a few enterprises in the sample declare the cost of labour as their specific competitive advantage. Nevertheless, many rely on high productivity and quality of labour. Other factors are considered to be competitiveness in domestic markets, as well as marketing. Not many firms feel that being competitive in international markets is important: only about 2 per cent indicated this as the most important factor for their survival in the market and an even lower share indicated it as a secondary factor.

Table 4.1.3. Enterprises by type of legal status and size

	By number of employees												Total	
	1–9			10–19			20–49			50 and more				
	Total	Share of subtotal (%)	Share of total (%)	Total	Share of subtotal (%)	Share of total (%)	Total	Share of subtotal (%)	Share of total (%)	Total	Share of subtotal (%)	Share of total (%)	Total	Share of total (%)
Partnership with some liability members	10	83.3	4.6				2	16.7	0.9				12	1.6
Partnership with all liability members	13	86.7	6.0	1	6.7	0.7				1	6.7	0.6	15	2.0
Cooperative	41	65.1	18.9	14	22.2	9.7	7	11.1	3.2	1	1.6	0.6	63	8.3
Joint stock company	8	14.8	3.7	5	9.3	3.5	9	16.7	4.1	32	59.3	18.3	54	7.2
Limited liability company	98	30.9	45.2	68	21.5	47.2	91	28.7	41.6	60	18.9	34.3	317	42.0
State property enterprise	4	16.0	1.8	3	12.0	2.1	5	20.0	2.3	13	52.0	7.4	25	3.3
Local property enterprise	1	5.0	0.5	4	20.0	2.8	9	45.0	4.1	6	30.0	3.4	20	2.6
Budgetary organization	29	12.9	13.4	44	19.6	30.6	94	42.0	42.9	57	25.4	32.6	224	29.7
Non-government organization	5	55.6	2.3	3	33.3	2.1				1	11.1	0.6	9	1.2
Self-employed worker	2	100.0	0.9										2	0.3
Other	6	42.9	2.8	2	14.3	1.4	2	14.3	0.9	4	28.6	2.3	14	1.9
Total	217	28.7	100.0	144	19.1	100.0	219	29.0	100.0	175	23.2	100.0	755	100.0

Source: Idem.

4.2. Recruitment of young people

Type of selection. Most enterprises in the sample select personnel through announcement of vacancies, 39.2 per cent place an advertisement in the media. A significant share relies on schools and training institutions (24.6 per cent), with a predominance of schools (19.2 per cent). A sizeable share (16.2 per cent) also uses the PES. Internal promotions are an important share (6.9 per cent), suggesting that experience from temporary work can be a stepping stone to a permanent job. Only a small share of enterprises (1.7 per cent) stated they relied on informal networks to hire new employees. There are only small differences based on employers' gender. Women rely more often on public announcement and training institutions, whereas men rely more often on PES and internal promotions.

Employers' selection methods are in sharp contrast to the job search methods of young people who are unemployed, those unemployed but still at school (section 3.2) and those who are employed (section 2.8). An advantage of the SWTS is that it gathers information on job-search methods of all categories of young people and employers, allowing a comparison of the demand and supply of youth labour, information not readily available elsewhere. The relative majority of employees declared that they found their present job through informal networks (33 per cent) or by applying directly to employers (31.5 per cent), rather than answering job advertisements (6.6 per cent). This sharp contrast might suggest that employers see informal networks as an external constraint rather than as a choice.

Table 4.2.1. Selection channels for filling new vacancies, by gender of the employer

	Male			Female			Total	
	Total	Share to subtotal (%)	Share to total (%)	Total	Share to subtotal (%)	Share to total (%)	Total	Share to total (%)
Through an announcement	19	37.3	32.8	32	62.7	44.4	51	39.2
From the schools	11	44.0	19.0	14	56.0	19.4	25	19.2
From training institutions	2	28.6	3.4	5	71.4	6.9	7	5.4
From public employment services	12	57.1	20.7	9	42.9	12.5	21	16.2
Relatives or friends	1	50.0	1.7	1	50.0	1.4	2	1.5
Promoting employees who work in my business	5	55.6	8.6	4	44.4	5.6	9	6.9
Other	8	53.3	13.8	7	46.7	9.7	15	11.5
Total	58	44.6	100.0	72	55.4	100.0	130	100.0

Source: Idem.

Employers' evaluation of youth interest in accessing a job. Employers were asked for their evaluation of young people's interest in applying for a job. Their impression is that wages are the main interest of the vast majority, with a small minority interested in career prospects and matching their actual qualifications to the skill requirements. Other characteristics, including a pleasant environment and reputation, are perceived by employers as less important to young people when applying for a job. This suggests that young people in Mongolia perceive a job as a tool to escape poverty.

Requirements to do a job successfully. Employers are asked to declare the skill requirements for vacant jobs, administrative, professional and manual. The picture that emerges, as summarized in table 4.2.2, is that no one skill is more important, but rather they are interested in different types of skills to suit the vacancy.

For administrative jobs, teamwork is considered important (17.9 per cent), existing knowledge of the business world (15.9 per cent), ability to take responsibility (15 per cent), communication skills (14.5 per cent). Information and communication technology (ICT) skills are in high demand from employers (20 per cent). Some consider previous work experience important (12.5 per cent). Other skills are less valued, including a good command of foreign languages, explained by the picture emerging in section 4.1 of firms oriented to the domestic, rather than the international market.

For professional jobs, previous work experience and communication skills are valued more than the ability to work in a team and knowledge of the business world. For manual jobs, three skills are important: ability to take responsibility; previous work experience; and, good communication skills. Ability to work in a team is also valued.

The overall picture that emerges is partly unfavourable to young people. Employers not only require previous work experience, but skills that, in fact, cannot be learned at school, such as ability to work in a team, knowledge of the business world and ability to take responsibility. The few skills that are either innate, to some extent, for example, communication and teamwork, or that can be learned at school, for example, ICT and foreign languages, are not much in demand. This confirms that the main problem for young people is their lack of generic and specific skills that can only be learned through work experience or specific training.

From a policy point of view this means there should be more opportunities for young people to access jobs and attend training programmes. Employers declared they provided some training programmes to newly hired employees, which will be analysed in the following sections.

Table 4.2.2. Employers' evaluation of skills necessary to access a job

	Administrative		Professional		Manual	
	Total	**Share to total** (%)	**Total**	**Share to total** (%)	**Total**	**Share to total** (%)
Information and technology skills	70	9.3	81	10.7	19	2.5
Computer knowledge and skills	83	11.0	56	7.4	15	2.0
Command of foreign languages	15	2.0	26	3.4	17	2.3
Knowledge of the business world	120	15.9	22	2.9	8	1.1
Communication skill	110	14.6	149	19.7	102	13.5
Teamwork skills	135	17.9	94	12.5	65	8.6
Good appearance	5	0.7	5	0.7	8	1.1
Desirable	5	0.7	28	3.7	34	4.5
Previous work experience	94	12.5	159	21.1	161	21.3
Skills to take responsibility	113	15.0	125	16.6	299	39.6
Strong minded	1	0.1	1	0.1	18	2.4
Other	4	0.5	9	1.2	9	1.2
Total	755	100.0	755	100.0	755	100.0

Source: Idem.

Employers' preference for a specific age group. Employers were asked to state their preference for specific age groups, civil status, sex and educational level of applicants. Table 4.2.3 summarizes the answers for different age groups, according to type of job. The majority of employers have no specific preference for adult (30 years or more) or young people (15–29 years). However, this lack of preference is greater for manual/production

workers than administrative and professional workers. Less than 1 per cent of employers declare that they prefer child labour that is children aged less than 15. Employers prefer adults to young people for administrative positions, whereas they prefer young people to adults for professional or manual positions.

Generally, these results suggest that young people have a disadvantage compared to adults in many fields, but especially in administrative positions. In professional and manual jobs, employers consider the more recently gained human capital and the greater physical strength sufficient compensation for the lack of young people's work experience.

Table 4.2.3. Preference of employers for different age groups

Age	Administrative		Professional		Manual/production	
	Total	Share to total (%)	Total	Share to total (%)	Total	Share to total (%)
Below 15	7	0.9	4	0.5	4	0.5
15–29	111	14.7	260	34.4	217	28.7
Above 29	293	38.8	184	24.4	161	21.3
No preference	344	45.6	307	40.7	373	49.4
Total	755	100.0	755	100.0	755	100.0

Source: Idem

Employers' preference for a specific civil status. Table 4.2.4 presents answers to the preferred civil status of applicants by type of job. Most employers do not consider civil status important, but nevertheless prefer to hire young married people, confirming the results of the wage impact of civil status discussed in section 2.8. This might explain why civil status has no statistically significant impact on youth wages.

Table 4.2.4. Civil status preference of employers

	Administrative		Professional		Manual/production	
	Total	Share to total (%)	Total	Share to total (%)	Total	Share to total (%)
Unmarried workers	15	2.0	35	4.6	25	3.3
Married workers	151	20.0	112	14.8	97	12.8
No preference	589	78.0	608	80.5	633	83.8
Total	755	100.0	755	100.0	755	100.0

Source: Idem

Employers' preference for a specific gender. Table 4.2.5 shows that, in general, employers have no preference. However, of those who have a preference, a relative majority prefers men, especially for administrative and manual jobs. This preference is due to the nature of the job, since, for example, manual jobs require physical strength and are, therefore, more suited to men. The preference for men is much lower for professional jobs. This finding suggests there is not a strong demand-side explanation for different job opportunities and wages across individuals of different gender. In section 8, it has been shown that the unconditional wage gap of women is not different in a statistical sense from that of men. When the educational level of women is considered, it appears that employers pay higher wages to men for the same characteristics.

Table 4.2.5. Employers' gender preference

	Administrative		Professional		Manual/production	
	Total	**Share to total** (%)	**Total**	**Share to total** (%)	**Total**	**Share to total** (%)
Female workers	93	12.3	131	17.4	105	13.9
Male workers	132	17.5	151	20.0	173	22.9
No preference	530	70.2	473	62.6	477	63.2
Total	755	100.0	755	100.0	755	100.0

Source: Idem

Employers' preference for a specific educational qualification. Table 4.2.6 shows employers' answers by job type. The results provide new answers to questions already addressed. What is the demand for educational qualifications in Mongolia? Does it pay young people to invest in education? The answers in section 2.8 were positive: young people with tertiary education earn double the salary of their peers with only compulsory education. The table also shows that this is due to the strong preference of employers for young people with high education, even for manual positions, and is certainly true when the job is administrative or professional.

An important share of employers prefers individuals with a vocational diploma not only for manual, but also for professional jobs, suggesting that vocational education is in demand. However, given the low wages of those with vocational education diplomas compared to other types of high school diplomas, would suggest that they fall short of employers' expectations.

Employers prefer those with, at least, secondary to those with only compulsory level or below education, even when the job is manual, perhaps reflecting, on the one hand, the low level of compulsory education and, on the other hand, their feeling that those with secondary education or above are more able to take advantage of training courses.

Table 4.2.6. Preference of employers as to the educational level of applicants

	Administrative		Professional		Manual/production	
	Total	**Share to total** (%)	**Total**	**Share to total** (%)	**Total**	**Share to total** (%)
Basic (Grade 4–8)	7	0.9	7	0.9	16	2.1
Secondary (Grade 9–10)	16	2.1	40	5.3	160	21.2
Vocational technical education	22	2.9	136	18.0	248	32.8
Diploma, specialized secondary	79	10.5	163	21.6	74	9.8
Tertiary/bachelor	438	58.0	334	44.2	79	10.5
Masters degree and above	167	22.1	38	5.0	10	1.3
No preference	26	3.4	37	4.9	168	22.3
Total	755	100.0	755	100.0	755	100.0

Source: Idem.

Policy-makers should, therefore, favour young people's investment in education, in particular, by revitalizing vocational education as it is much on demand, but perhaps of an inferior quality. There appears to be a mismatch between the composition of demand, as

based on employers' expectations, and the actual supply. Curricula need to be upgraded, developing new fields, which requires upgrading the skills and knowledge of teachers.

4.3. Matching expectations

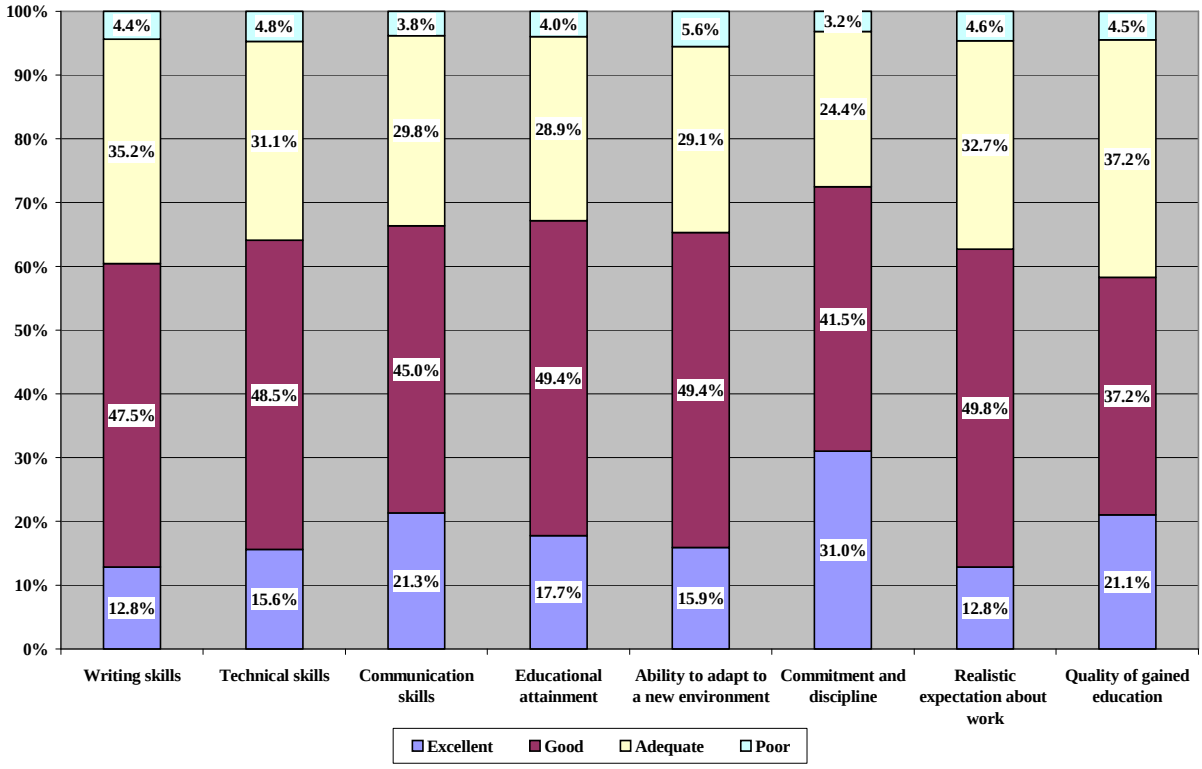
The SWTS also attempts to understand the extent to which the supply of, and demand for, skills match, based on employers' expectations. To assess this the employers and managers' module includes a specific question to assess the level and quality of skills possessed by recent applicants, such as writing, technical and communication skills, educational attainment and its quality, ability to adapt to a new environment and realistic expectations about work. Four outcomes are possible, poor, adequate, good or excellent.

This type of assessment is important as it checks the employers' perception of youth skills against the actual level they possess. The existence of a mismatch between demand and supply of skills might indicate a difficulty of the educational and training system to orient the production of skills to the employers' expectations.

Figure 4.3.1 shows that the share of young applicants who appear to employers to be poorly endowed with skills is relatively low, 3.2 per cent for work commitment and discipline and 5.6 per cent for their ability to adapt to a new environment. This appears to be a satisfactory result for the educational and training system and for the ability of families to raise their children well.

This corresponds to the share of the total, 31 per cent, showing an excellent degree of commitment and discipline, considered by employers to be most frequent among young people, suggesting their commitment to work and to maintain their job. A relatively high share shows an excellent quality of education (21.1 per cent) and excellent communication skills (21.3 per cent). Excellence in other skills, such as writing, is less frequent as is the degree of realism of work expectations. The proportion of those with excellent communication skills, educational attainment and ability to adapt to a new environment is intermediate.

Figure 4.3.1. Employers' evaluation of the skills possessed by young applicants



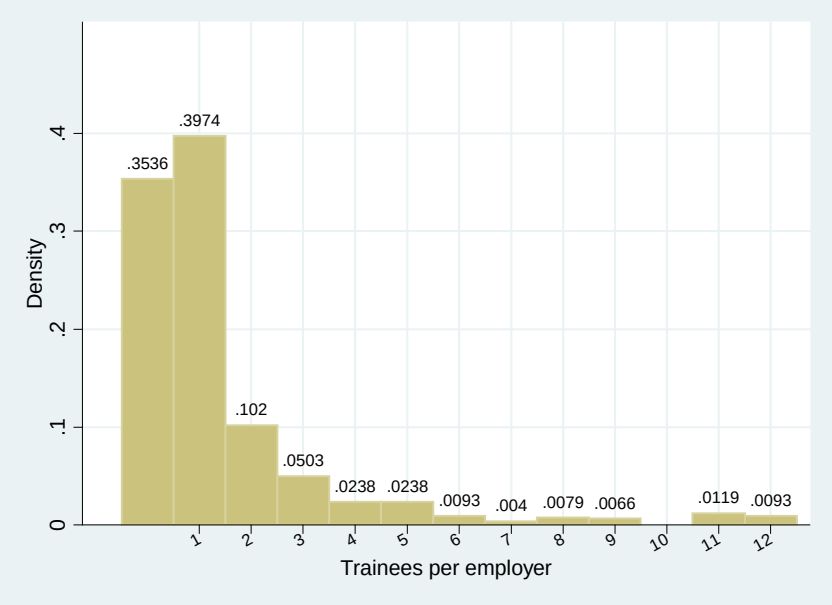
On a less positive note, on average, writing skills and also the quality of education is considered relatively low by employers. About 40 per cent considered these skills just adequate or poor. Many of them also considered that technical skills were just average.

Overall, the employers' assessment of skill levels is relatively satisfactory. However, their perception of skills learned within the education system is low.

4.4. Education and training

The previous section has shown that not all employers feel that the quality of education is good or excellent, especially the skills learned in the educational system. What is the solution to this supply/demand skill mismatch? Training for job specific skills is one answer employers might give. Figure 4.4.1 shows the percentage of firms that provide on-the-job training to any given number of employees.

Figure 4.4.1. Number of trainees per employer



Note: 0- zero trainees; 1- from 1 to 9; 2 from 20 to 29 and so on up to 10 that means from 90 to 99. 11- a number of trainees from 100 to 199 and 12- 200 trainees or more.

Source: Own elaboration based on SWTS database, NSO Mongolia.

Therefore, while many employers consider the average skill level sufficient for the purpose, others consider it important to integrate skill level and composition by training programmes. As around 98.2 per cent of those who provide training claim that it is specific to the job, this again means that they feel that there is some form of skill shortage.

What type of training was provided by employers? About 26 per cent offered on-the-job training, which is job specific and aims to transfer those skills necessary to do the job. However, most of the training was done in the classroom, about 73 per cent, and only about 56 per cent included some form of practise. Few trainees were supervised.

Figure 4.4.2. Type of training provided by employers

Source: Own elaboration based on SWTS database, NSO Mongolia.

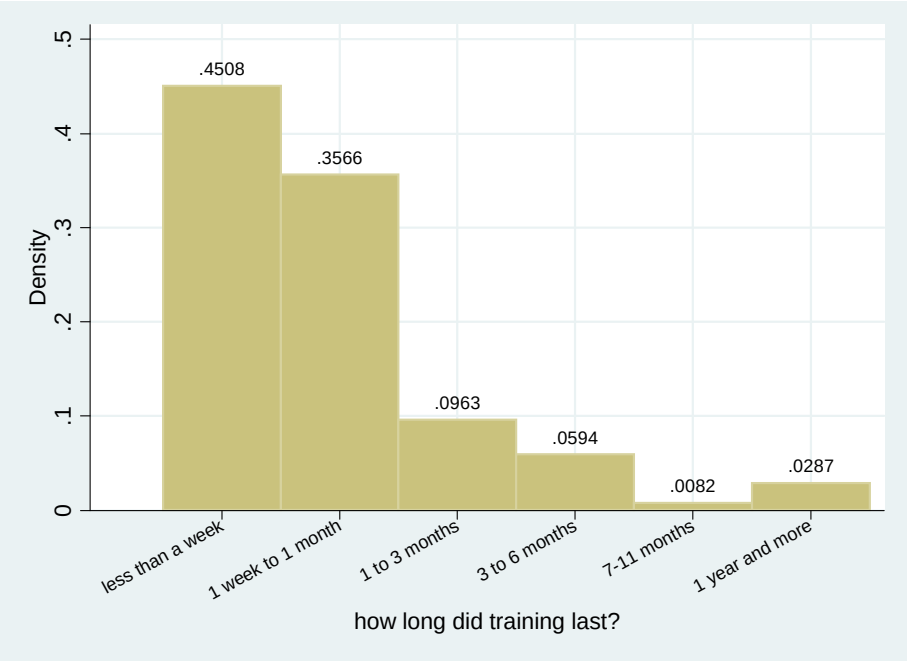
Figure 4.3.3 shows that most training is carried out within the organization (33.9 per cent) or in public agencies (46.1 per cent). Only a small part is carried out in private. International organizations make an important contribution to raising skill levels of newly hired employees.

Figure 4.4.3. Who provided the training?

Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 4.4.4 shows that the length of training programmes is relatively short: 45 per cent less than a week and over 80 per cent not more than 2 weeks. This could suggest that the perceived cost of training is considered high, but who bears this cost? The SWTS provides important information on this.

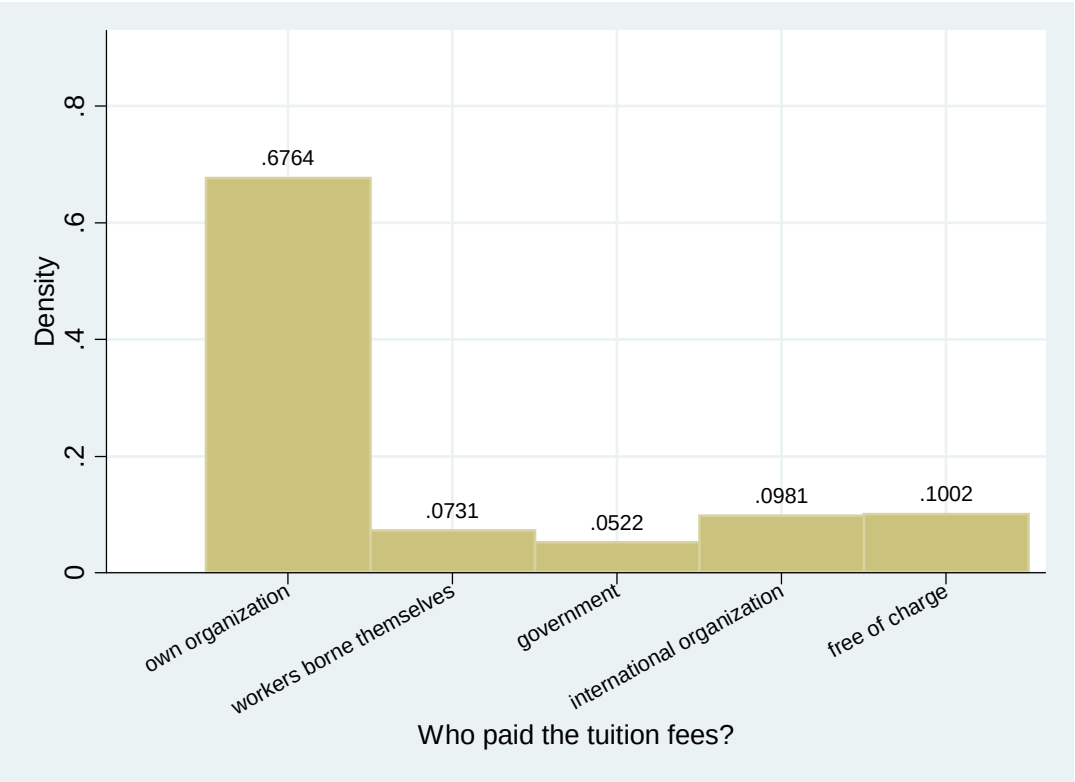
Figure 4.4.4. Length of training



Source: Own elaboration based on SWTS database, NSO Mongolia.

Figure 4.4.5 shows that the short duration of training programmes and their content oriented to the formation of job-specific skills reflects the fact that in most cases (67.7 per cent) the cost is borne by the employer. Only in 7.3 per cent of cases did workers bear the cost themselves. This might explain why the wage effect of training was generally found to be negative (section 2.8). If the cost of training is borne by firms, this could suggest that

Figure 4.4.5. The cost of training



Source: Own elaboration based on SWTS database, NSO Mongolia.

they internalize the returns to increased productivity of training and could be a concurrent explanation that employers consider attending a training programme as a sign of insufficient skill endowment. The Government contributes to the cost of training in only 5.2 per cent of cases. International organizations are, however, important donors.

Chapter 5. Conclusions and policy recommendations

This chapter attempts to draw lessons on where blockages exist that prevent young people from finding decent employment; where supply and demand do not match and why; who the most disadvantaged youth are, i.e. those likely to face the most difficult transition.

Policy recommendations cover both supply- and demand-side measures that aim to ensure more and better jobs for young people. These recommendations do not aim to be concrete, but rather to serve as the basis for discussion by tripartite institutions.

5.1. Conclusions

Mongolia's economic recovery has thus far failed to tackle high unemployment and to provide better jobs to the large youth population. The results of the SWTS show that most job opportunities are still to be found in the agricultural sector. Young people in rural areas have 40 per cent lower wages than the rest of the population and working in the livestock sector means an income lower by 40 to 140 per cent than in other sectors. Informal work is concentrated in the livestock sector and is more prevalent among young male adults, particularly those aged 25–29 years. Informal work means a wage loss of about 30 per cent compared to formal fixed-term contracts and 19 per cent to permanent contracts.

Returns to education are not very high on average, but seem to be affected by different skill levels. If tertiary education appears to be an important determinant of earnings, those with post-compulsory vocational education are not better off than those with compulsory education only. This suggests a negative shift in labour demand for this qualification type in post-transition Mongolia and of the need to upgrade curricula to the present needs of the market economy. Furthermore, the analysis conducted shows that the educational system is unable to equalize educational chances across individuals with different family backgrounds.

On average, female wages are not lower than males. However, this hides discriminating behaviour against women as they have better productivity characteristics. If wages were paid equally on the basis of higher educational level, women should receive 11.7 per cent more. When all characteristics are taken into account, it appears that women should have on average 22 per cent more, a sizeable gap considering overall low earnings.

Blockages that prevent young people from finding decent employment. In a life-cycle approach, the first stage of development implies the acquisition of the most appropriate level of education, in the household and through the educational system. Family values are transferred to children, first through the financial and cultural incentives that parents provide depending on the educational level of the family, parents' occupations, etc. Since these opportunities are not offered to everybody equally, the educational system has the role of equalizing chances.

This report provides much evidence showing that family background affects, in many different ways, the level of educational attainment. The study of the determinants of educational attainment in section 2.4 suggests that the decision to invest in it and its level

is a positive function of the parents' own educational level. Section 3.1 also confirms that the probability of remaining at school, rather than accessing the labour market, depends strictly on the educational level of parents. Overall, this favours the hypothesis that educational opportunities are not evenly distributed across people with different family backgrounds.

A cause for concern about the supply of education is the still high share of uneducated young people (3.3 per cent) and the share of those who were unable to complete compulsory education (32.7 per cent). The analysis of the determinants of investment in education has shown that the largest share of these particularly weak groups resides in rural areas and come from poor family backgrounds, as measured by the educational level of parents. The most likely and immediate cause of poor educational attainment is child labour, especially in agricultural areas and in herding, as highlighted in several studies (del Rosario, 2005; Gerelmaa, 2005) and in some documents of the Mongolian Government (2006). Child labour is the consequence of widespread poverty in Mongolia, highlighted in section 1.1.

It is only a very few young people, through strong family support, who are able to quickly and easily accumulate human capital and, therefore, reduce the cost and increase the returns to education. Others, find the cost too high and drop out of school, consequently, entering the labour market too early and, therefore, find it difficult to access decent jobs, sometimes for the rest of their lives.

Vocational education is a specific bottleneck. Several chapters show that, despite being much in demand by employers (Chapter 3), it provides very low returns, both in terms of employment opportunities (section 2.7) and of earnings (section 2.8). In addition, as noted in Chapter 4, employers' answers to questions regarding educational requirements for jobs and actual levels of technical and vocational skills possessed by applicants, suggest that young people are unable to satisfy the expectations of potential employers.

Supply and demand problems in matching. Analysis of employers' assessment of young applicants' skills suggest that, while the level of education is relatively satisfactory and applicants are very disciplined, their writing skills are very poor. Furthermore, the quality of education is perceived by employers to be very low, suggesting a mismatch between the supply of and demand for skills.

Using informal networks as a job seeking method causes a reduction in wage level.

Identifying the most disadvantaged youth. The analysis in the previous chapter identified several weak groups: (a) in-transition young people, especially those residing in rural areas; (b) long-term unemployed in rural areas; (c) unemployed in urban areas; (d) women who have not yet started their transition.

The most disadvantaged youth include those from poor families in rural areas where educational opportunities are very low and there is little chance to escape the poverty trap. They have the choice of remaining unemployed for a very long period or finding jobs that are less than decent. The in transition group is especially large in rural areas. These are employed young people with important decent work deficits, often working without a contract or with a temporary contract, doing a job requiring long hours. Herding is for many the job of their parents and their only chance of survival. Young people dropping out of the educational system too early because of child labour are perhaps the most important target group for policy intervention.

Despite the lower than average unemployment rate, the youth long-term unemployment share is much higher in rural than urban areas. This is an indication that unemployment in rural areas is particularly hard to overcome for many young people when

they enter the unemployment pool. The long-term unemployed in rural areas are an important group with a high risk of social exclusion.

Young unemployed in urban areas are another important target for policy intervention. Analysis of the distribution of unemployment across different locations shows that youth unemployment is essentially an urban phenomenon.

Young people aspiring to vocational education are also a specific target group, as previously noted, based on several types of analysis in this report. This is due to the old curricula offered by the educational system whereby students acquire skills that are not in demand.

Gender differences are numerous and are not always in favour of men. In general, women have a higher educational attainment, while their unemployment rate is not higher than men. However, while some young men work in low productivity jobs, especially in rural areas, young women tend to be inactive more often than men.

5.2. Policy recommendations

The policy recommendations suggested here are very much in line with the aims of the Mongolian Government (2006) as detailed in the draft National Action Plan on Youth Employment. It is also important to stress that the focus of the following discussion is on the micro-level, but does not mean that macroeconomic factors are not important. On the contrary, aggregate demand management and policies aimed at increasing the growth rate and reducing the poverty and inequality level are an important precondition for the success of any policy aimed at smoothing school-to-work transition for the younger generation.

In line with Morris and Brunn (2005), particular attention should be paid to the restructuring of the agricultural sector. There is a need for intensive agricultural production, which could be achieved by implementing "exit strategies" for the smallest units, combining economic diversification and sustainable livelihoods for herding families.

The micro-reforms suggested below are very important to increase the competitiveness of the country in the international division of labour and to boost economic growth in the long term.

Supply side measures. These concern the individual, the family and, above all, the Government and other policy-makers, including the social partners. Sometimes, they should involve the strengthening of the educational and training system and at other times they should aim at increasing the opportunities available in the labour market.

One important policy objective should be to increase the educational opportunities of the entire population in general and, in particular, the weakest groups, identified in the previous section. This can be done using a set of measures aimed at increasing the returns and reducing the cost of investment in human capital accumulation. It is important to bear in mind that the costs of education include, not only the direct cost (school and or university fees), but more importantly the indirect costs, such as books, teaching materials, transportation, and the opportunity costs, that is the income lost when attending school.

As del Rosario (2005, pages 17 and 25) notes, virtually all schools have at least eight grades, while schools up to grade 10 are mainly found in the larger towns and cities. However, in rural areas, many families cannot afford the cost of commuting or moving and this is a major cause of the drop out rate. Providing better training and easier school-to-work transition can increase the returns to education. Applying sufficiently progressive university fee rates can reduce the cost of education for the poorest segment of

the population, without affecting the state budget. Educational systems where the cost is low for students are supported by the State. If educational opportunities are not evenly distributed, the system draws resources from the poorest taxpayers, often not using schools and universities, to the rich families whose children are using schools and universities. It is possible to redistribute the cost of education from poor to rich families to equalise opportunities across different income groups. This is very important in a country where large shares of the population are below the poverty line. The indirect and opportunity costs of education can be reduced by bringing schools into rural areas and by helping the neediest students to achieve their education in the shortest possible time.

The analysis in Chapter 3 has shown that a share as high as 70 per cent of the newly employed young people need training. However, the State finances this in only a few cases and it is more often employers and workers who pay. The wage loss associated with attendance at training programmes, noted in section 2.8, suggests that employers pay for training in the first place, but then transfer the cost to young people by paying them lower wages. This can be taken as evidence of several shortcomings of the training system: (a) it is less than optimal; (b) it is too job specific; (c) the acquired skills are very difficult to transfer; and (d) it is of low quality, since it does not increase the productivity of young people, at least not in the short term.

Contributing to a reduction in training costs for firms and employees, and also an increase in the quantity and quality of training, is an important goal for the Government. Increasing the quantity and quality of the educational system would contribute to reducing the demand for training in the first place. A better quality of education would meet the needs of employers and this, in turn, would require a closer collaboration between schools and universities, on one hand, and enterprises and other social actors, on the other.

The state sector, especially at the local level, should contribute its own supply of off-the-job training for the unemployed, so to increase their employability and reduce the cost of on-the-job training by firms. The quality of training could be improved with new and more in-depth programmes and teaching skills that are more in demand. Training systems should promote analysis of local labour markets to assess the actual level and composition of the demand for training by employers.

At the intermediate level, the introduction of the duality principle in the educational system might be very useful for firms, while maintaining a low cost of intervention for the State. The duality principle means having some kind of training together with education, especially for those aiming at a vocational degree and, when implemented, facilitates school-to-work transition and reduces the overall unemployment rate.

Vocational education is a weak link of the system, as highlighted in several sections. The duality principle would guarantee, in the case of vocational education, a continuous upgrading of the curricula and teaching methods. Agreeing on common training programmes with firms would acquaint teachers with the new needs of the emerging market economy. This would be an important achievement in a country where the production system is undergoing dramatic and continuous structural change. One of the main difficulties of the dual system, however, is the need to establish a close and continuous collaboration between educational institutions, trade unions and unions of employers, as well as other local institutions. This entails an enormous effort from all sides.

Nonetheless, the returns to this type of investment in social cohesiveness would be very high, not only for the educational system, but for the country as a whole. There is sufficient evidence here to suggest that, especially in rural areas, vocational schools should train young people to deal with new production techniques to help increase productivity.

Demand side measures. A closer collaboration between educational institutions and employers, promoted by the unions, might help reduce the mismatch between the supply of and the demand for skills. Employers should make educational institutions and local authorities aware of their actual needs so as to help them adapt to the new needs of the market economy.

In addition, young people need more information on the type of skills in demand and the type of jobs actually available in local labour markets. This is substantiated by the role informal networks play in increasing the job finding rate, despite the wage loss they bring with them. The PES may have an important role to play in this field. It should not only collect information regarding available local vacancies, making them accessible to potential applicants, but also provide counselling to unemployed young people.

In addition, the local PES can use the information available on vacancies, as well as on the employment register, to contribute to the monitoring of the demand for labour and skills, together with local authorities and the social partners. Identifying the PES and other local institutions for this task might help in the need to study and forecast the evolution of the composition of demand for labour in local labour markets as stated in the National Action Plan on Youth Employment (Mongolian Government, 2006). Identification of emerging and declining sectors and skills could be important to reform and continuously adapt the education and training system.

References

Ashenfelter, O.; Harmon, C.; Oosterbeck, H. 1999. “A review of estimates of the schooling/earnings relationship, with tests for publication bias”, in *Labour Economics*, Vol. 6, No. 4, pp. 453–470.

Becker, G. 1962. “Investment in human capital. A theoretical analysis”, in *Journal of Political Economy*, Vol. 70, No. 5, pp. 9–49.

Beleva, I.; Ivanov, A.; O’Higgins, N.; Pastore, F. 2001. “Targeting youth employment policy in Bulgaria”, in *Economic and Business Review*, Vol. 3, No. 2, pp. 113–135.

Boeri, T. 2000. *Structural change, welfare systems, and labour reallocation. Lessons from the transition of formerly planned economies* (Oxford, Oxford University Press).

Card, D. 1999. “The causal effect of education on earnings”, in O. Ashenfelter and D. Card (eds): *Handbook of Labor Economics*, edition 1, Vol. 3, pp. 1801–1863.

Caroleo F.E.; Pastore. F. 2007. *The youth experience gap: Explaining differences across EU countries*, Seconda Università di Napoli, mimeo.

Cazes, S.; Nesporova, A. 2007. *Flexicurity. A relevant approach in Central and Eastern Europe*, International Labour Office, Geneva.

Corbanese, V.; Rosas, G. 2007. *Young people’s transition to decent work: Evidence from Kosovo*, ILO, Employment Policy Department, Employment Policy Papers, No. 4.

Darii, A.; Suruga, T. 2006. *Economic returns to schooling in transition: A case of Mongolia*, Kobe University, GSICS working papers, Sep., No. 9.

del Rosario, M.; 2005. *The Mongolian drop out study*, Mongolian Education Alliance, Ulaanbaatar.

Dougherty, C. 2003. *Why is the rate of return to schooling higher for women than for men?*, CEP Discussion Paper, Aug., No. 581.

EBRD. 2007. *Transition report update 2007*, London.

Flabbi, L.; Paternostro, S.; Tiongson, E.R. 2007. *Returns to education in the economic transition: A systematic assessment using comparable data*, World Bank, WPS4225.

Gerelmaa, A. 2005. *World Bank draft policy brief on the Mongolian drop out rate*, unpublished manuscript.

Gill, I.S.; Fluitman, F.; Dar, A. 2000. *Vocational education and training reform: Matching skills to markets and budgets* (New York, Oxford University Press).

Groot, W.; Oosterbeck, H. 1994. “Earnings effects of different components of schooling; Human capital versus screening”, in *The Review of Economics and Statistics*, Vol. 72, No. 2, pp. 317–321.

Halvorsen, R.; Palmquist, R. 1980. “The interpretation of dummy variables in semilogarithimic equations”, in *American Economic Review*, Vol. 70, No. 3, pp. 474–75.

Heckman, J.J.; Borjas, G..J. 1980. “Does unemployment cause future unemployment? Definitions, questions and answers from a continuous time model of heterogeneity and State dependence”, in *Economica*, Vol. 47, No. 187, pp. 247–83.

Heckman J.J.; Singer, B. 1984. “A method of minimizing the impact of distributional assumptions in econometric models for duration data”, in *Econometrica*, Vol. 52, No. 2, pp. 271–320.

Hosmer, D.W.; Lemeshow, S. 2000, *Applied Logistic Regression*, second edition (New York, Wiley and Sons).

International Labour Office (ILO). 2006. *Implementing the Global Employment Agenda: Employment strategies in support of decent work, “Vision” document* (Geneva). Also available at http://www.ilo.org/gea [24 April 2008].

---. 2004. *Starting right: Decent work for young people*, background paper prepared for the Tripartite Meeting on Youth Employment: The Way Forward, Geneva.

---. 2001. *Reducing the decent work deficit: A global challenge,* Report of the Director-General, International *Labour Conference, 89th Session, Geneva 2001 (Geneva). Also available at:* http://www.ilo.org/public/english/standards/relm/ilc/ilc89/rep-i-a.htm pdf [24 April *2008]*. (Geneva).

Ingham, H.; Ingham, M.; Herbst, J. 2005. “Local unemployment in Poland: Rural–urban contrasts”, forthcoming in *Regional Studies*.

Juhn, C.; Murphy, K.M.; Pierce, B. 1993. “Wage inequality and the rise in returns to skill”, in *The Journal of Political Economy*, Vol. 101, No. 3, pp. 410–442.

Lambert, P.J.; Lanza, G. 2006. “The effect on inequalities of changing one or two incomes”, in *The Journal of Economic Inequality*, Vol. 4, No. 3, pp. 253–277.

Malisheva, M.; Verashchagina, A. 2007. “Transition from a planned to a market economy: How are women faring?" in F. Bettio and A.Verashchagina (eds): *Frontiers in the Economics of Gender* (Routledge, forthcoming).

Maloney, W. 2004. “Informality Revisited”, in *World Development*, Vol. 32, No. 7, pp. 1159–1178.

Mendolicchio, D.; Meliciani, V. 2006. *A disaggregate analysis of private returns to education in Italy*, UCL Discussion Paper 2006–54.

Mongolian Government. 2006. *National Action Plan on youth employment and implementing strategy (2006–10)*, Government of Mongolia, Ulaanbaatar.

Montgomery, J. 1991. “Social networks and labor market outcomes”, in *American Economic Review*, Vol. 81, No. 5, pp. 1408–1418.

Morris E.; Bruun, O. 2005. *Promoting employment opportunities in rural Mongolia*, ILO, Bangkok (http://www.ilo.org/public/english/region/asro/bangkok/library/download/pub05–06.pdf)

Munich, D.; Svejnar, J.; Terrell, K. 2005. “Returns to human capital under the communist wage grid and during the transition to a market economy”, in *Review of Economics and Statistics*, Vol. 87, No. 1, pp. 100–23.

National Statistical Office of Mongolia. 2003. *A study into household income and expenses, and living standards: 2002–03*, Ulaanbaatar.

National Tripartite Plus Youth Committee. 2005. *Youth employment in the market transition in Mongolia*, a national report, Ulaanbaatar, unpublished manuscript.

Newell, A.; Reilly, B. 1999.. "Rates of return to education in the transitional economies", in *Education Economics*, Vol. 7, No. 1, pp. 67–84.

Oaxaca, R.; Ransom, M. 1994. "On discrimination and the decomposition of wage differentials", in *Journal of Econometrics*, Vol. 61, No. 1, pp. 5–21.

O'Higgins, N. 2003. *Trends in the youth labour market in developing and transition countries*, Social Protection Discussion Paper no. 0321, World Bank, Washington DC, 2003. http://wbln0018.worldbank.org/HDNet/HDDocs.nsf/0/42971C17D2ADAAEA 85256DF1005C5767?OpenDocument

Pastore, F. 2005. *To study or to work? Education and labour market participation of young people in Poland*, IZA discussion paper, n. 1793 (http://ftp.iza.org/dp1793.pdf).

Pastore, F.; Verashchagina, A. 2007. When does transition increase the gender wage gap? An application to Belarus, IZA discussion paper, n. 2796 (http://ftp.iza.org/dp2796.pdf).

—. 2006. "Private returns to human capital over transition: A case study of Belarus", in *Economics of Education Review*, Vol. 25, No. 1, pp. 91–107.

—. 2005. "The gender wage gap in Belarus", in *Transition Studies Review*, Vol. 12, No. 3, pp. 497–511.

Pistaferri L. 1999. "Informal networks in the Italian labor market", in *Giornale degli Economisti e Annali di Economia*, Vol. 58, No. 3–4, pp. 355–375.

Psacharopoulos, G. 1994. "Returns to investment in education: a global update", in *World Development*, Vol. 22, No. 9, pp. 1325–1343.

Stefanova Lauerova, J.; Terrell, K. 2007. "What drives gender differences in unemployment?", in *Comparative Economic Studies*, Vol. 49, No. 1, pp. 128–155.

Trostel, P.; Walker, I.; Woolley, P. 2002. "Estimates of the economic return to schooling for 28 countries", in *Labour Economics*, Vol. 9, No. 1, pp. 1–16.

UNDP. 2006. *Human Development Report* (Oxford, Oxford University Press).

—. 1997. *Human Development Report* (Oxford, Oxford University Press).

UNIFEM. 2001. *Women in Mongolia: Mapping progress under transition*, New York.

Appendix A.1.

The Mongolian educational system

The Mongolian education system has changed substantially compared to the time of the centrally planned economy. [72] The formal school system comprises primary, secondary, and higher education and pre-school education is also provided.

Although a ten years of schooling general education system was inherited from the previous regime, and is still in place, the composition of primary, incomplete secondary and complete secondary education (3+5+2 structure) has changed several times during the transition period. For example, the structure was changed into a 6+2+2 model in 1990. In the 1992–93 academic year, it was changed back to the 3+5+2 structure. However, since 1993-1994, the ten years of schooling general education system has adhered to the present 4+4+2 structure. Despite these changes in structure, the curriculum was not change. Therefore, the above modifications did not have much influence on the entire system and its accomplishments.

The current system comprises three levels:

– primary education (four years, from age 7–11 years);

– basic or incomplete secondary school (four years, from age 11–15 years);

– complete secondary school (final two years, from age 15–17 years).

Compulsory education ends at 15 years, when the diploma of non-complete secondary education is granted. Primary and lower secondary education together comprises the basic compulsory educational level provided free by the State, as stated in the constitution. A combination of basic education and high school is termed as general education (Law on Education, 2002). Also, the last two years of general education are free.

At the end of the first two stages, primary and lower secondary, graduates have two possibilities for high secondary:

(a) general secondary school;

(b) technical and vocational school, and training, TVET.

Both graduates from incomplete and complete secondary education can join TVET, which further requires 2.5 and at least one year to complete, respectively. TVET comprises specialized complete secondary schools, as well as post secondary diploma programmes housed in higher educational institutions. Correspondingly, graduates from the former are given a complete secondary education diploma and those from the latter a technical specification diploma. TVET graduates have the possibility to access higher educational institutions.

Tertiary education comprises higher education diplomas and bachelor degrees. Institutions involved in higher education are of the following types: colleges, institutions and universities. The length of higher education is three years for the diploma programme (diploma of higher education) and four years for graduate programme (diploma of

[72] For more detailed analysis of the Mongolian educational system and law framework, see Gerelmaa (2005) and del Rosario (2005).

bachelor degree). However, for some professional courses, the length can vary, for example, medical science. Graduates from universities and the 16 other higher educational institutions can obtain a diploma, a Bachelors degree or a Masters degree. Pre-doctoral and doctoral degree courses are also offered. Some higher educational institutions are approved by the Ministry of Education to provide magistrate (two years) and doctoral programme (three or four years). Non-formal and distance educational activities cut across the entire system.

Appendix A.2.

The "youth experience gap"

This appendix provides a general theoretical framework useful when thinking of cross-country differences in the youth unemployment problem and the role of different policy instruments to help young people have a smooth school-to-work transition. [73] The main reason for young people moving between different labour market statuses is their lower level of human capital and, therefore, productivity compared to adults, which *ceteris paribus* makes employers prefer adults. Human capital has three general components: education, generic work experience and job-specific work experience. Generic work experience includes the ability to cope with the functional distribution of tasks within an organization, to respect deadlines and the internal hierarchy of an organization. All these skills can be learned in any type of job and are easily transferred from one job to another. Job specific work experience comprises specific skills that can only be gained and used in a given type of job. They include the ability to carry out specific types of task, such as, in rural areas, harvesting, feeding livestock.

This type of reasoning helps solve a typical puzzle of youth labour markets. With ever increasing educational attainment worldwide, the educational level of the younger generation is almost always greater than the old generation. Despite this, young people still have lower chances of finding employment. Why is that? The likely explanation is their lack of the other two components of human capital, generic and job-specific work experience. That is, that behind the youth unemployment problem, there is a "youth experience gap".

Aiming to fill this gap, young people move in and out of employment in search of a best job–worker match, but if not found quickly, they tend to become unemployed or inactivity while searching for a better job. During employment, some young people become aware of their gaps in education or training and, consequently, return to school.

Youth unemployment is clearly related to the hardship involved in accumulating work experience. In the neo-liberalist view, causes of youth unemployment, especially the long spells experienced by many young people, can be found in past unemployment experiences, reducing their chances of finding gainful employment. In this stream of economic thought, unemployment causes a process of deskilling from the supply side: since the unemployed cannot use their skills because they are unemployed, they have lower productivity. On the demand side, employers see unemployment as a stigma: a sign of lack of skills and motivation. Lowering the share of long-term unemployment and reducing the average period would be an important policy target for neo-liberalists.

Neo-liberalists suggest that by rendering the labour market more flexible through legalizing and encouraging part-time and fixed-term contracts, the policy-makers will provide a simple and effective solution to young people's problem of work experience, enabling them to find the job they desire. There are two ways to make this might happen. First, easily accessible fixed-term contracts would provide young people with more opportunities to gain the work experience they need and learn different working methods and tasks through short periods of employment. Second, increasing the degree of turnover

[73] See Caroleo and Pastore (2007) for a more detailed discussion.

in the labour market reduces the number of young people, who could become unemployed, or shortens the average duration of unemployment.

It should now be clear why, within this framework, labour market flexibility and low entry wages are the best solution to ease school-to-work transition. These solutions to the youth experience gap also have the merit of being low cost, since they automatically exist in the labour market. This is an important aspect of such a policy and helps understand its appeal in a time of increasingly stringent budget constrains for many governments worldwide.

Two arguments cast doubt on this solution to youth unemployment, suggesting that it is too simplistic and in need of amendments. The first [74] is based on the empirical finding that only the least skilled and least motivated fall into long-term unemployment, therefore, there would be no lower job finding rate for them; instead the causal link would go in the opposite direction. Less skilled individuals would experience greater difficulty in finding gainful employment and, as a consequence, also longer unemployment spells.

The policy implications of this reasoning are important. Training programmes finely tune to the least skilled and motivated groups would be the best policy option to reduce youth unemployment. They would be more effective than increasing labour market flexibility. There is no guarantee that labour market flexibility would help the least skilled and least motivated and it is more likely it would only help those who are more motivated, better educated and have better.

The second argument [75] criticises the effectiveness of labour market flexibility to actually help young people increase their human capital to the level of adults with similar education. The reasoning is that fixed-term contracts only generate sufficient incentive to invest in the formation of generic work experience. They do not allow young people to increase other skills specific to a given type of job due to their short time horizon. Why should employers and employees invest in the accumulation of skills specific only to a given type of job if the contract is temporary?

It is a common occurrence in countries with increased flexibility in youth labour markets that short-term contracts fail to provide young people with specific work experience. This type of market failure should be addressed by providing incentives to prolong short-term contracts or, specific programmes of on-the-job training aimed at enabling young people to accumulate job specific work experience.

In addition, from a more practical point of view, there is increasing empirical evidence to support the view that fixed-term contracts create precariousness of income for many young people experiencing frequent interruptions to their career. Too many temporary workers end up in dead-end jobs that they hoped would be a stepping stone to decent work.

The above arguments help understand why, in many of the countries, increasing flexibility of labour market entry has reduced youth unemployment only to a small extent, while generating work precariousness. Fixed-term contracts alone cannot rule fill the youth experience gap.

[74] This argument can be traced back to the work of such economists as Heckman and Borjas (1980) and Heckman and Singer (1984).

[75] Becker (1962) provides the theoretical basis for this argument.

Moreover, the experience of flexibility has shown that what its advocates usually consider its main advantage, namely its supposed universality is, in fact, one of its major shortcomings. Labour market flexibility is not the best solution for every country and confirms the wisdom that there are no such policy interventions that fit any country or economic condition. Labour market flexibility alone proves too often to be ineffective. It is a good instruments in particular types of labour market conditions where, for instance, there is also a high average level of educational attainment, where it goes together with flexibility in the market for goods and financial services.

These arguments also explain why labour market flexibility is only one of the policy instruments adopted in any country to help young people fill in the youth experience gap. Efficient educational and training systems, passive income support schemes on a contractual basis, fiscal incentives for employers, who are willing to hire long-term unemployed, prove to be no less important instruments.

It is certainly difficult to find policies concordant with the institutional framework of any country. However, comparison of different countries' outcomes in addressing the problem of school-to-work transition suggests that youth unemployment is lower where:

(a) educational systems are more flexible;

(b) educational systems follow a dual (as opposed to a sequential) principle, which means that young people are provided training while at school and not after school;

(c) where labour market flexibility is coupled with high educational attainment;

(d) where ALMP is fine tuned to the needs of the weakest groups and targeting and evaluation of training programmes are implemented in a systematic way to discard the least effective and develop the most effective;

(e) where households do not bear all the cost of youth unemployment.

The educational system is more flexible if it foresees few or no obstacles to young people moving from one curriculum to another, does not impose constraints to access a given type of education and requires a reasonable number of years to attain a diploma. The educational systems that are more flexible and provide training, together with general education, appear to be more inclusive and feature lower drop out rates.

To sum up, labour market flexibility is not the one-size-fit-all solution to every problem young people encounter during their school-to-work transition. Labour market institutions are also very important. In particular, in the case of young people, the educational and training systems play a no less important role than the degree of labour market flexibility.

Appendix A.3.

Decomposing the Gender Wage Gap (GWG)

The previous discussion found that the unconditional GWG is very low and not statistically significant, whereas the conditional wage gap is, and is sizeable. The explanation might be that women are endowed with certain characteristics that generally increase productivity, but they receive lower returns than men. This might be seen as prima facie evidence of some form of discrimination against women. The Juhn, Murphy and Pierce (JMP, 1993) decomposition analysis provides a method to test whether women have better or worse characteristics than men and whether they are paid differently (table A.3.1). It allows distinguishing the impact on the gender gap of average differences in characteristics (Q, so-called quantity effect), differences in returns to those characteristics (P, so-called price effect) [76] and of the residual wage distribution (U), which is unobserved. Differences in the residual distribution might capture the overall degree of wage inequality in the country and the way it affects the gender pay gap.

Table A.3.1 Juhn, Murphy and Pierce (1993) decomposition of GWG

	T	Q	P	U
Mean	0.0349739	–0.200214	0.232058	0.0031298

Note: T = total GWG; Q = impact on the wage differential of individual characteristics; P = impact on the wage differential of prices to individual characteristics; U = impact on the wage differential of the residual wage distribution.

Source: Own elaboration based on SWTS database, NSO Mongolia.

The unconditional GWG is featured in the table and, as noted above, it is very small. However, differences in the other factors are significant. The analysis reveals a very interesting finding, that most of the gender gap is due to differences in the way the market values the same characteristics of men and women. Quantity effects tend to reduce the gap, whereas price effects tend to increase it. Women have better characteristics than men, captured by the fact that these differences favour women and, therefore, reduce the gap. A coefficient of –0.20 can be interpreted as saying that if they were paid in the same way, women would earn 20 per cent more, simply because they are potentially more productive and better educated.

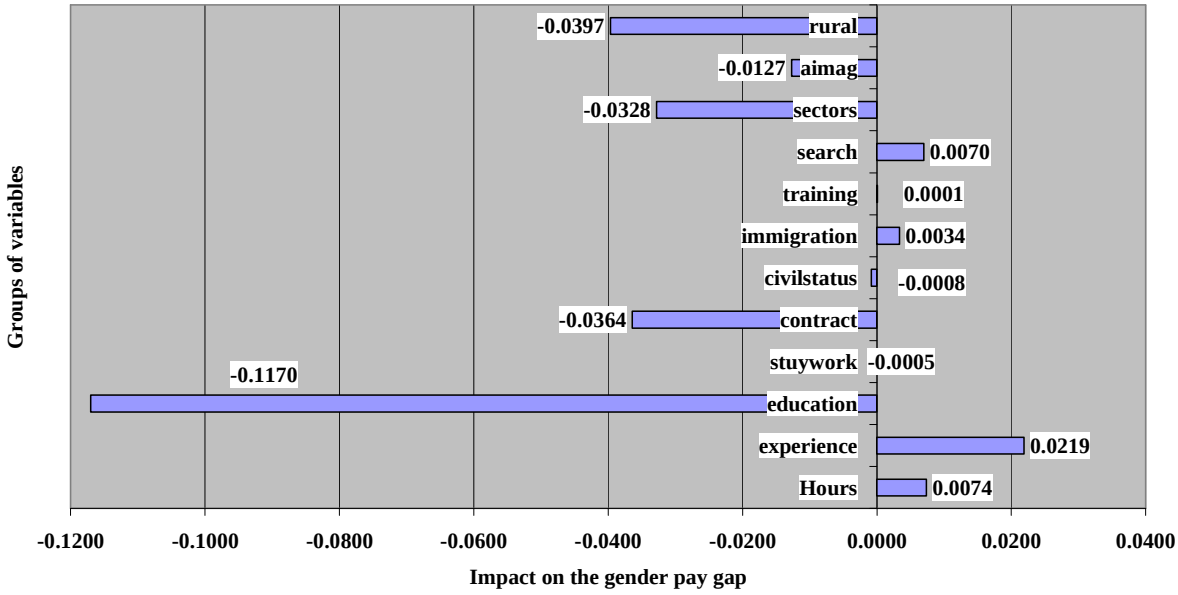
However, when men and women have the same characteristics, a woman is paid less, as shown by the positive price effect. These differences increase the pay gap by about 23 per cent. The algebraic difference between this factor that increases the wage of men and the former factor that increases the wage of women is a wage difference in favour of men of about 3 per cent. The impact of the overall degree of wage inequality existing, though sizeable, does not affect in any significant way, the GWG, as shown by the low value of the "U" effect.

The previous analysis has shown that women are potentially more productive than men. Figure A.3.1 is a bar chart representing the impact of groups of characteristics on the gender pay gap as based on the JMP (1993) decomposition analysis. The results clearly

[76] The price effects are due to different coefficients in Mincerian earnings equations.

show that women have characteristics superior to men in terms of their impact on productivity along almost all dimensions.

Figure A.3.1 Quantity effects on the gender pay gap based on JMP (1993)



Source: Own elaboration based on SWTS database, NSO Mongolia.

The dimensions in favour of men are as follows. On average, women have less work experience, due to maternity interruptions. However, the impact on wage differentials would be about 2 per cent. In addition, women work slightly less hours, due to their lower work effort; they use less effective search methods and are more likely to migrate. All the other characteristics of women reduce the gap. Their greater educational endowment outweighs all other factors. If women and men had the same returns to education, women would have about 12 per cent higher wages. Moreover, due to their greater tendency to migrate, women work more often than men in urban areas, where wages are higher. Furthermore, on average, women are employed in better paid sectors and are less likely to work in the informal sector. Previous analysis has shown the greater job stability of women, as measured by their higher share of contracts in general, and permanent contracts, in particular.

Overall, the high conditional gender pay gap in favour of men can be attributed to the different way the market remunerates the same characteristics. This result is also confirmed by Oaxaca and Ransom (1994), as reported in table A.2.8.2 in the Statistical Annex. It is interesting to note that the overall impact of differences in characteristics and coefficients is always in favour of women. Therefore, according to this decomposition analysis, women not only have better characteristics, but are also rewarded more for them. Where then does the GWP in favour of men come from? Table A.3.2 provides the answer to this question. It gives summary results of the decomposition analysis carried out above: (E) measures the algebraic sum of differences in characteristics and the overall impact in the direction of reducing the gap. The differences in coefficients, called (C), also reduce the gap. The factor that is actually increasing the gap is the difference in the constant term.

Table A.3.2 Summary table based on Oaxacha and Blinder decomposition

Amount attributable:	**–26.6**
– to endowments (E)	–16.6
– to coefficients (C)	–10.0
Shift coefficient (U)	30.1
Raw differential (R) {E+C+U}	3.5
Adjusted differential (D) {C+U}	20.1
Endowments as % total (E/R)	–474.1
Discrimination as % total (D/R)	574.1

Source: Own elaboration based on SWTS database, NSO Mongolia.

Statistical annexes

This annex includes either additional information on survey methodology or additional tables and should be taken as an integral part of the report. The numbering of tables is as follows: the letter A stands for annex, the first digit is the chapter, the second the section, and the last the relative numbering.

Table A.2.2.1. Measures of inequality of the household's income

Inequality measures	
Relative mean deviation	0.1995
Coefficient of variation	0.4708
Standard deviation of logs	0.4929
Gini coefficient	0.2661
Mehran measure	0.3799
Piesch measure	0.2092
Kakwani measure	0.0638
Theil index (GE(a), a = 1)	0.1094
Mean log deviation (GE(a), a = 0)	0.1164
Entropy index (GE(a), a = –1)	0.1346
Half (coeff. var. squared) (GE(a), a = 2)	0.1108
Atkinson inequality measures (eps = 1)	0.1098

Note: The indices have been computed excluding the households whose incomes are lower than the 10th or above the 90th decile.

Source: Own elaboration based on SWTS database, NSO Mongolia.

Table A.2.4.1. The determinants of young people education attainment

The same estimates are presented for the different age groups. The behaviour of these groups is substantially different. The first row of each variable provides the estimated coefficient, whereas the row below represents probability value and, hence, the statistical significance.

Variable	OLS				Ordered probit			
	All	Aged 15–19	Aged 20–24	Aged 25–29	All	Aged 15–19	Aged 20–24	Aged 25–29
Age	0.1810	0.2547	0.2364	0.0512	0.1613	0.4632	0.1509	0.0620
	0.0000	0.0000	0.0000	0.0359	0.0000	0.0000	0.0000	0.0000
Women	0.3877	0.1449	0.5008	0.5590	0.3680	0.2489	0.4289	0.4884
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Broth1	0.0415	0.0269	0.1558	0.1165	0.0551	0.0530	0.1406	0.0886
	0.5327	0.6657	0.3065	0.5098	0.3358	0.5439	0.2945	0.4384
Broth2	0.0200	–0.0111	0.1941	–0.1617	0.0465	–0.0004	0.1314	–0.0647
	0.7957	0.8572	0.1979	0.3368	0.4937	0.9966	0.3254	0.6930
Broth3	–0.0134	–0.0322	0.0395	–0.1883	0.0205	–0.0360	0.0384	–0.1067
	0.8464	0.6139	0.7934	0.2427	0.7289	0.7240	0.7488	0.3919
Broth4	–0.0640	–0.1573	0.1528	–0.3213	–0.0573	–0.2790	0.1014	–0.2000
	0.2872	0.0329	0.3350	0.0443	0.3261	0.0163	0.4267	0.1510
Broth5	–0.1694	0.0017	–0.0884	–0.4990	–0.1342	–0.0071	–0.1362	–0.3501
	0.0764	0.9834	0.6100	0.0023	0.0812	0.9558	0.3668	0.0056
Broth6	–0.2790	–0.0375	–0.1384	–0.5571	–0.2338	–0.0704	–0.1250	–0.4145
	0.0021	0.6656	0.4338	0.0016	0.0051	0.6717	0.4286	0.0023
Broth7plus	–0.3022	–0.0396	–0.2048	–0.4343	–0.2356	–0.0512	–0.1974	–0.2940
	0.0027	0.7298	0.2491	0.0086	0.0098	0.7740	0.2281	0.0225
Study & work	0.6658	0.1429	0.6396	0.7642	0.5866	0.2704	0.5424	0.6394
	0.0000	0.0237	0.0000	0.0000	0.0000	0.0072	0.0000	0.0000
Married	0.0688	–0.1976	0.1076	0.1853	–0.0090	–0.3932	0.0856	0.0809
	0.4400	0.3408	0.4620	0.2172	0.9123	0.1232	0.5140	0.4145
Live together	–0.1752	0.2357	–0.2095	–0.1892	–0.1523	0.3747	–0.1073	–0.2092
	0.3417	0.1839	0.4804	0.4276	0.3350	0.1073	0.7067	0.2347
Divorced, separated, widowed	–0.1662	0.0000	–0.7301	–0.2471	–0.2877		–0.4734	–0.3766
	0.5340	.	0.0055	0.4165	0.2267		0.0215	0.0888
Lone parent	–0.1741	–0.1816	–0.0871	–0.3532	–0.1905	–0.3334	–0.1192	–0.3269
	0.2251	0.6065	0.6853	0.0885	0.1255	0.4559	0.4951	0.0420
Child1	–0.0510	–0.0970	–0.2629	0.1383	–0.0332	–0.0974	–0.1797	0.1423
	0.5848	0.7324	0.0894	0.3315	0.6864	0.7443	0.1346	0.1191
Child2	–0.6309	0.3266	–0.7480	–0.2235	–0.4982	0.5863	–0.5846	–0.1088
	0.0000	0.4103	0.0001	0.1210	0.0000	0.2814	0.0000	0.1828
Child3plus	–1.0741	0.3099	–0.1517	–0.4979	–0.8468	0.5870	–0.2090	–0.3119
	0.0000	0.5019	0.8077	0.0037	0.0000	0.4163	0.6392	0.0130
Immigrant with family	–0.0118	–0.0710	0.0382	–0.0796	–0.0330	–0.1031	–0.0009	–0.0580

Variable	OLS				Ordered probit			
	All	Aged 15–19	Aged 20–24	Aged 25–29	All	Aged 15–19	Aged 20–24	Aged 25–29
	0.8261	0.0820	0.7109	0.4618	0.5034	0.1777	0.9912	0.5064
Immigrant for education	0.2131	0.1525	0.2419	0.4154	0.2070	0.2287	0.2272	0.1989
	0.0437	0.0315	0.1884	0.1422	0.0059	0.0361	0.0843	0.4314
Immigrant seeking a job	0.7294	–0.1026	0.5583	0.7989	0.5549	–0.1763	0.3907	0.6416
	0.0000	0.6046	0.0269	0.0000	0.0000	0.6138	0.0756	0.0000
Immigrant looking for a job	–0.3932	0.7808	–0.4471	–0.7433	–0.3323	1.1939	–0.4306	–0.5312
	0.1237	0.0461	0.2508	0.0035	0.1665	0.0055	0.3727	0.0081
Primary father	0.0119	0.1457	–0.0691	0.1564	0.0501	0.2488	–0.0669	0.1818
	0.9137	0.2152	0.7308	0.5781	0.6579	0.1866	0.6696	0.4542
Basic father	0.0451	0.1731	–0.1180	0.2479	0.0724	0.2746	–0.0980	0.2422
	0.6961	0.0979	0.5461	0.3898	0.5491	0.1152	0.6004	0.2930
Secondary father	0.2213	0.3131	0.1948	0.3578	0.2658	0.5140	0.1921	0.3510
	0.0564	0.0025	0.3346	0.2176	0.0233	0.0098	0.2682	0.1308
Voctecsec father	0.3033	0.2531	0.3376	0.5812	0.3134	0.4205	0.3111	0.4945
	0.0225	0.0203	0.1190	0.0590	0.0082	0.0226	0.1098	0.0491
Specsec father	0.4770	0.3176	0.5000	0.8777	0.4490	0.5360	0.4003	0.6825
	0.0001	0.0021	0.0173	0.0037	0.0000	0.0004	0.0152	0.0033
Tertiary father	0.5346	0.4110	0.4171	1.1963	0.5032	0.6965	0.3352	0.9868
	0.0004	0.0001	0.0695	0.0001	0.0002	0.0004	0.1496	0.0005
Master father	0.6418	0.2239	0.4552	1.8611	0.6477	0.3810	0.3516	2.2171
	0.0064	0.1463	0.2064	0.0000	0.0008	0.1204	0.2573	0.0000
Education missing father	0.0800	0.2349	0.1282	0.1884	0.1062	0.3699	0.0856	0.1916
	0.4959	0.0285	0.5162	0.4931	0.3464	0.0393	0.6383	0.3892
Primary mother	0.1497	0.3023	–0.0180	0.1480	0.2418	0.4284	0.0963	0.2131
	0.2582	0.1183	0.9523	0.5773	0.0610	0.2109	0.7010	0.3638
Basic mother	0.4543	0.4638	0.3795	0.2166	0.5736	0.7043	0.4309	0.3298
	0.0008	0.0109	0.2107	0.4289	0.0000	0.0248	0.1384	0.1407
Secondary mother	0.6615	0.5905	0.6212	0.5905	0.7860	0.9346	0.6589	0.6539
	0.0000	0.0012	0.0432	0.0338	0.0000	0.0030	0.0127	0.0055
Voctecsec mother	0.6572	0.5392	0.8986	0.3773	0.7723	0.8270	0.8984	0.4582
	0.0000	0.0041	0.0051	0.2047	0.0000	0.0093	0.0007	0.0440
Specsec mother	0.8280	0.5632	0.9009	0.9722	0.8961	0.8760	0.8749	0.9129
	0.0000	0.0019	0.0036	0.0006	0.0000	0.0091	0.0005	0.0003
Tertiary mother	0.8863	0.6294	1.0468	0.9910	0.9563	1.0000	1.0289	0.9300
	0.0000	0.0006	0.0014	0.0015	0.0000	0.0019	0.0002	0.0006
Master mother	0.7890	0.5013	1.2868	0.9084	0.8561	0.7907	1.1875	0.8010
	0.0002	0.0161	0.0075	0.1912	0.0000	0.0110	0.0020	0.0873
Education missing mother	0.3605	0.4720	0.3678	0.1651	0.4943	0.7272	0.4384	0.2644
	0.0176	0.0155	0.2498	0.5469	0.0005	0.0407	0.1513	0.2647
Rural	–0.7488	–0.2358	–1.0174	–1.2379	–0.7287	–0.4138	–0.8888	–1.0216

Variable	OLS				Ordered probit			
	All	Aged 15–19	Aged 20–24	Aged 25–29	All	Aged 15–19	Aged 20–24	Aged 25–29
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
_cons	–0.7343	–1.8498	–1.9989	2.4978	1.7416	6.5455	1.7729	–0.4510
	0.0001	0.0000	0.0008	0.0010	0.0000	0.0000	0.0015	0.3150
Cut–off point 2					2.7531	7.5987	2.7122	0.6936
					0.0000	0.0000	0.0000	0.1129
Cut–off point 3					4.0894	9.5897	3.4552	1.7519
					0.0000	0.0000	0.0000	0.0001
Cut–off point 4					5.4274	11.5268	5.0743	2.8408
					0.0000	0.0000	0.0000	0.0000
Cut–off point 5					5.6208	11.9354	5.2666	3.0518
					0.0000	0.0000	0.0000	0.0000
Cut–off point 6					5.7686	12.0232	5.4011	3.2602
					0.0000	0.0000	0.0000	0.0000
Cut–off point 7					7.8617		7.7680	5.5301
					0.0000		0.0000	0.0000
Number of observations								
R^2								

Note: Dependent variable is the educational level of young people taking the following values: 1 = individuals who are uneducated; 2 = primary education only; 3 = basic secondary education; 4 = general secondary education; 5 = vocational technical education; 6 = specialized secondary education; 7 = tertiary; and 8 = master degree

The figures under the coefficient are probability values. Legend: $p<0.05$ means statistically significant at the 10 per cent level; $p<0.01$ means significant at the 5 per cent level; and $p<0.001$ means significant at the 1 per cent level.

The Huber/White/sandwich estimator of variance is used in place of the traditional calculation.

The estimates include also omitted controls for residence in a given *aimag*.

Source: Own elaboration on SWTS of Mongolia.

Table A.2.6.1. Logistic estimate: being still in school rather than in the labour market

Note that the exponential of the coefficient measures the odds ratio of being at school for the specific characteristics considered. The odds ratio measures the probability that one event rather than another occurs. In this case, it measures the probability to be at school rather than in the labour market for any given characteristics, holding the others constant. For instance, the coefficient of 0.67 estimated for the gender dummy means that *ceteris paribus* women have 1.96 times more chance than men to be at school rather than in the labour market. When the coefficient is negative, it means a reduction in the odds ratio. When the odds ratio is less than 1, it means that the characteristics considered have a lower chance of the event occurring compared to the baseline.

Variable	All	Teenagers (15–19)	Young adults (20–24)	Aged 25–29	Men	Women
Young adult	–2.1722***					
Young old	–3.4812***					
Women	0.6740***	0.7703***	0.3659*	0.3725		
Secondary	–0.1395	–0.1607	2.4621***	3.4042**	0.3376*	–0.0421
Voctecsec	–2.3310***	–1.8958***	0.2277	0.6399	–1.4679***	–2.3174***
Specsec	–1.9318***		0.2481	2.4181	–0.9882	–1.7493*
Tertiary	–2.0317***	2.4746*	0.343	1.9379	–0.8833**	–1.6772***
Master	–1.4973*		2.1941*	1.8737	0.5864	–0.3374
Broth1	–0.1731	–0.2211	–0.5175	0.0704	–0.2638	–0.2651
Broth2	–0.4593*	–0.6107	–0.6638*	0.2897	–0.5195	–0.571
Broth3	–0.7681***	–0.7522*	–1.0473***	–1.0345	–0.6105	–1.1106***
Broth4	–0.9469***	–0.8879*	–1.3130***	–0.336	–0.9988**	–0.8956**
Broth5plus	–1.1850***	–1.1278**	–1.6343***	–0.1766	–1.0437**	–1.3083***
Studywork	0.5808***	0.2246	0.8288***	0.9892**	0.5070*	0.6800*
Married1	–1.6604***	–1.5588*	–0.8482*	–1.0918	–0.8775	–1.3927***
Lone parent	–1.0353*	–0.9287	0.1648	–0.3124	–0.4047	–0.8859
Child1	0.0382			–0.2215	–0.1246	0.1218
Child2	–0.0184			–0.741	0.6663	0.0451
Child3plus	0.5887			0.5181	0.9704	1.4435
Immigrant	0.21	0.1236	0.2693	–0.0628	0.2569	0.1357
Primaryf	0.5439*	0.9477**	0.2871	–1.6515	0.7614	0.3359
Basicf	0.5197*	0.6475*	0.1932	–0.782	0.7071*	0.2567
Secondaryf	0.7012**	0.8743**	0.2346	–1.249	0.9400**	0.29
Voctecsecf	0.7595**	0.9893**	0.3501	–0.8648	0.8235*	0.6269
Specsecf	1.1400***	1.2581***	0.7543	–0.5304	1.3587***	0.7163
Tertiary1f	1.4075***	1.7078***	1.145	–0.4838	1.7634***	0.9957*
Edmissf	0.5119*	0.6406*	0.3483	–0.8385	0.9153*	0.1073
Primarym	0.0915	–0.1143	0.8797	16.5136***	0.0554	0.153
Basicm	0.398	0.4199	0.4708	16.7606***	0.3447	0.4321
Secondarym	0.7558*	0.7054	0.695	16.4390***	0.3414	1.0748
Voctecsecm	0.9081*	0.8804	0.6734	17.0163***	0.657	1.1276
Specsecm	1.1847***	1.3731*	0.9444	16.8661***	0.9672*	1.3255*
Tertiary1m	1.3304***	1.7179**	0.8147	16.8851***	0.9969*	1.5610**
Edmissm	0.4027	0.5971	0.3624	16.1261***	0.2095	0.6477
Aimagcentre	–0.2004	0.2877	–0.6236**	–0.4303	–0.1558	–0.3396
Soumcentre	–0.8660***	–0.5077**	–2.2934***	–1.4041**	–1.0700***	–0.9268***
Rural	–1.6538***	–1.4279***	–1.9560***	–1.2476	–1.9442***	–1.4665***
Age		–0.8163***	–0.4185***	0.0057	–0.5388***	–0.4649***
Children		–0.6947	–0.2424			
_Cons	0.8829*	14.4843***	6.4876***	–20.4544	9.9551***	9.7434***

Source: Own elaboration on SWTS of Mongolia.

Table A.2.7.1a. Multinomial LOGIT regression of determinants of unemployment

1	All	Teenagers (15–19)	Young adults (20–24)	Aged 25–29	Men	Women	Urban	Rural
Youngadult	–0.2048				–0.3429	–0.0507	–0.6152	0.3135
Youngold	–0.0416				–0.0751	0.3039	–0.4573	0.3906
Women	–0.8834***	–0.2618	–0.7206**		–1.4639***		–0.4132	–0.4944
Basic	0.1043	0.239	0.136	–0.0959	0.2515	0.2348	–0.3432	0.5311
Secondary	0.7345***	0.9347*	0.9741***	0.3216	1.0593***	1.1614***	0.3823	1.3254***
Voctecsec	0.393	1.0666	0.2426	0.3398	0.8271	0.5418	0.5399	0.5046
Specsec	1.2677	–37.2659***	21.8627***	1.0679	1.0822	1.7581*	0.2182	3.1252***
Tertiary1	2.5657***	–2.9713**	3.5920***	1.8812*	2.8656*	3.0209***	2.0174**	3.5061***
Broth1	–0.2869	–0.9241	–0.2875	–0.9986	–0.894	0.5067	–0.2799	–1.3794
Broth2	–0.3047	–1.4215	–0.4213	–0.045	–0.7448	0.265	0.0898	–1.5795*
Broth3	–0.2112	–1.4678	–0.5682	0.5758	–0.7526	0.148	0.4216	–1.3940*
Broth4	–0.4473	–1.725	–0.2005	–0.3898	–0.599	–0.5758	0.0994	–1.3921*
Broth5plus	–0.373	–1.7279	–0.1265	–0.3965	–0.76	–0.3728	0.2682	–1.2987*
Studywork	–0.1709	0.0829	–0.2102	–0.1969	–0.7044	0.3781	–0.1218	–0.7931
Married1	–0.4717	–1.7876	–0.256	–0.4596	–0.167	–1.4632***	–1.1680**	–0.0706
Loneparent	0.8234	–0.9467	1.2354*	0.8629	1.9042	0.1231	20.0444***	1.8587**
Child1	–0.0971			0.0943	0.2169	–0.149	0.8823	–1.0462*
Child2	–0.2133			–0.0617	–0.3599	–0.191	0.7901	–1.4126*
Child3plus	–0.2507			0.0942	0.2091	–0.2967	0.612	–1.3205
Immigrant	–0.4648*	–0.6898	–0.323	–0.5264	–0.6980*	–0.8394***	–0.3182	–0.3134
Primaryf	–0.5902**	–1.1054*	–0.8215*	–0.1539	–0.5223	–0.9337***	–0.36	–0.5511
Basicf	–0.8154***	–1.8817***	–0.8140**	–0.0923	–0.7696**	–0.8868**	–1.0089**	–0.5475
Secondaryf	–0.496	–0.7874	–0.7932*	0.0681	–0.7760*	0.2427	–0.578	–0.6022
Voctecsecf	0.0268	0.3626	0.4003	–0.779	–0.3667	0.385	0.9998	–0.8076
Specsecf	–1.1787***	–0.8064	–1.5812**	–1.2368*	–1.2334**	–0.6012	–1.2411**	–1.0535*
Tertiary1f	–0.7071	–1.1368	–0.8485	–0.1103	–1.2576*	0.1198	–0.5967	–0.6357
Primarym	–0.2365	–0.2649	–0.0451	–0.5528	–0.317	–0.4166	–1.5560**	0.5368
Basicm	0.0862	–0.5093	0.1197	0.0888	–0.1687	0.088	–0.7491	0.6082
Secondarym	0.3683	–0.4562	0.6463	0.5923	0.4986	0.5446	–0.4762	0.8839
Voctecsecm	0.0464	–0.8992	–0.1146	0.2254	–0.209	0.5883	–1.1087	–0.1484
Specsecm	0.4816	0.8443	0.7408	–0.0488	0.4327	0.2851	–0.7574	1.8159***
Tertiary1m	–0.0223	0.35	–0.0509	–0.6952	0.8	–0.2952	–1.1094	1.145
Ub	4.1025***	4.4764***	3.7231***	4.7736***		3.9426***		
Aimagcentre	3.6458***	4.4566***	2.9622***	4.9797***	3.5201***	2.6330***	–0.4895	
Soumcentre	3.1897***	4.0153***	3.1426***	3.1757***	3.0899***	2.4911***		–1.0828***
Age		0.0708	–0.1592*	–0.0029				
Children		1.0295	–0.2858					
_Cons	–0.0699	0.2724	2.9596	0.1291	0.289	0.4789	4.7688***	–0.6536

Note: Dependent variable is the labour market status of young people excluding those still in education. The following labour market statuses are considered: (1) unemployment; (2) self-employment; (3) unpaid family workers; (4) wage employment; (5) inactive. The category (3) is considered as the baseline and therefore all coefficients should be read in relation to the baseline status. The exponential of the coefficient measures the impact of a given characteristics on the odds ratio of being in a given labour market status, say unemployment, rather than being involved in unpaid family business.

Legend: * means p<0.05, or statistically significant at the 10 per cent level; ** means p<0.01, or significant at the 5 per cent level; and *** means p<0.001, or significant at the 1 per cent level.

The Huber/White/sandwich estimator of variance is used in place of the traditional calculation.

Source: Own elaboration on SWTS of Mongolia.

Table A.2.7.1b. Multinomial LOGIT regression of determinants of self-employment

2	All	Teenagers (15–19)	Young adults (20–24)	Aged 25–29	Men	Women	Urban	Rural
Youngadult	1.2791***				1.2118***	1.2788	1.0633*	1.1979***
Youngold	1.8611***				1.8212***	2.1036**	1.6982**	1.5758***
Women	–2.1475***	–1.8116*	–1.8017***	–2.8216***			–0.9232***	–3.9001***
Basic	–0.3491*	–0.6317	–0.5227	–0.3756	–0.2275	0.5246	–0.3641	–0.296
Secondary	0.0109	0.5361	–0.1631	–0.0604	0.135	2.0327**	0.3663	–0.128
Voctecsec	0.2031	1.4252	–0.0648	0.3467	0.4935	1.9241*	1.1147	–1.2447
Specsec	1.6798*	2.4427	22.0162	1.5259	1.4374	3.4980***	1.2878	2.6345
Tertiary1	2.1480***	28.1159***	2.6178**	2.0059**	2.1298	3.9044***	2.1791**	1.3329
Broth1	0.0177	16.2963***	–0.4251	–0.1662	–0.3635	0.3132	–0.1112	–0.4809
Broth2	–0.0964	15.8211***	–0.3169	0.1386	–0.3105	–0.1252	0.1087	–0.5652
Broth3	–0.1172	14.7388***	–0.3121	0.4032	–0.3604	–0.4802	0.3586	–0.7353
Broth4	–0.4463	15.2057	–0.7619	–0.1794	–0.4004	–1.3228*	–0.1275	–0.8347
Broth5plus	–0.1446	15.3359***	–0.1862	–0.15	–0.3209	–0.7494	0.4224	–0.7326
Studywork	–0.2489	1.7357	–0.5034	–0.3816	–0.5862	0.2472	–0.1915	–0.3547
Married1	0.386	0.101	0.2925	0.4816	0.9270*	–1.6889**	–0.2145	0.5932
Loneparent	0.3772	–32.7730***	–0.3208	1.0132	0.0176	–0.5955	20.2029	–0.4317
Child1	0.3014			0.452	0.4446	0.5593	0.7803	0.7389
Child2	0.2164			0.2889	0.4044	0.4114	0.7184	0.5837
Child3plus	0.3471			0.6044	1.178	–0.1141	0.4833	1.1115*
Immigrant	–0.1271	–1.4884	–0.0477	0.0125	–0.2619	–0.9343**	–0.1101	–0.016
Primaryf	–0.3823	–0.4243	–0.7705*	–0.0141	–0.6038*	0.1384	0.1559	–0.7489**
Basicf	–0.4650*	–1.505	–0.4715	–0.1113	–0.7260*	–0.0286	–0.1489	–1.0141***
Secondaryf	–0.0363	–32.1539***	–0.3281	0.5938	–0.3938	0.9294*	0.1034	–0.2357
Voctecsecf	0.2554	–0.428	0.3636	0.1857	0.017	0.5571	1.547	–0.6405
Specsecf	–0.7171*	–0.1696	–0.4011	–1.4908**	–0.9788*	0.3999	–0.4489	–1.5530*
Tertiary1f	0.1836	1.3368	0.3445	0.2938	–0.1016	0.7889	0.6105	–0.9359
Primarym	0.0129	19.6629	–0.2936	–0.0476	0.1944	–0.9242*	–1.1666	0.2576
Basicm	0.0299	19.6258***	–0.6318	0.4461	0.1449	–0.569	–1.0548	0.484
Secondarym	0.1969	19.1779***	0.1707	0.4907	0.2741	0.4809	–0.5651	0.1226
Voctecsecm	–0.2641	19.5889***	–0.5718	–0.401	–0.3293	0.0286	–1.3535	–0.0174
Specsecm	0.077	20.7445***	–0.3273	–0.0844	0.0593	–0.1743	–1.1682	0.6037
Tertiary1m	0.2622	19.7339***	–0.6019	0.208	0.7977	0.2697	–0.7942	–0.0239
Ub	2.5999***	1.6316	2.3750***	3.2437***		1.9568***		
Aimagcentre	1.5521***	–30.8627***	1.1611**	2.7878***	1.1771**	1.7153**	–0.9796*	
Soumcentre	1.1893***	1.2502	1.0620**	1.2755***	0.6194*	2.1646***		–1.3716***
Age		0.2009	0.0826	0.0952				
Children		1.5204	0.1308					
_Cons	–1.4539*	–38.4891	–1.3889	–2.5499	–1.1913	–3.0286*	0.9215	–0.8303

Note: Dependent variable is the labour market status of young people excluding those still in education. The following labour market statuses are considered: (1) unemployment; (2) self–employment; (3) unpaid family workers; (4) wage employment; (5) inactive. The category (3) is considered as the baseline and therefore all coefficients should be read in relation to the baseline status. The exponential of the coefficient measures the impact of a given characteristics on the odds ratio of being in a given labour market status, say unemployment, rather than being involved in unpaid family business.

Legend: * means p<0.05, or statistically significant at the 10 per cent level; ** means p<0.01, or significant at the 5 per cent level; and *** means p<0.001, or significant at the 1 per cent level.

The Huber/White/sandwich estimator of variance is used in place of the traditional calculation.

Source: Own elaboration on SWTS of Mongolia.

Table A.2.7.1c. Multinomial LOGIT regression of determinants of wage employment

4	All	Teenagers (15–19)	Young adults (20–24)	Aged 25–29	Men	Women	Urban	Rural
Youngadult	0.2992				0.1996	0.426	–0.032	0.1469
Youngold	0.8351***				0.8317**	1.1899***	0.4559	1.0123*
Women	–1.1391***	–0.0154	—0.7596**	–2.0225***			–0.5908*	–1.1575***
Basic	0.0936	0.2439	0.023	0.0176	0.023	0.7452*	–0.1542	–0.2598
Secondary	0.9296***	1.1952*	0.8658*	0.8937*	1.0297***	1.8419***	0.8190*	0.0022
Voctecsec	1.2785***	2.3825	1.0952*	1.3619*	1.5525**	1.8849***	1.5862**	1.2238*
Specsec	3.0985***	–0.6747	23.5252***	3.1312***	2.6900**	4.0726***	2.3439**	4.0413***
Tertiary1	4.4087***	–3.6872**	4.8728***	4.3193***	4.5069***	5.2544***	4.0192***	5.3844***
Broth1	0.395	–0.1381	–0.481	0.4638	–0.0275	0.9434	0.231	20.7656
Broth2	0.2604	–0.8993	–0.3555	0.656	0.1247	0.4718	0.4373	20.6988***
Broth3	0.2841	–1.283	–0.4867	1.1025	0.0295	0.2771	0.7413	20.3930***
Broth4	–0.013	–1.5586	–0.2023	0.2254	–0.037	–0.3227	0.3608	20.1820***
Broth5plus	0.3785	–1.3706	0.0576	0.5852	0.1362	0.1281	0.8873	20.3167***
Studywork	–0.1275	0.5849	–0.2312	–0.1187	–0.5234	0.3053	–0.0609	–1.0842
Married1	–0.2797	–2.3861	–0.1234	–0.1286	0.4235	–1.6404***	–0.9992*	0.642
Loneparent	0.3302	–33.6215***	0.8604	0.6432	1.5405	–0.5823	19.7289***	0.608
Child1	0.2363			0.6027	0.4226	0.182	1.1576*	–0.5622
Child2	–0.0061			0.2206	0.2181	–0.2052	0.8296	–0.3045
Child3plus	–0.2116			0.1746	0.7944	–0.7546	0.5871	–1.5393
Immigrant	–0.4525*	–1.0779	–0.3097	–0.3756	–1.0092**	–0.5067	–0.2657	–0.6974
Primaryf	–0.2934	–0.6974	–0.2831	–0.0473	–0.3492	–0.5052	0.0597	–0.6256
Basicf	–0.6697**	–0.9905	–0.6511	–0.3125	–0.7200*	–0.6148*	–0.8465*	–0.5179
Secondaryf	–0.4585	–0.4851	–0.5055	–0.2883	–0.7311*0.2333		–0.5346	–0.9777
Voctecsecf	–0.0634	–0.3357	0.3326	–0.5063	–0.2529	0.141	0.8221	0.1272
Specsecf	–0.8688**	1.329	–0.7874	–1.5604**	–0.7706	–0.3337	–0.9096*	–1.017
Tertiary1f	–0.3507	–0.5273	–0.2922	–0.0414	–0.6043	0.1613	–0.2436	0.1912
Primarym	–0.3039	0.2927	–0.3692	–0.5412	–0.3146	–0.6580*	–1.5694**	0.2697
Basicm	0.06	–0.2122	–0.1038	0.222	–0.1669	–0.0878	–0.7935	0.5733
Secondarym	0.5839*	–0.5601	0.7526	0.9659	0.5428	0.8805*	–0.277	1.2512*
Voctecsecm	0.2681	0.1613	0.0699	0.2529	0.0621	0.6387	–0.95	1.6671*
Specsecm	0.2816	0.5962	0.3935	–0.0912	–0.1253	0.3886	–0.9247	1.3984*
Tertiary1m	0.1736	1.1317	–0.2013	–0.2354	0.3538	0.4714	–0.908	1.2231
Ub	4.2786***	4.6850***	4.3098***	4.6667***		4.1993***		
Aimagcentre	3.5564***	3.3301**	3.4337***	4.5522***	3.3186***	2.5844***	–0.7434	
Soumcentre	3.0953***	3.1360***	3.4423***	2.9419***	2.7419***	2.5859***		–1.3374***
Age		0.0728	0.0094	0.0151				
Children		1.1822	–0.386					
_Cons	–1.9692***	–1.5244	–1.7579	–1.6985	–1.3914	–1.8578**	2.9268**	–22.4408***

Note: Dependent variable is the labour market status of young people excluding those still in education. The following labour market statuses are considered: (1) unemployment; (2) self-employment; (3) unpaid family workers; (4) wage employment; (5) inactive. The category(3) is considered as the baseline and therefore all coefficients should be read in relation to the baseline status.

The exponential of the coefficient measures the impact of a given characteristics on the odds ratio of being in a given labour market status, say unemployment, rather than being involved in unpaid family business.

Legend: * means p<0.05, or statistically significant at the 10 per cent level; ** means p<0.01, or significant at the 5 per cent level; and *** means p<0.001, or significant at the 1 per cent level.

The Huber/White/sandwich estimator of variance is used in place of the traditional calculation.

Source: Own elaboration on SWTS of Mongolia.

Table A.2.7.1d. Multinomial LOGIT regression of determinants of inactivity

5	All	Young adults (15–19)	Young adults (20–24)	Aged 25–29	Men	Women	Urban	Rural
Youngadult	–0.4561*				–0.49	–0.319	–0.7715*	–0.3648
Youngold	–0.3325				–0.1217	–0.1002	–0.7367	–0.047
Women	0.0844	0.5147	0.3203	–0.5110*			0.5886*	0.1921
Basic	–0.3276	–0.1533	–0.3808	–0.3832	–0.099	–0.234	–0.6394	–0.3454
Secondary	0.3211	0.695	0.253	0.2407	0.9468**	0.6350**	0.1349	0.4045
Voctecsec	–0.3525	0.1334	–1.1590*	0.1489	0.2243	–0.1943	–0.0825	–0.1735
Specsec	1.5080*	–37.3334***	22.0738***	1.4558	1.9186	1.7929**	0.9275	0.0733
Tertiary1	2.0336***	32.4816***	2.1802**	1.9822**	2.0641	2.4769***	1.7153*	1.3409
Broth1	–0.0639	–0.978	0.2332	–0.3009	–0.6093	0.5617	–0.3004	0.9982
Broth2	–0.1703	–0.9131	0.1051	–0.2322	–0.1019	–0.0975	–0.0011	0.5699
Broth3	0.0666	–0.8033	0.2077	0.3901	–0.4742	0.2532	0.5202	0.687
Broth4	–0.1363	–1.4625	0.2406	0.0434	–0.0057	–0.4872	0.3579	0.2254
Broth5plus	–0.1768	–1.1885	0.1967	–0.2121	–0.1621	–0.4746	0.3459	0.4191
Studywork	–0.0737	–0.1996	0.2047	–0.2678	–0.1787	0.2262	–0.1901	0.4757
Married1	–0.2092	–0.0491	–0.2918	–0.1467	–0.2157	–0.9572*	–0.8517	–0.1787
Loneparent	0.4447	0.3276	0.6055	0.5943	1.8099	–0.1561	19.9543***	0.2605
Child1	0.9133**			0.9727	1.0666	0.9092*	1.9735***	0.1561
Child2	0.7255*			0.8402	1.0458	0.5934	1.7278**	0.0931
Child3plus	1.0954**			1.3810*	0.295	1.0717*	1.8921**	0.6436
Immigrant	–0.3614	–1.2069	–0.1981	–0.3244	–0.7935*	–0.5453*	–0.1528	–0.6934*
Primaryf	–0.4646*	–1.4842**	–0.2846	–0.0774	–0.4429	–0.6750**	–0.4337	–0.2199
Basicf	–0.6078**	–1.5328***	–0.2536	–0.4646	–0.7998*	–0.5369*	–0.8462*	–0.3699
Secondaryf	–0.5965*	–0.9886	–0.7826	–0.0808	–0.6767	–0.0218	–0.748	–0.1856
Voctecsecf	0.1224	–0.281	0.397	–0.0625	0.1128	0.1783	1.004	0.1005
Specsecf	–0.8503*	–0.3136	–0.5788	–1.5598**	–1.1718*	–0.1876	–1.0704*	–0.2521
Tertiary1f	–0.4918	–1.8414	–0.5934	0.1769	–0.4688	–0.1264	–0.4689	–0.2958
Primarym	0.059	1.356	0.1771	–0.4492	0.5299	–0.2795	–1.1806	0.1725
Basicm	0.2668	0.8973	0.0858	0.3635	0.8532	–0.05	–0.4585	0.1336
Secondarym	0.8701**	1.1525	1.1264*	0.8855	1.6938***	0.8100*	0.0191	0.9481*
Voctecsecm	0.1565	–0.5429	0.2798	0.0052	0.7206	0.2467	–1.0811	0.6224
Specsecm	0.5834	1.3904	0.6683	0.1274	1.0889*	0.2732	–0.4703	0.1172
Tertiary1m	0.2353	2.466	0.1002	–0.6462	1.466	0.114	–0.7641	0.3246
Ub	3.5135***	3.2322***	3.5508***	4.0457***	2.9019***			
Aimagcentre	2.4608***	2.0907*	2.1049***	3.8237***	1.7427***	2.0250***	–1.1285**	
Soumcentre	1.8514***	2.0013***	2.3641***	1.5603***	1.2473***	1.7067***	–1.8903***	
Age		0.0287	–0.0543	0.0827				
Children		0.4155	0.9280*					
_Cons	–0.7589	0.2534	–0.8015	–3.0942	–0.9348	0.5885	3.3275**	–1.1252

Note: Dependent variable is the labour market status of young people excluding those still in education. The following labour market statuses are are considered: (1) unemployment; (2) self-employment; (3) unpaid family workers; (4) wage employment; (5) inactive. The category (3) is considered as the baseline and therefore all coefficients should be read in relation to the baseline status. The exponential of the coefficient measures the impact ofa given characteristics on the odds ratio of being ina given labour market status, say unemployment, rather than being involved in unpaid family business.

Legend: * means p<0.05, or statistically significant at the 10 per cent level; ** means p<0.01, or significant at the 5 per cent level; and *** means p<0.001, or significant at the 1 per cent level.

The Huber/White/sandwich estimator of variance is used in place of the traditional calculation.

Source: Own elaboration on SWTS of Mongolia.

Table A.2.7.2a. Multinomial LOGIT regression of determinants of unemployment. The role of parents' occupation

1	All	Teenagers (15–19)	Young adults (20–24)	Aged 25–29	Men	Women	Urban	Rural
	Panel (a) Unemployment							
Fmanager	0.6608	2.0768	0.7613	0.3752	0.5111	0.433119.2475***		1.292
Fspecialist	0.069	0.8402	–0.1346	–0.701	–0.2573	0.4406	–0.7782	–0.0688
Ftechnical	–0.0941	21.4917	–1.342	21.5043***	–1.089520.0151***		–0.6159	–12.8671***
Fservice	0.0087	1.2685	–0.6522	1.0103	0.7325	0.104	0.4523	–0.8982
Fagricult	–1.2205	–47.4414	–0.227	3.8356***	–1.2386	–0.0323	–0.9201	–35.9616***
Fproduction	–0.2463	–2.5665*	–0.1919	20.0916	0.1462	–0.755	–0.53	–0.0014
Felementary	–0.4371	–0.9745	–0.8988	1.1407	0.1776	–0.5723	–1.0235	0.4957
Fherdsman	–0.4282	0.1441	–0.568	–0.4475	–0.4665	–0.5069	–0.9349	–0.4298
Fretired	–0.5625**	–0.477	–0.5688	–0.6370*	–0.4847	–0.3054	–0.6215	0.0128
Fselfemplo~d	–0.6093	–2.0329*	–1.2442*	–0.0336	–1.3998**	0.491	–1.0137*	0.9428
Funpaid	–0.2881	–1.6845	–0.4136	0.511	–1.0623	0.3884	–0.9328	0.545
Funempl	–0.001	–0.3168	–0.2884	0.7773	0.5079	–0.4236	–0.1527	–0.7345
Fother	0.2865	1.2749	0.4115	0.0052	1.0519	–0.1341	1.3112	0.4617
Mmanager	–1.0349	–33.9543	–0.9106	20.3107	–1.5927	–0.1216	–2.2204*	1.1162
Mspecialist	–0.0248	–0.564	1.33	–1.2768	0.8805	–0.5847	–1.701	3.1132**
Mtechnical	–1.2132	–48.4594	0.6086	–2.6984*	–0.3264	–1.2528	–2.7196*	4.4012
Mservice	0.2913	0.7136	0.6424	–0.5169	0.1586	0.3843	–1.1163	2.3217**
Magricult	1.3538	–43.5319	1.9972*	–17.9203***	–29.5281***	1.4768	–2.1265	2.9376*
Mproduction	0.2231	0.2569	22.3104***	–38.8269***	–0.3621	0.6402	–1.6756	1.1316
Melementary	1.4065*	2.1134*	1.7475	0.5633	1.099	1.6073	0.0708	2.4703*
Mherdsman	–0.4633	–2.0215**	–0.1378	–0.2718	–0.7334	–0.7484	–0.9638	0.3387
Mretired	0.1676	0.092	0.6243	–0.2024	0.1944	–0.0033	–0.9024	1.1159
Mselfemplo~d	–0.3582	2.0884	–0.6209	–0.3917	–0.5271	0.9517	–1.3562	1.1831
Munpaid	1.0871**	1.4676	1.0990*	1.5439	1.6560**	1.1166*	–0.0436	1.8961*
Munempl	1.3861***	2.6221**	1.8048**	0.081	1.5050*	1.4420**	–0.1083	3.0812***
Motherjob	0.9331	21.3697***	0.3542	19.4475***	21.7950***	0.5937	–0.4538	1.9467

Note: Dependent variable is the labour market status of young people excluding those still in education. The following labour market statuses are considered: (1) unemployment; (2) self–employment; (3) unpaid family workers; (4) wage employment; (5) inactive. The category (3) is considered as the baseline and therefore all coefficients should be read in relation to the baseline status. The exponential of the coefficient measures the impact of a given characteristics on the odds ratio of being in a given labour market status, say unemployment, rather than being involved in unpaid family business.

The estimates in the table presents only the coefficients of the variables relative to the parents' occupation. The other independent variables are the same as in table A.2.7.1.

Legend: * means p<0.05, or statistically significant at the 10 per cent level; ** means p<0.01, or significant at the 5 per cent level; and *** means p<0.001, or significant at the 1 per cent level.

The Huber/White/sandwich estimator of variance is used in place of the traditional calculation.

Source: Own elaboration on SWTS of Mongolia.

Table A.2.7.2b. Multinomial LOGIT regression of determinants of self-employment. The role of parents' occupation

1	All	Teenagers (15–19)	Young adults (20–24)	Aged 25–29	Men	Women	Urban	Rural
	Panel (b) Self–employment							
Fmanager	1.1678	–43.4126	2.0555	0.7716	0.8811	1.899	20.7533***	–0.1936
Fspecialist	0.2998	3.6927*	–0.1578	–0.2545	–0.5742	1.7363	–0.3668	0.3112
Ftechnical	0.8089	–24.04	–1.4242	22.3289***	–0.5591	21.4476	0.6931	–42.7125***
Fservice	–0.341	3.4551	–1.5266*	1.075	0.3557	0.2248	0.5652	–34.5245***
Fagricult	0.8903	–44.4145	1.5513	27.5191	0.4746	3.1625	–43.2969	25.2859***
Fproduction	–1.5387	–46.8587	–1.1289	–16.6912***	–0.8926	–31.9359***	–1.5143	–34.3206***
Felementary	–0.4251	0.9189	–1.6108	1.4513	0.2598	–0.4232	–0.6606	–0.2502
Fherdsman	–0.6024**	0.0432	–1.1219**	–0.2375	–1.0117***	0.2741	–0.6403	–0.9423***
Fretired	–0.3575	–1.0702	–0.1759	–0.5476	–0.4489	0.4414	–0.0202	–0.9838**
Fselfemplo~d	–0.1713	–2.207	–0.3006	–0.3804	–0.8034	1.1375	–0.2209	–33.8997***
Funpaid	–0.658	–0.1227	–32.1857***	0.3384	–2.0445*	1.1569	–1.1755	–0.9346
Funempl	–0.0632	–0.4042	–0.6448	0.7092	0.493	–0.8266	–0.0895	–0.9297
Fother	0.406	–44.319	0.1326	0.7506	0.5422	0.7273	1.814	–0.2058
Mmanager	–1.7717	33.7764	–2.7074*	20.2887***	–1.5493	–32.9067***	–2.7053*	–34.6469***
Mspecialist	0.4557	23.0624***	1.275	–0.4677	1.5196	–0.2705	–1.0684	0.9055
Mtechnical	–2.2158	–23.8868	–0.066	–38.9229***	–0.4723	–33.7588***	–47.9577	39.4977***
Mservice	0.0003	16.4263***	0.385	–0.9756	–0.1459	–0.0666	–1.3496	0.6644
Magricult	0.1181	–22.656	–0.2019	–3.5454*	0.6227	–32.0180***	–46.0613	–22.239
Mproduction	0.9727	23.2540***	22.5833	–1.5555	1.4491	0.4602	–1.0049	2.6341
Melementary	0.7075	–22.5204	–0.0735	0.3766	0.4543	0.8274	–0.4253	0.0499
Mherdsman	0.3964	19.6073***	0.3908	0.3026	0.8339*	–0.9914	–0.5315	0.7712
Mretired	–0.0622	21.2024***	–0.4307	–0.0852	0.2139	–0.7235	–1.0674	0.266
Mselfemplo~d	0.4352	22.5016***	–0.3655	1.1782	0.2172	1.8370**	–0.4887	0.8107
Munpaid	0.8631	20.4081***	0.7415	1.1867	1.8536**	–0.1771	–0.327	1.5994*
Munempl	0.3288	–24.3605	0.4743	–0.6539	0.9376	–0.236	–1.1637	1.8532*
Motherjob	0.6262	0.6527	0.0268	18.9257	21.8942***	–0.8025	–0.462	–33.6284***

Note: Dependent variable is the labour market status of young people excluding those still in education. The following labour market statuses are considered: (1) unemployment; (2) self-employment; (3) unpaid family workers; (4) wage employment; (5) inactive. The category (3) is considered as the baseline and therefore all coefficients should be read in relation to the baseline status. The exponential of the coefficient measures the impact of a given characteristics on the odds ratio of being in a given labour market status, say unemployment, rather than being involved in unpaid family business.

The estimates in the table presents only the coefficients of the variables relative to the parents' occupation. The other independent variables are the same as in table A.2.7.1.

Legend: * means p<0.05, or statistically significant at the 10 per cent level; ** means p<0.01, or significant at the 5 per cent level; and *** means p<0.001, or significant at the 1 per cent level.

The Huber/White/sandwich estimator of variance is used in place of the traditional calculation.

Source: Own elaboration on SWTS of Mongolia.

Table A.2.7.2c. Multinomial LOGIT regression of determinants of wage employment. The role of parents' occupation

1	All	Teenagers (15–19)	Young adults (20–24)	Aged 25–29	Men	Women	Urban	Rural
	Panel (c) Wage employment							
Fmanager	1.2318	2.6783	1.7053	0.8573	0.8717	1.3734	20.2206***	0.761
Fspecialist	0.6215	–43.1672	0.4432	–0.0133	0.1184	1.2565	–0.2011	1.5708
Ftechnical	0.2613	23.9373***	–0.6494	20.7899***	–0.5963	20.3018***	–0.3441	23.3025***
Fservice	–0.3538	0.597	–1.1317	0.8007	0.0726	0.1352	0.1033	–0.2091
Fagricult	–1.0182	–44.3994	–0.9712	4.4275	–0.5061	–0.832	–0.7803	–8.6174***
Fproduction	–0.4305	–2.0059	–0.489	19.8133***	–0.3576	–0.8354	–0.7351	2.5555
Felementary	–0.1405	0.5967	–1.0627	1.5444	0.5508	–0.4094	–0.6417	–0.1801
Fherdsman	–0.3819	1.0008	–0.6545	–0.1354	–0.6093	–0.3369	–1.1513	–0.08
Fretired	–0.4356*	0.055	–0.1895	–0.7582*	–0.2128	–0.3103	–0.3808	–1.0276*
Fselfemployed	–0.7802	–1.6458	–1.2956*	–0.6886	–1.3580*	0.0738	–1.1937*	0.4587
Funpaid	–0.0119	–0.8778	–0.0816	0.6651	–0.3992	0.2138	–0.5956	–34.5298***
Funempl	0.1736	0.7091	–0.0894	0.5299	0.5185	–0.0566	–0.0076	0.0079
Fother	0.1128	2.8514**	–0.7937	–0.062	1.0201	–0.3758	1.1886	0.05
Mmanager	–1.0682	–35.4376	–1.7334*	21.4412***	–1.1888	–0.6684	–2.2013*	1.5984
Mspecialist	–0.056	–0.4284	0.9724	–1.1144	0.7621	–0.3462	–1.5553	0.8892
Mtechnical	–1.3306	–47.4407	–0.4893	–1.4911	–0.6623	–1.435	–2.8773**	7.0215***
Mservice	0.5936	0.6955	0.9899	–0.1956	0.519	0.6102	–0.7236	1.3108
Magricult	1.1878	–42.9154	1.6527	19.1807***	1.1933	–0.2132	–2.0924	–31.6575***
Mproduction	1.1004	0.5837	22.9390***	–1.1156	1.3348	0.8642	–0.6041	–35.9079***
Melementary	1.4364*	1.7119	2.0594*	0.5268	1.414	1.1849	0.1423	2.7370*
Mherdsman	–0.3801	–1.6861*	–0.2794	–0.4662	–0.2537	–1.1083**	–0.6664	–0.4087
Mretired	0.0907	–0.0439	–0.0083	0.043	–0.0625	0.0881	–0.9829	1.1131*
Mselfemployed	–0.374	1.1696	–0.9363	0.31	–0.5656	1.0172	–1.3245	1.1443
Munpaid	1.3051***	0.9665	1.8718***	1.4471	1.7772**	1.4524**	0.1983	2.4291**
Munemployed	1.2370**	2.4193*	1.4065*	0.0415	1.6458**	0.95	–0.2101	2.1456*
Motherjob	1.3568	21.9524***	0.4223	19.9471***	22.6576***	0.4982	–0.0064	4.0131**

Note: Dependent variable is the labour market status of young people excluding those still in education. The following labour market statuses are considered: (1) unemployment; (2) self-employment; (3) unpaid family workers; (4) wage employment; (5) inactive. The category (3) is considered as the baseline and therefore all coefficients should be read in relation to the baseline status. The exponential of the coefficient measures the impact of a given characteristics on the odds ratio of being in a given labour market status, say unemployment, rather than being involved in unpaid family business.

The estimates in the table presents only the coefficients of the variables relative to the parents' occupation. The other independent variables are the same as in table A.2.7.1.

Legend: * means p<0.05, or statistically significant at the 10 per cent level; ** means p<0.01, or significant at the 5 per cent level; and *** means p<0.001, or significant at the 1 per cent level.

The Huber/White/sandwich estimator of variance is used in place of the traditional calculation.

Source: Own elaboration on SWTS of Mongolia.

Table A.2.7.2d. Multinomial LOGIT regression of determinants of inactivity. The role of parents' occupation

1	All	Teenagers (15–19)	Young adults (20–24)	Aged 25–29	Men	Women	Urban	Rural
	Panel (d) Inactivity							
Fmanager	0.4293	–44.1704	0.369	0.8203	–0.5532	0.5863	19.4612	–0.1969
Fspecialist	0.2701	0.9712	–1.0869	–0.0521	–1.3486	1.071	–0.4393	–0.3242
Ftechnical	0.4753	–21.4899	0.3271	20.5129	–0.1505	20.3190***	–0.2068	22.7677
Fservice	–0.1138	0.0456	–0.7398	1.4414	0.4562	0.2365	0.2084	0.0286
Fagricult	0.0275	–0.9681	0.0845	–33.7473***	0.6968	–0.0277	0.8408	–36.7545***
Fproduction	0.0905	–2.5578*	0.277	20.9074***	0.2457	–0.2584	–0.1386	0.3438
Felementary	–0.4478	–3.0378	–0.8446	1.5315	0.0258	–0.48	–1.0693	0.9783
Fherdsman	–0.5629**	–0.7933	–0.9519*	–0.0862	–0.8347*	–0.5524	–1.6841*	–0.1325
Fretired	–0.5252*	–1.7604*	–0.1532	–0.7738*	–0.0783	–0.5003*	–0.6088	–0.2556
Fselfemplo~d	–0.7174	–1.9737*	–1.0812	–0.736	–1.9045**	0.3663	–1.1862*	0.2211
Funpaid	–0.1642	–1.0763	–0.1345	0.2595	–0.4084	–0.1827	–1.1933	1.3395
Funempl	0.3032	–0.2235	0.2758	0.6274	1.0755	–0.1698	–0.0017	1.1604
Fother	–0.5328	–0.6816	–0.0415	–2.066	–0.1057	–0.7743	0.6615	–1.1166*
Mmanager	–0.3205	56.652	–0.5696	20.7446***	0.5356	–0.0021	–1.2715	–33.7284***
Mspecialist	–0.5471	1.2566	1.3581	–2.3918*	1.0307	–1.1027	–1.9580*	–33.0119***
Mtechnical	–0.535	–46.2334	1.1075	–1.412	1.3903	–0.9196	–1.9009	–23.0126***
Mservice	0.5758	2.7866	1.2197	–0.709	1.7737*	0.2189	–0.5989	0.347
Magricult	1.9926*	3.0287	2.0658*	20.3913	2.8131*	1.0024	–2.5388	3.6888***
Mproduction	1.4369	3.1	23.2092***	–0.7394	2.4885	1.072	–0.2945	1.9902
Melementary	1.1559	2.5759	2.2689*	–0.4914	2.3051*	0.831	0.0324	0.8349
Mherdsman	0.3017	1.5939	0.7002	–0.145	1.7124**	–0.5045	–0.2168	0.4623
Mretired	0.4803	2.5351*	0.7724	0.0727	1.6129*	0.0758	–0.4848	0.4195
Mselfemplo~d	0.1737	3.9822*	0.1063	0.1723	1.6269*	0.9991	–0.6286	–1.0924
Munpaid	1.0248*	2.8285	1.4992*	1.1709	3.1045***	0.5902	0.0413	0.9542
Munempl	1.2318**	3.9286**	1.5889*	–0.0326	2.8326***	0.6649	–0.133	1.0697
Motherjob	1.5181	23.4269	1.2077	19.9876***	23.0415	0.9712	0.2378	2.7827

Note: Dependent variable is the labour market status of young people excluding those still in education. The following labour market statuses are considered: (1) unemployment; (2) self-employment; (3) unpaid family workers; (4) wage employment; (5) inactive. The category (3) is considered as the baseline and therefore all coefficients should be read in relation to the baseline status. The exponential of the coefficient measures the impact of a given characteristics on the odds ratio of being in a given labour market status, say unemployment, rather than being involved in unpaid family business.

The estimates in the table presents only the coefficients of the variables relative to the parents' occupation. The other independent variables are the same as in table A.2.7.1.

Legend: * means p<0.05, or statistically significant at the 10 per cent level; ** means p<0.01, or significant at the 5 per cent level; and *** means p<0.001, or significant at the 1 per cent level.

The Huber/White/sandwich estimator of variance is used in place of the traditional calculation.

Source: Own elaboration on SWTS of Mongolia.

Table A.2.8.1. Augmented earnings equations by gender and age group

Variable	All	Teenagers (15–19)	Young adults (20–24)	Oldest segment (25–29)	Men	Women
Log of weekly hours	0.0959	0.2413	–0.1245	0.1752*	0.0999	0.1334
Work experience from 1 to 4 years	0.0767	0.1971	–0.0570	0.2502***	0.1199	0.0519
We 5plus	0.2210***	0.1196	0.0286	0.3950***	0.1942*	0.2359*
Women	–0.2226***	–0.0466	–0.1961*	–0.2110***	–	–
Secondary	0.1412*	0.2004	0.1998	0.0772	0.1107	0.2068*
Voctecsec	0.1627*	0.1092	0.2179	0.1270	0.0162	0.3290**
Specsec	0.4941**	0.5191	0.6052**	0.3642	0.4228*	0.5577**
Tertiary	0.6164***	–	0.7041***	0.4738***	0.6325***	0.5603***
Master	0.6836***	–	0.6382	0.6329***	0.5060*	0.5191
Studywork	–0.0752	0.2461	–0.0421	–0.0774	–0.0730	–0.0625
Fixed–term contract	0.2648***	0.2787*	0.2251*	0.2393**	0.3268***	0.2210**
Permanent contract	0.1720**	0.4724**	0.1176	0.1516	0.1931	0.2166**
Married	0.1272**	0.3797	0.0192	0.1309*	0.1772**	0.0160
Livetog	0.3452**	0.0000	0.7496**	0.2105	0.3874*	0.1999
Divsepwid	0.0028	0.0000	–0.6728*	0.0827	0.2986	–0.1125
Loneparent	0.0235	–0.2032	–0.2127	0.1204	–0.0613	–0.0003
immwithfam	–0.0917	0.0199	–0.1999	–0.0736	–0.2046**	0.1421
Immeduc	–0.1012	0.1794	–0.2977	0.1331	–0.5491	0.4294*
Immjob	–0.0107	0.1139	–0.1509	0.0334	–0.0342	0.0040
immlooking	0.0468	–2.4586***	0.1742	0.0605	0.1692	–0.1483
Union member	–0.0689	0.3985	–0.1579	–0.0511	–0.1010	–0.1062
train1	–0.0673	–0.7542	–0.0862	–0.0447	–0.1447	–0.0027
train14	–0.0262	0.1615	–0.0307	–0.0108	0.0929	0.0157
train58	–0.1845*	0.0000	–0.1817	–0.1747*	–0.2903*	–0.2608
Trainmore	–0.1406	–1.1949*	–0.3972	–0.0782	–0.2559	–0.1406
Informnet	–0.1134*	0.0102	–0.1004	–0.1706*	–0.1989*	–0.0510
Empldirect	–0.0389	0.0371	0.0406	–0.1316	–0.0019	–0.0540
Sgrops	0.5354*	0.0410	–0.0036	1.0140***	0.1519	0.9494**
Sforestry	0.4401*	0.1969	0.0435	0.5647	0.5234**	0.5011
Sfishery	0.2483	0.3993*	0.6776**	–0.1816	0.3912	–0.0633
Sminquarr	0.8785***	0.5504	0.9792**	0.9255**	0.9424***	0.8658***
Smanufact	0.3445**	0.1577	0.2995	0.5154**	0.3578*	0.3964*
Selectr	0.3471**	0.3020	0.2696	0.5007**	0.2530	0.3851
Sconstruct	0.3933**	0.4253	0.1487	0.7325***	0.3979**	0.6217*
Strade	0.5539***	0.2486	0.2311	0.8336***	0.5750*	0.5329**
Shotels	0.5360***	0.3952	0.5357**	0.4840**	0.5350**	0.4069*
Stransp	0.6160***	0.3872	0.6887***	0.6313***	0.6535***	0.5120
Stourism	0.7828	0.0000	1.3658	0.5647**	0.2702	1.5666
Scommunic	0.4745**	0.0000	0.6190*	0.5472*	0.2814	0.7246**
Sfinanc	0.3578**	–0.1559	0.1160	0.6366***	0.3555	0.4587*
Sestate	0.3751**	0.0000	0.0961	0.4188*	0.5936***	0.4634*
Spubadm	0.2766**	–0.1845	0.2204	0.4218**	0.2208	0.3783*
Seduc	0.2747*	0.0000	0.2028	0.4013*	0.1121	0.4138*
Shealth	0.6179*	–0.7104	0.0473	1.1923*	1.0487	0.3832

Variable	All	Teenagers (15–19)	Young adults (20–24)	Oldest segment (25–29)	Men	Women
Log of weekly hours	0.0959	0.2413	–0.1245	0.1752*	0.0999	0.1334
Spersserv	0.3071**	–0.0143	0.2213	0.4968**	0.2121	0.4550*
Sother	0.4955***	0.2757	0.5451**	0.5078**	0.5920***	0.3608
Arkhagngai	0.0336	0.0000	–0.1123	0.1235	0.1313	–0.3371
Bayanulgii	0.0643	–0.0197	–0.1908	0.322	–0.1877	0.5118
Bayankhongor	–0.3507***	–0.4482	–0.2929	–0.2844*	–0.2432	–0.3718**
Bulgan	0.0257	0.106	0.0079	0.0884	–0.0146	0.1955
Govialtai	–0.4193**	0.1739	–0.1803	–0.7300**	–0.4391*	–0.5010
Dornogobi	–0.0049	0.8199	0.0347	0.0401	0.0138	0.0176
Dornod	–0.1397	0.1289	–0.2107	–0.0707	–0.2571*	0.0454
Dundgobi	–0.2071	0.0317	–0.5456**	–0.071	–0.1792	–0.4413
Zavkhan	–0.0323	–0.0092	–0.0602	0.0459	0.0576	–0.0504
Uvurkhangai	–0.2252	1.0079	–0.1524	–0.3042	–0.1379	–0.6575
Umnugobi	0.0526	0.2279	0.1076	0.0422	0.0669	0.1078
Sunkhbaatar	–0.3541***	–0.3029	–0.3630**	–0.3101*	–0.3218*	–0.2479
Selenge	–0.2729***	0.0099	–0.19	–0.2537*	–0.2832**	–0.2683*
Tuv	–0.0557	–0.3398	0.2726	–0.2317	–0.1763	0.0358
Uvs	0.1183	–0.0125	0.1783	0.3155	0.2092	–0.1540
Khovd	–0.4209***	–0.1425	–0.5485**	–0.3552**	–0.5859***	–0.1649
Khuvusgul	–0.1634*	0.0207	–0.1344	–0.1588	–0.2329*	–0.0477
Khentii	–0.3287***	0.3534	–0.3862**	–0.3332*	–0.4703***	–0.2511*
Darkhanuul	–0.0099	–0.2524	0.1129	–0.012	0.0475	–0.0460
Orkhon	0.5283	–0.8057	0.527	0.9014	1.1720*	–0.4099*
Gobisumber	0.1352	0	0.01	0	0.1199	0.0000
Rural	–0.3451***	–0.2172	–0.3152*	–0.3517**	–0.2487**	–0.5506***
_cons	3.3281***	2.4550***	4.3739***	2.8195***	3.2812***	2.9800***
N	1852	165	717	970	1042	810
Ll	–2.20E+03	–1.00E+02	–8.40E+02	–1.10E+03	#######	–900.0000
Aic	4.50E+03	305.3669	1.80E+03	2.40E+03	2600.0000	1900.0000
R^2	0.38	0.60	0.41	0.38	0.40	0.46

Note: Dependent variable is the natural log of declared monthly wages.

* p<0.05; ** p<0.01; *** p<0.001

Source: Own elaboration on SWTS of Mongolia.

Table A.2.8.2. Oaxaca and Blinder decomposition of the youth GWP

Variable	Men			Women			Decomposition		
	Coefficient	Mean	Prediction	Coefficient	Mean	Prediction	Attrib	Endow	Coeff
Lhours	0.1	3.855	0.385	0.133	3.765	0.502	–11.7	0.9	–12.6
We14	0.12	0.385	0.046	0.052	0.427	0.022	2.4	–0.5	2.9
We5plus	0.194	0.417	0.081	0.236	0.299	0.07	1.1	2.3	–1.2
Women	0	0	0	0	1	0	0	0	0
Secondary	0.111	0.205	0.023	0.207	0.252	0.052	–2.9	–0.5	–2.4
Voctecsec	0.016	0.056	0.001	0.329	0.06	0.02	–1.9	0	–1.9
Specsec	0.423	0.036	0.015	0.558	0.06	0.034	–1.8	–1	–0.8
Tertiary	0.633	0.213	0.135	0.56	0.368	0.206	–7.1	–9.8	2.7
Master	0.506	0.006	0.003	0.519	0.015	0.008	–0.5	–0.5	0
Studywork	–0.073	0.097	–0.007	–0.063	0.089	–0.006	–0.2	–0.1	–0.1
Contrlim	0.327	0.292	0.095	0.221	0.4	0.088	0.7	–3.5	4.2
Contrunlim	0.193	0.107	0.021	0.217	0.14	0.03	–1	–0.6	–0.3
Married	0.177	0.475	0.084	0.016	0.485	0.008	7.6	–0.2	7.8
Livetog	0.387	0.016	0.006	0.2	0.019	0.004	0.3	–0.1	0.3
Divsepwid	0.299	0.002	0.001	–0.112	0.016	–0.002	0.2	–0.4	0.7
Loneparent	–0.061	0.009	–0.001	0	0.078	0	–0.1	0.4	–0.5
Immwithfam	–0.205	0.089	–0.018	0.142	0.119	0.017	–3.5	0.6	–4.1
Immeduc	–0.549	0.012	–0.006	0.429	0.015	0.006	–1.3	0.2	–1.4
Immjob	–0.034	0.044	–0.002	0.004	0.047	0	–0.2	0	–0.2
Immlooking	0.169	0.011	0.002	–0.148	0.007	–0.001	0.3	0.1	0.2
Union	–0.101	0.082	–0.008	–0.106	0.102	–0.011	0.3	0.2	0.1
Train1	–0.145	0.051	–0.007	–0.003	0.11	0	–0.7	0.9	–1.6
Train14	0.093	0.041	0.004	0.016	0.067	0.001	0.3	–0.2	0.5
Train58	–0.29	0.027	–0.008	–0.261	0.017	–0.005	–0.3	–0.3	–0.1
Trainmore	–0.256	0.017	–0.004	–0.141	0.016	–0.002	–0.2	0	–0.2
Informnet	–0.199	0.15	–0.03	–0.051	0.193	–0.01	–2	0.9	–2.8
Empldirect	–0.002	0.135	0	–0.054	0.194	–0.01	1	0	1
Sgrops	0.152	0.006	0.001	0.949	0.006	0.006	–0.5	0	–0.5
Sforestry	0.523	0.008	0.004	0.501	0.005	0.002	0.2	0.1	0
Sfishery	0.391	0.003	0.001	–0.063	0.001	0	0.1	0.1	0.1
Sminquarr	0.942	0.036	0.034	0.866	0.016	0.014	2	1.9	0.1
Smanufact	0.358	0.035	0.012	0.396	0.054	0.022	–0.9	–0.7	–0.2
Selectr	0.253	0.033	0.008	0.385	0.01	0.004	0.4	0.6	–0.1
Sconstruct	0.398	0.048	0.019	0.622	0.015	0.009	1	1.3	–0.3
Strade	0.575	0.061	0.035	0.533	0.112	0.06	–2.5	–2.9	0.5
Shotels	0.535	0.014	0.008	0.407	0.069	0.028	–2	–2.9	0.9
Stransp	0.653	0.064	0.042	0.512	0.017	0.009	3.3	3.1	0.2
Stourism	0.27	0.01	0.003	1.567	0.009	0.014	–1.1	0	–1.1
Scommunic	0.281	0.006	0.002	0.725	0.016	0.012	–1	–0.3	–0.7
Sfinanc	0.355	0.031	0.011	0.459	0.048	0.022	–1.1	–0.6	–0.5
Sestate	0.594	0.007	0.004	0.463	0.01	0.005	–0.1	–0.2	0.1
Spubadm	0.221	0.1	0.022	0.378	0.078	0.029	–0.7	0.5	–1.2
Seduc	0.112	0.052	0.006	0.414	0.156	0.064	–5.9	–1.2	–4.7
Shealth	1.049	0.015	0.016	0.383	0.035	0.013	0.3	–2	2.3

Variable	Men			Women			Decomposition		
	Coefficient	Mean	Prediction	Coefficient	Mean	Prediction	Attrib	Endow	Coeff
Spersserv	0.212	0.056	0.012	0.455	0.062	0.028	–1.6	–0.1	–1.5
Sother	0.592	0.024	0.014	0.361	0.01	0.004	1.1	0.8	0.2
Arkhagngai	0.131	0.029	0.004	–0.337	0.019	–0.006	1	0.1	0.9
Bayanulgii	–0.188	0.063	–0.012	0.512	0.052	0.027	–3.8	–0.2	–3.6
Bayankhongor	–0.243	0.062	–0.015	–0.372	0.083	–0.031	1.6	0.5	1.1
Bulgan	–0.015	0.019	0	0.195	0.032	0.006	–0.7	0	–0.7
Govialtai	–0.439	0.025	–0.011	–0.501	0.006	–0.003	–0.8	–0.8	0
Dornogobi	0.014	0.027	0	0.018	0.037	0.001	0	0	0
Dornod	–0.257	0.036	–0.009	0.045	0.036	0.002	–1.1	0	–1.1
Dundgobi	–0.179	0.035	–0.006	–0.441	0.017	–0.008	0.1	–0.3	0.5
Zavkhan	0.058	0.044	0.003	–0.05	0.04	–0.002	0.5	0	0.4
Uvurkhangai	–0.138	0.032	–0.004	–0.657	0.012	–0.008	0.4	–0.3	0.6
Umnugobi	0.067	0.04	0.003	0.108	0.037	0.004	–0.1	0	–0.2
Sunkhbaatar	–0.322	0.059	–0.019	–0.248	0.053	–0.013	–0.6	–0.2	–0.4
Selenge	–0.283	0.032	–0.009	–0.268	0.031	–0.008	–0.1	0	0
Tuv	–0.176	0.015	–0.003	0.036	0.023	0.001	–0.4	0.1	–0.5
Uvs	0.209	0.022	0.005	–0.154	0.007	–0.001	0.6	0.3	0.3
Khovd	–0.586	0.036	–0.021	–0.165	0.032	–0.005	–1.6	–0.3	–1.4
Khuvusgul	–0.233	0.072	–0.017	–0.048	0.09	–0.004	–1.2	0.4	–1.7
Khentii	–0.47	0.026	–0.012	–0.251	0.036	–0.009	–0.3	0.5	–0.8
Darkhanuul	0.047	0.028	0.001	–0.046	0.028	–0.001	0.3	0	0.3
Orkhon	1.172	0.022	0.026	–0.41	0.023	–0.01	3.5	–0.2	3.7
Gobisumber	0.12	0.001	0	0	0	0	0	0	0
Rural	–0.249	0.391	–0.097	–0.551	0.291	–0.16	6.3	–2.5	8.8
_Cons	3.281	1	3.281	2.98	1	2.98			
Subtotal							–26.6	–16.6	–10

Source: Own elaboration on SWTS of Mongolia.

Employment Working Papers

2008

1 Challenging the myths about learning and training in small and medium-sized enterprises: Implications for public policy
David Ashton, Johnny Sung, Arwen Raddon and Trevor Riordan

2 Integrating mass media in small enterprise development. Current knowledge and good practices
Gavin Anderson. Edited by Karl-Oskar Olming and Nicolas MacFarquhar

3 Recognizing ability: The skills and productivity of persons with disabilities. A literature review
Tony Powers

4 Offshoring and employment in the developing world: The case of Costa Rica
Christoph Ernst and Diego Sanchez-Ancochea

5 Skills and productivity in the informal economy
Robert Palmer

6 Challenges and approaches to connect skills development to productivity and employment growth: India
C. S. Venkata Ratnam and Arvind Chaturvedi

7 Improving skills and productivity of disadvantaged youth
David H. Freedman

8 Skills development for industrial clusters: A preliminary review
Marco Marchese and Akiko Sakamoto

9 The impact of globalization and macroeconomic change on employment in Mauritius: What next in the post-MFA era?
Naoko Otobe

10 School-to-work transition: Evidence from Nepal
New Era

11 A perspective from the MNE Declaration to the present: Mistakes, surprises and newly important policy implications
Theodore H. Moran

12 Gobiernos locales, turismo comunitario y sus redes
Memoria: V Encuentro consultivo regional (REDTURS)

Employment Sector

For more information visit our site:
http://www.ilo.org/employment

International Labour Office
Employment Sector
4, route des Morillons
CH-1211 Geneva 22

Email: edempdoc@ilo.org