



Improving the Mongolian Labor Market and Enhancing Opportunities for Youth

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Preface

Despite a slowdown in 2014, Mongolia has experienced rapid economic growth in recent years, with real per capita gross domestic product increasing by an annual average of 6.7 percent from 2000 to 2013. This growth has been driven largely by infrastructure spending and strong fiscal and monetary stimulus measures fueled by major strides in natural resource exploitation. One challenge the government now faces is to develop a robust labor market that is responsive to the needs of a fast-growing economy and that can promote sustained economic growth and development.

RAND has joined with the new Institute for Labour Studies of the Mongolian Ministry of Labour to diagnose key issues in labor-market performance, jointly conduct a survey on Mongolian youth—a labor-market issue of importance to Mongolian policymakers—engage in capacity building, and provide recommendations for policy measures to improve the labor market and enhance opportunities for youth. This report provides a diagnosis of key issues in labor-market performance, the results of the youth survey, and policy implications.

The Mongolian Ministry of Labour sponsored this research. This report should be of interest to Mongolian policymakers, Mongolian analysts focusing on the labor market, and researchers more generally interested in developing country labor markets.

RAND Labor and Population

This research was undertaken within RAND Labor and Population. RAND Labor and Population has built an international reputation for conducting objective, high-quality, empirical research to support and improve policies and organizations around the world. Its work focuses on labor markets, social welfare policy, demographic behavior, immigration, international development, and issues related to aging and retirement with a common aim of understanding how policy and social and economic forces affect individual decisionmaking and the well-being of children, adults, and families. For more information on RAND Labor and Population please contact Krishna Kumar, Director, RAND Labor and Population, at kumar@rand.org.

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Summary

Mongolia has experienced dramatic economic growth in the 2000s, exceeding global trends. Advances in foreign direct investment and the mining of natural resources, along with infrastructure spending and, more recently, strong fiscal and monetary stimulus measures, have driven much of this growth. The country faces significant challenges in terms of creating jobs without overly relying on public spending fueled by natural resource exploitation. In 2014, the Mongolian government commissioned RAND to carry out a study of the labor market, in collaboration with the Institute for Labour Studies (ILS) of the Mongolian Ministry of Labour. Using a supply-demand framework, this study analyzed the Mongolian labor market with the aim of identifying where it is performing well, where it is underperforming, and whether there are constraints to improved performance. The report provides a special focus on youth education and labor-market issues, using a new survey developed by the ILS and RAND. ILS and RAND teams chose this special focus because of the importance of youth labor-market transitions to the economic future of the country and because analysis of Mongolian labor-force data showed relatively high rates of youth who were not in school or the labor market compared with a variety of other economies, including other similar transition economies. The Mongolian Ministry of Population Development and Social Welfare recently recognized this importance by announcing 2015 as the year of youth development. The ILS-RAND Mongolian Youth Survey is a nationwide survey that provides new insights into the challenges faced by youth, as well as their achievements and aspirations, to inform the development of policy to address these concerns.

Labor Supply

Mongolia's labor-force participation is low compared with that of other small transition countries, averaging 63.4 percent between 2000 and 2012, according to international data. Mongolia's employment-to-population ratio is also below average. Mongolia's labor-force participation rate for females age 50 and over is especially low. Less concerning is the low labor-force participation rate for youth, because some are attending school. In fact, the ILS-RAND Mongolian Youth Survey reinforces the idea that youth are getting an education rather than going into the labor market. The labor-force participation rate is especially low for youth ages 15 to 19 and low for youth ages 20 to 24, both school-age groups. It is also low for people who have completed only a basic or secondary education, likely because many of these people are still getting an education.

One area of concern involves barriers to finding a job. In the context of labor-force participation, inability to find a job might drive people completely out of the labor market because of

discouragement. We found that more than one-fifth of youth said that their biggest obstacle to finding a job is education-related. Many also said that they lacked work experience, something the educational system could help remedy as well—for example, via internships.

Youth Not in Employment, Education, or Training

Despite increasing trends in education enrollment, there is cause for concern about youth who are unemployed or not working or attending school, also referred to as *not in employment, education, or training* (NEET). In 2013, more than one-fifth of all young people in Mongolia ages 15 to 29 were NEET. Some of these young people are searching for a job, and are thus technically in the labor force but unemployed. Some are out of the labor force but engaged in household activities, and are thus presumably doing socially useful tasks. On the other hand, some are not contributing at all, or are idle. We found a high rate of unemployed NEET males in *aimags*, or province, centers, and we also found high rates of idleness among males in Ulaanbaatar.

NEET youth present a challenge to policymakers concerned about the economy. These youth are not building their own human capital through education or training, and they are not contributing to their own welfare or the economy through employment. If they are doing household activities, they are contributing by taking care of the household, but if they are unemployed or idle, then their contribution to their own welfare and the economy is extremely limited. This also harms future economic progress because employment while young can help build skills for future employment achievement.

According to the ILS-RAND Mongolian Youth Survey, NEET youth value family and want to contribute to society, as do non-NEET youth who are in school or employed. But NEET youth cite certain barriers to employment that are less cited by non-NEET youth. These include not enough education, lack of information about the availability of work, and problems at home.

Labor Demand

On the labor demand side, Mongolia's educational trends appear to be positive. This means that labor is becoming more productive, which spurs demand for labor. The educational level of the workforce is rising, school enrollments are rising, and educational achievement is broadening so that many more people are currently completing secondary school than were completing secondary school in the past.

Many people work in a field that is related to their courses of study in university. For those who do not, they are most likely to work in the service and sales fields. This is not necessarily a bad outcome. Ideally, education will prepare young people with a package of skills that they can apply to a variety of jobs, enabling them to choose the type of job that is most suited to their skills, education, and personality.

In the survey, we found that many people in Mongolia are studying or plan to study in a science, technology, engineering, and mathematics (STEM) field. Knowledge of such a field can lead to high-productivity jobs since technical knowledge is valued in many industries and because there are strong complementarities between technical skill and capital equipment,

such as computers or advanced machinery. However, it is important that such students also learn soft skills so that they have the flexibility to succeed in a variety of environments and jobs.

Education also appears to pay off in terms of earnings. Each additional year of education results in an earnings increase of about 9 percent to 10 percent. This is on par with the effects of education internationally. In addition, technical and vocational education and training (TVET) appears to pay off. According to statistical analysis drawing on data from the Mongolian Household Socioeconomic Survey, TVET graduates earn well above the amount earned by secondary school graduates, although less than the amount earned by university graduates. According to the ILS-RAND Mongolian Youth Survey, TVET graduates earned as much as university graduates, although in a much wider range, indicating that populationwide TVET earnings might well be below the earnings of university graduates.

One gap on the demand side is that employers are demanding but not finding enough of some skills that the Mongolian labor market so far has not been able to provide. This appears to be especially true of practical skills and soft skills, such as teamwork and communication skills. Our interviews with employers suggested there are gaps in soft skills, critical thinking, and other general skills that are necessary for workplace success and are not being taught as well as they could be.

Unemployment and Employment Outcomes

In terms of unemployment, we found that it is low and has been decreasing for the past decade. That is, people who seek work at the prevailing level of compensation can generally find it. The one area where unemployment appears to be a problem is in aimag centers, meaning urban areas outside Ulaanbaatar. Nonetheless, while unemployment might be low, low-productivity jobs predominate in the form of informal employment and animal husbandry. Despite this, there is growth in the formal sector. More-productive forms of employment, such as formal wage and salary employment, and the more-productive sectors, such as mining and quarrying, are expanding.

Among youth, the ILS-RAND Mongolian Youth Survey also found low unemployment and extremely low long-term unemployment, meaning unemployment of more than six months or one year. This might have been because some of the survey took place during the summer, when seasonal work is more plentiful. But it also could be because it is not difficult to find a job in Mongolia.

Employed youth are generally satisfied with their jobs but express their greatest dissatisfaction about the distance between their jobs and their homes. Those who aspire to employment prefer to work in services, and few desire to work in agriculture. For those who do not aspire to work, family responsibilities or education are usually the cause. The majority of those seeking work would prefer not to change locations to find it, but for those who would change locations, Ulaanbaatar would be the destination of choice.

Notably, those who look for work tend not to use government or private-employment offices and tend not to use government services more generally. The difference between the use of government and private-employment offices might not be meaningful, since no office is permitted to charge for its services. Instead, all are funded by the government. Because private

offices cannot charge differently for their services, they have no profit incentive to innovate and create new services that might be more costly but more effective.

Types of Employment

As we noted, the Mongolian unemployment rate is low and has been declining. Even though unemployment is low, employment is not necessarily satisfactory. We divided employment two ways. First, we divided employment by type: formal, informal, and animal husbandry. Second, we divided employment by sector: agriculture, mining, industry, and services.

In Mongolia, low-productivity jobs predominate in informal employment and animal husbandry. We do find, however, that the more-productive forms of employment, such as formal wage and salary employment, and the more-productive sectors, such as mining and quarrying, are expanding. This suggests that the trend regarding the quality of employment is positive.

Among youth, the majority of those employed work in formal employment. Formal employment provides work with the fewest hours per week and days per month, but the highest income. Youth also labeled it more agreeable than informal employment or animal husbandry. The greatest benefit of animal husbandry was reported to be autonomy at work, while the biggest problem of formal and informal employment was the distance from home to work. Among the three types of employment, youth in informal employment are most likely to want to change jobs, but those in all three types of employment who want to change and relocate are most likely to move to Ulaanbaatar.

Youth in all three types of employment have a strong preference for a TVET or university education. Their actions appear to mirror their preferences, except in the case of animal husbandry. In that type of employment, the proportion of youth that expects to complete only a basic education is *higher* than the proportion that believes that more than a basic education is needed for a decent job. This might suggest that there are barriers to education in rural areas.

In terms of sectors, the majority of youth work in services, and very few youth work in mining. Although, on average, mining pays well and can produce high amounts of government revenue, it rarely employs a large share of the workforce anywhere in the world. In Mongolia, services provide the opportunity for working the fewest hours per week and the fewest days per month, although mining pays the best. Agriculture lags on all three dimensions. Where agriculture outranks the other sectors is in the closeness of home to work. For the three other sectors, youth find distance to work to be the most disagreeable part of their jobs. Where youth in all four sectors agree is that they all feel that their coworkers are treated relatively well, and for those who would relocate for a new job, most would choose Ulaanbaatar.

Policy Implications

The Mongolian labor market is strong in many dimensions, and some trends, such as the level of education and the degree of formality, are moving in a positive direction. But there are also problems. In this section, we provide policy suggestions for addressing these problems and further improving the employment situation in Mongolia. In addition, our methods and findings might have implications for other developing countries. In particular, such countries can ben-

efit from fielding a localized version of the ILS-RAND Mongolian Youth Survey. In addition, many of the findings are likely to be true of other countries, and so the policy recommendations for addressing these findings can provide a useful guide.

We present a summary of policy recommendations in Table S.1, along with noting two potential criteria: whether implementation will be easy, medium, or hard, and whether implementation can take place in the short term, medium term, or long term. We based these criteria on an assessment of what could be involved in implementing these recommendations. A recommendation that is considered hard and long-term will require multiple investments or initiatives, including establishing new institutions or building new infrastructure. The recommendation might involve making significant changes to existing policies or writing new laws. It will also likely be a multiyear effort. On the other hand, an easy, short-term recommendation to implement is one that can build on programs and institutions that are already in place and can be implemented within six months to a year. Mongolian policymakers will need to determine additional criteria by which to judge these policy directions and then decide which criteria are most important, as a means of prioritizing which policies to introduce first.

Implementing these policies and programs cannot be the responsibility of only the Ministry of Labour. They touch on other ministries as well, particularly the Ministry of Education, Culture, and Science and the Ministry of Population Development and Social Protection. Therefore, considerable intergovernmental coordination might be required.

Education at All Levels

The main problem of the Mongolian labor market is not the unemployment rate but rather the quality and productivity of employment. One of the determinants of these is the set of skills of the workforce. The trends in educational attainment and enrollment in Mongolia are positive, and education pays off strongly. However, barriers to accessing education remain, as reported by youth out of the labor force, NEET youth, and youth in low-productivity sectors. There are four areas for improvement.

Access: There might be barriers to general education and to professional courses and qualification training, especially among rural youth, but also among NEET youth—young people out of education who might want to go back for additional education or some form of training. There could be geographic, financial, and psychosocial barriers to completing education. Solutions could include greater information outreach, travel and relocation assistance, and greater adult support, such as guidance counselors or social workers, or peer support provided by older students.

Content: Youth noted a mismatch between their education and the needs of the labor market. Employers also noted that new employees often lacked certain soft skills. Educational reforms could include additional instruction involving soft skills, such as presentation skills and teamwork, and critical thinking, in which students, no matter what they are studying, are taught to evaluate arguments and provide their own reasoned case for or against a cause of action.

Career guidance: Young people in the ILS-RAND Youth Survey indicated a strong desire to work and a desire for jobs in which they could develop their skills. But they do not necessarily know which sectors have those jobs or how to prepare for such jobs. Greater efforts at instituting career guidance throughout education would help young people better prepare for their transition from school to work.

Table S.1
Steps to Improve the Mongolian Labor Market

Policy Area and Policy	Implementation	
	Ease	Time
Education at all levels		
Ensure access, especially for rural and NEET youth	Hard	Medium term
Incorporate the education of soft skills and critical thinking	Hard	Medium term
Provide greater career guidance throughout education	Medium	Short term
Strengthen and formalize internships to provide practical training	Easy	Medium term
TVET		
Move toward international standards in the new qualifications framework	Hard	Medium term
Increase cooperation and consultation with the private sector	Easy	Short term
In the long term, consider consolidation of TVET institutions	Hard	Long term
Enhance short-term training	Medium	Medium term
Enhance coordination between the ministries of Labour and Education, Culture, and Science	Easy	Short term
NEET youth		
Use the school system to identify and intervene early with youth at risk of NEET	Medium	Medium term
Provide more guidance and counseling when problems are present	Hard	Medium term
Improve the investment climate in aimag centers	Hard	Long term
Government employment services		
Conduct evaluations of government services' accessibility and quality	Medium	Medium term
Conduct outreach in schools and youth-serving organizations	Easy	Medium term
Introduce competition by allowing private offices to charge fees	Easy	Short term
Social welfare and other programs		
Continue social welfare reforms considering labor-market effects and using conditional cash transfers	Hard	Medium term
Continue pension reforms considering labor-market effects	Medium	Medium term
Improve transportation links	Medium	Medium term
Future labor-market research		
Repeat the ILS-RAND Mongolian Youth Survey	Easy	Short term
Launch a longitudinal survey of youth	Medium	Medium term
Conduct a labor-market needs assessment (employer survey)	Medium	Medium term
Investigate job-market motivations and barriers for women	Easy	Short term
Investigate job-market motivations and barriers for older people	Easy	Short term
Investigate job-market motivations and barriers for the disabled	Easy	Short term

Practical skills: Employers noted a wide gap between educational content and practical skills. This is to be expected to a certain extent from people without labor-market experience. This gap in practical skills can be remedied through expanded opportunities for internships and career guidance. Even secondary school students, as opposed to TVET and university students, could benefit from internships in which they are introduced to workplace behaviors and opportunities.

Strengthening and Integrating TVET Reforms

Mongolia has embarked on major reforms of its TVET institutions, including improving the curriculum, improving equipment, and upgrading the skills of instructors. However, the TVET system is also at a crossroads. To continue with the reforms and ensure sustainment, the system must further strengthen and integrate these reforms. This study identified a number of areas to focus on in the coming years.

International standards: Mongolia is changing the TVET curriculum to meet the new five-level Mongolian Qualifications Framework. The plan is for these levels not to be comparable to the levels of advanced-country qualifications frameworks. But Mongolia would benefit if it were a long-term goal for Mongolian qualifications to be of the same quality as international qualifications. That would ensure high standards and make Mongolian TVET graduates more desirable for international investors.

Coordination with the private sector: Legally, the TVET system coordinates with the National Council on Vocational Education and Training. It might be useful to go beyond the legal requirements and establish formal and regular coordination mechanisms with other industry groups. If such groups do not exist, they should be created, starting with major Mongolian companies and foreign investors. In addition, regular surveys of employers, including assessments of the needs of the labor market, with the results made public, could provide a boost to improving the TVET system. Such regular coordination with employers could boost the probability of success of other potential reforms, such as the introduction of apprenticeship programs.

Consolidation: Over the long term, policymakers should consider consolidating the TVET system into fewer, but higher-quality, institutions. Consolidation will allow economies of scale, as well as better opportunities for upgrading the skills of instructors. Because Mongolia is a large and sparsely populated country, and because access to education and training is already a problem, this must be handled carefully. Specifically, consolidation should be done only in tandem with policies that help youth find the right TVET institution and attend it.

Short-term training: Related to TVET is the role of the professional education centers. These institutions, which provide short courses in the trades and other occupations, play an important role in rehabilitating skills of both youth and adults, but government officials suggested in interviews that professional education centers face some of the same challenges that TVET institutions do. The centers lack a strong practical component, and the quality of the materials, trainers, and the infrastructure requires improvement. It is also important to ensure better coordination between TVET institutions, the professional centers, and employers.

Enhance interministerial cooperation. For TVET to achieve higher quality, it will need cooperation between the Ministries of Labour and Education, Culture, and Science, even though it is currently the responsibility of the Ministry of Labour. This is particularly true in the education of soft skills and critical thinking, where Ministry of Education, Culture, and Science curriculum specialists will add value.

NEET Youth and Aimag Centers

Mongolia has a high NEET rate and a problem of unemployed youth and idle youth, particularly males, and particularly in aimag centers and Ulaanbaatar. Idle youth are young people who are not in employment, education, training, household activities, or job-seeking activities. These youth represent a particular problem for both the present and the future. The study suggests a number of areas that could be targeted to assist these youth, and NEET youth more generally.

Early identification: NEET youth come predominantly from homes where parents do not have jobs, where parents have low levels of education, and in which incomes are low. These youth might also exhibit characteristics and behaviors that suggest they might have trouble transitioning to adulthood. Early identification can take place in the school system, since that is the one institution in which all youth participate. Such early identification should then be followed by interventions to help ensure that youth get the tools they need to continue education or find employment.

Greater counseling: NEET youth have similar aspirations as non-NEET youth, but they might face different barriers. Education is one of these, and was discussed above. Another cited issue is problems at home. NEET youth might be more likely to face social or personal problems that keep them from achieving the level of education or employment they desire.

A notable proportion of the NEET group gains their income from social programs, suggesting that there are already some programs applicable to them. Further investigation would be useful to determine whether these youth could benefit from more information regarding education, training, and employment opportunities.

Improving the investment climate in aimag centers: The problems of NEET youth are compounded by the poor labor-market situation in aimag centers. These areas feature the highest unemployment in Mongolia and other negative labor-market indicators. Better infrastructure linking aimag centers to Ulaanbaatar and to world markets would make them better places for investment. Zones could be created that feature more business-friendly laws and regulations, reducing the cost of investment. The ultimate goal is to put in place the conditions to create a virtuous circle in which successful businesses attract more investment, giving more reason to workers to stay.

Government Employment Assistance

The ILS-RAND Mongolian Youth Survey found that few youth rely on government employment offices or other services, or private-employment offices, for job assistance. There could be two reasons for this. One could be effectiveness—youth might have found that these offices and services are not helpful. The second could be informational—youth might not know of the existence of these offices or what they do. This suggests a number of policy measures.

Evaluate government services: Because of the potential benefit that a strong employment services program can bring to Mongolia, these services should be evaluated periodically, preferably by independent, third-party evaluators. Such evaluations would investigate how well the services are meeting their goals, particularly outcomes of the services, rather than such inputs as money spent. Once problems are identified, solutions can be implemented through pilot programs, which could then be broadened once proved effective.

Provide information about services more broadly: Employment offices are present throughout Mongolia. Greater awareness could be created through a specific outreach program

to students during the first year of secondary school or the first year of TVET education, and then refreshers each subsequent year.

Introduce greater competition for innovation: Currently, no employment office can charge for its services. All, private and public, are funded by the Employment Support Fund. A pilot program allowing private offices to charge for services should be instituted. Such a program would provide the incentive for offices to improve their services, and either job seekers or employers could bear the cost. The goal is to spur competition and innovation, and in the end, it matters little whether people in Mongolia find jobs because of government assistance or private assistance. It matters only that they find productive employment and rewarding careers.

Social Welfare and Other Programs

Programs designed to provide social support might also provide a disincentive to joining the labor force. This is especially true of programs that provide additional income. The recipient might find that with the social support, there is no need—or less of a need—to find a job. Mongolia has a large number of social welfare programs, but expenditures on the 68 programs funded by the Social Welfare Fund under the Social Welfare Law constitute only a small proportion of gross domestic product (GDP) and, consequently, are unlikely to affect the labor market. However, there are other programs that could affect the labor market, such as pensions or a program offering lifetime payments to mothers with certain numbers of children. This study suggests a number of approaches to consider these and other social welfare programs.

Continue reforms to social welfare programs considering labor-market effects and using conditional cash transfers: The country is currently undergoing a reform of its social welfare programs. The negative effects of such programs on the labor market are not necessarily bad: Although government programs might have negative implications for the labor market, they might also have positive implications for human welfare. Conditional cash transfers are an example of a tool that some governments use to achieve both economic and human welfare goals. Recipients receive some benefit, but in return they must meet some condition, such as sending their children to school or actively seeking employment.

Continue pension reforms: Pension and retirement laws present a prime example of a policy that can fulfill a purpose in one area—providing support to older people—while harming goals in another—suppressing labor-force participation. Data show that labor-force participation of older women is much lower than that for men, and this is likely attributed to the pension age for women being lower than for men. Labor-force participation rates examined in the study show that women begin exiting the labor force starting at age 50, when some are eligible for retirement, while labor-force participation for men begins to drop closer to 60 years of age. Mongolia has begun introducing reforms to change the program from defined benefit to defined contribution, which will provide incentives for people to stay in the labor market so they can contribute more toward their pensions.

Improving transportation to work: In the ILS-RAND Mongolian Youth Survey, youth in formal and informal employment, as well as youth in mining, industry, and services, all noted that one of the least agreeable aspects of their work was the distance from home to work. It is not clear that this presents a barrier to improving the labor market, but it might. If so, there are solutions. If the issue is one of transportation, then options include better public transport; a better, more efficient road network; and better transportation demand management. If the issue is a lack of affordable housing near workplaces, then solutions include remov-

ing regulatory barriers that might exist to mixed-income housing or building new neighborhoods near employment sites.

Future Directions for Research

Mongolia has an effective and capable National Statistical Office, a growing number of foreign-trained academics capable of conducting research at international standards, and the ILS, a new, high-potential labor research center of the Ministry of Labour. Already, the ILS has produced numerous useful reports, including annual barometer surveys and a ten-year labor supply-demand forecast. Besides the analytic directions mentioned earlier, such as an evaluation of government labor support and evaluations of future social welfare programs, we recommend a number of other studies.

First, there is great value in repeating the ILS-RAND Mongolian Youth Survey at regular intervals. Repeating the survey will help policymakers understand whether the use of government programs is rising, whether young people are meeting their educational goals, and whether barriers to employment are being lowered. A variation to the current youth survey is to create a national longitudinal survey of youth to follow a specific cohort through time to specifically see how they grow and meet their aspirations for education and employment. Given that our overall diagnosis of the Mongolian labor market revealed low labor-force participation among older women—and, to some extent, women in general—compared with men, surveys to assess the labor-market motivations of women and barriers to their participation could help bring more women into the labor market and keep them there. Moreover, a survey of the motivations of older Mongolians in general and barriers to their participation could also help explain whether older people might want to work but find accessing job opportunities difficult. Likewise, a survey focusing on the disabled population could further help identify the size of this population and the potential contribution of disabled people to the labor market. Finding new ways to assist their participation in the labor force could help both them and Mongolia. The aforementioned surveys focus on groups of people; a needs assessment of the labor market—which consists of surveying employers to learn what skills they need in their businesses, where the biggest skill gaps are, and whether such gaps are harming the potential for business expansion and economic growth—would address questions regarding labor demand.

Finally, analysts should work to establish evidence on causal relationships between specific programs or policies and economic outcomes, and between macroeconomic performance and the labor market. We noted that government services should be evaluated, but this can go further. In the area of establishing the relationship between policies and outcomes, randomized controlled trials and other rigorous methods to determine causal mechanisms will be useful, as will designing policies to include a monitoring and evaluation component that can incorporate improvements during implementation. In the area of macroeconomic performance and labor-market outcomes, using a computable general equilibrium model or other macroeconomic simulation model can help clarify the pathways from, for example, commodity prices to employment or tariff changes to wages.

The Way Forward

Despite many positive achievements, there are a variety of areas in the Mongolian labor market that would benefit from policymaker attention. Policymakers must first decide the criteria (for example, effectiveness, cost, political feasibility, ease of implementation, equity across the population, equity across geography) against which they want to evaluate proposed policies. Policymakers should also adopt the idea of innovation and experimentation in policies, and build in formal evaluation to provide evidence on what works and how to make improvements.

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Introduction

Even with a slowdown in 2014, Mongolia has experienced dramatic economic growth in the 2000s. A small country with a population of 2.9 million, Mongolia has had real per capita gross domestic product (GDP) averaging annual increases of more than 6.7 percent from 2000 to 2013, more than 5.4 percentage points above global economic growth. Growth of 15.8 percent from 2010 to 2011 and 10.6 percent from 2011 to 2012 was especially high, with only one economy growing faster in 2011 (Macao) and two growing faster in 2012 (Sierra Leone and Afghanistan).¹

Advances in foreign direct investment and the mining of natural resources, along with infrastructure spending and, more recently, strong fiscal and monetary stimulus measures, have driven much of this growth. Worldwide, however, mining does not employ large proportions of any country's workforce. Although government infrastructure spending does, it is not considered by experts to be a long-term sustainable job creation tool by itself. Also, stimulus is necessarily only temporary. Mongolian policymakers are therefore faced with a set of labor-market challenges:

- How can they take advantage of this rapid economic growth to create the conditions for the creation of new jobs?
- How can they create the conditions for jobs that pay well?
- How can they enhance the absorption of the large present and future cohorts of youth into the labor market?

This report presents two aspects of the labor market to help meet these challenges. First, it presents an overview of the Mongolian labor market, with the aim of identifying where it is performing well, where it is underperforming, and whether there are constraints to improved performance. Second, it reports the results of a new, comprehensive youth survey fielded in 2014. The report is produced as part of a policy research project conducted by the Institute for Labour Studies (ILS) of the Mongolian Ministry of Labour and the RAND Corporation. ILS and RAND jointly prepared the survey and its analysis plan.

¹ GDP data are from the World Bank's World Development Indicators (<http://data.worldbank.org/data-catalog/world-development-indicators>) and are measured in constant 2005 U.S. dollars.

Youth Issues

We especially focus on the youth population, defined in Mongolia as ages 15 to 34. We focus on the youth population in this study for several reasons.

First, Mongolia has a young population. Estimates indicate that almost 36 percent of the population was below age 20 as of midyear 2014 (U.S. Census Bureau, 2013). Based on the same data source, in the same year, youth constituted more than 55 percent of the working-age population, defined as ages 15 to 64 (U.S. Census Bureau, 2013).² The youth cohort is projected to remain more than half the working-age population through 2017 and then remain at a still-high 43 percent by 2030 (U.S. Census Bureau, 2013). Given the demographic trends, youth access to education and work will be key policy questions in Mongolia for many years to come.

Second, the youth population today is tomorrow's Mongolian workforce, and the level of its human capital will determine the nation's future productivity and the size of Mongolia's future economy. The choices and decisions that youth make today, therefore, have important implications for the future. Moreover, the problems youth face today, if not addressed, will be the same problems new youth will face tomorrow. Policymakers in Mongolia are keenly interested in identifying ways to guide youth choices so that they contribute toward their own individual well-being and the future well-being of Mongolian society. To the extent that the constraints and obstacles youth face today can be addressed through policy actions, Mongolia will be better off economically in the future.

Third, low levels of youth employment and human capital have been of concern to many countries around the world, particularly transition countries and developing countries, but even some developed countries. Studying this problem will help reveal the underlying reasons and the potential policy remedies to address them. Leaving them unaddressed might contribute in the future toward previously mentioned economic problems, and also such social problems as risky behaviors and crime. Thus, Mongolia's experience addressing this issue is as important to the world as is the experience of countries around the world to Mongolia.

We are not alone in this focus. In March 2015, the Mongolian Ministry of Population Development and Social Welfare announced 2015 as the "Year of Youth Development" (E. Orgil, 2015).

The Mongolian Economy and Labor Market

For much of the twentieth century, Mongolia was a Soviet-dominated communist economy. With the downfall of the Soviet Union, Mongolian policymakers chose to reform rapidly into a market-driven economy. Economic performance in the immediate post-Soviet period was grim, with real per capita GDP declines of more than 10 percent in 1991 and 1992. Since 1995, however, except for only two years, real per capita GDP has grown faster in Mongolia than in the world. In 2013, Mongolian nominal per capita GDP was more than \$4,000, well above its post-communist trough of \$340 in 1993.³

² U.S. Census Bureau population data are based on country sources.

³ Real per capita GDP in 2005 U.S. dollars in 2013 and 1993 was \$1,796 and \$655, respectively.

The mining sector has been a driving force in Mongolia's economic growth, contributing 15.7 percent of GDP in 2012 (World Bank, 2013a). The mining share of GDP reached a record high of 20 percent in 2011 (twice the share of a decade earlier). In addition, the sector has contributed around a third of total government revenue and the vast majority of exports—90 percent in 2011 (International Bank for Reconstruction and Development, International Development Association, International Finance Corporation, and Multilateral Investment Guarantee Agency, 2012). Even with an economic slowdown, growth is projected to remain high. The Asian Development Bank's *Asian Development Outlook 2014: Update* issued revised GDP growth projections of 6.0 percent in 2014 and 7.5 percent in 2015, spurred by further development in mining (Asian Development Bank, 2014a). This emphasis on mining as an input into growth is expected to continue. Looking further into the future, the chief executive officer of Oyu Tolgoi LLC (OT), a major mining project, predicted that OT alone will contribute 33 percent of the GDP by 2020 (Hill, 2011).

The mining sector has been and is likely to remain a small employer. As an economy that has traditionally relied on herding and agriculture, Mongolia's agricultural sector still absorbed the largest share of the labor force in comparison with other sectors, as of 2013. However, there is a clear declining trend of employment in agriculture and an increase in employment in other sectors. As of February 2013, the share of employment in agriculture was 28.9 percent, down from 46.6 percent in 2003. Most other sectors experienced increases: Employment in wholesale, retail, and accommodation rose to 17.8 percent from 11.3 percent, employment in public administration and education rose to 15.4 percent from 7.3 percent, employment in manufacturing and energy rose to 9.5 percent from 7.1 percent, employment in construction rose to 6.2 percent from 2.0 percent, and employment in mining rose to 4 percent from 2.7 percent (World Bank, 2013b, Figure 21, p. 19; Morris and Bruun, 2005, Table 5, p. 24).⁴

Work by the ILS suggests that employment in the mining sector will almost double between 2012 and 2022, but will still constitute only 7.2 percent of total employment (ILS, Human Resources Development Service of Korea, and Gerege Partners LLC, 2013). In contrast, even though the agricultural sector is expected to fall further in both absolute and relative terms, the institute estimates that it will still constitute 25.2 percent of all employment in 2022 and will remain the largest sector.⁵

As the structure of the Mongolian economy has changed, so has the settlement pattern of the country. Migration from rural areas to urban centers or mining areas has increased. Average annual growth in the urban population was projected to be 2.8 percent from 2010 to 2015, whereas average annual growth in the rural population was projected to be -1.4 percent during the same period (United Nations, 2013). Most of the Mongolian population now lives in urban areas (Ulaanbaatar and *aimag*, or province, centers), and more than 40 percent lives in the capital city of Ulaanbaatar (United Nations Population Fund, n.d.).⁶

⁴ Employment in other sectors registered 11.3 percent in 2013 (World Bank, 2013b).

⁵ In contrast to World Bank, 2013b, ILS reported that the agricultural sector constituted 35.2 percent of all employment in 2012.

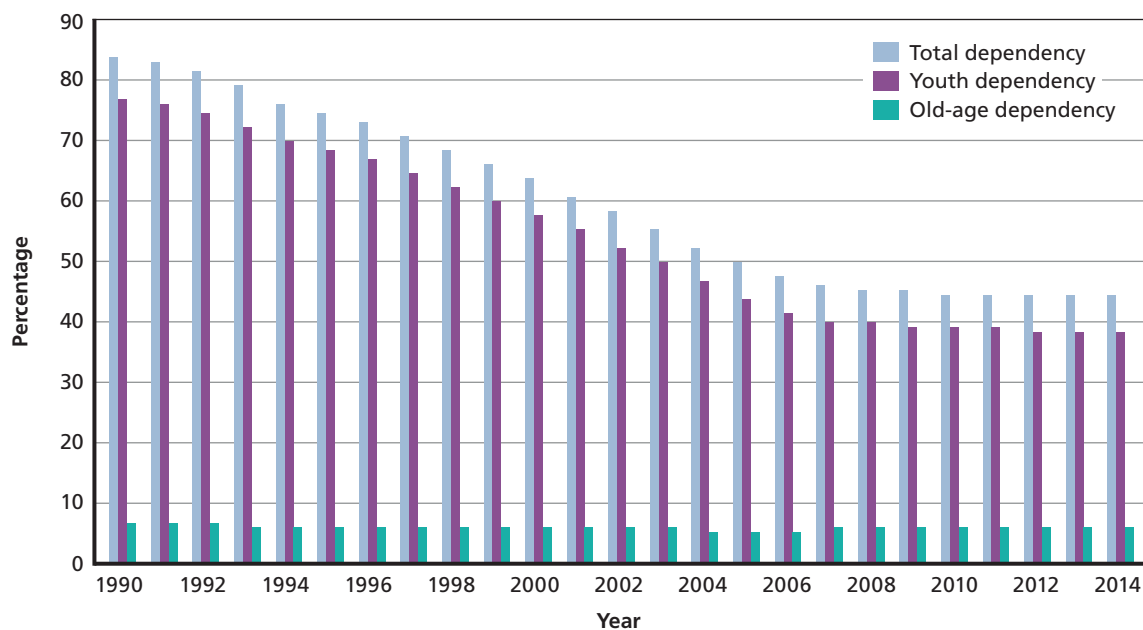
⁶ Mongolia is divided into Ulaanbaatar, the capital, and 21 provinces (*aimags*). The main city or town in each *aimag* is the *aimag* center, which houses the main provincial governing bodies and government services. Outside the *aimag* centers, the *aimag* is divided into *soums*, or counties, which are second-level administrative units. *Soums* are further divided into *bags* (also spelled *baghs*). Ulaanbaatar is divided into nine districts, or *khoroos*, and *khoroos* are further divided into smaller administrative units called *khesegs*. For the purposes of this study, we present our results by the following geographic group-

Labor markets are affected by demographic structure and its dynamics. As noted earlier, Mongolia has a young population, with the youth share of the working-age population—ages 15 to 64—estimated at 54 percent in 2014. If the age groups were equally distributed, the youth share of working-age population would be only 40 percent, so these numbers show that Mongolia will have a large cohort of youth for many years.

The age structure of the Mongolian population is further reflected in its dependency ratios. Dependency ratios measure the proportion of people in the population who are likely not to be economically active (those from birth to age 14 and those age 65 and older) relative to those who are likely to be economically active (those ages 15 to 64). The total dependency ratio, the sum of the very young and the old relative to the working-age population, was 44.7 percent in 2014, and the youth dependency ratio, the number of the very young relative to the working-age population, was 38.8 percent (U.S. Census Bureau, 2013). Although these ratios have declined, mainly due to a fall in the total fertility rate through the 1990s and early 2000s, the youth dependency ratio is still high (Figure 1.1). Furthermore, it likely will rise as the total fertility rate has stabilized, at an average of almost 2.3 percent between 2006 and 2014, above the population replacement rate.

One of the consequences of having a largely young and working-age population is what is known as a *demographic dividend*, a boost in overall economic growth due to changes in age composition. However, the rewards of the demographic dividend are best realized when the appropriate policy conditions are in place. Countries are best able to reap the benefits when they have policies that promote public health and access to care, family planning and repro-

Figure 1.1
Dependency Ratios in Mongolia, 1990–2014



SOURCE: U.S. Census Bureau, 2013.

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ings: Ulaanbaatar, aimag centers, and rural areas, which include all soums outside the aimag center (composed of towns and the countryside).

ductive health, education and training to raise human capital, and economic policies that allow for flexibility in the labor market, as well as promote trade, access to credit, and banking (Bloom, Canning, and Sevilla, 2003, p. 69). Effective macroeconomic policies and a regulatory framework affect the business environment, which is a key factor to addressing the challenge of generating sufficient and sustained productive employment to absorb the current and future labor force. A report by the United Nations Population Fund (n.d.) argues that while investments in human resources have been made, job seekers still do not possess the requisite skills in demand in the labor market.

Theory and Measurement of the Labor Market

In this section, we provide a framework for analyzing the labor market and then provide international comparisons to illustrate the framework and benchmark for Mongolia's labor-market performance. We compare Mongolia both with regions and with a set of small countries that, like Mongolia, have transitioned to a free market. The comparison with world regions allows us to situate Mongolia against the full range of outcomes around the world. The comparison with countries with more-similar recent economic histories provides an indication of how well Mongolia is performing compared with its potential. We selected as comparison countries all countries that had been either within the Soviet Union or in the Soviet bloc and that had a population of less than 10 million in 2012.

The framework we use is the basic market model of supply and demand. As will be expanded on below, the supply of labor includes the number of people who want to work and their skills. The demand for labor includes the number of people that employers want to hire and the skills they desire. Quantity supplied and quantity demanded equalize based on compensation, the price for labor in the market. Government policy can influence both sides of the market. For example, on the supply side, quality education can increase skills. Generous government benefits can influence people not to join the labor market to seek work. On the demand side, an environment friendly to investment can result in businesses starting or expanding, increasing the demand for labor.

Labor-Market Concepts and Labor-Market Indicators

The labor market is formed by two important components: *labor supply* is provided by people who are willing to work if they are compensated at a given level; *labor demand* reflects the enterprises that are willing to hire workers at the going wage. In this report, we use *wages* and *compensation* interchangeably and intend them both to mean the total amount received by workers in terms of money, benefits, and in-kind payments.⁷ Labor supply and demand interact to determine the ongoing wage levels in the economy and the level of employment. Increases in labor demand, which mean that employers are willing to hire more people at any given wage, translate into higher overall wages and more employment. On the other hand, increases in labor supply, meaning that more people are willing to work at given compensation levels, translate into more employment but lower wages.

⁷ Typically, *wages* indicate direct monetary compensation and *compensation* indicates direct monetary compensation plus additional benefits, both monetary and nonmonetary.

Formally speaking, the *unemployed* are the individuals who are willing to work at going wage levels and who are actively seeking work but who cannot find it. In terms applicable to any market, these people constitute excess supply. According to standard theoretical economic models, wages adjust so that unemployment does not exist. If there are people looking for work and willing to do so at the current wage, employers could earn higher profits by slightly reducing the wages they are paying and hiring these unemployed. However, in practice, labor markets do not work instantaneously to clear all excess supply. For instance, employers are not always allowed to fire current employees, or employers have to pay severance packages to those who were fired. Therefore, employers have fewer vacancies than they would like and so do not hire new workers. Also, sometimes an individual who wants to work does not have access to all the information regarding labor-market opportunities, and it takes time for that person to learn about a job. These *rigidities* mean that, in practice, there is always some unemployment, but its extent varies greatly. Rigidities can also be considered to be any factor that increases the reluctance of employers to hire someone, sometimes because of high hiring costs and sometimes because of the difficulty of firing an employee if the employee is performing poorly (Eubanks and Wiczer, 2014). Unemployment, measured by the *unemployment rate*, varies mostly due to the extent that a labor market is flexible or rigid, but it also changes through time, reflecting an economy's position in the business cycle, with unemployment higher during recessions.

Labor-market indicators are empirical measures that reflect the actual situation of the components of a labor market. These indicators include the unemployment rate, the labor-force participation (LFP) rate, and the employment-to-population ratio. The last two are described in more detail immediately below.

The Labor Force and Employment

LFP is one of the key indicators of the labor market and reflects the labor supply at the current wage. Technically, it includes all people who are working or who want to work and are actively looking for work. The *LFP rate* is the percentage of the population age 15 and older that is part of the labor force.⁸ The age of 15 is used because statistical agencies worldwide generally consider working age to be 15 and higher, although some statistical agencies consider working age to be ages 15 to 64, and others use different age ranges.

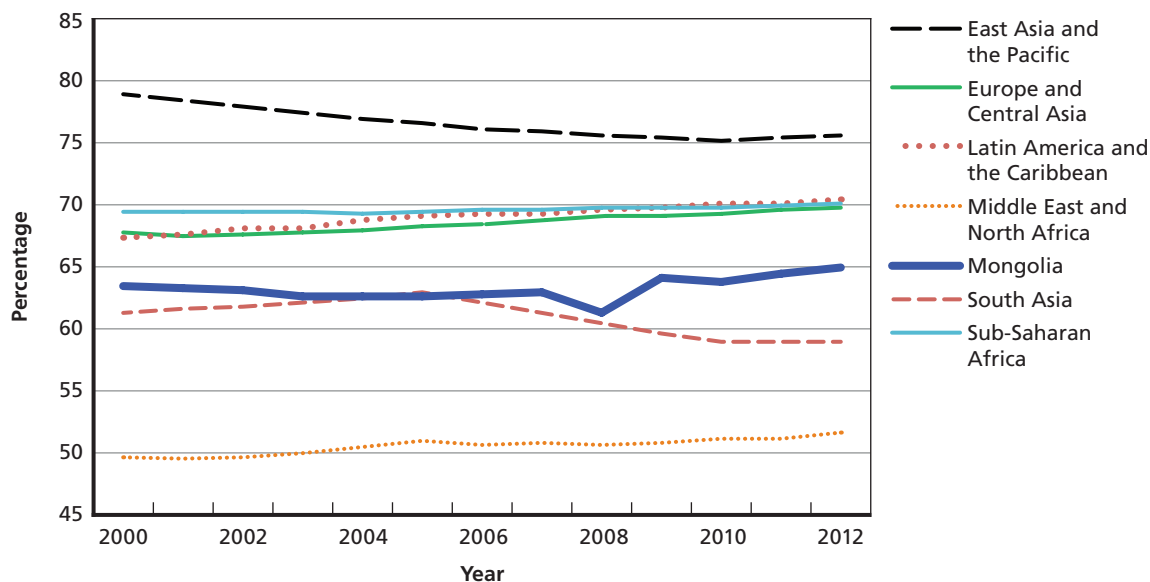
A high LFP rate implies that there is a large number of potential workers, which is good for production. However, a high LFP is not always better. In fact, there are good reasons why it might be desirable for some population groups not to be part of the labor force. For example, a young person might choose to go to university full time rather than work. That person would not be in the labor force but would be building knowledge and skills to become a highly productive employee in the future. To the extent that low participation by the youth is accompanied by high education enrollment rates, a low LFP might be good.

There are other cases where people provide valuable services to society but are not counted in the labor force. A person might be caring for children or other family members rather than seeking employment, and thus would be providing a valuable service to society but would not be counted in the labor force.

The LFP rate in Mongolia is lower than in several of the world regions and comparison countries, especially those that are more prosperous (Figure 1.2). The rate in East Asia and the

⁸ Sometimes the LFP rate is calculated as the percentage of the population ages 15 to 64 that is part of the labor force.

Figure 1.2
Labor-Force Participation Rates in Mongolia and World Regions



SOURCE: World Bank World Development Indicators.

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Pacific (EAP) was above 75 percent, compared with around 65 percent in Mongolia. The Mongolian rate was also about 5 percentage points lower than that of Latin America and the Caribbean, Europe and Central Asia, and Sub-Saharan Africa. However, it was somewhat higher than that of South Asia and much higher than that of the Middle East and North Africa, which has the lowest LFP rate in the world, mostly due to low rates of female LFP.

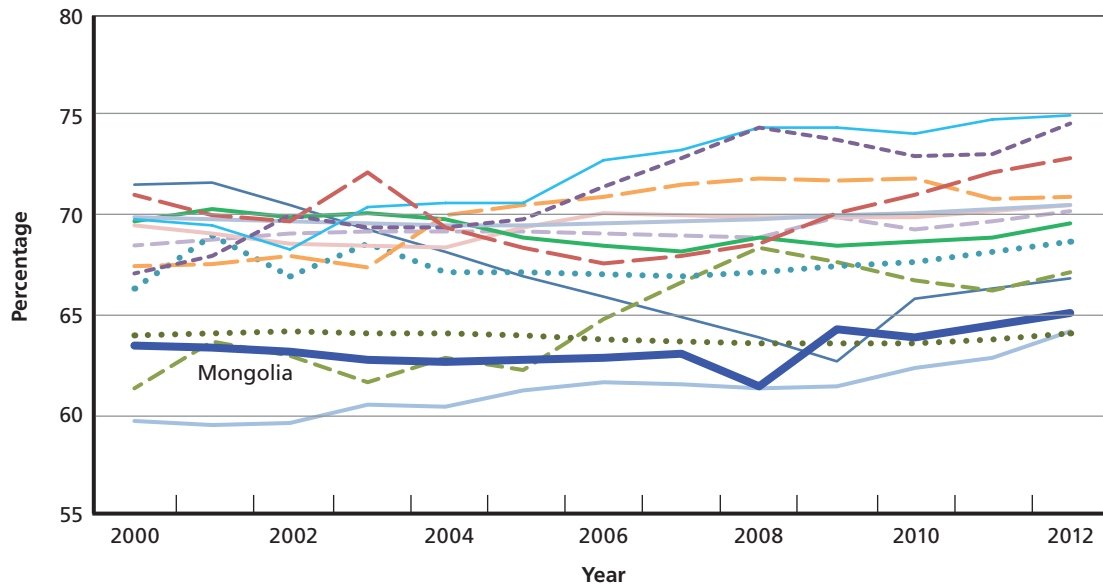
When compared with LFP rates in transition countries, that of Mongolia is quite low (Figure 1.3). The range in LFP rates in 2012 in the selected countries ranged from around 65 percent to around 75 percent, with Mongolia located near the bottom of that range. The LFP rate in Mongolia has increased recently. As noted, it might be promising for an economy to have low LFP rates among certain groups, such as student-age people. However, it would be better to have high LFP in other groups to maximize the number of people contributing. Thus, it is important to study LFP for specific age groups, which we do in Chapter Two.

The Level of Employment in Mongolia

The *employment-to-population ratio* is the most commonly used indicator to measure how many of those who are old enough to work (generally 15 and older) are actually working. To the extent that unemployment is low, the employment-to-population ratio will be close to the LFP rate. If a large number of people want to work and can find jobs easily, then the ratio of employed people to working-age population will be high. As is the case with the LFP rate, the employment-to-population ratio in Mongolia is lower than in Europe and Central Asia, although the difference is narrower, and is higher than in the Middle East and North Africa (Figure 1.4).

Although Mongolia's LFP rate is toward the bottom of the distribution among transition countries, Mongolia's employment-to-population ratio is about average (Figure 1.5). The expla-

Figure 1.3
Labor-Force Participation in Mongolia and Transition Countries

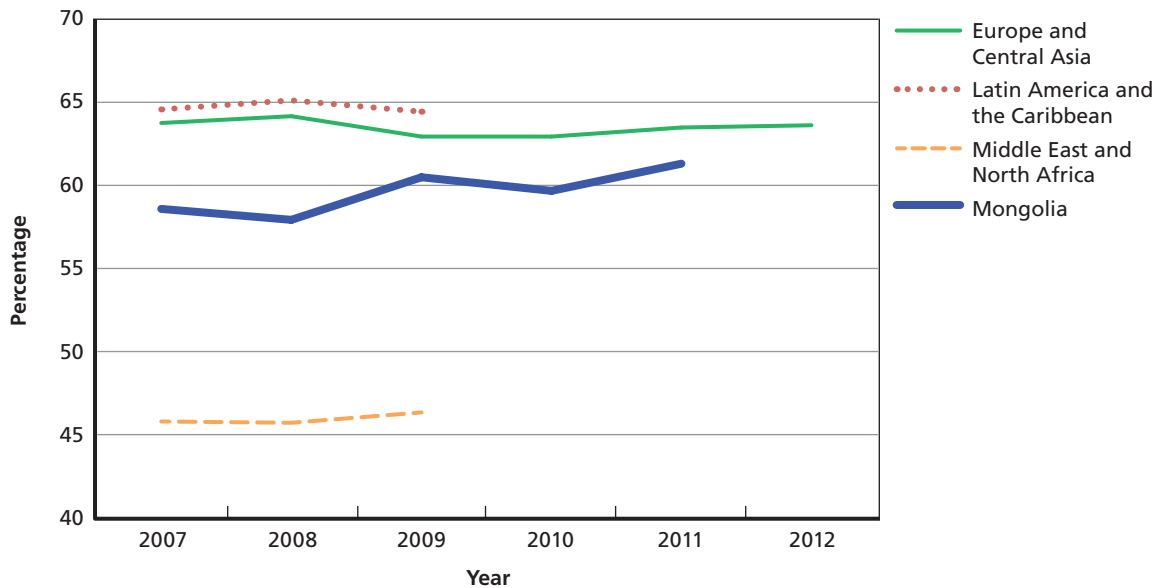


SOURCE: World Bank World Development Indicators.

NOTES: Mongolia is the heavy, dark blue line. Transition countries include Armenia, Azerbaijan, Bulgaria, Estonia, Georgia, Hungary, Kyrgyz Republic, Latvia, Lithuania, Slovak Republic, Slovenia, Tajikistan, and Turkmenistan. We provide selected underlying data in Table A.1.

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Figure 1.4
Employment-to-Population Ratio in Mongolia and World Regions

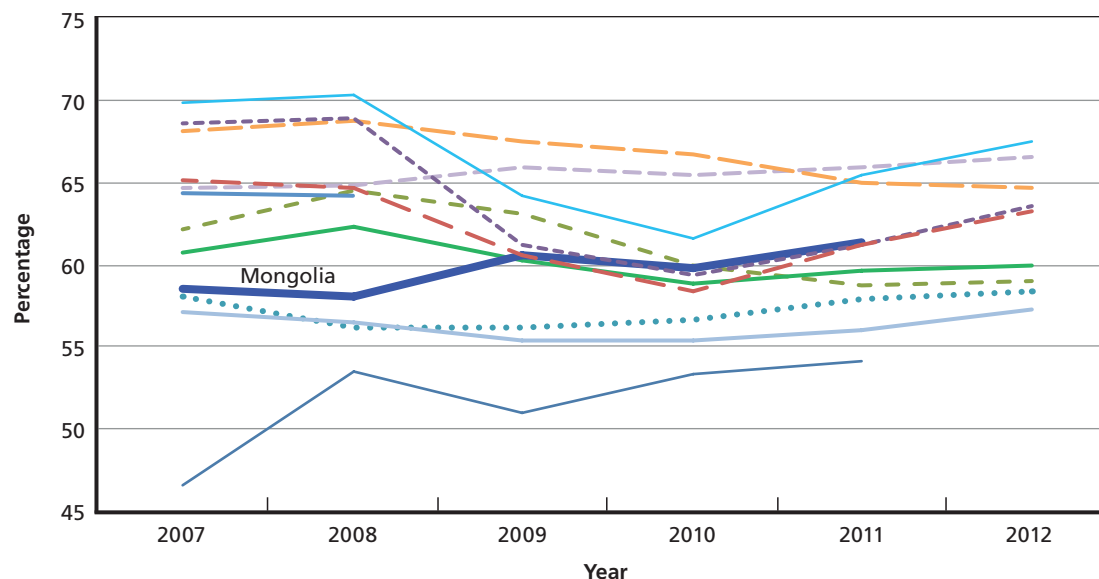


SOURCE: World Bank World Development Indicators.

NOTES: Data for the Middle East and North Africa are missing for 2010–2012. Data for Latin America and the Caribbean are missing for 2010 and 2012; because of the gap, we omitted the observation for 2011 from the graph. It is 65.47 percent.

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Figure 1.5
Employment-to-Population Ratio in Mongolia and Transition Countries



SOURCE: World Bank World Development Indicators.

NOTES: Transition countries include Armenia, Azerbaijan, Bulgaria, Estonia, Georgia, Hungary, Kyrgyz Republic, Latvia, Lithuania, Slovak Republic, and Slovenia. We provide selected underlying data in Table A.2.

RAND RR1092-1.5

nation is that most people who participate in the labor force in Mongolia are employed one way or another, suggesting that the unemployment rate is lower in Mongolia than in comparison countries (we discuss this below). In those countries, a higher proportion of people looks for work but cannot find jobs. The upward trajectory observed in Mongolia is due to the rising LFP, which is due to demographic changes that we explore in more detail in Chapter Two.

This does not mean that everyone employed in Mongolia is satisfied. In fact, the formal definition of employment is having worked at least one hour in some previous time period, usually the past week. So, some of those counted as employed are partially employed and might be seeking additional work. And some might have jobs they dislike and are eager but unable to change. The results of the ILS-RAND Mongolian Youth Survey—presented in greater detail in Chapters Two through Five, but especially in Chapter Five—shed greater light on these issues for young people.

Unemployment

Policymakers are often most concerned about unemployment. Individuals who cannot find a job are a major concern because they lack the resources necessary to sustain their families. The unemployed are a resource that the country is wasting, as they could be devoting their time productively.

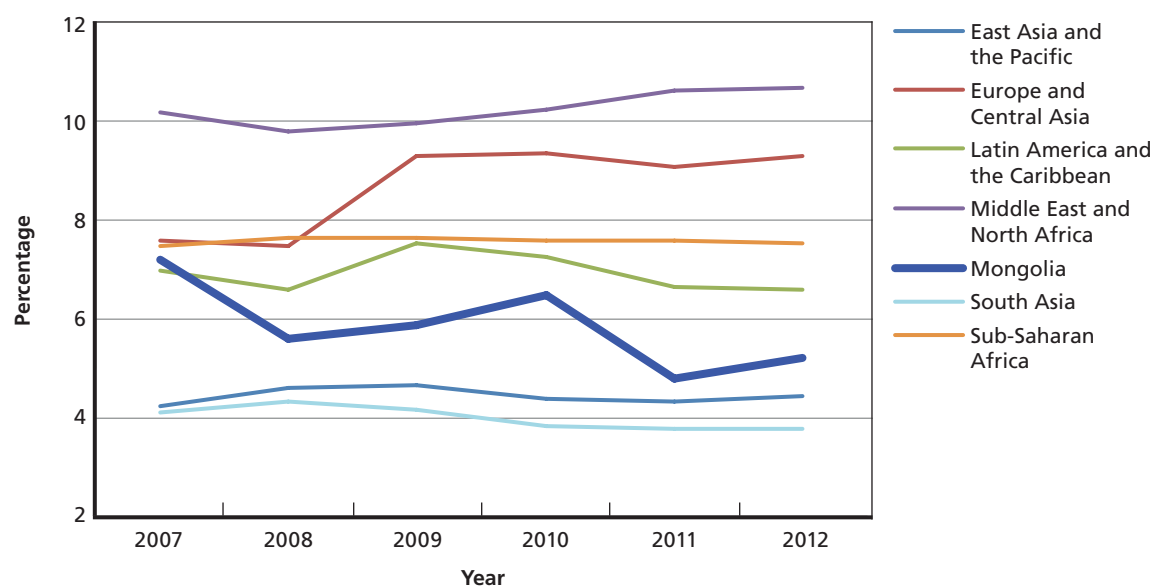
Conceptually, a person is unemployed if he or she is willing to work for the wage being paid in the economy but cannot find a job. Formally, unemployed individuals are those who are not employed, are ready and willing to work, and actively looking for work. The *unemployment rate* measures the percentage unemployed among those willing to work at the prevailing level of compensation (all those in the labor force, which includes the unemployed). The unem-

ployed do not necessarily include people who do not have jobs, only those who are willing to work and are actively seeking work.

Although markets work to adjust wages so that there is no excess supply or demand, there are always reasons why at least some unemployment exists. It takes time to find a job, and during the job search, the job seeker will be unemployed. However, a high unemployment rate can also indicate that there are problems in the way the labor market functions, meaning the ability of willing workers to find work at the market wage or the ability of willing employers to find workers at the market wage. These problems could include lack of information about available job opportunities, or even knowledge about how to search for a job. If minimum wages are too high (which does not seem to be the case in Mongolia), unemployment could be created, as the wage being paid is attractive to more employees than the number of hires that employers are willing to make at that price. As noted, all these obstacles for markets to match demand and supply are commonly referred to as *rigidities*. Even beyond these rigidities, unemployment could increase if job seekers lack skills that employers need because hiring such workers would cost employers more than the value of what such workers could produce. Lack of skills could also result in a lower LFP if workers become discouraged about finding a job and drop out of the labor force. We now consider Mongolia's unemployment rate in comparative perspective.

The unemployment rate in Mongolia is relatively low. Most Mongolians who are willing to work at going wages are able to find some kind of work (Figure 1.6). Low levels of unemployment indicate that Mongolia's labor market is functioning well, as most people who are looking for work are able to find work. The unemployment rate in Mongolia has decreased from 7.2 percent in 2007 to a low of 4.8 percent in 2011 and then 5.2 percent in 2012.⁹ Con-

Figure 1.6
The Unemployment Rate in Mongolia and World Regions



SOURCE: World Bank World Development Indicators.

NOTE: The unemployment rate is the modeled ILO estimate.

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⁹ Rates cited are the modeled International Labour Organization (ILO) estimates, drawn from the World Bank's World Development Indicators.

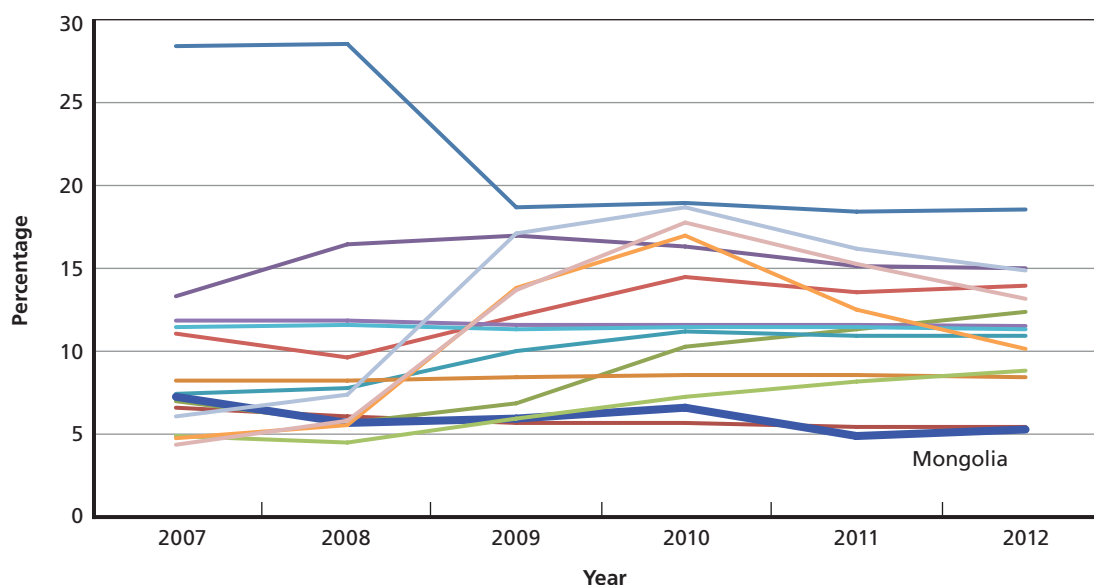
trastingly, the Europe and Central Asia region saw an increase in its unemployment rate over the same period, jumping to more than 9 percent in 2009 and staying above that level through 2012. Mongolia also has had a lower unemployment rate than Latin America and the Caribbean and the Middle East and North Africa.

Even comparing Mongolia with other transition countries with populations of less than 10 million, the Mongolian unemployment rate was the lowest in 2011 and 2012 (Figure 1.7). There is large heterogeneity in this set of countries, and their unemployment rates vary between 5 and 20 percent; however, Mongolia is one of the few countries where the unemployment rate remained toward the lower end of that range and did not increase between 2007 and 2012.

The unemployment rate, however important, needs to be analyzed in the context of other indicators. Some policies commonly thought of as generating unemployment (such as government payments to people to supplement their incomes or replace lost income if someone becomes unemployed, or regulations that prohibit firing workers) might in fact reduce wages and LFP but leave the unemployment rate intact. To analyze the effects of those policies and others, it is important to take account of more than the unemployment rate.

As with a high employment-to-population ratio, a low unemployment rate does not mean that people are happy in their jobs or that the jobs are good. However, it does indicate that Mongolia's labor-market challenges likely do not include how well the labor market functions in terms of matching jobs and employees. As we discuss in the following chapters, more-important problems include increasing formal employment, productivity, wages, and LFP.

Figure 1.7
The Unemployment Rate in Mongolia and Transition Countries



SOURCE: World Bank World Development Indicators.

NOTES: The unemployment rate is the modeled ILO estimate. Transition countries include Armenia, Azerbaijan, Bulgaria, Estonia, Georgia, Hungary, Kyrgyz Republic, Latvia, Lithuania, Slovak Republic, Slovenia, Tajikistan, and Turkmenistan. We provided selected underlying data in Table A.3.

RAND RR1092-1.7

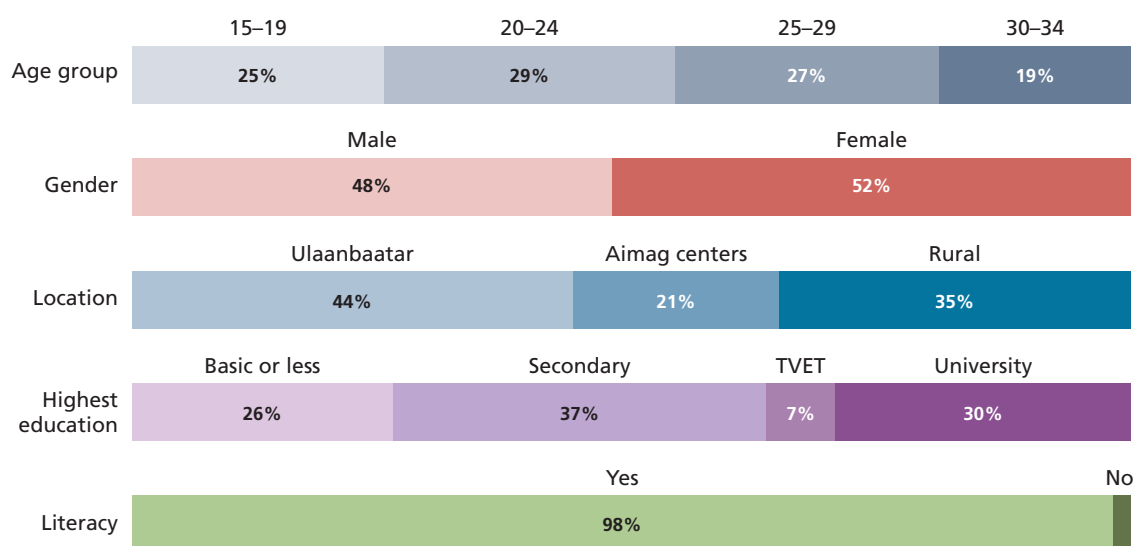
The ILS-RAND Mongolian Youth Survey

ILS and RAND worked throughout the first half of 2014 to jointly develop a new youth survey for Mongolia, completing the questionnaire and sampling strategy in July 2014. Main sources included the 2012 Mongolian Labor Force Survey (National Statistical Office of Mongolia [NSO], 2012), the second round of the 2012 Kurdistan Region Labor Force Survey (Kurdistan Region Statistics Office, 2012), the 2009 ILO School-to-Work Transition Survey (Elder, 2009), and the 2011 Korea Youth Panel Survey (Korean Ministry of Employment and Labor and the Korea Employment Information Service, 2011).

The questionnaire was piloted August 7 and 8, and enumerators were trained on August 15 and 16. The survey was fielded nationwide, with data collection running from August 25 to October 26. It covered Ulaanbaatar and all aimags. Data were finalized in November. SICA LLC of Mongolia fielded the survey, with ILS providing active supervision and ILS and RAND providing overall supervision. The survey achieved an estimated response rate of 89 percent.

We begin by reviewing basic characteristics of the Mongolian youth population found in the ILS-RAND Mongolian Youth Survey (Figure 1.8).¹⁰ The population is fairly evenly distributed across age groups, except for the 30-to-34 age group.¹¹ The population is also relatively evenly divided between females and males. The largest group live in Ulaanbaatar (44 percent),

Figure 1.8
Characteristics of Youth Population in Mongolia



SOURCE: ILS-RAND Mongolia Youth Survey, 2014.

NOTES: *N* = 4,544. TVET = technical and vocational education and training

RAND RR1092-1.8

¹⁰ These findings draw from questions on the survey regarding gender, geography, education level, literacy, and age.

¹¹ According to the NSO (2013), with the resident population of Mongolia ages 15 to 34 in 2013, the 15-to-19 age group constituted 23.5 percent, the 20-to-24 age group constituted 26.8 percent, the 25-to-29 age group constituted 26.7 percent, and the 30-to-34 age group constituted 23.0 percent (see NSO, 2013, Table 3.2). In each year, from 2010 to 2013, the total population share of the three older age groups was higher than the resident population share, indicating that these age groups are more likely to migrate abroad than are people in the youngest age group.

followed by the rural areas (35 percent), and then aimag centers (21 percent), which constitute urban areas in Mongolia outside Ulaanbaatar. The vast majority of the youth population has at least a secondary school education, while 30 percent possesses a college or university degree, meaning a four-year bachelor's or above. Literacy is near universal with this population.

As we would expect, among the youth population, mobility into Ulaanbaatar is relatively higher than into aimag centers and rural areas (Table 1.1).¹² The survey included a series of questions about whether respondents have always lived in the location they are in, and if not, how long ago they moved to their current locations and for what reasons. The survey results indicated that more than 20 percent of the youth population in Ulaanbaatar moved from elsewhere, compared with 13 percent in the aimag centers and 9 percent in the rural areas. Most of the youth moved relatively recently (fewer than five years ago). Although youth mobility into the rural areas is modest (8 percent), the vast majority of those moves (71 percent) has been recent. In Ulaanbaatar, the most common reason to move into the city was for school, followed by moving with parents or family. Similarly, in rural areas, the most common reason to move was for school, followed by finding a job. In the aimag centers, the most common reason behind moving was for a job, followed by school, and a move with parents or family.

Table 1.1
Youth Population Mobility, by Geography of Current Residency

	Ulaanbaatar	Aimag Centers	Rural
Never moved (%)	77.3	86.9	91.4
<i>N</i>	1,541	808	1,482
Moved from elsewhere (%)	22.7	13.1	8.6
When move occurred			
10+ years ago	22.2	31.2	8.6
5–9 years ago	22.1	20.8	20.2
Less than 5 years ago	55.7	48.1	71.2
Reasons for moving			
For school	36.7	26.3	49.7
For a job	15.3	30.2	23.8
Moved with spouse	16.8	13.9	9.9
Moved with parents or family	24.8	23.0	12.3
Other	6.4	6.6	4.3
<i>N</i>	453	121	139
Total <i>N</i>	1,994	929	1,621

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: *N* = 4,544.

¹² These findings draw from questions AA6, B9, B10, and B11 of the ILS-RAND Mongolian Youth Survey; see Appendix C.

This Report

We draw on a number of different data sources for this report. Mongolian data sources include several waves of the Mongolian Labor Force Survey (MLFS) and the 2012 Mongolian Household Socioeconomic Survey (MHSES), as well as the ILS-RAND Mongolian Youth Survey. We have also drawn on secondary literature, data, and analysis from the Mongolian ILS, multilateral institutions, international researchers, and Mongolian researchers, as well as conversations with Mongolian government officials, business and labor representatives, and academics.

Our focus is on the overall labor market and the supply side of the labor market—the actual employees and potential employees, as well as their education, skills, aspirations, and opinions. A separate, important component of the labor market is the demand side—the employers that hire people. Although we discuss some demand-side issues, especially in Chapter Four, we do not conduct an in-depth investigation of the investment climate and the overall business climate. These issues can affect the quality of jobs available in the Mongolian labor market, and we encourage further policy research on them, building on the findings of this study.

In the next chapter, we discuss the labor supply in Mongolia. We then move, in Chapter Three, to an analysis of one aspect of labor supply: the phenomenon of youth who are not in employment, education, or training. In Chapter Four, we discuss issues of labor demand, including the education of the labor force. This is a factor in both supply and demand, but from the demand side, it influences the productivity of labor and therefore the desire of employers to hire. Chapter Five and Chapter Six both feature issues of labor-market outcomes, what happens when supply and demand equilibrate. We discuss employment and unemployment in Chapter Five. In Chapter Six, we move to issues of low-productivity employment and the sectoral share of employment. We conclude, in Chapter Seven, with policy implications. In Appendix A, we provide underlying data for selected figures. In Appendix B, we provide a detailed description of our methodology. In Appendix C, we provide the full English text of the ILS-RAND Mongolian Youth Survey.

The Supply of Mongolian Labor

Increasing employment has been a policy priority in Mongolia. Labor supply, meaning the number of people willing to work at a given wage level, and employment levels are often correlated. The more people an economy has who want to work and are actively seeking work, the more jobs the economy will have. And the more jobs the economy has, the more likely it is to be larger.

There are two main ways for labor supply to affect economic growth. The first is through increasing the quantity of labor. More people working generally results in more overall income in the country, although not necessarily more income per person. The second is through increasing the quality of labor, resulting in higher productivity, which in turn results in more income per person. All else equal, a more productive labor force produces more overall income and more income per person than a less productive labor force. In this chapter, we focus on labor supply, the quantity.

Labor supply is most often measured by LFP and the LFP rate. By international standards, LFP is the number of people of working age who either have some form of work or who are actively seeking work. It excludes people who are willing to work but who are not seeking work, and people who are at working age but prefer not to work at all. The LFP rate is the percentage of people of working age who either have some form of work or who are actively seeking work (International Labour Office, 2014). Working age is generally defined as 15 years old or older, or from 15 years old to 64 years old.

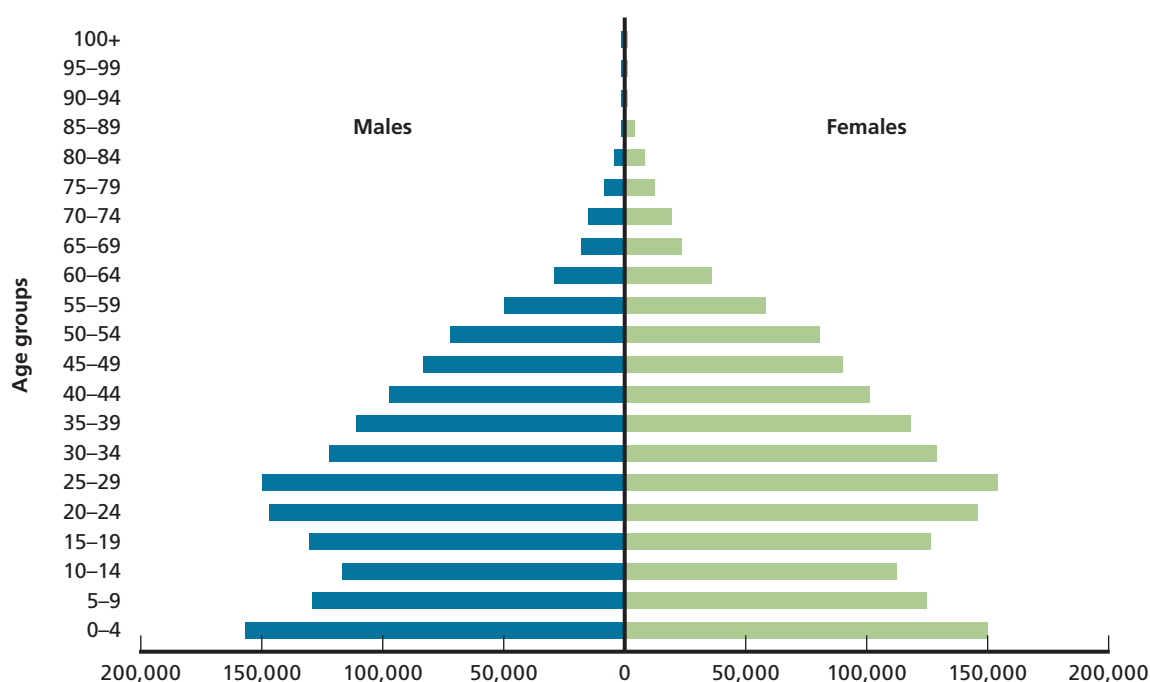
The Analysis of Labor Supply

High LFP by itself should not necessarily be a policy objective. Simply put, if people do not want to work, for whatever reason, and are able to support themselves without work, they should be able to choose not to work. However, in some cases, the economy as a whole can benefit from increasing labor supply, and so it is useful for policymakers to understand the different levels of participation of different groups.

A number of factors can affect labor supply. One of these factors is cultural norms, such as whether it is commonly thought of as culturally appropriate for women to work outside the home. This factor explains much of the variation in LFP across world regions and time. Another is wealth. People who have independent wealth might have less incentive to work, or might be less willing to take on jobs in unappealing conditions.

The population pyramid—the age structure of the population—can also affect the LFP rate (Figure 2.1). Economies with a larger proportion of people who are prime age might have

Figure 2.1
The Mongolian Population Pyramid, 2014



SOURCE: U.S. Census Bureau, 2013.

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a higher rate than economies with a larger proportion of people at the lowest or highest end of that scale, as many of the young are studying and many older people are retired. Mongolia has a young population, and demographic trends in the past decade have produced a large number of working-age people. The median age in Mongolia in 2014 was 26 years old, with more than 69 percent of the population in the 15-to-64 age range (U.S. Census Bureau, 2013). The total dependency ratio was above 44 percent.

Policy can also affect labor supply. If the government guarantees generous retirement benefits, then many older people will choose to retire rather than work. In the absence of pension programs, people might work late into their lives. High taxes on labor income might suppress labor supply, and other government programs can either encourage or discourage labor supply. We expand on policy issues in the final chapter of this report.

Labor Supply in Mongolia

We use data from the MLFSs from 2002–2003, 2006–2007, 2010, 2012, and 2013.¹ The MLFS is a quarterly survey that allows us to construct labor-market indicators according to

¹ The data for 2002–2003 cover the third quarter of 2002 through the second quarter of 2003. The data for 2006–2007 cover the third quarter of 2006 through the second quarter of 2007. The data for 2010, 2012, and 2013 cover the first quarter through the fourth quarter of each year, respectively.

international best practice. We start by analyzing the labor supply of Mongolians overall and then discuss issues pertaining to specific groups, such as youth.

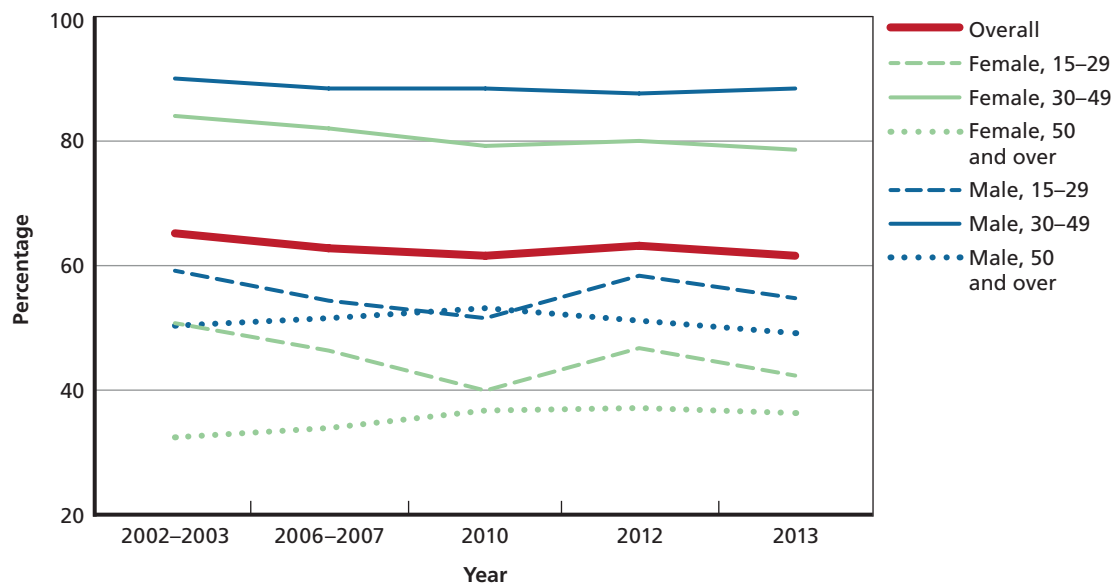
Overall Labor Supply

The overall labor supply in Mongolia has been fairly steady since 2002, based on data from the MLFSs (Figure 2.2). Disaggregating by gender and age, however, reveals important differences in the levels and trends. A large majority of males and females between ages 30 and 49 are part of the labor force—a participation rate of more than 80 percent. This is not surprising, since that is the age when most people have finished their studies but are still not near retirement. It is positive that the high participation rate within this group accrues not only to men but also to women. However, LFP of these prime working-age females has been trending slightly downward, except during the economic boom year of 2012. On the contrary, females ages 15 to 29 and over 50 have the lowest LFP rates (less than 50 percent in 2012). In addition, the LFP rate for all young people, male and female, has been volatile, rising in economic boom years.

Data and previous literature have suggested that lower female LFP might be driven by policy measures. In particular, gender-specific early retirement laws affect participation rates among older women, whereas a cash transfer program in the mid-to-late 2000s could have affected participation among younger mothers. The retirement age in Mongolia for women is 55, five years earlier than for men. Using data from the 2009 MLFS, Khan, Brink, and Aslam (2013) show that, among women older than 50, retirement was the most commonly cited cause for not working, and participation rates drop sharply for women after age 50. Of these retired older women, 30 percent were heads of households.

For younger women, the presence of children age 15 or younger appears to have reduced LFP. One reason could have been relatively large cash transfers to women of childbearing age provided by the government, such as a program called the Child Money Program (Araujo,

Figure 2.2
Labor-Force Participation in Mongolia, by Gender and Age



SOURCE: MLFSs.

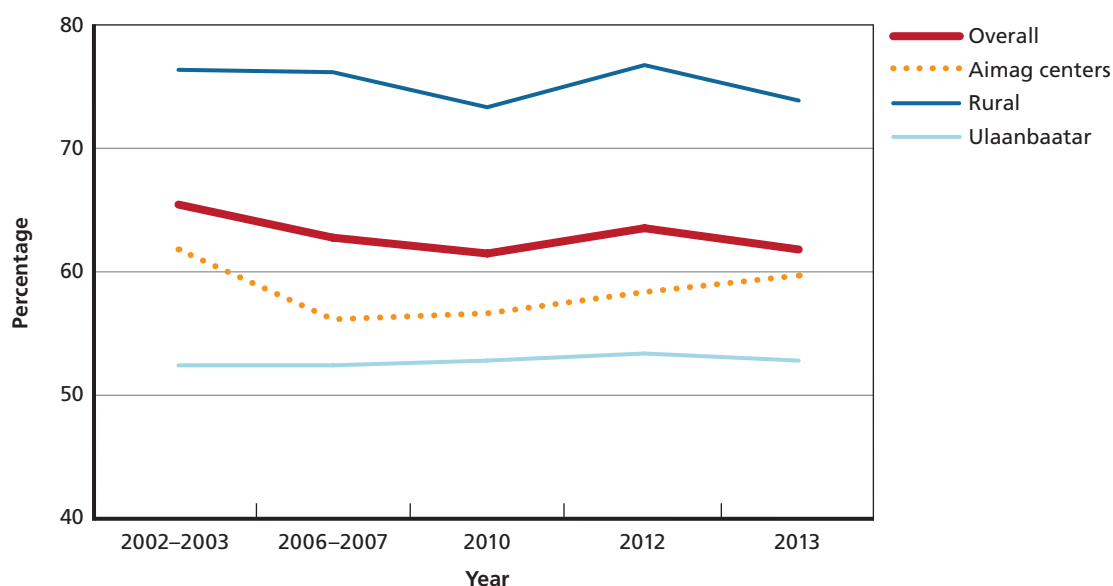
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2006).² This finding is supported by analysis by Batchuluun and Dalkhjav (2014), who find that recipients of cash transfers from any of several programs tend to have a statistically significant lower LFP than otherwise. In a subsequent chapter, we conduct a further analysis of this issue and show that the lower female retirement age indeed is a likely culprit for this early reduction in women's LFP. We also describe the policy implications of this.

Vast differences in labor supply also emerge when considering different geographic regions (Figure 2.3). We present results for three types of localities: (1) Ulaanbaatar, the capital; (2) aimag centers, which constitute urban areas in Mongolia outside Ulaanbaatar; and (3) rural, which includes all other parts of Mongolia, including soum centers—the centers of geographic divisions within aimags—and the countryside.

LFP is particularly high in rural areas, where the LFP rate hovers around 75 percent. This is not necessarily surprising; with agricultural activities, most family members contribute to the work, and there is no formal retirement. LFP is much lower in urban areas, both aimag centers and Ulaanbaatar—particularly in Ulaanbaatar. This might be explained by youth in Ulaanbaatar and the aimag centers remaining in education longer than youth in the rural areas. In fact, the ILS-RAND Mongolian Youth Survey indicates that across Mongolia, approximately 78 percent of youth ages 15–19 and 32 percent of youth ages 20–24 were enrolled in education. A higher share of older youth is enrolled in education in Ulaanbaatar, where 80 percent of 15–19-year-olds and 38 percent of 20–24-year-olds were enrolled. This compares with 83 percent of 15–19-year-olds and 29 percent of 20–24-year-olds in the aimag centers. In rural areas,

Figure 2.3
Labor-Force Participation in Mongolia, by Geography



SOURCE: MLFSs.

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² This program gave cash allowances to poor families on the condition that they met certain criteria—e.g., school-age children had to be attending school or nonformal education, living with family, involved in nationwide vaccination programs, and not be involved in any form of child labor. However, these conditions were dropped in 2006. The program was discontinued in 2009 because of problems with its targeting methodology and sustainability.

73 percent of 15–19-year-olds and 26 percent of 20–24-year-olds were enrolled in education. If these rates stay relatively constant for each geographic area, then continued migration to Ulaanbaatar and even to aimag centers will lead to a lower overall LFP rate for Mongolia, at least in the short term.

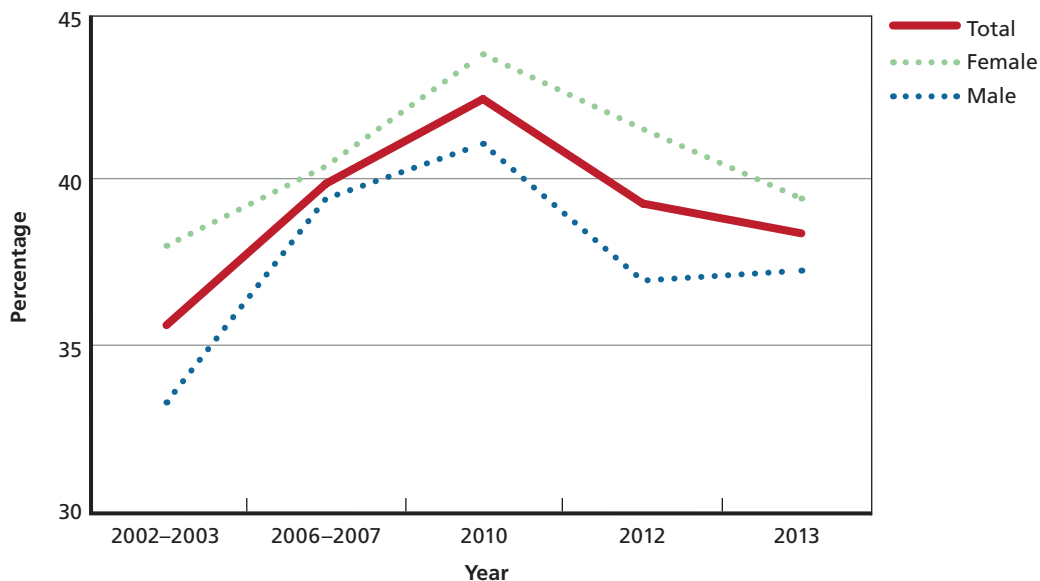
Youth Labor Supply

An important group of interest is youth. The official definition of youth in Mongolia is people ages 15 to 34. Internationally, the definition varies, and is usually either 15 to 24 or 15 to 29, depending on the organization or the statistic given. Here, we provide data for the age group 15 to 29. However, the ILS-RAND Mongolian Youth Survey covered the full range, young people ages 15 to 34, and we report results for that range when we report survey results.

We saw previously (Figure 2.2) that youth LFP is lower than that of the national average. This may well be a positive indicator if it means that young people are going to school or university, and this does indeed appear to be the case (Figure 2.4). Enrollment rates rose between 2002–2003 and 2010 and remained above the 2002–2003 level in 2012 and 2013. However, rates fell during the years the economy was achieving its peak growth rates. Higher school enrollment rates bode well for the future of skills in Mongolia. Enrollment rates for women are higher than men, but both groups followed the same trend.

The LFP rate, however, does not provide a full portrait of youth experiences with employment. A low LFP rate for youth might be positive if it means that many young people are gaining an education, but not if many young people are idle. For a full portrait, it is useful to look at youth not in employment, education, or training—the “Not in Employment, Education, or Training” (NEET) rate. Studying the NEET rate allows us to measure the percentage of youth who are staying away from activities that enhance production in the present (in the labor force) or in the future (skill building through education or training). In the ILS-RAND Mongolian

Figure 2.4
School Enrollment in Mongolia, by Gender



SOURCE: MLFSS.

RAND RR1092-2.4

Youth Survey, almost 25 percent of young people were NEET, meaning they were not in education, training, or the labor market. This is an extremely high number and signals a drag on the economy. We explore this in the next chapter.

Youth LFP in the ILS-RAND Mongolian Youth Survey

The ILS-RAND Mongolian Youth Survey was designed to provide insights on issues regarding youth LFP. In each case, we note when comparative results are statistically different from each other, meaning they represent true differences among the full population rather than random results from the survey sample.

Survey results represent the true population values with a degree of error. One way to account for this is to estimate a confidence interval around a specific result. A confidence interval is a range of values that describes the uncertainty surrounding a survey estimate. We indicate a confidence interval by its endpoints; for example, the percentage of Mongolian youth in Ulaanbaatar who were in the labor force is 50.2 percent, with a 95-percent confidence interval of 47.1 to 53.3. When we report results, we do so using the 95-percent confidence interval. In other cases, we report the standard error of the estimate. The 95-percent confidence interval is within plus or minus 1.96 times the standard error associated with an estimate. Confidence intervals are one way to represent how “good” an estimate is; the larger a 95-percent confidence interval for a particular estimate, the less likely the estimate is to be the true population value. Confidence intervals are an important reminder of the limitations of the estimates.

A confidence interval is also itself an estimate. It is made using assumptions about how sampling, interviewing, and modeling contribute to uncertainty about the relation between the true value of the quantity we are estimating and our estimate of that value. The “95 percent” in the confidence interval listed above represents a level of certainty about our estimate. If we were to repeatedly make new estimates using exactly the same procedure (by drawing a new sample, conducting new interviews, and calculating new estimates and new confidence intervals), the confidence intervals would contain the average of all the estimates 95 percent of the time. We have therefore produced a single estimate in a way that, if repeated indefinitely, would result in 95 percent of the confidence intervals formed containing the true value.

Overall Labor Supply

About half the young people in the ILS-RAND Mongolian Youth Survey were in the labor force. Specifically, 49.4 percent were labor-force participants, whereas 50.6 percent were not, but the two numbers are statistically indistinguishable.³ Of the young people in the labor force, 8.9 percent were also in some kind of education, either full time or part time.

LFP differs a great deal by gender. In the ILS-RAND survey, 56.4 percent of male respondents were in the labor force, whereas 42.9 percent of females were. This mirrors the findings of the Mongolian labor-force surveys, discussed earlier. The survey also found that slightly more than half of respondents in both Ulaanbaatar and aimag centers were in the labor force (50.2 percent and 52.0 percent, respectively), compared with only 46.8 percent of respondents in rural areas (Table 2.1). However, the confidence intervals of the estimates of the LFP rate

³ These findings draw from questions D1, D2, D5, E1, E3, and E10 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 2.1
Labor-Force Participation, by Location

Location	N in Labor Force	LFP Rate (%)	95% Confidence Interval	
			Lower	Upper
Ulaanbaatar	990	50.2	47.1	53.3
Aimag centers	478	52.0	47.7	56.4
Rural	754	46.8	42.3	51.3

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: N = 4,544.

in all three locations overlap each other, and so urban-rural differences were not statistically significant.

There are very strong differences by age, however (Table 2.2). More than two-thirds of people ages 25–29 and 30–34 were in the labor force. This makes sense, since the vast majority of these young people will have finished their education. In contrast, only 46.6 percent of youth ages 20–24 were in the labor force, and only 15.5 percent of youth ages 15–19 were in the labor force. This also seems reasonable, given that many people ages 20–24 are still finishing their tertiary education, and many youth ages 15–19 are enrolled in secondary school, a TVET institution, or a college or university.

There are also very strong educational differences, but this is likely because people with lower levels of education are still getting their education. In the survey, 31.2 percent of respondents were currently enrolled in education. Only 39.1 percent of people with a basic education and 35.9 percent of people with a secondary education were in the labor force, although there is no statistical difference between the two (Table 2.3). In contrast, 70.0 percent of people with a TVET education and 70.6 percent of people with a college or university education were in the labor force.

Survey results show that employment status of parents is correlated with youth LFP (Table 2.4).⁴ Specifically, youth whose fathers or mothers are employed are less likely to partici-

Table 2.2
Labor-Force Participation, by Age

Age Group	N in Labor Force	LFP Rate (%)	95% Confidence Interval	
			Lower	Upper
15–19	181	15.5	13.1	18.0
20–24	609	46.6	43.4	49.8
25–29	830	70.7	67.0	74.5
30–34	602	68.6	64.2	73.0

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: N = 4,544.

⁴ These findings draw from questions D1, D2, D5, E1, E3, J3, and J7 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 2.3
Labor-Force Participation, by Education

Education Group	N in Labor Force	LFP Rate (%)	95% Confidence Interval	
			Lower	Upper
Basic	469	39.2	34.5	43.8
Secondary	605	35.9	32.8	38.9
TVET	220	70.0	64.3	75.8
University	928	70.6	67.5	73.7

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: N = 4,544.

Table 2.4
Labor-Force Participation, by Employment Status of Parent

Employment Status	N in Labor Force	LFP Rate (%)	95% Confidence Interval	
			Lower	Upper
Father employed	852	41.8	38.9	44.8
Father not employed	1,370	55.6	52.7	58.5
Mother employed	964	42.9	40.3	45.5
Mother not employed	1,258	55.8	52.7	59.0

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: N = 4,544.

pate in the labor market, possibly because they receive income from their parents or because they live at home and do not need to work. Of youth with an employed father, only 41.8 percent participated in the labor force. Of youth with an employed mother, a statistically similar 42.9 percent participated in the labor force. In contrast, of youth with a father who was not employed, 55.6 percent participated in the labor force, and of youth with a mother who was not employed, 55.8 percent participated in the labor force.

Educational status of parents did not appear to have a strong effect on LFP.⁵ Statistically, there was no difference in youth LFP based on education level of the mother. Youth with a university-educated father had a slightly higher level of LFP than youth whose father had a secondary or TVET level of education, but statistically there was no difference between youth with a university-educated father and youth with a father who had a basic education or less.

In contrast, the source of household income had a very strong effect on LFP. We focus on the cases where a parent, sibling, or grandparent is the main person supplying household income (Table 2.5).⁶ In these cases, the lower the household income, the less likely a youth is to be in the labor force. In part, this is because a youth in the labor force would likely be

⁵ These findings draw from questions D1, D2, D5, E1, E3, J1, and J2 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

⁶ These findings draw on questions D1, D2, D5, E1, E3, J16, and J18 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 2.5
Labor-Force Participation, by Source of Income

Household Monthly Income Level (tugriks)	Main Source of Household Income (%)	
	Parent	Other Family Member
500,000 or less	22.1 (18.9–25.4)	33.3 (18.7–48.0)
501,000 to 1 million	30.6 (27.1–34.1)	50.2 (40.9–59.5)
More than 1 million	42.6 (37.6–47.5)	63.0 (50.8–75.2)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: 95-percent confidence intervals are in parentheses. "Other family members" includes brothers, sisters, and grandparents. *N* for parent as source of income = 2,142. *N* for other family member as source of income = 206.

employed and contributing to household income, so the level of household income is based in part on youth participation. However, notably, when a parent is the main source of household income, the proportion of youth in the labor force is never above the overall rate of LFP. This suggests that young people in a household where the parent is the main provider have more freedom to pursue an education or to do nothing.

Perceptions of Preparation

We discuss education in much more detail in Chapter Four. Relevant to the success of youth in the labor market, the ILS-RAND survey suggests that youth currently in school or training believe that their education or training are preparing them well for the labor market, but that people who have completed their education find that their education was not as useful as hoped.⁷ Specifically, 72.8 percent of people who were in education believed that their education would be very useful for the needs of the job market. However, 52.8 percent of people not in education or training, but who have had some education, said their education was very useful for the needs of the job market. This is still a majority, but a statistically significantly smaller difference relative to people in education. Among the many possible explanations, one could be that people out of education are older and received their education in the past, and the education system has since improved. Another could be that there are improvements that can be made to the education system to better prepare people for the labor market. These explanations are not mutually exclusive.

Interviews we conducted in Mongolia suggested that many young people seek a university education. The survey showed that although 40.8 percent of those surveyed believed that a university education was the lowest level of education needed to get a decent job, slightly more, 43.8 percent, believed that a TVET education was sufficient. The two responses were not statistically significantly different. Very few, 11.3 percent, believed that all they needed was a secondary education, and even fewer, 4.1 percent, believed that they needed only a basic education or less.⁸

⁷ These findings draw from questions C27 and C33 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

⁸ These findings draw from question I1 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Males and Females

The vast majority of young men and women who are not employed want to work in the future. Most of these people are not currently in the labor force: Out of 2,544 respondents who were either unemployed or out of the labor force, only 222 were unemployed. Of the people who did not have jobs, 86.7 percent wanted to work in the future. This proportion was slightly higher for females, at 88.8 percent, compared with 83.6 percent for males, but the two were not statistically different.⁹

Just as the desire to work is similar by gender, males and females report encountering similar obstacles when trying to find a job (Table 2.6).¹⁰ Specifically, young people say the biggest specific obstacles they face to finding a job include having no work experience, not enough jobs that are available, and not having enough education, followed by the issues that they might be considered too young for a job and there is a mismatch between the education they received and the education needed for a good job.

Table 2.6
The Main Obstacle to Finding a Good Job

Problem/Obstacle	Gender (%)		Geography (%)		
	Male	Female	Ulaanbaatar	Aimag Centers	Rural
Not enough education	13.3	12.3	10.5	8.9	15.7
No suitable training opportunities	2.5	1.3	1.1	0.2	3.0
Mismatch (education received vs. requirements)	6.8	7.3	7.2	5.3	6.5
No work experience	14.1	13.7	16.6	9.2	10.8
Not enough jobs available	13.1	12.9	10.2	11.8	15.0
Considered too young	8.9	7.6	9.7	3.2	7.7
Being male or female	0.1	0.4	0.4	NR	0.4
Discriminatory prejudices	0.5	0.9	0.7	0.0	0.5
Low wages in available jobs	6.4	5.4	8.9	2.1	2.9
Poor working conditions in available jobs	2.0	1.3	1.9	0.4	1.3
Lack of information about availability of work	4.1	3.5	3.0	2.9	3.8
Location	0.5	1.5	1.1	0.3	1.0
Problems at home	1.8	5.6	5.4	1.9	2.6
Appearance, physical development	0.2	0.1	0.2	NR	0.3
Other	25.8	26.2	23.2	22.5	28.6

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: N = 2,205. NR = no response.

⁹ These findings draw from question E13 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

¹⁰ These findings draw from question E30 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

We note that the survey asked about three education or training barriers: “not enough education,” “no suitable training opportunities,” and “mismatch between education received and education required.” When these three are combined in an overall education and training category, 21.5 percent of youth cited them as the main obstacle, slightly more than one-fifth of all youth who were unemployed or out of the labor force. For males, this was 22.5 percent, and for females, it was 20.8 percent.¹¹

Although more females say that being male or female is the main obstacle—0.45 percent for females versus 0.12 percent for males, the two numbers are statistically the same and very small. The one area where males and females differ is in the needs of the home. Only 1.84 percent of males said that problems at home presented their main obstacle (95-percent confidence interval of 0.86 to 2.82), but 5.57 percent of females cited that as a reason (95-percent confidence interval of 4.22 to 6.92). As will be seen in the discussion of NEET youth in Chapter Three, the requirements of the home seem to fall more heavily on females in determining labor-market performance.

Not only do females and males believe that they face similar obstacles in the labor market but they both also believe that they have equal opportunities (Table 2.7).¹² Beliefs about the opportunity for a job promotion or being successful at work does not appear to be something lowering LFP for women. Among females, 76.4 percent said that women and men have equal opportunities, whereas approximately 73.2 percent of men believed that. The figures are statistically the same. However, 16.3 percent of males said there were greater opportunities for men, whereas only 12.8 percent of females said there were greater opportunities for men, with the numbers statistically the same, but just barely.

Labor Supply Conclusions

We found in Chapter One that Mongolia’s labor supply is low compared with other small transition countries. In this chapter, we showed that it is especially low for females age 50 and older. It is also low for youth ages 15 to 29, but this might be beneficial to Mongolia if those youth are gaining an education. And, in fact, the levels of enrollment increased in the 2000s through 2010, although they experienced an anomalous decrease in 2012 and then another slight decrease in 2013.

Table 2.7
Equal Opportunities for Promotion or Success for Males and Females

Belief	Males (%)	Females (%)
Equal opportunities for women and men	73.2	76.4
Greater opportunities for men	16.3	12.8
Greater opportunities for women	1.2	2.4
Do not know	9.3	8.3

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

¹¹ These numbers differ from Table 2.6 because of rounding.

¹² These findings draw from question I5 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

The ILS-RAND Mongolian Youth Survey reinforces the idea that youth are getting an education rather than going to the labor market. The LFP rate is especially low for youth ages 15 to 19 and low for youth ages 20 to 24, both school-age groups. It is also low for people who have completed only a basic or secondary education, likely because many of these people are still getting an education.

Youth LFP rates are similar across different geographies. The rates are higher if the parents are not working, but lower if the parents are the main source of income in a household. The rates are higher for males as well. However, it appears that young people do not perceive there to be gender-based discrimination in the labor market.

One area of concern involves barriers to finding a job. We will explore this further in Chapter Five. For now, in the context of LFP, inability to find a job might drive people completely out of the labor market because of discouragement. We found that more than one-fifth of youth said that their biggest obstacle to finding a job is education-related. Many also said that they lacked work experience, something the educational system could help remedy.

We now move to a special topic involving labor supply and youth, that involving youth who are not in education, training, or employment.

Lost Potential: The Case of NEET Youth in Mongolia

Young people have a variety of choices to make with their lives, although, for many, these choices might be heavily influenced by parents or older relatives. Young people can seek education even after finishing the legal minimum amount. They can enter the labor market. Many who enter the labor market will be successful and will find a job. They can be termed *employed youth*.

But some youth might not continue their education and might not successfully find a job. If they were actively looking, they would be considered unemployed youth. The youth unemployment rate is an extremely important statistic, as it gives insight into how difficult it is for young job seekers to find employment.

However, that rate does not provide a complete picture of how well youth are transitioning from education to the labor force. Furthermore, the unemployment rate is estimated only out of those who are in the labor force, which, for certain age groups, covers only a small proportion of the population, since many of the youth are studying and out of the labor force.

Some youth who are not in education might choose not to enter the labor market at all. They might choose to stay home and do household tasks, such as caring for a child or other family members. And some might choose to do nothing, not staying in education, not seeking work, and not helping with their households. They could be considered idle youth. Therefore, the proportion of youth who are not engaged productively in the economy might be, and usually is, substantially larger than that of the young unemployed.

These youth who are unemployed, helping with the household, or idle are not in employment, education, or training and are therefore known as NEET youth (“Not in Employment, Education, or Training”). To some extent, especially regarding unemployed and idle youth, they represent lost potential for the economy of Mongolia. Perhaps more important, they represent lost potential for themselves: They are not building skills or gaining experience that could help them become productive adults and fulfill their life goals.

Because the transition from education to the labor force can have long-term implications for an economy, analyzing NEET rates provides a comprehensive picture of youth activities, especially individuals who are not directly engaged in three types of productive activities—employment, education, and training. This analysis also provides a starting point for separately examining the three types of NEET—the unemployed youth, the youth dedicated to household activities, and those who are idle. These three different types of NEET youth have very different characteristics and require policies in different areas. For example, matching job seekers with employers would help the unemployed but not necessarily the idle, who might profit from policies to encourage them to return to school or to look for jobs.

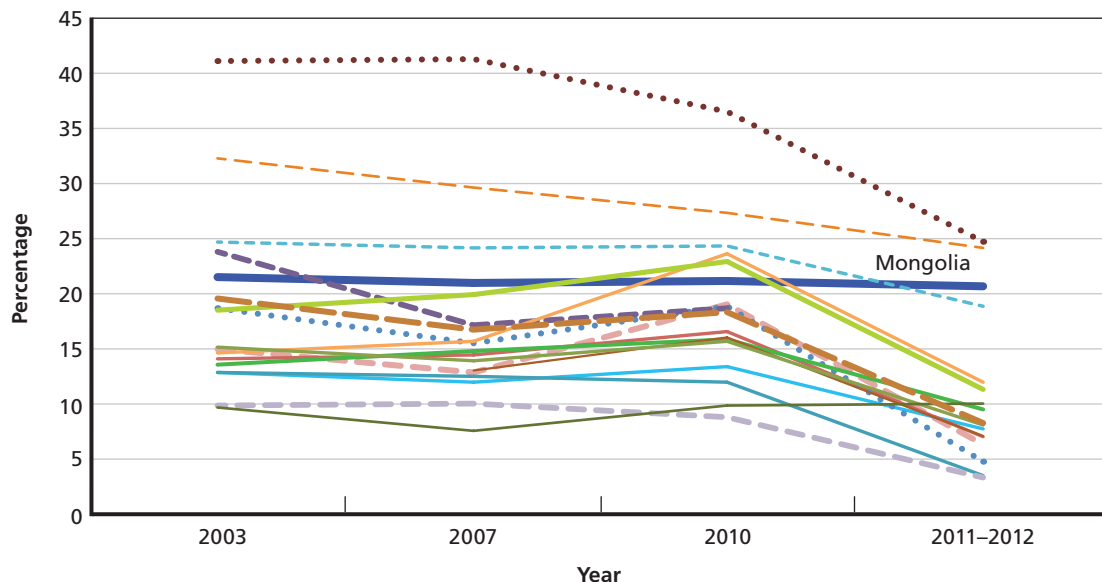
Analyzing NEET Youth in Mongolia

The NEET rate in Mongolia has remained constant and slightly above 20 percent since 2002–2003—well above that of many other countries (Figure 3.1). Unfortunately, data are not available for most of the transition countries we used for previous comparisons. NEET rates are not estimated as widely as other labor-market indicators, but the rates are available for member countries of the Organisation for Economic Co-operation and Development (OECD). We present OECD country rates in Figure 3.1, for comparable age groups. Mongolia's NEET rate is far above that of most OECD countries, most of which had rates below 10 percent in 2011–2012. In 2011–2012, Mongolia had the third-highest NEET rate when compared with the lower-income countries of the OECD, including Estonia, Hungary, Greece, Mexico, Israel, Slovak Republic, and Slovenia—three of which are among our small, transition comparison countries.

Overall in Mongolia, the NEET rate has held steady or fallen, but it has remained highest for young people in aimag centers (Figure 3.2). This is the first hint that those areas might have larger employment problems than the rest of Mongolia, as we will also see with other indicators in following sections.

There are differences by gender (Table 3.1). The NEET rate for females in 2013 was substantially larger than for males: 25.9 percent versus 16.0 percent. This difference is likely explained by young women who stay home to take care of their families. In fact, this gender difference is common throughout the world and is not particularly pronounced in Mongolia. In some other countries, the differences are larger. The NEET rate for females is higher than that for males in all parts of Mongolia, with the widest gap in Ulaanbaatar and the narrowest

Figure 3.1
NEET Rates in Mongolia and Other Countries

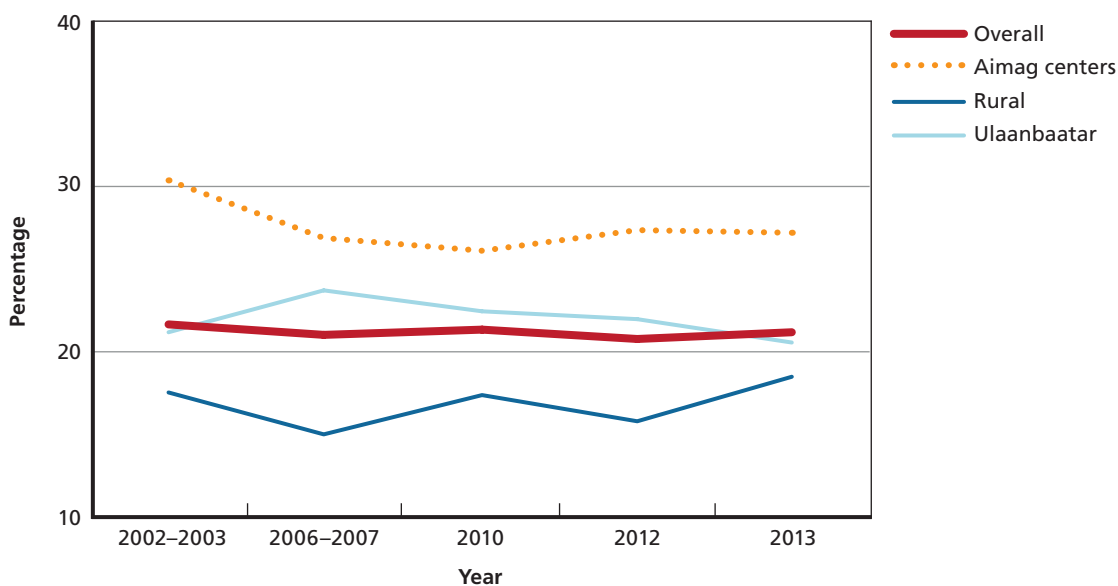


SOURCE: OECD Database, MLFSs.

NOTES: Dashed lines represent Estonia, Greece, Hungary, Israel, Mexico, Slovak Republic, Slovenia, and Turkey. Solid lines represent Canada, France, Germany, Italy, Japan, Spain, the United Kingdom, the United States, and the OECD average. We provide selected underlying data in Table A.4.

RAND RR1092-3.1

Figure 3.2
NEET in Mongolia Over Time



SOURCE: MLFSs.

NOTE: *Rural* consists of soum centers and the countryside.

RAND RR1092-3.2

Table 3.1
NEET Youth, 2013

Region	Gender	In School, Employment, or Both (%)	NEET (%)
National	All	78.9	21.1
	Male	84.0	16.0
	Female	74.1	25.9
Ulaanbaatar	All	79.5	20.5
	Male	86.6	13.4
	Female	73.2	26.8
Aimag centers	All	72.9	27.1
	Male	77.3	22.7
	Female	68.7	31.3
Rural	All	81.6	18.4
	Male	84.4	15.6
	Female	78.6	21.4

SOURCE: MLFS, 2013.

NOTE: *Rural* consists of soum centers and the countryside.

in rural areas. For both males and females, the NEET rate is highest in the aimag centers, followed by Ulaanbaatar.

Being among the NEET population is not necessarily negative. Some people who are NEET, females in particular, are in that category because they are taking care of their households. Therefore, even though they are NEET, they are conducting important activities for society. This highlights the importance of analyzing the activities of youth at a more detailed level.

To further analyze the activities of youth, we classified Mongolian youth into seven mutually exclusive and exhaustive activities. The first four include those who are not NEET. They include youth who are

- in school but out of the labor force (those who are not working and are not actively looking for work but are studying)
- in school and employed (those who are in school and work at the same time)
- in school but unemployed (those who are in school and are not employed but are willing to work and actively looking for a job)
- employed and not in school (those who are employed but are not studying at the same time).

The next three groups include the NEET youth—youth who are not in employment, education, or training. These groups include youth who are

- unemployed and not in school (those who are not employed but are willing and actively looking for work, and so are considered to be in the labor force)
- out of the labor force but doing household activities (those who are not in the labor force and state in surveys that this is because they are in charge of their households or are in charge of family members)
- out of the labor force and not doing household activities.

The final group can be classified as youth who are idle, because they are not doing any of the activities described above. They are not employed and are not looking for work, they are not in school or training, and they do not have household responsibilities. In some sense, this is the group that is most worrying from a social and economic perspective.

Table 3.2 shows youth divided into the seven subgroups. We first analyzed the three sub-NEET groups by gender. As hypothesized earlier, the biggest subgroup for NEET females is the category “doing household activities.” Almost 14 percent of females are NEET and in charge of household activities, whereas the other two subgroups amount to 12.1 percent of all young women. On the other hand, although the NEET rate for males is lower, the subgroup that is highest among them is the idle group—not studying, out of the labor force, and not doing household activities (7.8 percent).

The NEET rate is highest in aimag centers and Ulaanbaatar. In particular, the rate of unemployment among NEET youth is highest in aimag centers for both males and females. In addition, the rate of idle youth is highest in aimag centers for both males and females. It appears that aimag centers have proved to be difficult locations for youth to find work, and in these locations, young people are more likely to opt out of any productive activities.

Table 3.2
Activities of Youth Ages 15 to 29, 2013

Region	Gender	In School or Employment (%)				NEET (%)		
		Out of Labor Force, in School	Employed, in School	Unemployed, in School	Employed, Not in School	Unemployed	Out of Labor Force, Doing Household Activities	Out of Labor Force, Not Doing Household Activities
National	All	36.3	1.9	0.2	40.6	6.0	8.2	6.9
	Male	35.2	1.8	0.2	46.8	6.0	2.2	7.8
	Female	37.3	1.9	0.1	34.7	6.0	13.9	6.1
Ulaanbaatar	All	41.6	1.0	0.1	36.8	2.9	10.8	6.8
	Male	40.9	1.0	0.1	44.6	2.7	2.6	8.0
	Female	42.2	1.0	0.1	29.9	3.0	18.0	5.8
Aimag centers	All	38.1	1.0	0.5	33.3	11.9	7.1	8.0
	Male	38.2	1.1	0.1	37.4	11.9	1.9	8.9
	Female	37.9	1.0	0.4	29.4	12.0	12.0	7.3
Rural	All	28.0	3.5	0.1	50.0	6.8	5.2	6.4
	Male	26.6	3.2	0.2	54.4	6.8	2.0	6.8
	Female	29.6	3.8	0.0	45.3	6.7	8.8	5.9

SOURCE: MLFS, 2013.

NOTES: *Rural* consists of soum centers and the countryside. Rows might not sum to 100 because of rounding.

Rural areas have low NEET rates and, correspondingly, high rates of employment and education. This is likely driven by a family structure where all members contribute to work in agriculture and herding. Among students, the percentage that also works is higher in rural areas. Again, this is also probably because students can contribute to agricultural activities after school. We will discuss unemployment in more detail in Chapter Five.

Characteristics of NEET Youth and Non-NEET Youth

The relatively high rate of NEET youth in Mongolia is cause for some concern. Some members of this group are of prime working age, and it is important to understand the challenges they might be facing in finding work, in the case of the unemployed, or, for others, the underlying reasons for not participating in the labor market and not seeking further education and training. In this section, we draw from the ILS-RAND Mongolian Youth Survey to focus on the different groups of NEET youth delineated earlier in this chapter, concentrating exclusively on the 15-to-29 age bracket and omitting all respondents ages 30 to 34. This makes our findings comparable with international analysis of NEET youth. We review findings from the survey on each category's share of the youth population and discuss some of the factors behind their

employment and education decisions. We examine these relationships nationwide, and also across gender and geography.

Overall Characteristics of NEET Youth from the ILS-RAND Mongolian Youth Survey

NEET youth constitute 25 percent of the overall Mongolian youth population (Table 3.3).¹ This is higher than the MLFS estimate of 21 percent (Table 3.1).² We also estimate a slightly higher share of male youths as NEET (20 percent), compared with the MLFS estimate of 16 percent. On the other hand, the estimate of female NEET is virtually equal between both surveys. There is a relatively higher share of youth who are NEET in the aimag centers. Among youth whose highest level of education is basic, approximately 29 percent are NEET. This compares with 18 percent for youth whose highest level of completed education is a secondary degree, and 36 percent of youth with a TVET degree. Approximately 29 percent of youth whose highest level of education is a university degree are classified as NEET. NEET rates are also relatively higher for the older age groups (Table 3.3).

The more detailed breakdown of NEET youth is shown in Table 3.4.³ By definition, all NEET youth are out of education and training. As indicated earlier, NEET youth could be unemployed—that is, they are not working but are looking for work. Alternatively, they could be not working and not looking for work, and therefore out of the labor force; from within this group, they could be either contributing to household activities or not contributing. As above, we refer to those who are out of the labor force, not in school, and not contributing to household activities as *idle youth*. Nationally, NEET youth who are unemployed constitute the smallest share of this group. Approximately 10 percent of youth are out of the labor force and not attending school, but contributing to household chores, and close to 11 percent are idle youth.

Female NEET youth are a notably large share of the female youth population (close to 30 percent), and the largest group of them is out of the labor force and engaged in household activities. On the other hand, the largest group of male NEET youth, or 13 percent of the entire male youth population, would be classified as idle. This group is of particular concern because not only are they not contributing to society by working or to the household by carrying out chores but they are also not investing in their human capital by going to school, and are thus unlikely to improve their future prospects of finding suitable work. The proportion of male youth that is idle in Ulaanbaatar is statistically the same as the proportion that is idle in aimag centers, and the proportion that is idle in aimag centers is statistically the same as the

¹ These findings draw from questions D1, D2, D5, E1, E3, and E10 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

² The difference in the NEET rate between the 2014 ILS-RAND Mongolian Youth Survey and the 2013 MLFS is statistically significant. However, it is relatively modest, at around 4 percentage points. One main difference is the share of idle youth, a difference of 4 percentage points: 11 percent in the ILS-RAND survey and 7 percent in the MLFS 2013. There are smaller differences between the ILS-RAND survey and the MLFS 2013 survey on the other components of the NEET rate, including those who are unemployed and those who are out of the labor force but engaged in household activities. There could be a number of explanations for this difference, although it is not possible to pinpoint the exact reason from the data. One possible reason for the differences is in the timing of the ILS-RAND survey. Whereas the MLFS 2013 rolls up four quarters of data collected each month, the ILS-RAND survey was conducted from late August 2014 to late October 2014, and thus the NEET rate could be more sensitive to seasonal variation in employment.

³ These findings draw from questions D1, D2, D5, E1, E3, and E10 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 3.3
NEET Youth

	In School, Employed, or Both (%)	NEET (%)
All	75.0	25.0
Gender		
Male	79.6	20.4
Female	70.8	29.2
Region		
Ulaanbaatar	77.8	22.2
Aimag centers	75.6	24.4
Rural	71.0	29.0
Education		
Basic, or less	71.2	28.8
Secondary	82.1	17.9
TVET	63.7	36.3
University	71.2	28.8
Age group		
15–19	88.2	11.8
20–24	70.4	29.6
25–29	67.5	32.5

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: *N* = 3,664.

proportion in rural areas, but the proportion in Ulaanbaatar is lower and statistically different from the proportion in rural areas.

In general, lower parental education (both mother and father) is associated with higher NEET rates (Table 3.5).⁴ Youth whose parents completed less than a secondary education are far more likely to be NEET compared with youth whose parents completed a university education (33 or 34 percent versus 17 percent). Consistent with findings in most countries, this suggests that parent education might influence youth education and employment options and decisions.

Similarly, youth whose parents are not employed are more likely to be NEET youth than youth whose parents are employed (Table 3.6).⁵ However, the differences are not as stark as in education.

Households with higher monthly income also tend to have lower NEET rates. While 40 percent of youth whose households make 500,000 tugriks or less are classified as NEET,

⁴ These findings draw from questions J1 and J2 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

⁵ These findings draw from questions J3 and J7 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 3.4
Activities of Youth Ages 15 to 29

Region	Gender	In School, Employed, or Both (%)					NEET (%)	
		Out of Labor Force, in School	Employed, in School	Unemployed, in School	Employed, Not in School	Unemployed, Not in School	Out of Labor Force, Doing Household Activities	Out of Labor Force, Not Doing Household Activities
National	Male	31.2 (28.5–33.9)	4.9 (3.8–6.1)	1.0 (0.4–1.5)	42.4 (39.3–45.6)	3.3 (2.5–4.2)	3.8 (2.6–5.0)	13.3 (11.3–15.4)
	Female	37.4 (34.9–39.8)	4.2 (3.3–5.2)	0.7 (0.3–1.1)	28.6 (26.2–30.9)	5.0 (4.1–6.0)	15.6 (13.7–17.5)	8.5 (7.0–10.1)
	Total	34.4 (32.5–36.4)	4.6 (3.8–5.4)	0.8 (0.4–1.2)	35.2 (33.0–37.5)	4.2 (3.6–4.9)	9.9 (8.7–11.2)	10.8 (9.3–12.3)
Ulaanbaatar	Male	33.2 (28.7–37.7)	5.5 (3.5–7.4)	1.4 (0.5–2.4)	45.9 (40.8–50.9)	2.1 (1.1–3.2)	2.2 (1.3–3.2)	9.7 (7.1–12.2)
	Female	37.1 (33.1–41.0)	5.3 (3.8–6.9)	0.7 (0.1–1.3)	27.4 (24.2–30.7)	4.3 (2.8–5.7)	17.2 (14.2–20.1)	8.0 (6.2–9.9)
	Total	35.2 (32.0–38.4)	5.4 (4.0–6.8)	1.0 (0.4–1.6)	36.2 (32.9–39.5)	3.3 (2.3–4.2)	10.1 (8.5–11.7)	8.8 (7.1–10.6)
Aimag centers	Male	29.4 (25.1–33.7)	4.9 (3.1–6.8)	1.1 (0.0–2.5)	42.1 (35.7–48.5)	5.4 (2.9–7.9)	3.0 (1.1–4.8)	14.0 (9.8–18.3)
	Female	38.5 (33.3–43.7)	5.5 (3.1–7.9)	1.0 (0.0–2.2)	28.8 (23.7–33.9)	6.3 (4.0–8.6)	13.9 (10.2–17.5)	6.0 (2.7–9.4)
	Total	34.2 (30.9–37.5)	5.2 (3.6–6.9)	1.1 (0.0–2.1)	35.1 (30.5–39.7)	5.9 (4.2–7.6)	8.7 (6.4–11)	9.8 (6.8–12.8)
Rural	Male	29.8 (25.5–34.1)	4.3 (2.5–6.0)	0.3 (0.0–0.9)	38.3 (33.2–43.4)	3.7 (2.3–5.0)	6.1 (3.1–9.1)	17.5 (13.4–21.6)
	Female	37.1 (33.0–41.2)	2.0 (0.9–3.0)	0.4 (0.0–0.9)	30.0 (25.6–34.3)	5.3 (3.6–6.9)	14.6 (11.4–17.8)	10.7 (7.4–13.9)
	Total	33.5 (30.1–36.8)	3.1 (2.0–4.2)	0.4 (0.0–0.8)	34.1 (30.0–38.2)	4.5 (3.5–5.5)	10.4 (7.8–13.0)	14.0 (11.0–17.1)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: $N = 3,664$.

the NEET rate is far lower among youth in households with higher income (Table 3.7).⁶ It is important to note that employed youth are also contributing to the household income, and it might be that, in Mongolia, households with higher income levels have either youth contributing to that income or youth who can afford to continue their education and training. This provides limited evidence that household wealth is not enabling youth to become NEET.

⁶ These findings draw from question J16 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 3.5
NEET Youth, by Parental Education

Parent's Education	In School, Employed, or Both (%)	NEET (%)
Father		
Basic, or less	67.1	32.9
Secondary or TVET	76.6	23.4
University	82.8	17.2
Don't know	74.1	25.9
Mother		
Basic, or less	65.7	34.3
Secondary or TVET	76.1	23.9
University	82.5	17.5
Don't know	66.1	33.9

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: $N = 3,664$.

Table 3.6
NEET Youth, by Parental Employment Status

Parent Employment Status	In School, Employed, or Both (%)	NEET (%)
Father		
Employed	77.7	22.3
Not employed	72.3	27.7
Mother		
Employed	77.8	22.2
Not employed	71.5	28.5

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: $N = 3,664$.

Table 3.7
NEET Status, by Monthly Household Income

Household Income	In School, Employment, or Both (%)	NEET (%)
500,000 tugriks or less	59.9	40.1
501,000–1,000,000 tugriks	79.1	20.9
Greater than 1,000,000 tugriks	88.7	11.3

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: $N = 3,664$.

Aspirations and Life Goals of NEET Youth

NEET youth and non-NEET youth have some similarities regarding their life aspirations (Table 3.8).⁷ Both NEET youth and non-NEET youth place emphasis on having a good family life as a life goal. However, youth who are in school or working place greater emphasis than NEET youth on being successful at work. The difference is greater among females. Fifteen percent of female NEET youth indicated that being successful at work was the most important life goal, whereas more than 20 percent of females in school or employment did the same. Notably, although 50 percent of female NEET youth indicated having a good family life was the most important goal, for females in school or who were working, that number was 40 percent. Additionally, almost none of the NEET youth identified leisure time as their most important goal. For both NEET youth and non-NEET youth asked to rank their most important goal, making a contribution to society came in third. A difference might be what they considered a contribution to society, and potential candidates could include a work contribution or a family contribution.

An important question is whether NEET youth and non-NEET youth perceive obstacles to finding work differently. Identifying some of the reasons could help in designing remedial measures. In the survey, we inquired of all youth, both NEET and non-NEET, about these obstacles (Table 3.9).⁸ NEET youth were more likely than non-NEET youth to report not enough education, not enough available jobs, low wages, lack of information about the avail-

Table 3.8
Most-Important Goals in Life for NEET and Non-NEET Youth

Goal	Male (%)		Female (%)	
	NEET	In School, Employed, or Both	NEET	In School, Employed, or Both
Being successful in work	17.5	20.5	15.4	21.3
Making a contribution to society	13.6	11.5	11.5	11.7
Participating in local community affairs	1.1	1.0	1.1	0.9
Upholding religious faith	0.3	0.1	0.2	0.5
Having lots of money	8.4	7.5	1.8	3.7
Having a good family life	45.0	40.3	49.7	39.9
Having leisure time	NR	0.8	0.4	0.9
Having a lot of different experiences	4.8	4.6	5.7	5.0
Finding purpose and meaning in life	3.4	5.4	4.6	5.9
Building self-esteem, confidence, and finding personal fulfillment	6.0	8.4	9.8	10.1

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: *N* = 3,664. NR = no response. Columns might not sum to 100 because of rounding.

⁷ These findings draw from question I3 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

⁸ These findings draw from question E30 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

ability of work, and problems at home as obstacles to finding a job. On the other hand, non-NEET youth, meaning youth who were enrolled in school or employed (or both), were more likely than NEET youth to report no work experience, being considered too young, and “other” as obstacles. Given that non-NEET youth are either employed or in school, we would expect youth in school to report being too young or not having experience as an obstacle. The “other” category might also include full-time school enrollment as an obstacle to finding work. These results suggest that NEET youth face important barriers that non-NEET youth do not.

We can investigate this one other way, by grouping the three education-related obstacles: not enough education, no suitable training opportunities, and a mismatch between education received and education required. When grouped in this way, 23.3 percent of NEET youth cited an education-related obstacle as their main obstacle, whereas only 17.1 percent of non-NEET youth did. This raises further concern about education and training opportunities for youth.

An important potential concern with NEET youth, especially idle youth, is that they have little or no desire to find work eventually. According to the survey, a slightly higher share of non-NEET youth (90 percent) than NEET youth (85 percent) expressed desire to work

Table 3.9
Main Problem or Obstacle to Finding a Job, by NEET Status

Problem/Obstacle	In School, Employed, or Both (%)	NEET (%)
Not enough education	9.1	14.2
No suitable training opportunities	1.8	1.3
Mismatch (education received vs. requirements)	6.2	7.8
No work experience	15.5	12.2
Not enough jobs available	8.9	18.5
Considered too young	14.3	1.5
Being male or female	0.4	0.3
Discriminatory prejudices	0.2	1.2
Low wages in available jobs	4.2	7.8
Poor working conditions in available jobs	1.1	2.2
Lack of information about availability of work	2.6	4.8
Location	0.6	1.9
Problems at home	1.1	7.5
Appearance, physical development	0.1	0.4
Other	34.0	18.5

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: $N = 1,956$.

(Table 3.10).⁹ However, these numbers are statistically the same, so it is likely that NEET youth and non-NEET youth have the same desire to find work eventually.

How They Support Themselves

Compared with youth in school, NEET youth are about equally as likely to rely on themselves for income but less likely to rely on family for income (Table 3.11).¹⁰ However, NEET youth are quite a bit more likely to rely on other sources of income than students. Up to 20 percent of idle youth relied on other source of income for their needs. These other sources include unemployment benefits, pension benefits, or other social security benefits; training allowance or educational grant; other social allowance or monetary aid and assistance; charity organization; and other unidentified sources. Interestingly, even if they were not working, some NEET youth did report their own sources of income, as noted immediately above. These sources include a regu-

Table 3.10
Desire to Work, by NEET Status

Desire to Work in Future?	In School, Employed, or Both (%)	NEET (%)
Yes	89.8 (86.5–93.1)	84.9 (80.7–89.2)
No	10.2 (6.9–13.5)	15.1 (10.8–19.3)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: $N = 2,228$. 95-percent confidence intervals are in parentheses.

Table 3.11
Source of Income, NEET Versus Non-NEET Youth

Source of Money	In School, Employed, or Both (%)			NEET (%)	
	In School	Employed	Unemployed, Not in School	Out of Labor Force, Doing Household Activities	Out of Labor Force, Not Doing Household Activities
From self	12.2	80.7	11.9	14.0	11.9
From family	87.7	28.9	81.1	76.7	72.5
From other	6.7	6.1	15.0	14.2	19.7

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: $N = 3,664$. Support from self includes a regular job, interest from savings, income from assets, income from real estate, rental income, and work in the “black economy.” Support from family includes support from parents or other family, spouse or partner, and relatives. Support from other includes unemployment, pension, or other social security benefits; training allowance or educational grant; other social allowance or monetary aid and assistance; charity organization; and other.

⁹ These findings draw from question E13 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

¹⁰ These findings draw from question I16 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

lar job (unlikely if they are truly NEET), interest from savings, income from assets, income from real estate, rental income, and work in the “black economy” (which, again, would mean that they are not truly NEET).

Conclusions About NEET Youth in Mongolia

NEET youth present a challenge to policymakers concerned about the economy. NEET youth are not building their own human capital, through education or training, and they are not contributing to their own welfare or the economy, through employment. If they are doing household activities, they are contributing by taking care of the household, albeit not necessarily improving on their skills. More concerning are those who are unemployed or idle, because their contribution to their own welfare, the economy, and society is extremely limited. A high NEET rate also harms future economic progress because employment while young can help build skills for future employment achievement.

Mongolia has a relatively high NEET rate. NEET youth value family and want to contribute to society, just as non-NEET youth do. But they cite certain barriers to employment that are less cited by non-NEET youth. These include not enough education, lack of information about the availability of work, and problems at home. These are all areas for policy intervention—specifically, helping with opportunities for education, providing information about job opportunities, and targeting social assistance, including social work and mental health services aimed at families. Two other areas are less amenable to policy. These areas are not enough jobs and low wages. Most people who look for work can find it. The bigger problem is that the jobs might not be very desirable. This is linked to low wages. It could be that NEET youth face low wages because they do not have skills. The preferred policy intervention in this case would be to build up young people’s skills, rather than to create specific jobs.

The Demand for Mongolian Labor

The supply of labor is only one side of a labor market. Willing workers provide their services at the going rate of compensation. Whether they can find a job depends on the demand side—the employers who hire people or the derived demand of customers who buy goods and services from businesses and self-employed individuals. In this chapter, we discuss the demand for Mongolian labor.

Determinants of the Demand for Labor

In economic theory, labor demand depends on the value of what each worker can produce. If employers think that an additional worker will produce more than the cost of compensation, they will hire that worker. When demand for labor is high, the number of jobs increases, and compensation increases as well.

Many things influence the productivity of labor, and thus the demand for labor. One important contributor is capital. Workers can produce more with the right tools, and so with all else equal, greater investment leads to greater employment and higher wages.

This suggests a corollary: Any government policy that influences investment and the business climate is also labor policy—any policy that leads to increased investment and higher productivity also leads to higher employment and higher wages. These policies could include the investment environment, including the ease of registering a business, getting financing, and renting or buying land; trade regulations that influence the ease of trading goods and services across borders; the quality of infrastructure, since better infrastructure is related to higher productivity; and even incentives given to businesses to hire more labor, since that decreases the cost of labor relative to the value of what that labor produces.

A machine or tool only makes a worker more productive if the worker knows or learns how to use it. Another way to put this is that capital investment and skills are *complements*—investment contributes more to productivity in the hands of skilled workers, and skilled workers contribute more to productivity when they have good equipment. This suggests that the productivity of labor can also depend on skills, and these are influenced by education, training, and experience. So education and training have a strong influence on both labor supply and demand. They increase the effective supply by making workers more capable, and they increase demand by raising worker productivity. This suggests that policymakers should pay particular attention to education and training if they want to increase the number of jobs and the quality of those jobs.

Employer Views of Mongolian Labor

We start with a brief discussion of employer views of Mongolian labor. A full analysis of the demand side of the labor market would involve an investment climate analysis, including an analysis of laws and regulations, rules for trading internationally, rules for permits, and numerous other factors that influence the ability and desire of businesses to invest. Such an analysis is beyond the scope of this research. Instead, we first draw from the Enterprise Survey Program of the World Bank and International Finance Corporation (World Bank and International Finance Corporation, n.d., 2010, 2014a, 2014b) and then review material we learned in targeted interviews.

Enterprise Survey Results

Mongolian firms have become more satisfied with the education of the labor force relative to other challenges they face. In 2013, only 7.5 percent of Mongolian enterprises viewed an inadequately educated workforce as their biggest obstacle, down from 10.2 percent in 2009.¹ In 2009, this was ranked third among all obstacles in terms of the percentage of firms considering it the biggest obstacle, behind only access to finance and tax rates. But by 2013, it was sixth. This improvement is especially evident among foreign-invested firms. In 2009, 16.6 percent of firms with foreign ownership of 10 percent or greater noted that an inadequately educated workforce was their biggest obstacle problem. By 2013, this had fallen to 0.7 percent of such firms. However, as we note below, although lack of education is not generally considered the biggest obstacle, it is still considered a major obstacle by many firms.

Mongolian firms also reported higher employment growth and labor productivity growth compared with both world and regional averages. In 2013, these firms reported annual employment growth of 9.4 percent, up from 9.1 percent in 2009. They reported annual labor productivity growth of 8.5 percent, down from 10.4 percent in 2009. For all countries of the world, averaging survey responses between 2009 and 2013, annual employment growth was 5.4 percent and annual labor productivity growth was 2.9 percent. For countries in the East Asia and the Pacific region, annual employment growth was 6.8 percent and annual labor productivity growth was 6.9 percent.

One of the factors that can depress labor demand is labor regulations that raise the cost of hiring or firing. The Enterprise Surveys indicate that this is not a problem in Mongolia. In 2013, only 2.8 percent of all firms identified labor regulations as a major constraint, down from 4.1 percent in 2009. Both these figures were well below regional and global averages.

However, as the economy has grown, the demand for educated labor appears to have risen, and this does appear to be a constraint, even if it is not the biggest obstacle. Specifically, in 2013, 24.3 percent of Mongolian firms in the Enterprise Survey noted that an inadequately educated workforce was a major constraint, up very strongly from 15.2 percent in the 2009

¹ Specifically, the survey in each year asked the following question, designated as question M.1: “By looking at card [insert card number] can you tell me which of the elements of the business environment included in the list, if any, currently represents the biggest obstacle faced by this establishment SHOW CARD 25.” The card had the following responses: “1-Access to finance, 2-Access to land, 3-Business licensing and permits, 4-Corruption, 5-Courts, 6-Crime, theft and disorder, 7-Customs and trade regulations, 8-Electricity, 9-Inadequately educated workforce, 10-Labor regulations, 11-Political instability, 12-Practices of competitors in the informal sector, 13-Tax administration, 14-Tax rates, 15-Transport” (World Bank and International Finance Corporation, 2014b).

survey.² This is also above the regional average and about equal to the world average. In 2013, this seemed to be a particular problem for medium-sized firms, those with 20–99 employees. Of these, 43.1 percent reported that an inadequately educated workforce was a major constraint. This also seemed to be a problem in the Western region, where 39.1 percent of firms reported that an inadequately educated workforce was a major constraint. It was also more of a problem for domestic firms than for foreign-invested firm; foreign-invested firms might pay more and have better human resources practices, and therefore could have an easier time finding educated labor.

Findings from Interviews with Mongolian Businesses

Members of the RAND and ILS teams met with a selection of employers from a variety of sectors during 2014 to discuss labor-market conditions in Mongolia from the demand point of view. In terms of laws and regulations, employers consistently said that there were few regulatory barriers to hiring people. However, they said that it was difficult to fire people, some legal clauses were confusing, and enforcement was sometimes inconsistent. The labor market also appears to be flexible from the employee's point of view, which can present problems for employers. Employers reported that, especially during the economic boom years, turnover could be high, with employees leaving for better opportunities. Some employers reported that they could solve this problem with higher pay or incentive pay, and better human resources practices.

The biggest gaps noted were in a lack of practical knowledge among new employees and in soft skills. Some of this is to be expected. As one employer told us, “In any country, no student can meet all requirements.” Recognizing that, employers consistently said that people coming to them from the education system had theoretical knowledge but not enough practical knowledge. In addition, in some fields, the theoretical knowledge was outdated, but this was a relatively rare statement. Some employers noted that they had high demand for technical workers that was not being fully met by the labor market.

In terms of soft skills, employers mentioned a number of issues. These included problem solving, critical thinking, working in teams, time management, communication and presentation skills, and even personal attitude toward work. Part of this personal attitude was reported to be a sense by university graduates that they were more ready for management positions than they actually were.

We now turn to a discussion of the education of the Mongolian labor force. As noted, this is a proxy for the productivity of labor, an important element of creating demand for workers in the economy.

² Although the results are reported using the term *constraint*, the question uses the term *obstacle*. Specifically, the Enterprise Surveys ask in question L.30: “Using the response options on the card; To what degree is an Inadequately Educated Workforce an obstacle to the current operations of this establishment? INTERVIEWER: SHOW CARD 22.” The options on the card include “No obstacle, Minor obstacle, Moderate obstacle, Major obstacle, Very Severe Obstacle, Do Not Know (spontaneous), Does Not Apply (spontaneous).” The result is coded as variable L30b (World Bank and International Finance Corporation, 2014b).

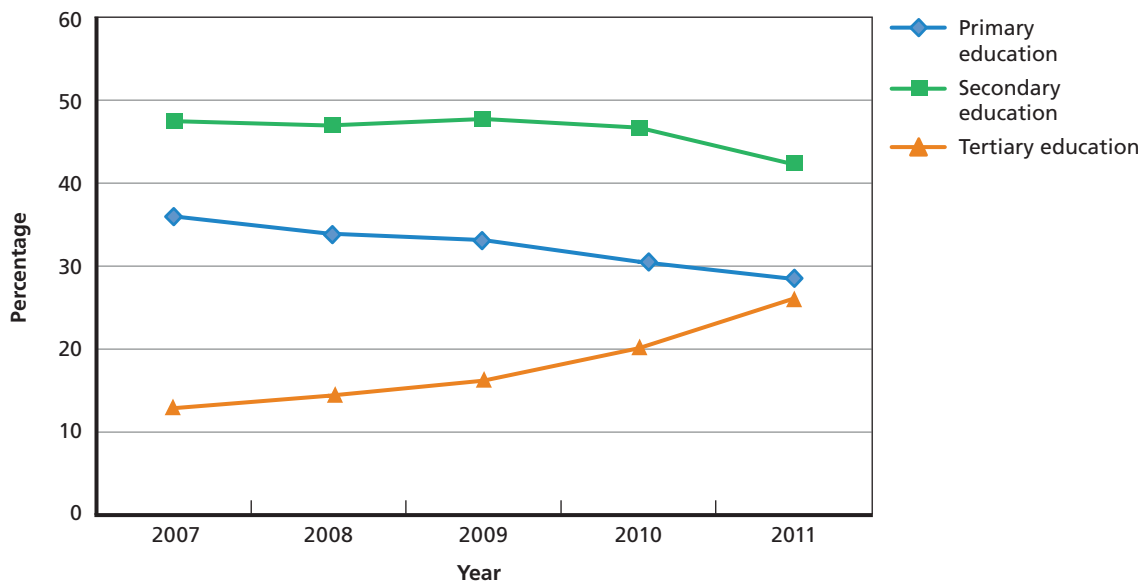
The Education of the Mongolian Labor Force

The education level of the Mongolian labor force has been increasing steadily (Figure 4.1). Particularly striking is that the percentage of the labor force with completed tertiary education has more than doubled since 2007.

Not only is the current labor force more educated but the future labor force will be more educated as well. As seen in Figure 4.2 (which repeats Figure 2.4), educational enrollment increased by more than 5 percentage points between 2002–2003 and 2010. This is a *leading indicator* (an indicator that says something about the future) of the skills of the future workforce, as higher enrollments now imply a more educated workforce in the future. It is important to note that this trend was reversed in 2012 and 2013, when the economy was growing rapidly. Whether this is a temporary setback or a change in trends will be important for the future of the Mongolian population.

Political and economic changes since 1990 appear to have led not only to achievement at the top of the education scale but also to a broadening of education (Figure 4.3). In Soviet-dominated times, levels of tertiary education were high and have been surpassed only recently by the age group that was ages 25 to 29 in 2013. However, in Soviet-dominated times, levels of secondary education were low, and the proportion of the population without any educational achievement was extremely high. In the new millennium, secondary school achievement has broadened dramatically. This might have positive implications for the future of the Mongolian economy. In world economic history, the United States instituted mass secondary schooling well ahead of other industrialized nations, but this occurred at different times and different rates throughout the country. Those U.S. states with higher secondary school graduation rates had faster growth of income than otherwise would have been expected given other income determinants (Goldin, 1998).

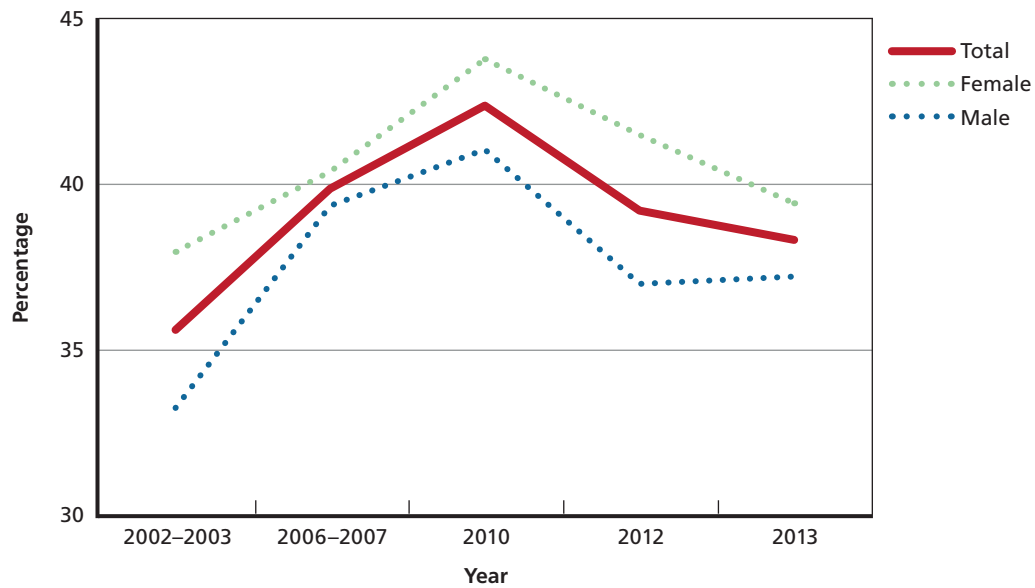
Figure 4.1
Education of the Mongolian Labor Force



SOURCE: World Bank World Development Indicators.

RAND RR1092-4.1

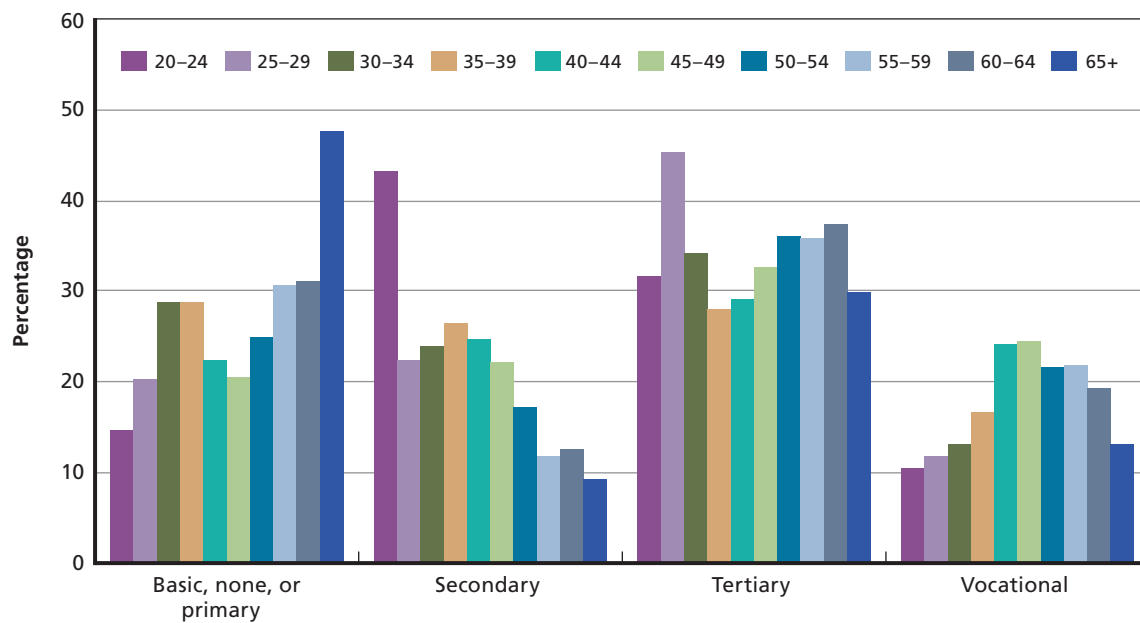
Figure 4.2
School Enrollment of Future Labor-Market Entrants



SOURCE: MLFSs.

RAND RR1092-4.2

Figure 4.3
Completed Education Level, by Age Group, 2013



SOURCE: MLFS, 2013.

RAND RR1092-4.3

Youth Education in the ILS-RAND Mongolian Youth Survey

Mongolian youth were asked what they had studied in secondary school, if completed, as well as what they planned to study in university, if they were currently enrolled or planning to continue their studies (Table 4.1).³ About 20 percent of youth indicated that they were studying a discipline related to science, technology, engineering, and math, known as *STEM*, in secondary school.⁴ The proportion that chose to study a STEM-related field is statistically the same when comparing males and females. Only in rural areas is the proportion lower.

We note that not all students choose a secondary school field. Of those who had chosen, 57 percent chose a STEM field. There is no statistical difference in the proportions by male and female, or by region.

This interest in STEM is also evident in plans for higher education. Slightly more than 44 percent of young people indicated that they plan to study a STEM subject in university, but at this level of education, gender differences emerge. Specifically, whereas 56.0 percent of males indicated plans to study in a STEM-related field, a statistically significantly lower 35.1 percent of females did so. There were no statistical differences by region. Some students indicated that they had not yet decided on their courses of study in university. However, this group was small, and the results excluding that group were similar.

According to the survey, the majority of people worked in the profession they studied (Table 4.2).⁵ However, in a developed market, it is not important that people work in the job they studied, but that they find jobs in which they can succeed. Moreover, if people are working, they are developing additional skills that they might not have acquired while in school but are nonetheless useful for that particular job. In Table 4.2, we list the type of occupation the youth indicated they studied in school and then list the first-, second-, and third-most likely occupations that they reported working in. Forty percent of youth who reported having studied for a managerial position in school were working as managers, followed by 19 percent as professionals, and 17 percent in service and sales. The remaining 24 percent who studied to be managers worked in other occupations. A career in service and sales was relatively common, no matter what occupation was studied, except youth who studied to be in skilled agricultural, forestry, and fishery; plant and machine operators and assemblers; and in elementary occupa-

Table 4.1
Currently Studying or Planning to Study STEM Fields

	Gender		Region		
	Male	Female	Ulaanbaatar	Aimag Centers	Rural
Studying STEM in secondary school	18.6	20.5	23.0	22.8	11.7
Planning to study STEM in university	56.0	35.1	41.3	46.5	46.9

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: *N* = 1,297.

³ These findings draw from questions C19 and C24 from the Mongolia Youth Survey; see Appendix C.

⁴ STEM disciplines include any one of mathematics, natural sciences, or engineering/industry (secondary school); industry/technical (postsecondary); health sciences; or medicine.

⁵ These findings draw from questions FA6 and C10 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 4.2
Principal Qualifications Obtained in Education, by Occupation in Main Job

Study Occupation	Most Likely Occupation		
	First	Second	Third
Managers	Manager (40%)	Professional (19%)	Service and sales (17%)
Professionals	Professionals (60%)	Service and sales (13%)	Managers (9%)
Technicians and associate professionals	Technicians and associate professionals (58%)	Service and sales (16%)	Elementary occupations (7%)
Clerical support	Clerical support (50%)	Managers; service and sales; plant and machine operators, and assemblers (13%)	Elementary occupations (12%)
Service and sales	Service and sales (76%)	Elementary occupations (11%)	Managers (6%)
Skilled agricultural, forestry, and fishery	Skilled agricultural, forestry, and fishery (100%)		
Craft and related trades	Craft and related trades workers (54%)	Service and sales (17%)	Plant and machine operators and assemblers (14%)
Plant and machine operators, and assemblers	Plant and machine operators and assemblers (64%)	Craft and related trades (20%)	Clerical support; service and sales; skilled agricultural, forestry, and fishery; elementary occupations (4%)
Elementary occupations	Elementary occupations (51%)	Craft and related trades (49%)	

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: $N = 948$.

tions. In other words, if a young person studied in a profession and worked in something else, that person was likely to be a service and sales worker. Service and sales typically requires a customer service orientation and what are known as *soft skills*, such as the ability to form good interpersonal relationships, work in teams, and act professionally.

Perceived Preparation for Work

One measure of the quality of the education system is the subjective perception of youth of how well it prepares them for work (Table 4.3).⁶ The vast majority of youth rated their current education or training useful in terms of helping them gain employment. Few differences were noted between location and gender.

On the other hand, once out of education, youth were more likely to rate that their education or training was not as helpful with getting a job (Table 4.4).⁷ It seems logical to assume that the youth who are no longer in school and have had the experience of searching for a job

⁶ These findings draw from question C27 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

⁷ These findings draw from question C33 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 4.3
Perceived Usefulness of Education or Training Currently Received

Usefulness	Gender		Region		
	Male	Female	Ulaanbaatar	Aimag Centers	Rural
Very useful	73.5	72.2	72.8	75.8	70.9
Somewhat useful	23.8	25.7	25.2	22.5	25.7
Not useful	2.7	2.1	1.9	1.7	3.4

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: $N = 1,434$.

Table 4.4
Perceived Usefulness of Education or Training Received in the Past

Usefulness	Gender		Region		
	Male	Female	Ulaanbaatar	Aimag Centers	Rural
Very useful	41.4	44.5	48.7	45.5	34.9
Somewhat useful	28.7	32.0	32.0	33.9	26.5
Not useful	9.2	7.0	4.7	6.2	13.0
Did not attend any education or training	20.7	16.5	14.6	14.4	25.6

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: $N = 3,110$.

might be more likely to report that the education or training they received was not helpful to them.

Participation in Training Courses

Skill building can come not just from academic education but also from shorter courses aimed at personal services and the trades, such as hairdresser, plumber, seamstress, heavy equipment operator, or goldsmith. Only about 17 percent of Mongolian youth had undertaken such training in the three years before the survey, but the ILS-RAND Mongolian Youth Survey suggests that such training pays off.⁸ We note one important warning, however: It might be the case that youth who take such courses are more ambitious or highly motivated than youth who do not take such courses. In this case, the success of the young people who take the courses could be attributed in part or in whole to their ambition and motivation, rather than the training course. This is a promising area for a formal evaluation study.

⁸ These findings draw from questions C34, FA16, FA17, and FA20 of the ILS-RAND Mongolia Youth Survey, along with questions on age, education, and location of residence; see Appendix C.

Youth who had taken such training courses were more likely to be employed than youth who had not. Of those with training, 55 percent were employed, compared with only 42 percent of those who had not taken such training courses. This was especially true in aimag centers and rural areas, where the employment differences between people who had training and those who did not were statistically significant.

A far lower proportion of youth in rural areas took these courses than youth in aimag centers or Ulaanbaatar (Table 4.5). Yet youth in rural areas who took training courses had very high rates of employment compared with rural youth who did not take training courses. This suggests there is an issue of access—training appears to pay off in rural areas, but training opportunities might be limited.

Youth were also asked to indicate what types of more-general training and job preparation activities they engaged in (Table 4.6).⁹ Self-preparation was cited most frequently, but group training, foreign language training, and computer training were also cited. Getting advice from parents was cited 11 percent to 12 percent of the time and getting advice from teachers in school was cited about 10 percent of the time. Participation in workplace training was cited 10 to 11 percent of the time by youth. There were few differences between males and females, although females were more likely to cite participating in group training (18 percent versus 16 percent), retraining organized by the school (12 percent versus 9 percent), and language training (16 percent versus 12 percent). Otherwise, the differences between males and females were quite modest. In terms of geographic differences, one notable difference was that in the aimag centers, participating in group training was cited 25 percent of the time, compared with 13 percent in Ulaanbaatar and 18 percent in rural areas.

The findings suggest that youth rely much more on self-preparation than other sources in job-related search and training activities. Less than 5 percent of youth cited attending career fairs organized by their schools, participating in career guidance sessions, or directly engaging in employer interaction by visiting job sites. These types of activities could be helpful in searching for a job that most closely matches interests and skills. These activities could also help in

Table 4.5
Study in a Professional Course or Qualification Training,
Previous Three Years

Region	Yes (%)	No (%)
Mongolia	16.5 (14.9–18.2)	83.5 (81.8–85.1)
Ulaanbaatar	19.4 (16.8–21.9)	80.6 (78.1–83.2)
Aimag centers	19.8 (16.2–23.3)	80.2 (76.7–83.8)
Rural	11.1 (8.9–13.3)	88.9 (86.7–91.1)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: *N* = 4,544. 95-percent confidence intervals are in parentheses.

⁹ These findings draw from question C36 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 4.6
Youth Participation in Training Programs or Job-Search Related Activities

Type of Activity	Gender (%)		Region (%)		
	Male	Female	Ulaanbaatar	Aimag Centers	Rural
Participate in individual training	8.4	9.4	11.1	7.8	6.8
Participate in group training	16.1	18.4	13.0	25.3	18.1
Participate in online training	4.8	5.6	4.7	6.7	5.1
Participate in retraining organized by school	9.0	11.9	7.9	15.8	10.7
Prepare by myself	24.6	25.5	26.9	28.3	20.9
Participate in foreign language training/courses	11.5	15.8	14.5	17.9	10.3
Participate in TOEIC/TOEFL preparation	5.4	6.7	9.2	5.8	2.3
Participate in computer training	10.5	12.0	11.5	12.5	10.3
Get information from Internet	8.4	9.2	10.1	11.2	5.8
Get information from television, newspapers, magazines	4.6	4.4	5.1	5.4	3.4
Attend lectures/seminar about job selection	6.4	6.0	4.8	8.7	6.5
Get information from contents of lesson and training	3.7	3.2	3.0	5.2	3.0
Get information from books and handouts	4.8	6.6	4.7	6.5	6.5
Take psychological test	1.4	1.8	1.5	1.8	1.6
Get information from teachers and school	9.1	10.5	8.4	10.9	10.9
Get advice from parents	11.8	10.7	10.5	13.3	10.9
Get advice from brothers and sisters who already graduated	3.9	4.5	3.9	4.1	4.6
Participate in program at workplace and in industrial practice	10.8	9.7	8.3	12.5	11.3
Participate in the labor fair organized by school	3.0	2.5	2.8	3.2	2.4
Participate in individual and group programs for career guidance	3.2	2.6	2.2	3.3	3.4
Participate in tours to get acquainted with activities of organizations	1.1	0.9	1.0	1.2	0.8
Other	6.2	5.2	1.7	6.1	10.5
None of the above	13.0	8.3	6.9	7.9	16.7

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: $N = 4,508$ to $4,519$ for each row. Respondents could choose more than one option. TOEIC = Test of English for International Communication; TOEFL = Test of English as a Foreign Language.

selecting education and training that are needed to acquire skills for future jobs. By increasing youth access and exposure to these types of information and guidance resources during the basic and secondary education levels, these future workforce entrants will develop a better understanding of the requirements of certain careers and help them in their future choices related to education and training.

Labor Earnings

As discussed earlier, employers will hire workers if those workers produce more than they are paid, and demand is higher for more-productive workers. Productivity depends on both worker characteristics (education and skills, for example) and conditions of the larger economy (business environment and infrastructure, for example). The higher the skill level of the population and the better the business environment, the higher the level of employment and the higher the wages will be.

Labor earnings are usually measured per fixed period of time, such as hourly, daily, weekly, biweekly, or monthly. The measure includes not just the wage but also any benefits, such as retirement or vacation, since those are costs to the employer and something of value to the worker. From the employer's point of view, labor costs also include regulatory costs. So if there is a great deal of regulation, the cost of labor will be higher, and employers will be more cautious about creating jobs.

We estimated average earnings using the 2012 Mongolian household socioeconomic survey (MHSES), which includes an individual module that samples members of the household on such items as LFP, employment, and earnings. In 2012, the average annual earnings of an employed Mongolian at least 15 years old were roughly 4.5 million tugriks (Table 4.7). However, there were important differences in earnings by location across Mongolia. Employed Mongolians in Ulaanbaatar made 33.4 percent more than employed workers in rural areas, and 20.5 percent more than employed workers in aimag centers.

These differences likely reflect a number of different factors. Most people in rural areas are engaged in herding and other agriculture, and these are traditionally low-productivity sectors. Earnings reflect this productivity. In contrast, cities generally have higher-productivity jobs, and therefore higher earnings (Combes et al., 2012; Glaeser and Resseger, 2009). This is partly because the density of cities results in greater specialization and more information sharing among firms and workers, leading to higher productivity and more job openings for more highly educated people.

Table 4.7
Average Earnings, by Geography, 2012

Type of Locality	Annual (thousands of tugriks)	Monthly (thousands of tugriks)
Mongolia	4,476.5	373.0
Ulaanbaatar	5,047.2	420.6
Aimag centers	4,012.9	334.4
Rural	3,363.5	280.3

SOURCE: Estimates based on MHSES, 2012.

The literature has also pointed to differences in earnings by gender even after accounting for such factors as education and experience with wage differentials, ranging from 14 percent to 25 percent between males and females (Pastore, 2008; Ronnas, 2011; Khan, van den Brink, and Aslam, 2013; Batchuluun and Dalkhjavi, 2014). Studies point to discriminatory practices as one of the reasons, as well as occupational segregation (women explicitly or implicitly allowed to work only in certain occupations) away from higher-productivity sectors, such as mining, as well as weaker labor-market outcomes for women compared with men at the lower education levels (basic and secondary).

Earnings in the ILS-RAND Mongolian Youth Survey

Respondents in the ILS-RAND Mongolian Youth Survey had, on average, salaries higher than those reported in the MHSES. Employed people reported that they earned an average of 732,000 tugriks per month at their primary job, or about 8.8 million tugriks annually.¹⁰ The median was 600,000 tugriks per month, suggesting that some people earn well above the average. When converted to 2012 values after accounting for inflation, this amounted to an average of 589,000 tugriks per month, or slightly more than 7 million tugriks annually.¹¹ The median was 482,000 tugriks per month, or about 5.8 million tugriks annually.

This premium over the figures in the MHSES could have been driven by a number of factors. First, as noted in our discussion of the Enterprise Surveys, firms report that labor productivity has risen. As labor productivity rises, wages will naturally rise. Second, as we show below, there appears to have been a general upward trend in wages, with wages in 2012 about 35 percent to 40 percent higher than wages in 2010, even after adjusting for the education and experience of workers. In real terms, wages in our survey in August–September 2014 appear to be between 55 percent and 82 percent higher than wages reported in Table 4.7, when compared by geography.

Some of the premium could be driven partly by the educational mix of our survey population (Table 4.8). Younger labor-market participants are generally more highly educated than older labor-market participants. Accordingly, those who are working are likely to be earning more money than less educated older workers, although there is a premium for age. In our survey, university and TVET graduates earn more than others, although statistically the earnings for all the education groups could be equal because of the wide confidence intervals.

As we show in the next section, based on other data, there is a strong wage premium for higher education, and a wage premium for TVET education. These results appear in the ILS-RAND Mongolian Youth Survey as well, although the exact amounts are not statistically different.

¹⁰ These findings draw from question FA20 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

¹¹ We deflated the survey result by the Mongolian consumer price index to reach values equivalent to those shown in Table 4.7. Specifically, the mean annual income reported in question F20 of the ILS-RAND Mongolian Youth Survey was almost 8.8 million tugriks. Much of the survey was carried out in August 2014. The consumer price index rose 24.4 percent between August 2012 and August 2014, so we deflated the survey figure back to August 2012, since the MHSES was conducted in 2012. Had we deflated the survey result back to the beginning of 2012, the total would have been almost 6.4 million tugriks, still higher than the averages in the socioeconomic survey.

Table 4.8
Monthly Income in Primary Job, Thousands of Tugriks

Group	Median	Mean	95% Confidence Interval for Mean	
			Lower	Upper
In Current Tugriks				
By location				
Ulaanbaatar	700	843.7	762.3	925.1
Aimag centers	500	646.7	574.6	718.8
Rural	500	632.9	555.0	710.9
By age group				
15–19	400	492.9	416.9	568.9
20–24	600	759.0	642.8	875.2
25–29	600	754.8	686.7	822.9
30–34	589	737.1	680.1	794.0
By education				
Basic or less	500	642.1	548.8	735.4
Secondary	600	699.3	614.8	783.8
TVET	500	789.9	485.8	1,094.0
University	600	782.3	735.7	828.8
In August 2012 Tugriks				
By location				
Ulaanbaatar	562.8	678.3	612.8	743.7
Aimag centers	402.0	519.9	461.9	577.9
Rural	402.0	508.8	446.2	571.5
By age group				
15–19	321.6	396.3	335.2	457.4
20–24	482.4	610.2	516.8	703.6
25–29	482.4	606.8	552.1	661.6
30–34	473.5	592.6	546.8	638.3
By education				
Basic or Less	402.0	516.2	441.2	591.2
Secondary	482.4	562.2	494.3	630.1
TVET	402.0	635.0	390.6	879.5
University	482.4	628.9	591.5	666.3

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: *N* = 4,544.

Desired Salary

The youth in the survey are ambitious when it comes to salary. Even though those currently working earn 732,000 tugriks per month, youth said, on average, they desired a salary of 970,000 per month.¹² This differed little by age group, although it differed a great deal by gender, location, and education (Table 4.9). Males would like to earn a higher salary than females. This might be related to education, as males might be studying subjects that are rewarded with higher salaries in the labor market. However, it also might be related to self-image and aspirations. Some research outside Mongolia suggests that females tend to under-value themselves on the labor market. For example, one company found that although women were more likely than men to meet or exceed performance expectations, they were less likely to apply for promotions (Desvaux, Devillard-Hoellinger, and Meaney, 2008). Another study found that women were less likely than men to negotiate their starting salary (Babcock et al., 2003). And directly comparable with our results, a study of Dutch university students found that women had lower expectations regarding starting salary than did men (Need and de Jong, 2008). We caution that we have not conditioned desired salary of Mongolian youth by education or choice of profession, and these can make a large difference.

Youth in Ulaanbaatar have a much higher desired salary than youth elsewhere. Their reasons might be that they know they have higher earning potential in Ulaanbaatar, or they understand that living in the capital is more expensive than elsewhere and so they will need a higher income to have decent lives. Finally, university graduates have much higher salary expectations than others, with expectations of secondary school and TVET graduates essen-

Table 4.9
Desired Monthly Salary, Thousands of Tugriks

Group	Desired Salary	Group	Desired Salary
By sex		By location	
Males	1,045.8 (21.4)	Ulaanbaatar	1,133.0 (32.5)
Females	900.2 (18.5)	Aimag centers	887.1 (25.3)
		Rural	817.7 (17.9)
By age group		By education	
15–19	946.8 (26.5)	Basic or below	811.2 (25.1)
20–24	968.6 (21.7)	Secondary	988.2 (20.7)
25–29	991.4 (25.8)	TVET	983.2 (40.6)
30–34	974.4 (31.1)	University	1,083.5 (26.8)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: Salary cells show mean desired salary and, in parentheses, standard error of the mean. *N* = 4,473.

¹² These findings draw from question I10 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

tially the same as each other. In fact, as we show in the next section, these expectations match the reality of the labor market in Mongolia.

Returns to Schooling

Education pays off in Mongolia. More-educated people earn higher wages and are less likely to be unemployed. The analysis of the relationship between education and earnings has been conducted in numerous countries, and the findings are consistent that a year of education is associated with about a 7 to 10 percent increase in earnings (for reviews, see Psacharopoulos, 1994; Card, 1999).

In Mongolia, previous studies had found similar results. Typically, the analyst investigates whether there is a statistical relationship between wages and a set of explanatory factors, including schooling, work experience, and other factors that are assumed to affect earnings.¹³ Despite the common criticism that such analyses cannot account for ability or innate skills, they can provide some insight into whether education is a valued investment in raising the marginal productivity of labor, as revealed by wages.

The estimated annual returns to education in Mongolia have been found to be positive and to increase continuously with years of schooling. Pastore (2008, 2010) estimated income gains of about 4.2 percent per year of education using data from a school-to-work transition survey conducted in 2006. He found the results to be stable across different age groups and gender. This is lower than the 7.2 percent estimated by Darii and Suruga (2006), but Pastore speculated that one reason could have been Darii and Suruga sampled from urban areas only. When Pastore accounted for this, the annual rate of return to education was very close, 7.6 percent.

Pastore (2010) also found that postgraduate education has a pronounced wage effect. People holding a master's degree earn 100 percent more than a baseline group of those receiving only basic education. The earnings effect of tertiary education is 85 percent higher than basic education. For those with a university degree, the rate of return is 9.5 percent per year from the time they finish basic education to the completion of a university degree. This is also comparable to the research of Batchuluun and Dalkhjav (2014), who found that people with tertiary education had 84.3 percent higher earnings than those with just basic education.

We conducted our own analysis of the returns to schooling using the 2010 and 2012 MHSESs (Table 4.10). We calculated hourly earnings based on average hours worked per week and monthly earnings of each working-age MHSES respondent who performed any work in the seven days prior to survey completion. This sample included wage and salary employees, as well as agricultural workers involved in animal husbandry or herding. We calculated years in education based on the highest level of education obtained by each respondent, and we incorporated historical changes over time in the years of schooling required to progress through each phase of the Mongolian education system relative to the respondent's year of birth. In our analysis, we included the age of each respondent and the square of the age to capture any effects of work experience and maturity. We pooled the 2010 and 2012 data and included an indicator variable for 2012 to account for the fact that the average level of wages would be different across years.

¹³ Such analyses are known as *Mincerian wage equations*, named after the economist Jacob Mincer.

Table 4.10
The Returns to Education by Years of Education, 2010 and 2012

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Years of education	0.0943*** (0.00197)	0.0944*** (0.00196)	0.104*** (0.00231)	0.0910*** (0.00193)	0.0912*** (0.00191)	0.100*** (0.00227)
Age	0.0375*** (0.00403)	0.0373*** (0.00402)	0.0228** (0.0101)	0.0380*** (0.00402)	0.0378*** (0.00400)	0.0241** (0.0101)
Age squared	-0.000392*** (5.44e-05)	-0.000390*** (5.42e-05)	-0.000220* (0.000118)	-0.000400*** (5.43e-05)	-0.000398*** (5.41e-05)	-0.000235** (0.000118)
Year 2012	0.351*** (0.0144)	0.353*** (0.0143)	0.345*** (0.0167)	0.355*** (0.0146)	0.357*** (0.0145)	0.348*** (0.0168)
Constant	5.140*** (0.0744)	5.140*** (0.0740)	5.331*** (0.215)	5.204*** (0.0750)	5.204*** (0.0746)	5.370*** (0.215)
Exclude below 5 hours worked	No	Yes	Yes	No	Yes	Yes
Exclude below age 30	No	No	Yes	No	No	Yes
Location-specific effects	No	No	No	Yes	Yes	Yes
Observations	18,043	18,020	12,769	18,043	18,020	12,769
R-squared	0.285	0.292	0.289	0.292	0.299	0.294

NOTES: The table shows coefficients and standard errors from an ordinary least squares regression of the natural log of hourly earnings on years of education, age, and age squared, using sample weights. Robust standard errors, which adjust for sample clustering, are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

We tested the relationship six different ways. In the first, in column 1 of Table 4.10, we included all workers above the age of 15 with any hours worked for an income in the previous week. In this model, each additional year of education is related to a 9.4 percent increase in hourly wages. The result is highly statistically significant, and in this case there is less than a 1 percent chance that the increase in wages is unrelated to education. We also found that age is related to higher earnings, although at a decreasing rate.

In the five additional models, we tested the results for their robustness across three alternative criteria: (1) excluding workers with abnormally low hours worked (fewer than five hours), (2) excluding workers most likely to still seek further schooling (those below age 30), and (3) controlling for differences between Ulaanbaatar, aimag centers, soum centers, and the countryside. Neither the effect of education on earnings nor the statistical significance of the result changed. The effect ranged between 9.1 percent and 10.4 percent, in line with previous findings based on different data. As we will see in the next chapter, educated people not only earn higher wages but are also less likely to be unemployed.

Skill Mismatch and TVET

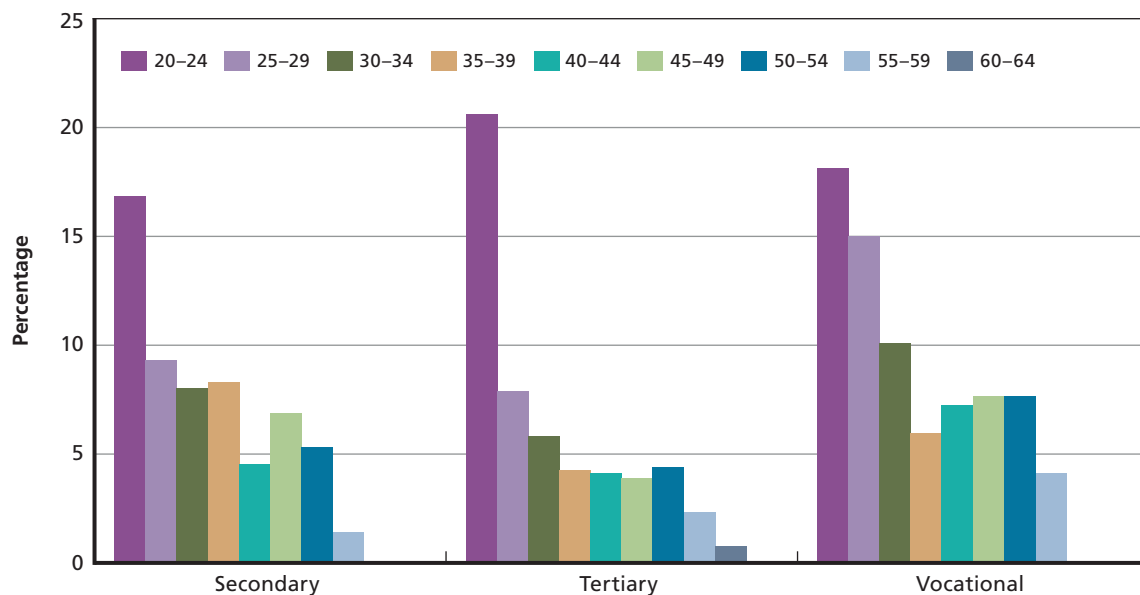
Education pays off in the sense that individuals with more education earn higher wages. Because education is crucial in upgrading the Mongolian labor market, the economy can ben-

efit from opportunities to improve education. One way to do so is to ensure that it provides skills required for employment. That is to say, the educational system needs to provide the skills that employers demand.

One oft-cited concern is that of skill mismatch, meaning that employers need certain skills but that the labor force lacks those skills. In our interviews with business representatives and government officials in Mongolia, this came up in the context of TVET as either an insufficient number of people who have training in specific areas or the poor preparation of people who have received that training. Evidence that a skill mismatch might exist is provided by the unemployment rates of people with different levels of education (Figure 4.4). For almost every age group, people with only a TVET education have a higher unemployment rate than those with a secondary or tertiary education. There are exceptions, but people with a TVET education have a higher unemployment rate in the 20–24, 25–29, 35–39, 40–44, and 50–54 age groups.

However, we also found that people with TVET degrees tend to earn higher wages than all other groups except college and university graduates (Table 4.11). Table 4.11 duplicates Table 4.10, except instead of years of education, we include an indicator variable for highest level of education. We have indicator variables for each level except secondary. This means that the results show earnings relative to secondary school diploma holders. People with no education earn between 46.0 percent and 58.4 percent less than secondary school graduates. People with some education at the basic level or below earn between 18.2 percent and 23.5 percent less than secondary school graduates. However, people with a TVET education earn between 21.4 percent and 24.0 percent more than secondary school graduates. Finally, people with a bachelor's degree or more earn between 51.8 percent and 59.0 percent more than secondary

Figure 4.4
Unemployment Rate, by Age and Education, 2013



SOURCE: MLFS, 2012.

RAND RR1092-4.4

Table 4.11
The Returns to Education by Level of Education, 2010 and 2012

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
No education	-0.544*** (0.0564)	-0.541*** (0.0564)	-0.584*** (0.0865)	-0.463*** (0.0551)	-0.460*** (0.0551)	-0.492*** (0.0841)
Basic education or less	-0.235*** (0.0183)	-0.238*** (0.0183)	-0.218*** (0.0210)	-0.198*** (0.0179)	-0.200*** (0.0179)	-0.182*** (0.0207)
Vocational education	0.214*** (0.0167)	0.217*** (0.0166)	0.234*** (0.0186)	0.221*** (0.0167)	0.224*** (0.0166)	0.240*** (0.0186)
College or university	0.521*** (0.0145)	0.521*** (0.0143)	0.590*** (0.0170)	0.518*** (0.0143)	0.519*** (0.0141)	0.585*** (0.0168)
Age	0.0346*** (0.00401)	0.0344*** (0.00400)	0.0275*** (0.0102)	0.0357*** (0.00399)	0.0355*** (0.00397)	0.0298*** (0.0102)
Age squared	-0.000369*** (5.41e-05)	-0.000366*** (5.39e-05)	-0.000283** (0.000119)	-0.000383*** (5.39e-05)	-0.000380*** (5.37e-05)	-0.000311*** (0.000119)
Year 2012	0.406*** (0.0145)	0.408*** (0.0144)	0.391*** (0.0171)	0.407*** (0.0146)	0.409*** (0.0146)	0.393*** (0.0172)
Constant	6.090*** (0.0715)	6.091*** (0.0712)	6.210*** (0.216)	6.106*** (0.0714)	6.107*** (0.0712)	6.191*** (0.216)
Exclude below 5 hours worked	No	Yes	Yes	No	Yes	Yes
Exclude below age 30	No	No	Yes	No	No	Yes
Location-specific effects	No	No	No	Yes	Yes	Yes
Observations	18,043	18,020	12,769	18,043	18,020	12,769
R-squared	0.283	0.289	0.282	0.292	0.299	0.290

NOTES: The table shows coefficients and standard errors from an ordinary least squares regression of the natural log of hourly earnings on years of education, age, and age squared, using sample weights. Robust standard errors, which adjust for sample clustering, are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

school graduates. These results confirm that education pays off, but they also confirm that a TVET degree has value in the labor market.

ILS, of the Ministry of Labour, has completed three barometer studies, in part aimed at showing occupations for which demand is greater than supply and for which supply is greater than demand. The occupations in most demand have consistently been occupations for which training is available in TVET institutions. These have also been the occupations for which employers have reported the biggest shortages. Interviews with experts indicate that the growth in construction-related fields has not been met with labor in certain required professions (for example, crane operators). Also noted in interviews was the low retention of TVET graduates in trade jobs, such as iron and steel welding, due to poor preparation in both the required skills and the rigor of that type of work. In an interview, an industry representative cited insufficient emphasis on practical training in TVET programs, including taking safety precautions, which was particularly important in construction, mining, and other trade sectors. This suggests that TVET training in general requires improvement on multiple fronts to meet demand for work-

ers in the construction trade sector, among others. The alternative that some employers use is to hire workers from outside the country to fill that need.

Other research has indicated that skill mismatches exist in Mongolia and that training can be improved. A study based on a 2006 school-to-work transition survey found that returns to education were low for those with postcompulsory vocational education and that unemployment spells were longer (Pastore, 2008, p. 64). Further, although women with vocational educational diplomas had a wage premium, men with a TVET education did no better than those with only compulsory education. Since the fielding of the survey from which these results were drawn, Mongolia has started reforming its TVET system, but the reforms are not yet complete.

A study commissioned by the mining company Oyu Tolgoi (OT) offers a unique private-sector perspective on the capacity of technical and vocational schools in Mongolia to provide adequate labor supply to the mining sector (American University of Mongolia, 2013). The study analyzed the gap between OT's internal capability demand and Mongolia's labor supply by examining the state of vocational schooling in Mongolia as of 2011–2012. The study found that the number of students graduating with relevant degrees was adequate, although the quality of training received fell short. Nearly 1,000 students graduate each year from these programs with relevant degrees (open pit mining, mechanical and electrical maintenance, and infrastructure services). However, quality indicators of the institutions—such as faculty training choices and opportunities, as well as the condition of facilities—were inadequate. Poor inputs into the education process have resulted in universities and technical schools meeting only 6 percent of the demand of engineers in the industry (American University of Mongolia, 2013, p. 75).

A major problem the 2013 study identified is an outdated curriculum and textbook supply; mining and mechanical engineering programs still use Russian textbooks from almost 20 years ago. Another problem is that the programs focus too much on theoretical knowledge and do not adequately train majors in mining operations technology and equipment and the practical skills required to meet OT's competency and proficiency requirements. Based on the assessments, the report detailed short-term plans specific to each institution included in the study, including updating the curriculum and positioning institutions to achieve international standards. The authors emphasized that international accreditation should be the end goal, and that programs should continuously measure student learning outcomes, “establish systems for program curricula updating, faculty and staff performance evaluation and review, periodic assessment and upgrading of academic and business processes” (American University of Mongolia, 2013, p. 66).

Mining is not the only sector in which there are skills shortages. Another recent study on public investment and infrastructure found that the Mongolian road construction industry did not have the capacity to meet the demands of the country's medium-term plan. Part of the problem was that capacity in the road construction sector, in terms of number of qualified engineers and skilled workers, could only meet half of what was required (Hasnain et al., 2013).

Recent TVET Reforms

Since 2009, after an amendment to the TVET law and the establishment of the National Council on Vocational Education and Training (NCVET), the government has invested significant amounts of resources in reforming the TVET system. NCVET promotes TVET and acts as a coordinating body between TVET institutions, employers, development agencies, and nongovernmental organizations (NGOs). In a more recent move, TVET was transferred to the new Ministry of Labour in the government reorganization of 2012. The chair of NCVET is now the Minister of Labour.

A variety of institutions have participated in these reforms. As part of its investment in Mongolian mining, OT has invested heavily in reforming and improving the Mongolian TVET system. From 2008 to 2013, the Millennium Challenge Account (MCA) undertook a \$52 million effort to revamp TVET in Mongolia. The overall effort included (1) policy reform, (2) establishing a framework for competency-based programs, (3) training instructors on competency-based education, (4) developing a framework for a Labor Market Information System (LMIS), and (5) improving equipment and facilities in 50 TVET institutions. Of these, all but category 4 dealt with TVET. Many of the reforms under way today stem from this major initiative. Other international aid agencies have also been involved in reforming the TVET system.

The country adopted principles from the Australian Quality Framework (AQF) to govern the TVET system. The AQF was adapted to make it suitable to the Mongolian context. Under the AQF, TVET includes six levels (Certificate I–IV, Diploma, Advanced Diploma), but the Mongolian Qualifications Framework will have five. The goal is to standardize the qualifications across professions so that employers can recognize the qualifications of a graduate from a Mongolian TVET institution. However, the Mongolian levels will not be comparable to the Australian levels.

The Ministry of Labour has spearheaded the development of a competency-based curriculum for approximately 200 occupations offered across all TVET institutions. Under a competency-based curriculum, students advance by achieving specific competencies. However, government officials acknowledged that evaluating these competencies has been a key challenge. According to these officials, ideally, professional associations would be commissioned to develop the assessments to evaluate these competencies. Professional associations, however, are not as active in Mongolia as necessary, and thus the government has had to rely on other, international sources. As of late 2014, a competency-based curriculum had been developed for 50 professions, with a plan to complete the remaining ones within two or three years. According to government officials, all TVET instructors had received training in the new competency-based curriculum.

Notably, several major organizations, including donors and employers, have started an NGO to support TVET. The Vocational Education and Training Partnership (VETP) includes such organizations as Millennium Challenge Account-Mongolia, the Swiss Agency for Development and Cooperation, Korea International Cooperation Agency, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ, the German development agency), Mongolian Builders Association, Transwest Mongolia, and OT (Vocational Education and Training Partnership, n.d.). However, despite the desire of the Mongolian government for greater industry cooperation, there was, as of late 2014, only limited cooperation between VETP and the government.

The OT and MCA initiatives brought about major improvements to TVET facilities throughout the country. Improvements included renovation to facilities, equipment upgrades, improvements to information technology capabilities, and the training of instructors. The Mongolian government has also been working toward instituting an apprenticeship system whereby a company would enter into a contract with a TVET student, provide practical training to complement lectures, and hire the student upon completion of the TVET program. As noted, according to government officials, employers have not had an active role in the TVET system, and in our meetings they noted that employers should play a key role in this system. Although limited, there have been examples of cooperation between the government and employers on TVET initiatives. For example, based on a recent market demand analysis of immediately required careers, the government and employers organized a five-month training program that specific employers participated in and that provided training to students in relevant skills. At the end of the program, the employers were to hire the participating students. This program was developed in lieu of the two-and-a-half-year program that is taken by most TVET students. Reported results have been mixed.

Many important initiatives are still in the process of implementation (Asian Development Bank, 2014b). Such issues as skills development, insufficient employer and industry engagement in TVET, underinvestment in training and professional development of TVET teachers and managers, and students' lack of preparedness, trainability, and career information in secondary and special education schools have not sufficiently been addressed, in part because of the lack of detailed and focused analyses and coordinated efforts (Asian Development Bank, 2014b). Therefore, in spite of continuing efforts, the quality of TVET schools still falls short in terms of providing the skills demanded by the market. This suggests that TVET and education more generally remain important avenues for improving the quality of Mongolian labor and, with it, the Mongolian economy.

Labor-Demand Conclusions

Labor demand depends in large part on the productivity of labor. Productivity is determined in part by education and is rewarded with higher earnings. Mongolia's educational trends appear to be positive. The educational level of the workforce is rising, school enrollments are rising, and educational achievement is broadening so that many more people are currently completing secondary school than were completing secondary school in the past.

Many people work in a field that is related to their courses of study in university. For those who do not, they are most likely to work in the service and sales field. This is not necessarily a bad outcome. Ideally, education will prepare young people with a package of skills that they can apply to a variety of jobs, enabling them to choose the type of job that is most suited to their skills, education, and personalities.

We found that many people in Mongolia are studying or plan to study STEM fields. Knowledge of such fields can lead to high-productivity jobs, since technical knowledge is valued in many industries and because there are strong complementarities between technical skill and capital equipment, such as computers or advanced machinery. However, it is important that such students also learn soft skills so that they have the flexibility to succeed in a variety of environments and jobs.

Education appears to pay off in terms of earnings. Each additional year of education results in an earnings increase of about 9 percent to 10 percent. This is on par with the effects of education internationally. In addition, TVET education appears to pay off. In the statistical analysis, drawing on data from the MHSES, TVET graduates earn well above the amount earned by secondary school graduates, although less than the amount earned by university graduates. In the ILS-RAND Mongolian Youth Survey, TVET graduates earned as much as university graduates, although in a much wider range, indicating that populationwide TVET earnings might well be below the earnings of university graduates.

One gap on the demand side is that employers are demanding some skills that the Mongolian labor market has, so far, not been able to provide. This appears to be especially true of skills that are formed through TVET. Improving this system remains a challenge for Mongolian policymakers. The salary results indicate that the effort is likely to pay off for the Mongolian economy.

Now that we have analyzed the supply and demand sides of the labor market, we move, in the next two chapters, to labor-market outcomes that reflect the interaction of supply and demand.

Labor-Market Outcomes: Employment and Unemployment

In this chapter and the next, we analyze several outcomes of the meeting of supply and demand in the labor market. The first is unemployment, which has been a concern of Mongolian policymakers. As we will show, unemployment under the technical definition is actually not a major problem for the Mongolian economy and has been improving since at least 2002.

The second outcome includes various issues related to youth employment in Mongolia. We consider job satisfaction, job stability, employment aspirations, and knowledge of work opportunities.

In the next chapter, we focus on Mongolia's key labor-market problem: the quality of jobs. Even if many people are employed, their jobs might be low quality. People might not be able to find full-time work, employment might not pay much, and it might not even come with benefits. The quality of employment appears to be a problem in Mongolia, and improving employment will be one of the chief challenges for policymakers. Doing so demands longer-term solutions that involve upgrading education and improving the investment climate.

Unemployment in Mongolia

Unemployment has been a concern of Mongolian policymakers. But unemployment under the technical definition is actually not a major problem for the Mongolian economy and has been improving since at least 2002. To understand this, it is necessary to understand what we mean by *unemployment*.

Unemployment occurs when someone actively seeking work cannot find work. It does not mean that there are low levels of employment (which can be a result of low LFP) or that many people of working age do not have jobs. Those are other important economic problems, but they are not classified as unemployment.

Unemployment is an important measure of how well the labor market works. Just as any other market, the labor market works well when, *at a given market price*, all suppliers can sell their output and all demanders can buy the product they want. No suppliers have excess product, and no demanders are unsatisfied *at the market price*. In the labor market, the suppliers are the job seekers or workers, supplying labor, and the demanders are the employers. The presence of unemployment means that some suppliers cannot sell their labor at a given market price, the wage, even though they want to, and some demanders cannot buy labor at the given market price.

There are often good reasons for some level of unemployment. One of the main reasons is that it takes time for a person to find the right job. Another way of saying this is that there

are *search costs*. These include time for looking, as well as money spent going to interviews or preparing a résumé. Spending time looking for a job actually improves the performance of the economy because it improves job matches. People with a certain set of skills get the job that is right for them.

As we described in Chapter One, obstacles for the market to match supply and demand are often referred to as *rigidities*. Laws that require substantial procedures to hire and fire employees, minimum wages, and lack of access to information for jobs are all rigidities that can cause unemployment. The low level of unemployment in Mongolia is indicative that these rigidities are not substantial. In fact, one possible explanation of the low level of unemployment is the large informal sector. Although informality poses its own challenges, the lack of laws and regulations there means that the market is flexible.

Unemployment in Mongolia is low and has been decreasing. The unemployment rate in Mongolia, according to international definitions, decreased from around 7 percent in 2007 to less than 5 percent in 2011, and then rose slightly to 5.2 percent in 2012. As discussed in Chapter Two, this is low in comparison to other countries and regions.

Mongolian official statistics might mask how well the labor market is performing. The ILO formally defines people as unemployed if they

1. are not employed,
2. are willing and able to work, and
3. are actively searching for work.

The unemployment rate provided by the NSO uses a modified definition that excludes the third condition; this definition therefore includes people who are willing and able to work but who are not actively searching for work. When we readjust 2013 Mongolian labor-market data to reflect the international definition, we find that the Mongolian unemployment rate is actually quite low (Table 5.1).

However, this also affects the calculation of the labor force, since the Mongolian definition includes people in the labor force whom the ILO definition excludes. As seen in Table 5.1, although ILO-defined unemployment is lower, so is the ILO-defined LFP rate.

For international comparisons, we have used internationally compatible definitions. In this section, we use the Mongolian NSO's definition, except when specified. In our discussion of the ILS-RAND Mongolian Youth Survey, we use the ILO definition so the results can be compared internationally. It is important to note that even though the numbers are different

Table 5.1
The Mongolian Unemployment and Labor-Force Participation Rates Under Alternative Definitions, 2013

Region	Unemployment Rate (%)		LFP Rate (%)	
	Mongolian Definition	ILO Definition	Mongolian Definition	ILO Definition
National	7.9	4.2	61.9	59.6
Ulaanbaatar	4.6	3.1	52.9	52.1
Aimag centers	15.8	8.7	59.8	55.4
Rural	7.2	3.2	73.9	71.1

SOURCE: MLFS, 2013.

depending on which indicator is used, the trends and the comparisons across regions and age groups do not differ.

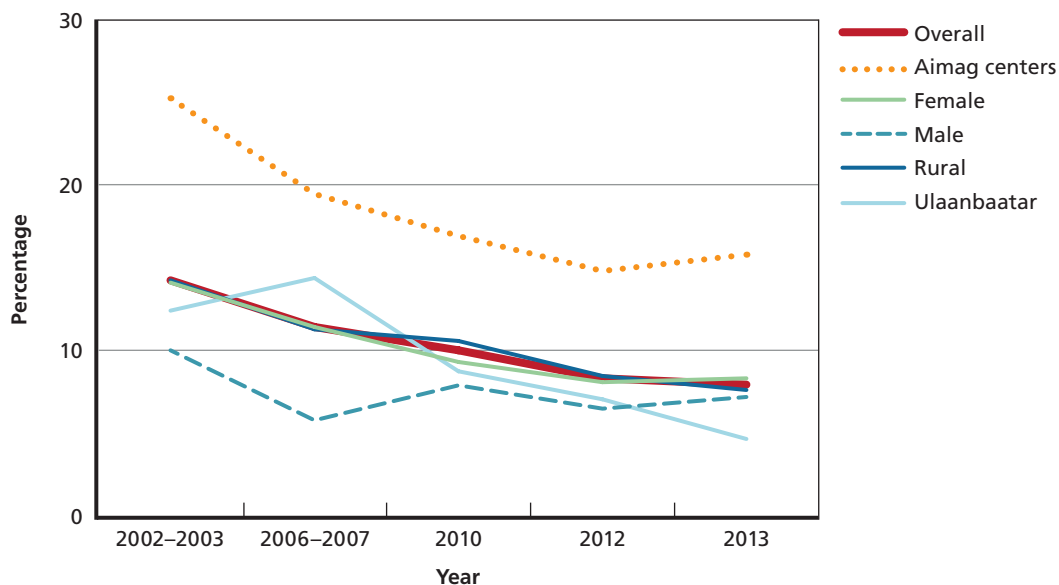
The unemployment rate has fallen for all major geographic areas of Mongolia and for both males and females since 2002–2003 (Figure 5.1). It rose slightly in 2013 in rural areas and in urban areas outside Ulaanbaatar but continued to decline dramatically in Ulaanbaatar, to 4.6 percent. According to the international definition, unemployment in Ulaanbaatar was an even lower 3.1 percent.

The rate is slightly higher for females than males, but this has not always been the case, and in 2002–2003, 2010, and 2012, the male unemployment rate was higher. The biggest distinction is the difference between the unemployment rate in aimag centers and the rate in rural areas. Specifically, it is much lower in rural areas. This is likely explained by the fact that all family members can contribute to herding and agricultural activities, so there is often no need to search for a job. Even if a person is searching for a job, if that person is also involved in herding or agriculture, he or she is technically employed. The unemployment rate in Ulaanbaatar has not been much different from the rural rate, but in 2013 it dipped below the rural rate. This suggests that the biggest problems in terms of willing workers finding a job are in aimag centers and that policies for the unemployed should be focused there.

As noted, a certain amount of unemployment is natural, because it takes time to find a job. This is especially true for young people. Young people are normally searching for their first jobs and might not have the skills or experience to be attractive to many employers. In addition, youth might be unfamiliar with job opportunities, and so search times could be longer. Young people are also more likely to change jobs more frequently as they search for the right fit. Accordingly, they are more likely to have a higher unemployment rate, as they do in Mongolia.

Other groups might also have high unemployment because of lack of familiarity with job opportunities. Especially relevant for Mongolia, this will include migrants from the coun-

Figure 5.1
Unemployment Rate, by Gender and Geography



SOURCE: MLF5s.

RAND RR1092-5.1

tryside to urban areas (Table 5.2). Given that migrants are more likely to be in transition, it is not surprising that they have higher unemployment rates. Outcomes depend on the source and destination of the migrant. Rural-to-urban migrants appear to fare slightly better than urban-to-rural migrants based on unemployment rates for youth and all adults. However, the ratio of employed workers to the population for rural to urban workers is notably lower than the rate for any other migrant group. This suggests that a great deal of rural-to-urban migrants either immediately or ultimately leave the labor force in their destination cities or move for noneconomic reasons, such as education, and never enter the urban labor force. Those not in education represent untapped growth potential in the urban labor supply, and those in education represent future urban labor supply.

Employment and Unemployment in the ILS-RAND Mongolian Youth Survey

The ILS-RAND Mongolian Youth Survey asked a variety of questions about both employment and unemployment. It covered such topics as job characteristics and satisfaction; second jobs, if any; reasons for unemployment; and job searches.

Employment

The signs of a healthy labor market include the ability of employed persons to change their jobs if they chose to do so. They might prefer jobs that match their interests, even at a lower wage, or seek higher-paying jobs if they have the requisite skills. The ILS-RAND Mongolian Youth Survey included a section dedicated to understanding the perceptions of employed youth of their current jobs and both willingness and perceived ability to find better work if they chose to. This section is dedicated to understand the obstacles and constraints that employed youth face to improve their employment prospects.

The majority of employed youth reported generally being satisfied with their working conditions (Table 5.3). The survey asked youth to rate the job characteristics of their primary jobs on a scale of 1 to 5, with 1 signifying not satisfied at all and 5 signifying very satisfied. The job characteristics that youth were most likely to report being unhappy with—combining categories 1 and 2—were salary and income (15.4 percent), workload (15.3 percent), the opportunity

Table 5.2
Migrant Unemployment and Employment Rates, 2013

Population Group	Unemployment Rate (%)	Youth Unemployment Rate (%)	Employment-to-Population Ratio (%)
Nonmigrants	4.0	8.0	57.0
Migrants	6.1	8.4	56.8
Rural to urban	9.9	9.7	51.3
Urban to urban	5.0	7.5	58.2
Urban to rural	13.7	14.9	64.0

SOURCE: Estimates from 2013 MLFS.

NOTES: Unemployment rates are based on the ILO definition of unemployment rather than the definition used by the Mongolian NSO. Cell sizes are small, and we have not tested the differences for statistical significance.

Table 5.3
Characteristics of Main Job, by Level of Satisfaction, Overall

Percentage Rating Each Characteristic by Each Level of Satisfaction						
Level of Satisfaction	Working Hours	Resting Hours	Salary, Income	Staff Discounts for Goods and Services	Duty	Comforts
Not satisfied at all	2.9	4.1	3.3	2.8	1.2	1.8
Not satisfied	8.3	11.0	12.1	7.3	3.7	5.7
Neutral	27.7	27.4	32.8	31.6	25.4	32.1
Satisfied	43.9	43.2	40.3	44.8	52.3	45.6
Very satisfied	17.2	14.3	11.5	13.6	17.4	14.8
Level of Satisfaction	Cleanliness	Occupational Hygiene	Occupational Safety	Workplace Environment	Treatment by Employer	Equal Rights of Employees
Not satisfied at all	2.0	3.0	2.6	0.9	0.9	1.7
Not satisfied	6.1	6.1	5.7	3.0	3.7	3.7
Neutral	31.1	31.1	29.0	23.0	25.9	26.9
Satisfied	44.3	45.0	45.6	51.6	50.0	51.0
Very satisfied	16.5	14.7	17.1	21.6	19.5	16.6
Level of Satisfaction	Treatment of Coworkers	Pressure at Workplace	Workload	Opportunity for Development	Distribution of Duties	Work Is Interesting
Not satisfied at all	0.7	5.2	4.9	5.6	2.1	2.1
Not satisfied	2.9	5.4	10.4	9.6	5.7	4.5
Neutral	23.8	27.0	34.7	30.3	30.6	25.3
Satisfied	52.5	44.5	38.8	41.6	49.1	47.1
Very satisfied	20.1	17.9	11.2	12.9	12.5	21.1

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: *N* = 2,000.

for development (15.2 percent), resting hours (15.1 percent), and working hours (11.2 percent).¹ In contrast, they were most happy with—combining categories 4 and 5—workplace environment (73.2 percent), treatment of coworkers (72.6 percent), duty (69.7 percent), treatment by employer (69.5 percent), and work is interesting (68.2 percent).

When asked the extent to which their current jobs matched their interests and character, the majority of youth rated them at least somewhat matched (Table 5.4).² According to the survey, employed youth are generally satisfied with their job. Nonetheless, at least a third

¹ These findings draw from question H1 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

² These findings draw from questions H2 and H3 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 5.4
Job Satisfaction, Overall and by Geography

Job Satisfaction	Percentage Rating Each Characteristic by Each Level of Satisfaction			
	Overall	Ulaanbaatar	Aimag Centers	Rural
Extent to which job matches interest and character				
Very well matched	24.3	23.1	28.0	23.5
Somewhat matched	49.5	47.7	49.4	52.0
Neither matched nor not matched (neutral)	20.1	23.3	16.4	18.0
Somewhat not matched	3.1	2.6	2.9	3.9
Not matched at all	1.1	1.3	1.9	0.4
Don't know	1.9	2.0	1.4	2.2
Hope to change jobs in future	36.1	35.3	45.3	31.3

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: *N* = 2,000.

of youth hope to change their jobs in the future. For youth in the aimag centers, 45 percent hoped to change their jobs, compared with 35 percent in Ulaanbaatar and 31 percent in the rural areas.

Employed youth also rated their satisfaction levels with aspects of their work environments (Table 5.5).³ Most youth rated that they were satisfied across a number of different workplace characteristics. Approximately 13 percent of youth rated that they were not satisfied with the distance between their jobs and homes, and approximately 11 percent rated that they were not satisfied with the staff discounts for goods and services at their workplaces.

Youth Employment Aspirations—For All Youth, Not Just the Employed

We also wanted to understand the employment preferences of youth—what types of sectors and organizations they desired to work for and the main characteristics of those sectors and organizations that shaped their desire to work there (Table 5.6).⁴ Youth expressed an overwhelming desire to work in services (49 percent), followed by industry and mining (17 percent and 16 percent, respectively, but statistically equal), and then agriculture (8 percent). Among the forms of ownership preferred, close to half (47 percent) of youth chose state-owned enterprises as the most desirable to work for.⁵

Among the reasons for choosing services were good salary (19 percent), opportunity for development (19 percent), and possibility to improve knowledge and skills (19 percent). The reasons for industry primarily focused on good salary (46 percent), followed by opportunity for

³ These findings draw from question FA13 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

⁴ These findings draw from questions I6, I7, I8, and I9 of the Mongolia Youth Survey; see Appendix C.

⁵ Other forms of ownership included government, mixed private-public, enterprise owned by a province, Mongolian private business, Mongolian NGO, foreign government, foreign private business, foreign NGO, household production run by family members, farming and herding, and “does not know.”

Table 5.5
Satisfaction with Workplace Environment

Workplace Environment	Not Satisfied (%)	Satisfied (%)
Occupational safety	6.8	93.2
Autonomy at work	6.8	93.2
Distance between job and home	13.4	86.6
Reputation of the organization	4.5	95.5
Workplace environment	6.5	93.5
Treatment of coworkers	3.6	96.4
Treatment of management	4.6	95.4
Staff discounts for goods and services	10.5	89.5

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: *N* = 2,000.

Table 5.6
Top Choices and Reasons for Sectors and Organizations, Overall

	Services (%)	Industry (%)	Mining (%)	Agriculture (%)	State-Owned Enterprise (%)
Top choices					
Sectors	48.5	17.0	16.3	7.7	
Organization					46.6
Top reason why (sectors)					
Good salary	18.9	46.0	73.4	13.2	
Better work condition and environment compared with other industries	17.4	4.8	5.5	10.1	
Opportunity for development	19.0	17.1	8.8	19.5	
Possibility to get experience and start own business	9.7	12.4	2.2	27.1	
Not routine, with changes and movement	6.5	3.3	3.1	3.4	
Psychological calm	1.9	0.5	0.0	6.3	
People will be around	3.0	1.2	0.3	0.6	
Possibility to improve knowledge and skills	19.1	10.3	4.3	9.2	
Other	4.6	4.6	2.4	10.6	
Top reason why (organization)					
Suitable for me in many ways					24.7

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: *N* = 4,215.

development (17 percent) and possibility to get experience and start one's own business (12 percent). More than 73 percent of youth who chose mining indicated that the good salary was the main reason they desired to work in this sector. The other reasons were far less important for mining than they were for industry, and especially for services, where youth were drawn for many more reasons. Among those who chose agriculture, the possibility to get experience and start one's own business was, by far, the leading reason (27 percent), followed by the opportunity for development. As we show in the next chapter, youth in agriculture strongly value autonomy, and this provides support. In terms of the form of organization, the most frequently chosen reason for wanting to work in a state-owned enterprise was that respondents thought the job would be suitable for them in many ways.

Youth were also asked to indicate their desired salaries, which we cross-tabulated against the sectors they desired to work in (Table 5.7).⁶ Not surprisingly, desired salaries for those who indicated mining or industry were higher than for those who indicated agriculture and services, at all education levels except for TVET. TVET graduates expressed a higher desired salary for agriculture, compared with mining, industry, and services. It should be noted that these salaries are utilized for relative, comparative terms rather than representing a reasonable salary that someone would earn working in these sectors today. In addition, many of the figures that are close might be statistically equal.

Youth Knowledge of Work Opportunities

Questions in the ILS-RAND Mongolian Youth Survey enabled us to learn the extent to which overall desire to work in a sector is roughly aligned with perceptions of which sectors are doing the most hiring and which sectors provide the most compensation (Table 5.8).⁷ Recall that almost half (49 percent) of Mongolian youth expressed interest in working in the services sector, compared with 17 percent in industry, 16 percent in mining, and 8 percent in agriculture. When asked their opinion of which sector was doing the most hiring, almost a third (32 percent) indicated that it was mining, compared with a quarter for services (24 percent) and industry (23 percent). This means that youth do not necessarily want to work in sectors in which they think the most job openings exist. Given the growth in mining in Mongolia,

Table 5.7
Desired Monthly Salary for Desired Employment Sector, by Education Level Attained

Education Level	Agriculture	Mining	Industry	Services	Not Sure/Other
Basic or less	646.8	902.6	830.4	812.1	886.1
Secondary	797.6	1,022.0	1,050.2	974.4	983.5
TVET	1,149.2	1,049.0	1,006.2	931.6	831.3
University	912.7	1,202.1	1,308.1	1,020.1	1,151.5

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: Values are in thousands of tugriks. *N* = 4,226.

⁶ These findings draw from questions I6 and I10 of the Mongolia Youth Survey; see Appendix C.

⁷ These findings draw from questions I6, I12, and I13 of the Mongolia Youth Survey; see Appendix C.

Table 5.8
Youth Views on Promising Sectors of Employment

Sector	Percentage That Wants to Work in This Sector	Percentage That Thinks This Sector Is Doing the Most Hiring	Percentage That Thinks This Sector Is Providing the Most Overall Compensation
Agriculture, hunting, and forestry	7.7	4.9	2.4
Mining and quarrying	16.3	31.8	26.5
Industry	17.0	23.4	7.9
Services	48.5	24.1	34.7
Not sure/other	9.0	15.8	28.4

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: $N = 4,473$.

opportunities for employment exist, and youth are generally aware of them. However, mining might not be a desirable career for youth, likely because of the dangers associated with a career in this field. On the other hand, when asked which sectors offer the highest compensation, more than a third cited services, compared with more than a quarter of youth who said mining. If youth perceive greater opportunities to earn money in the services sector, this might explain their interest in working in that sector.

The Unemployed and Out of the Labor Force

The three indicators for whether an individual of working age is participating in the labor force are whether they are working, whether they are willing to work, and whether they are actively looking for work. Working-age people who are not working, might be willing to work, but are not actively looking for work are not considered in the labor force. Thus, they are also not counted in the unemployment rate. The ILS-RAND Mongolian Youth Survey estimated a youth LFP rate of 49.4 percent (with a 95-percent confidence interval of plus or minus 2.31) and an unemployment rate of 9.92 percent (with a 95-percent confidence interval of plus or minus 1.39). These indicators roughly align with the LFP rate and youth unemployment rate that were calculated using the 2013 MLFS.

Youth cited a number of reasons for not working in the past week, not being willing or able to work, and not looking for work, all conditions that determine whether a person is employed, unemployed, or out of the labor force. The leading two reasons for not working in the past week involved home and family responsibilities—specifically, maternity leave, caring for a baby, or parental leave (27 percent) and personal, family responsibilities (16 percent). The third reason was education or training leave (13 percent) (Table 5.9). Education was the primary reason for not being willing or able to work or not looking for work. Child care was the second reason for not being willing or able to work and the third reason for not looking for work. Household work was the third reason for not being willing or able to work.⁸

⁸ These findings draw from questions D3, E2, and E10 of the Mongolia Youth Survey; see Appendix C.

Table 5.9
Main Reasons for Not Working in the Last Week, Not Being Willing or Able to Work, or Not Looking for Work

Work Status	1st Reason	2nd Reason	3rd Reason
Not working in the past week (<i>N</i> = 159)	Maternity leave, care for a baby, or parental leave (27%)	Personal, family responsibilities (16%)	Education or training leave (13%)
Not willing or able to work (<i>N</i> = 1,785)	Studies (56%)	Caring for a child (15%)	Housework (10%)
Not looking for work (<i>N</i> = 2,301)	Full-time student (35%)	Do not know (17%)	Caring for a child (14%)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

Aspirations of Unemployed and Nonparticipants

The survey assessed the minimum wage level needed for individuals who are either unemployed or out of the labor force to take a job (Table 5.10).⁹ Such a minimum wage level is known as a *reservation wage*. Close to half indicated 500,000 tugriks or less, with a far greater share of female youth (49 percent) willing to work for that amount than male youth (37 percent). Not surprisingly, youth in Ulaanbaatar had higher reservation wages than youth in aimag centers and in the rural areas. Whereas 33 percent of youth in Ulaanbaatar indicated that they would work for 500,000 tugriks or less, around 48 percent of youth in the aimag centers and 56 percent of youth in rural areas indicated the same. Notably, the unemployed have a lower reservation wage. These are people actively looking for work, so they are willing to accept less than would people for whom work remains a theoretical possibility.

According to the survey, the vast majority (87 percent) of youth who are unemployed or out of the labor force expressed the desire to work in the future (Table 5.11).¹⁰ Approximately 43 percent of unemployed or out of the labor force male youth and 54 percent of unemployed or out of the labor force female youth indicated their desire to work as professionals. Male

Table 5.10
Minimum Level of Salary per Month Youth Would Accept to Take a Job

Salary Range (1,000 tugriks)	Unemployed or Out of Labor Force (%)						Unemployed Only (%)
	Overall	Gender		Region			
		Male	Female	Ulaanbaatar	Aimag Centers	Rural	
Less than or equal to 500	44.0	37.3	48.5	33.4	48.1	56.0	55.5
501 to 600	14.2	13.9	14.4	14.9	15.9	12.2	15.3
601 to 800	20.8	23.5	19.0	23.8	23.0	15.4	17.1
Greater than 800	21.0	25.3	18.1	28.0	13.1	16.4	12.1

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: *N* = 2,205 for unemployed or out of labor force; *N* = 218 for unemployed only

⁹ These findings draw from question E21 of the Mongolia Youth Survey; see Appendix C.

¹⁰ These findings draw from question E13 and E14 of the Mongolia Youth Survey; see Appendix C.

Table 5.11
Desire to Work and Type of Job Desired, by Gender

Gender	Desire to Work in Future (%)	Type of Job Desired (%)					
		Manual	Clerical	Technical	Administrative	Managerial	Professional
Male	83.6	15.8	9.8	19.2	7.4	5.2	42.6
Female	88.8	8.1	22.7	2.0	6.6	6.7	53.9
Total	86.7	11.2	17.5	8.9	6.9	6.1	49.4

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: The type of job desired was asked only of those who were unemployed or out of the labor force. *N* = 2,205.

youth would also choose to work in technical occupations (19 percent) and manual occupations (16 percent), while female youth would choose clerical work (23 percent) after an occupation as a professional.

In the survey, we inquired about the time spent looking for a job, for those who were unemployed or searching for work, and we also asked about the steps taken in their searches for work (Table 5.12).¹¹ More than 80 percent of the unemployed have been searching for a job for fewer than six months, roughly split between spending 30 days or fewer and spending 30 days to six months. The most commonly cited job search activity was registering with the labor and allowance service department, cited 33 percent of the time. The next most common was look-

Table 5.12
Time Spent Searching for a Job and Common Job Search Activities, Among Unemployed

Time Spent Looking for a Job	Frequency	Percentage
30 days or less	97	43.5
30 days to 6 months	88	39.7
6 months to one year	33	15.0
Greater than one year	4	1.8
Job Search Activities (Top Five)	Frequency	Percentage
Register with the labor and allowance service department	74	33.4
Look at advertisements in newspapers	67	30.2
Look at job advertisements on the Internet	53	24.0
Ask relatives and friends to inform you about jobs	53	23.8
Directly attend a workplace	47	21.2

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: *N* = 222.

¹¹ These findings draw from questions E4 and E5 of the Mongolia Youth Survey; see Appendix C.

ing at newspaper advertisements (30 percent), looking at the Internet (23 percent), and asking relatives and friends (24 percent).

Among unemployed youth and youth who were out of the labor force, the most commonly cited obstacles to finding a job among both males and females were no work experience (14 percent), not enough education (13 percent for males, 12 percent for females), and not enough jobs available (13 percent) (Table 5.13).¹² Between 5 and 10 percent of males and females cited a number of other reasons, such as mismatch between education received versus that required for a job; considered too young; and low wages in available jobs. When the two education categories are combined, the figure for males and females combined is 21.5 percent, which would make it the second leading obstacle.

Among unemployed or out-of-the-labor-force Mongolian youth, the most common source of information about employment is friends (46 percent), followed by a job announcement or the Internet (42 percent each) and relatives (33 percent). Less than 5 percent of youth indicated the state employment support organization or private labor exchange as sources of information (Figure 5.2).¹³

The youth survey also revealed that awareness of government support to find jobs is limited among Mongolian youth (Table 5.14).¹⁴ Twenty-four percent of unemployed or out of the labor force Mongolian youth indicated they were aware of labor or career fairs and other public activities, and less than 20 percent of youth indicated they were aware of employment websites, electronic job boards, and other types of public supports. Moreover, utilization among those who are aware is also quite low.

Another indicator of the low utilization rate of government employment services is the very small share of youth that has reported seeking job search advice, information on vacancies, or guidance and placement from public employment services. The same is also the case for private employment services (Table 5.15).¹⁵

One potential inhibitor to finding work, or finding work that matches some combination of interests, skills, and expected wages, is unwillingness to locate where there might be

Table 5.13
Main Problem or Obstacle to Finding a Job, for Those Unemployed

Problem/Obstacle	Frequency	Percentage
Not enough jobs available	57	26.3
No work experience	39	18.0
Not enough education	29	13.2
Mismatch (education received vs. requirements)	18	8.3
Low wages in available jobs	17	7.8

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: These are the top-five answers. *N* = 218.

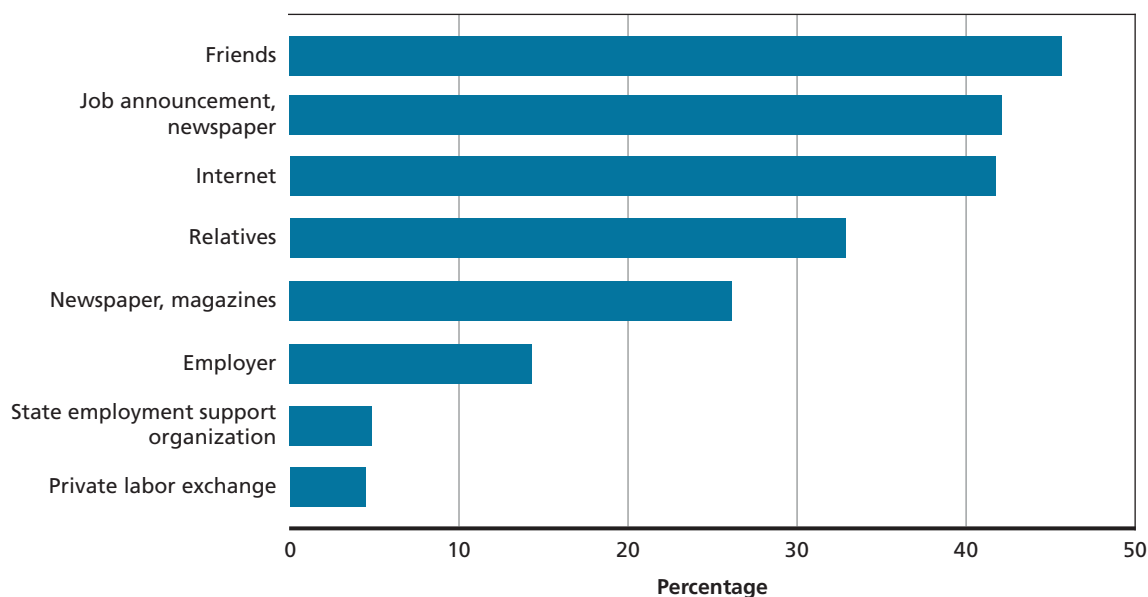
¹² These findings draw from question E30 of the Mongolia Youth Survey; see Appendix C.

¹³ These findings draw from question E20 of the Mongolia Youth Survey; see Appendix C.

¹⁴ These findings draw from questions E23 and E24 of the Mongolia Youth Survey; see Appendix C.

¹⁵ These findings draw from questions E25 and E26 of the Mongolia Youth Survey; see Appendix C.

Figure 5.2
Sources of Information About Employment for All Those Unemployed or Out of Labor Force



SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: The figure shows the percentage of times a particular source was mentioned as one of an individual's top-three sources for job information. $N = 2,205$.

RAND RR1092-5.2

better opportunities. Figure 5.3 illustrates the results from asking unemployed and out-of-the-labor-force youth whether they would be willing to move, and, if so, where.¹⁶ Approximately 38 percent of males and 32 percent of females indicated they were willing to move. More than 60 percent of both males and females willing to move would move to Ulaanbaatar. Far fewer were willing to move to aimag centers or rural areas. It should be noted that willingness to move to Ulaanbaatar might be, in part, driven by the notion that job opportunities are greater there than in other areas. As for moving abroad, 15 percent of males and 14 percent of females said they would be willing to take that step to find work.

Conclusions About Unemployment and Employment Outcomes

The Mongolian unemployment rate is low and has been declining. This suggests that the market itself is functioning well. People who seek work at the prevailing level of compensation can generally find it. The one area where it appears to be a problem is in aimag centers, meaning urban areas outside Ulaanbaatar.

Among youth, the ILS-RAND Mongolian Youth Survey also found low unemployment and extremely low long-term unemployment, meaning unemployment of more than six months or one year. This might have been because some of the survey took place during the summer, when seasonal work is more plentiful. But it also could be because it is not difficult to find a job in Mongolia.

¹⁶ These findings draw from questions E28 and E29 of the Mongolia Youth Survey; see Appendix C.

Table 5.14
Utilization and Awareness of Employment Resources, for Those Unemployed or Out of Labor Force

Type of Service	Aware of Service (%)	Have Used Service (%)
Labor fair and other public activities	23.8	10.6
www.labornet.mn, www.hudulmur.mn, www.mergejil.mn	17.3	8.0
Electronic job information boards located in provinces, districts, and khoroos	19.0	7.6
Short professional trainings with certificate financed by ESF	13.5	4.8
Discounted loan supported by ESF	9.1	2.1
Business trainings supported by ESF	9.2	2.8
Discounted loan supported by small and medium enterprise development fund and Soum Development Fund	11.3	1.6
Program for preparation of national professionals	11.2	3.0
Employment service or labor exchange	15.4	4.3
Career guidance consultancy and training	13.2	4.4
Training related to labor market	10.4	2.8
Registered to work abroad	14.0	2.7
Tuition fee support from ESF	8.9	1.8

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: *N* = 2,205. ESF = Employment Support Fund.

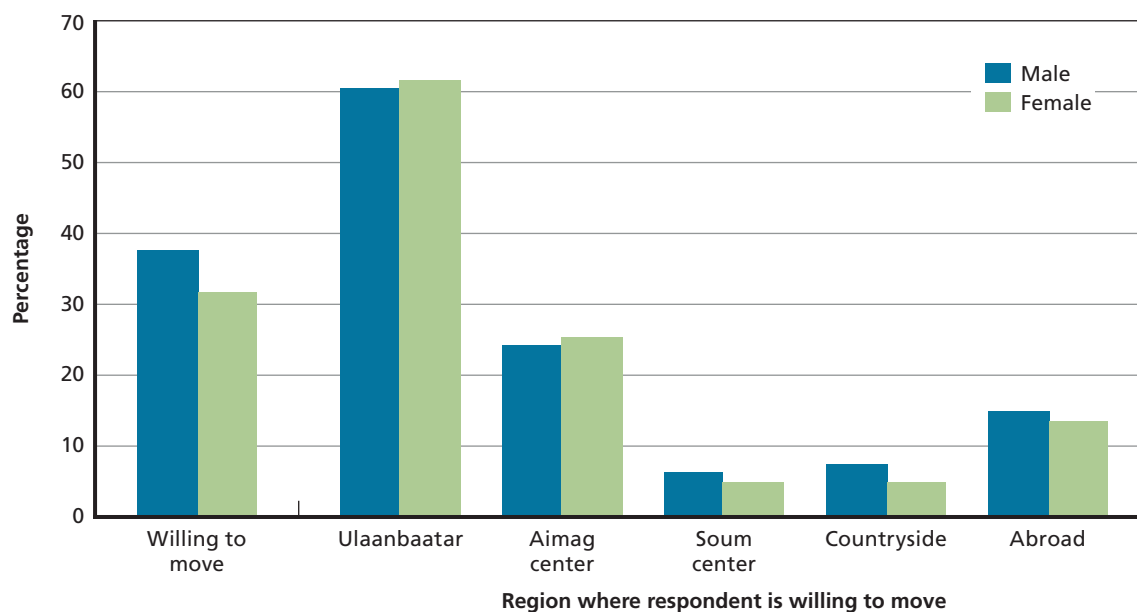
Table 5.15
Use of Private and Public Employment Services, by Unemployed or Out of Labor Force Youth

Type of Service	Public Employment Services (%)	Private Employment Services (%)
Not used	92.3	94.8
Advice on how to search for jobs	2.3	1.7
Information on vacancies	3.3	2.4
Guidance on education and training opportunities	1.1	0.4
Placement at education/training programs	0.5	0.2
Other	0.6	0.5

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: *N* = 2,205.

Figure 5.3
Willingness of Unemployed or Out of Labor Force Youth to Move for a Job



SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTE: $N = 2,205$ (out of which 752 were willing to move).

RAND RR1092-5.3

Employed youth are generally satisfied with their jobs but express their greatest dissatisfaction about the distance between their jobs and their homes. Those who aspire to employment prefer to work in services, and few desire to work in agriculture. For those who do not aspire to work, family responsibilities or education are usually the cause.

Notably, those who look for work tend not to use government or private offices and tend not to use government services more generally. The difference between the use of government and private employment offices might not be meaningful, since no office is permitted to charge for its services. This removes an incentive for private offices to innovate. The majority of those seeking work would prefer not to change locations to find it, but for those who would change locations, Ulaanbaatar would be the destination of choice.

Unemployment is low, but this does not mean that employment is satisfactory. In the next chapter, we investigate the problem of low-productivity employment, the issue of sectoral choice, and the problem of skill mismatch.

Labor-Market Outcomes: Low-Productivity Employment and Skill Mismatch

Mongolia has a low unemployment rate. This means that people who want to work and actively seek work are often able to find jobs. However, unemployment is not everything. Well-being depends on more than being able to get a job, especially if those jobs pay poorly. Despite the low unemployment rate, there is a large need for better jobs to help Mongolians improve their welfare, especially those at the bottom, who are still considered poor. In fact, in 2012 the poverty rate in Mongolia was substantial, at 27.4 percent, with the urban rate at 23.2 percent and the rural rate 35.5 at percent (World Bank, 2013b).

In this chapter, we analyze perhaps the most challenging problem that Mongolia faces in terms of its labor market, that of low-productivity employment. We also discuss the sectoral composition of employment, because some sectors are higher productivity than others, and so the sectoral mix can help determine the wealth of a country.

Low-Productivity Employment

Long term, populations become wealthier when workers can produce more for a given level of effort. In this section, we show that much employment in Mongolia is low productivity. This suggests that an area of policy action is to take steps that will increase the skills of workers and attract higher-quality employment.

Types of Employment

Any economy has different types of employment. Here we provide the main categories as defined by the International Labour Office (2014, pp. 38–39) and their Mongolian equivalents as defined by the Chairman of the National Statistical Office and Minister for Social Welfare and Labour (2009, pp. 9–10). The main categories include

- *Employee* (which can also be known as *wage* and *salary worker*; in Mongolia, the category is *paid employee*): These are people who hold jobs and get a regular payment that is not directly related to their enterprise's revenue.
- *Employer* (which, in Mongolia is also known as *employer*): These are people whose earnings depend directly on the profits of a business and who employ one or more people.
- *Own-account worker* (in Mongolia, the closest category is *self-employed worker*): These are people who work alone or with partners but do not generally engage employees.

- *Member of producers' cooperative* (in Mongolia, the closest category is *member of a producers' cooperative and partnership*): These are people who are in self-employment jobs but who share tasks and earnings with others on some specified basis.
- *Contributing family worker* (in Mongolia, the closest category is *unpaid family worker*): In the ILO definition, a contributing family worker is an own-account worker in a market-oriented establishment run by a member of the same household. In the Mongolian definition, an unpaid family worker is a person who, with family members, works without pay in services, production, or household economic activities to meet the worker's and family members' own needs.

Both the ILO and Mongolia also have an *other* category for workers not classifiable by status. However, only Mongolia, because of its unique history and economy, has a separate category for people employed in *animal husbandry*. These are people who work in animal husbandry all year and receive their earnings and subsistence from animal products.

Informal Employment

One area where we find low-productivity employment is in the informal sector. The informal sector includes businesses that are not registered, and so they neither pay taxes nor come under labor and economic laws and regulations. It also includes workers who do not have formal employment arrangements, such as contracts or benefits.

Informal employment is often low productivity and low wage. We used the MLFSs from 2006–2007, 2010, 2012, and 2013 to estimate the prevalence of formal and informal employment in the Mongolian labor market during those years (Table 6.1). Estimating informal employment involves making a number of simplifications. We divided employment into seven categories and then determined whether they should be treated as formal or informal. We treated wage and salary workers as informal if they received none of the following benefits: (1) access to social insurance; (2) allowance for caring for children; (3) award, promotion, bonus, or additional salary benefits; and (4) bonus for heavy or harmful conditions. We treated wage and salary workers with any one of these benefits as formal. We also treated all employers and members of partnerships or cooperatives as formal. In contrast, we treated own-account workers, contributing family workers, and those in other employment as informal. Unlike the other categories, we treated animal husbandry as its own category, neither formal nor informal, in part because Mongolian methodology does not consider agricultural workers to be in the informal sector (Chairman of the National Statistical Office and Minister for Social Welfare and Labour, 2009). Unfortunately, the 2006–2007 MLFS does not distinguish between contributing family workers and those involved in animal husbandry, so we cannot determine the total level of informality in the economy for that year.

Overall, informality appears to be decreasing as a share of total employment. The level of formal employment has risen in Mongolia from 2006 to 2013, from 33.3 percent of all employees to 42.6 percent of all employees. This is driven largely by increases in formal wage and salary workers. The level rose 3.2 percentage points between 2010 and 2013, so that most of the gains in formality occurred between 2006 and 2010 in proportional terms. In absolute terms, the level of formal employment grew by 107,000 between 2006–2007 and 2010, and by an additional 73,000 between 2010 and 2013.

In contrast, the level of informal employment fell dramatically between 2010 and 2012, driven by decreases in own-account employment and contributing family worker employment.

Table 6.1
Employment Type, 2006–2012

Type of Employment	2006–2007 (%)	2010 (%)	2012 (%)	2013 (%)
Formal				
Wage and salary	32.7	38.2	40.6	41.4
Employer	0.7	1.2	0.9	1.1
Partnership or cooperative	0.1	0.1	0.0	0.1
Informal				
Wage and salary	4.7	4.3	6.9	6.6
Own-account	34.0	23.5	16.9	19.7
Contributing family worker	N/A	9.6	4.3	2.3
Other employment	0.0	0.2	0.3	2.3
Other				
Animal husbandry	N/A	22.9	30.2	26.4
Totals				
Formal	33.4	39.5	41.5	42.6
Informal	N/A	37.7	28.3	30.9

SOURCE: MLFSs, 2006–2007, 2010, 2012, and 2013.

NOTE: N/A = not available.

However, informal employment rose slightly between 2012 and 2013. Notably, the proportion of informal wage and salary workers rose between 2010 and 2012, against the trend of declining informal employment, but then fell slightly in 2013, again counter to the pattern of overall informal employment.

As noted, because contributing family workers and people in animal husbandry are not separated in the 2006–2007 MLFS, we cannot determine the level of informality in those years. Evidence suggests that many of those people were in animal husbandry. People in that category spent an average of 36 hours per week in animal husbandry activities (2006–2007 MLFS). In 2010, when the categories were separated, contributing family workers spent an average of 28.5 hours per week in animal husbandry activities, and people in the animal husbandry category spent an average of 43.5 hours in animal husbandry activities (2010 MLFS).

If we were to include animal husbandry in our definition of informal employment, we estimate that Mongolia would still have experienced a decline in informal employment. Specifically, the informal sector would have comprised 66.5 percent of employment in 2006–2007, 60.6 percent of employment in 2010, 58.5 percent of employment in 2012, and 57.4 percent in 2013.

The rise in the proportion of workers in formal employment is matched by a rise in the absolute number of workers in formal employment. Formal employment rose from 301,000 in 2006–2007 to 481,000 in 2013. In fact, in 2010, 2012, and 2013, Mongolia had more formal employment than informal employment. However, if people in animal husbandry are consid-

ered to be in informal employment, then Mongolia still has far higher levels of people in informal employment than in formal employment—647,000 versus 481,000 in 2013.

As discussed previously, there is a positive aspect to the existence of an informal labor market. Specifically, it makes for a flexible market. Since unemployment is a result of labor-market rigidities, informality might be helping to keep the unemployment rate low. However, most informal jobs are not high-paying jobs.

Informal employment poses other problems too. Because they are out of the sphere of government regulation, these jobs often do not contribute to tax collection, which puts a higher tax burden on formal employment. Informal enterprises also have a disincentive to grow, as larger enterprises are more likely to be noticed by government officials to be informal and then be required to pay taxes. This creates a trap that prevents informal enterprises from growing and becoming more productive.

Thus, one goal of policy is to set laws and regulations so that formal-sector job creation is easy and low cost. A relatively low-cost policy to incentivize formality is to reduce the bureaucracy around formalizing a business.¹

Earnings and Types of Employment

Earnings vary by type of employment. In general, earnings tend to be highest among wage and salary workers. This means that wage and salary workers are the highest-productivity workers and that employment exists for them to use their skills. Own-account workers and contributing family workers generally make the least. People in these categories are also most likely to be informally employed.

We estimated earnings using data from the MHSES 2012, which breaks down employment into wage and salary workers, self-employed workers in herding or agriculture, and other workers. True to established patterns elsewhere, wage and salary workers earn notably more than self-employed herders and farmers and other workers (Table 6.2).

As shown in Table 6.1, Mongolia has experienced an increasing mix of higher-productivity employment since at least 2007. However, the trends are not unambiguous, as the proportion of people involved in animal husbandry, a low-productivity sector, rose between 2010 and 2012. Although it fell in 2013, it was still above its 2010 level.

Table 6.2
Average Earnings, by Employment Type, 2012

Type of Employment	Average Annual Earnings (thousands of tugriks)
Wage and salary workers	4,717.2
Self-employed in herding and agriculture	1,357.7
Other (including unpaid work)	2,680.6

SOURCE: Estimates based on MHSES, 2012.

¹ Different definitions of informality might give different results from the ones we present. For example Khan, van den Brink, and Aslam (2013, Appendix C, p. 36), using Mongolian data, found total informal employment to compose 60 percent of the labor force in 2002, 53 percent in 2006, and 66 percent in 2009. However, they used different data sources for each year—the living standards measurement survey in 2002, the household income and expenditure survey for 2006, and the labor force survey for 2009.

Low-Productivity Employment in the ILS-RAND Mongolian Youth Survey

In this section, we investigate a number of issues regarding low-productivity employment. These include informality, skill mismatch, and geographic mismatch in terms of relocation issues.

Informality

Of the young people in our survey who were employed, 59 percent were in formal employment, 32.7 percent were in informal employment, and only 8.3 percent were in animal husbandry. Youth in formal employment tend to work, on average, fewer hours in a week and fewer days in a month but earn a higher monthly salary (Table 6.3). Those in animal husbandry tend to work the most hours per week and the most days per month, by a wide margin. In statistical terms, earnings in all three types of employment could be the same, due to the margin of error.

We also found that youth in all three types of employment are unlikely to have another work activity, meaning that the vast majority—above 95 percent in all cases—work at only one job. This means that those in the informal sector are not facing such difficulties that they feel compelled to work at two different jobs to earn enough money. Of those workers with informal employment, 9.1 percent wanted to work more hours per week, compared with 5.7 percent with formal employment and 5.5 percent in animal husbandry. However, these three numbers are equivalent using 95-percent confidence intervals.²

Youth who work in formal employment tend to rate their workplaces as more agreeable overall (Table 6.4).³ Those who work in informal employment rate their workplaces as somewhat less agreeable, and those who work in animal husbandry rank their workplaces even a bit lower, but in all cases the ratings were above the neutral level. The ILS-RAND Mongolian Youth Survey asked youth to rate how agreeable their workplaces were on several dimensions, with 5 for very agreeable and 1 for very disagreeable. The overall average of the ratings was 3.93 for formal employment, 3.63 for informal employment, and 3.38 for animal husbandry.

Youth in all three sectors rated the treatment of their coworkers very highly; it is the top-ranked workplace dimension among formal and informal employees and the second-ranked

Table 6.3
Hours and Days Worked and Income, by Employment Type

Type of Employment	Hours per Week	Days per Month	Monthly Income
Formal	50.0 (0.6)	21.3 (0.31)	754.0 (24.3)
Informal	56.6 (1.7)	22.1 (0.52)	694.7 (50.5)
Animal husbandry	74.5 (2.6)	27.9 (0.70)	726.1 (122.4)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: Standard errors are in parentheses. $N = 2,000$ for hours and days; $N = 1,937$ for monthly income.

² These findings draw from questions FA8, FA19, G1, and G2 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

³ These findings draw from questions FA8, FA13, and FA19 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 6.4
Workplace Environment, by Employment Type

Workplace Environment	Formal		Informal		Animal Husbandry	
	Rating	Rank	Rating	Rank	Rating	Rank
Occupational safety	4.029 (0.033)	3	3.642 (0.047)	4	3.318 (0.08)	7
Autonomy at work	3.867 (0.030)	6	3.651 (0.05)	3	3.505 (0.104)	1
Distance between job and home	3.628 (0.037)	8	3.514 (0.05)	7	3.372 (0.076)	3
Reputation of the organization	4.060 (0.028)	2	3.630 (0.045)	5	3.343 (0.08)	6
Workplace environment	3.968 (0.028)	5	3.587 (0.047)	6	3.372 (0.086)	4
Treatment of coworkers	4.083 (0.028)	1	3.823 (0.049)	1	3.469 (0.092)	2
Treatment of management	4.023 (0.028)	4	3.749 (0.049)	2	3.354 (0.087)	5
Staff discounts for goods and services	3.784 0.033	7	3.480 (0.052)	8	3.288 (0.079)	8

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: Respondents were asked to rate each category of workplace environment as to how agreeable it was, with 5 = very agreeable; 4 = somewhat agreeable; 3 = neither agreeable nor disagreeable (neutral); 2 = somewhat disagreeable; and 1 = very disagreeable. Standard errors are in parentheses. $N = 2,000$.

dimension among youth in animal husbandry. Notably, youth in formal employment rate their autonomy relatively low, whereas youth in animal husbandry give autonomy at work their top rating. Still, even taking account of the standard errors of these estimates, the rating for autonomy in animal husbandry is below the rating given to almost every dimension by youth in the formal sector. This is further evidence that formal-sector jobs tend to be more rewarding for their participants, even beyond salary.

Employment Type Skill Mismatch

Youth working in different types of employment have different views of the level of education or training needed to get a decent job. Those in formal and informal employment are educationally ambitious, in that they expect to attain the level they think they need for a decent job, or above. However, many of those in animal husbandry do not expect to attain the education they need for a decent job, raising the question of whether they face barriers that policy can alleviate, and even whether they consider their work in animal husbandry to be decent work (Table 6.5).⁴

⁴ These findings draw from questions FA8, FA19, I1, I2, and I10 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 6.5
Level of Education Needed and Level of Education Expected, by Employment Type

Employment Type	Basic (%)	Secondary (%)	TVET (%)	University (%)
Level of education needed to get a decent job				
Formal	3.8 (2.2–5.4)	11.7 (9.3–14.0)	36.5 (33.1–39.9)	48.0 (44.2–51.9)
Informal	6.3 (3.8–8.8)	11.5 (8.8–14.2)	48.4 (43.8–53.1)	33.8 (29.2–38.5)
Animal husbandry	9.6 (4.8–14.5)	20.5 (13.7–27.3)	55.5 (45.2–65.8)	14.4 (7.4–21.3)
Level of education expected				
Formal	1.1 (0.48–1.69)	3.9 (2.7–5.0)	18.5 (15.6–21.3)	76.6 (73.3–79.9)
Informal	5.9 (3.4–8.3)	7.4 (5.0–9.7)	32.6 (28.2–37.1)	54.1 (48.8–59.4)
Animal husbandry	38.2 (22.2–54.2)	13.8 (8.0–19.6)	40.8 (26.6–54.9)	7.2 (2.8–11.6)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: 95-percent confidence intervals are in parentheses. $N = 2,000$.

The vast majority of youth currently in formal employment believe that a TVET or college or university education is needed for a decent job, with 36.5 percent saying a TVET education is necessary and 48.0 percent saying a college or university education is necessary. Even more of them expect to get an education beyond what they think is needed for a decent job, with 76.6 percent of them expecting to get a college or university degree. This type of ambition is also apparent in youth working in the informal sector. Almost a majority of those young people, 48.4 percent, believed that a TVET education is necessary to get a decent job, and 33.8 percent believed that a college or university education is necessary. In terms of their expectations of what they personally hoped to achieve, the majority, 54.1 percent, expected to get a college or university education, and 32.6 percent expected to finish with a TVET education. As with formal employees, very few expected to stop their education after the basic or secondary level.

Youth working in animal husbandry present a different and perhaps more complicated story. The majority of them, 55.5 percent, believed that a TVET education is necessary to get a decent job. Smaller numbers believed that other levels of education are necessary, although these numbers are statistically equal to each other because of their large confidence intervals. Although many youth in animal husbandry, 40.8 percent, expected to achieve a TVET education, most do not. The majority, 52 percent, expect to achieve only a basic or secondary level of education; of all youth working in animal husbandry, 38.2 percent expected to achieve only a basic education. We caution that this number is statistically the same as the number that expected to achieve a TVET education, but the number of those who hoped to achieve a secondary or university education is certainly statistically lower. In addition, the number that expected to achieve only a basic education is statistically higher than the number that believed that only a basic education is needed for a decent job.

By looking within each employment type, we can gain more insight into the match between the level of education that youth believe is necessary for a decent job and what they actually expect to achieve (Table 6.6). Ambitions are high for a university education among youth regardless of the level of education they think is necessary for a decent job. Even among those who think that a basic education is sufficient for a decent job, 42.7 percent expected to achieve a university education, although this number is statistically the same as the percentage that expected to receive only a basic education. Except for those who believed that a basic education is sufficient for a decent job, a TVET education is the second-largest category of expected education.

Youth who work in the formal sector strongly expect to achieve a university education, no matter what level of education they think is necessary for a decent job. Among those who believed that only a basic education is necessary for a decent job, 65 percent expected to achieve a university education. The proportion is slightly lower for those who believed that a secondary education is necessary, but it is higher among those who believed that a TVET education is necessary. Among those youth in the formal sector who believed that a university education is necessary for a decent job, almost 92 percent expected to achieve a university education.

Youth who work in the informal sector also expect to achieve the level of education they believe is necessary for a decent job, but they are a bit less university focused. It is difficult to draw conclusions about people in the informal sector who believe that a basic education is all that is necessary for a decent job, because the figures on their expected levels of education are imprecisely measured—meaning, statistically, the numbers could be the same. Among those who believe that a secondary education is necessary, many are aiming for a university education. A majority who believe that a TVET education is necessary expect to complete a TVET education, and a smaller, though still-large share, expect to complete a university education. Likewise, many in the informal sector who believe that a university education is necessary expect to complete a university education.

It is more difficult to draw conclusions for youth who work in animal husbandry, because of the small sample size. This means that the proportions are imprecisely measured, and many of the numbers could be statistically the same as others. The point estimates alone suggest that many people in animal husbandry do not expect to receive the level of education that they believe is necessary for a decent job, especially those who believe that a secondary or university education is necessary for a decent job.

Changing Jobs and Geographic Mismatch by Employment Type

Most youth who are employed do not expect to change jobs. Among youth in formal employment, 81.9 percent expected to stay in their jobs; among youth in animal husbandry, 88.0 percent expected to stay. However, those in informal employment are more eager to change. Only 67.8 percent planned to stay in their jobs.⁵

If they were to look for another job, only a minority, 31.1 percent, would move to find work, and the proportions who would move are statistically the same for each type of employment.⁶ Of those who would move, the vast majority would move to Ulaanbaatar (Table 6.7).⁷

⁵ These findings draw from questions FA8, FA19, and H11 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

⁶ These findings draw from questions FA8, FA19, and H14 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

⁷ These findings draw from questions FA8, FA19, H14, and H15 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 6.6
Expectations of Educational Achievement, by Employment Type

Education Required for a Decent Job	Education Expected			
	Basic	Secondary	TVET	University
All employees				
Basic	27.2 (15.1–39.3)	11.6 (2.4–20.8)	18.5 (10.9–26.2)	42.7 (29.1–56.3)
Secondary	11.5 (4.424–18.6)	20.0 (14.3–25.6)	26.9 (21.2–32.6)	41.6 (33.4–49.8)
TVET	4.9 (2.3–7.5)	4.6 (3.1–6.2)	42.3 (37.5–47.2)	48.2 (43.0–53.3)
University	2.1 (0.6–3.5)	2.1 (1.0–3.1)	7.2 (5.2–9.2)	88.7 (85.8–91.5)
Formal				
Basic	6.7 (0.0–14.3)	8.7 (0.3–17.0)	19.7 (6.8–32.6)	65.0 (47.3–82.6)
Secondary	1.4 (0.0–3.3)	17.4 (10.2–24.7)	30.1 (23.5–36.8)	51.0 (41.8–60.3)
TVET	0.9 (0.1–1.8)	2.1 (0.8–3.3)	31.1 (25.5–36.7)	65.9 (60.0–71.8)
University	0.7 (0.0–1.4)	1.6 (0.5–2.7)	6.0 (3.9–8.0)	91.8 (89.4–94.2)
Informal				
Basic	38.6 (19.7–57.5)	16.9 (0.6–33.2)	9.8 (0.0–20.1)	34.6 (19.6–49.6)
Secondary	10.4 (2.7–18.2)	24.2 (13.7–34.7)	26.3 (16.2–36.5)	39.0 (26.1–51.9)
TVET	4.4 (1.9–6.8)	5.7 (2.9–8.5)	53.6 (47.0–60.3)	36.3 (29.4–43.2)
University	0.5 (0.0–1.3)	2.3 (0.3–4.2)	9.0 (5.2–12.7)	88.3 (83.8–92.7)
Animal husbandry				
Basic	56.2 (33.9–78.5)	6.2 (0.0–18.4)	37.6 (16.7–58.5)	—
Secondary	55.5 (33.8–77.1)	20.8 (6.1–35.5)	14.9 (1.5–28.3)	8.8 (0.4–17.3)
TVET	25.6 (8.5–42.8)	13.0 (4.3–21.6)	56.1 (38.2–73.9)	5.3 (0.0–10.9)
University	49.9 (27.4–72.4)	12.3 (0.0–25.1)	20.8 (3.2–38.4)	17.0 (0.0–34.9)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: 95-percent confidence intervals are in parentheses. — = no respondents gave this answer. *N* = 2,000.

Table 6.7
Locations People Would Move to for a New Job, by Employment Type

Location	Type of Employment		
	Formal	Informal	Animal Husbandry
Ulaanbaatar	61.2 (47.1–75.4)	72.5 (62.9–82.0)	66.9 (35.7–98.1)
Aimag center	33.5 (20.5–46.6)	24.9 (15.6–34.2)	33.1 (1.9–64.3)
Soum center	7.0 (0.7–13.3)	5.4 (0.2–10.7)	—
Countryside	3.6 (0.0–8.5)	1.4 (0.0–4.3)	—
Abroad	19.5 (9.6–29.4)	5.4 (0.6–10.1)	—

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: 95-percent confidence intervals in parentheses. — = no respondents gave this answer. *N* = 136.

In fact, there is no statistical difference by job type among those who would move to Ulaanbaatar and aimag centers. Almost 20 percent of youth in formal employment would move abroad, compared with only 5 percent of youth in informal employment, but because of the small sample size, these figures are actually statistically the same at the 95-percent confidence level.

Employment by Sector

Just as different forms of employment have different levels of productivity, different sectors have different levels of productivity. In this section, we analyze employment by dividing the Mongolian economy into four main sectors: agriculture, hunting, forestry, and fishing; mining and quarrying; industry, which includes manufacturing, utilities, and construction; and services. We also investigate forms of ownership. In general, private-sector firms have the highest productivity.

Average earnings in agriculture are much lower than in industry and services, and average earnings are highest in mining and quarrying (Table 6.8). However, mining and quarrying take up a relatively small share of employment.

Sustained economic progress, and with it increased employment and earnings, will likely include growth in the private sector. In 2012, 21.3 percent of the Mongolian workforce was employed in the public sector; 31.5 percent was in the private sector, including NGOs; and 47.2 percent was in other organizations, which include own-account workers and animal husbandry or farm workers. Average earnings in the private sector were indeed higher than in the public sector, and earnings in own-account or animal husbandry and agriculture were significantly lower than in the private or public sectors.

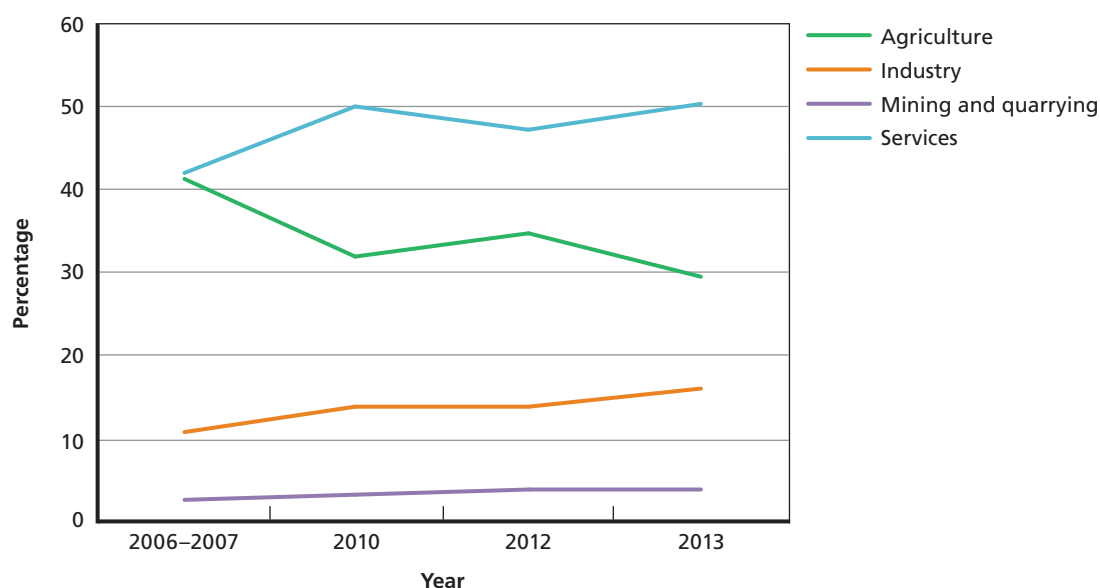
The trend toward higher-productivity employment is reflected in the sectoral mix of the economy (Figure 6.1). Mining, industry, and services have increased since 2006–2007, whereas agriculture has decreased since 2006–2007.

Table 6.8
Average Earnings, by Sector of Economic Activity and Ownership Sector, 2012

Sector	Percentage of Workforce	Average Annual Earnings (tugriks)
Sector of employment		
Agriculture	34.9	2,134,365
Mining and quarrying	4.3	6,690,595
Industry	14.0	4,337,121
Services	46.8	4,378,376
Sector of ownership		
Private and NGOs	31.5	4,814,576
Public	21.3	4,456,913
Other	47.2	3,352,668

SOURCES: Shares of employment by sector were calculated using the 2012 MLFS. Shares of employment by sector of ownership and all average earnings were calculated using the 2012 MHSES.

Figure 6.1
Employment by Sector



SOURCE: MLFSs.

RAND RR1092-6.1

Mining has the highest productivity per worker, as shown by earnings (Table 6.8), and productivity in services and industry is extremely close, and well above that of agriculture. The mining and quarrying sector has high productivity in part because it is intensive in capital rather than labor. This means it is unlikely to provide employment for a large portion of the population. A challenge for Mongolian policymakers will be spreading the increased economic growth throughout the population.

Employment by Sector in the ILS-RAND Mongolian Youth Survey

In this section, we use the ILS-RAND Mongolian Youth Survey to investigate sectoral employment among youth. Topics include sectoral choice and issues for productivity, skill mismatch, and geographic mismatch.

Sectoral Choice and Low-Productivity Employment

In the survey, the sector with the largest amount of employment was services, with 57.3 percent, followed by industry, with 25.0 percent; agriculture, with 13.5 percent; and mining and quarrying, with less than 1.0 percent. People in agriculture work the most hours per week and the most days per month but earn the lowest monthly income (Table 6.9).⁸ Those in mining earn the most, and those in industry and services are in the middle, but are statistically the same. Notably, people in services put in the lowest work effort in terms of hours per week and days per month. In addition, besides earning the highest monthly income, people in mining earn the highest average daily income. However, daily income for people in services is actually above that of people in industry.

When we analyze whether people in different sectors have a second work activity, the answer is overwhelmingly no. In all four sectors, more than 94 percent of youth had only one activity, and the values are statistically the same across all four sectors using 95-percent confidence intervals.⁹ In addition, nearly all people do not want to work more hours than they are currently working. In agriculture, 8.5 percent wanted to work more hours per week, compared with 2.4 percent in mining, 6.6 percent in industry, and 6.9 percent in services. However, all these values are statistically the same using 95-percent confidence intervals.¹⁰

Youth who work in services tend to rate their workplaces as more agreeable overall (Table 6.10).¹¹ Industry received the next-most favorable rating, then mining and quarrying, and then agriculture. In all cases the ratings were above the neutral level. The ILS-RAND

Table 6.9
Share of Employment, Hours and Days Worked, and Income, by Sector of Employment

Type of Employment	Hours per Week	Days per Month	Monthly Income
Agriculture	71.2 (3.7)	27.0 (0.7)	663.4 (74.6)
Mining and quarrying	57.7 (2.2)	21.5 (0.7)	967.7 (77.6)
Industry	55.2 (1.0)	22.7 (0.5)	759.8 (28.0)
Services	49.5 (0.6)	20.7 (0.4)	717.8 (35.0)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: Standard errors are in parentheses. $N = 2,000$ for hours and days; $N = 136$ for monthly income.

⁸ These findings draw from questions FA2, FA16, FA17, and FA20 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

⁹ These findings draw from questions FA2 and FA23 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

¹⁰ These findings draw from questions FA2 and G2 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

¹¹ These findings draw from questions FA2 and FA13 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 6.10
Workplace Environment, by Sector of Employment

Workplace Environment	Agriculture		Mining and Quarrying		Industry		Services	
	Rating	Rank	Rating	Rank	Rating	Rank	Rating	Rank
Occupational safety	3.365 (0.076)	7	3.685 (0.120)	4	3.864 (0.043)	3	3.961 (0.035)	4
Autonomy at work	3.479 (0.089)	2	3.507 (0.107)	7	3.760 (0.041)	5	3.856 (0.033)	6
Distance between job and home	3.387 (0.072)	5	3.387 (0.104)	8	3.459 (0.047)	8	3.675 (0.039)	8
Reputation of the organization	3.395 (0.079)	4	3.733 (0.103)	2	3.776 (0.039)	4	4.017 (0.028)	2
Workplace environment	3.379 (0.076)	6	3.570 (0.122)	5	3.720 (0.038)	7	3.942 (0.030)	5
Treatment of coworkers	3.490 (0.084)	1	3.778 (0.127)	1	3.985 (0.042)	1	4.052 (0.028)	1
Treatment of management	3.416 (0.080)	3	3.722 (0.099)	3	3.900 (0.042)	2	3.990 (0.028)	3
Staff discounts for goods and services	3.340 (0.074)	8	3.556 (0.120)	6	3.720 (0.043)	6	3.690 (0.041)	7

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: Respondents were asked to rate each category of workplace environment as to how agreeable it was, with 5 = very agreeable; 4 = somewhat agreeable; 3 = neither agreeable nor disagreeable (neutral); 2 = somewhat disagreeable; and 1 = very disagreeable. Standard errors are in parentheses. *N* = 2,000.

Mongolian Youth Survey asked youth to rate how agreeable their workplaces were on several dimensions, with 5 for very agreeable and 1 for very disagreeable. The overall average of the ratings was 3.89 for services, 3.77 for industry, 3.62 for mining and quarrying, and 3.41 for agriculture.

Youth in all four sectors rated the treatment of their coworkers very highly, with that the top-ranked workplace dimension in all four sectors. Notably, youth in mining and quarrying rated their autonomy relatively low, whereas youth in agriculture rated their autonomy relatively high. Youth in all of the nonagricultural sectors gave the distance between job and home their lowest rating, and youth in mining and quarrying and in services rated the reputation of their organization relatively high.

Sectoral Skill Mismatch

People in all sectors overwhelmingly believe that a TVET or university education is necessary to get a decent job (Table 6.11).¹² However, youth in agriculture put less emphasis on university, and more on just a basic education, than do youth in other sectors. Youth in agriculture also have a higher belief in the need for a TVET education than do youth in services.

Even though most youth do not think that a university education is necessary to get a good job, most youth aspire to a university education. The majority of youth in every sector

¹² These findings draw from questions FA2, I1, and I2 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Table 6.11
Level of Education Needed and Level of Education Expected, by Sector of Employment

Sector	Basic (%)	Secondary (%)	TVET (%)	University (%)
Level of education needed to get a decent job				
Agriculture	10.6 (5.9–15.4)	17.3 (11.2–23.3)	53.9 (45.5–62.4)	18.2 (12.8–23.5)
Mining and quarrying	1.2 (0.0–3.5)	22.3 (12.2–32.4)	41.2 (30.3–52.1)	35.2 (25.6–44.9)
Industry	5.2 (3.0–7.4)	11.8 (8.6–15.0)	43.8 (38.8–48.8)	39.2 (34.1–44.3)
Services	4.0 (2.2–5.8)	10.6 (8.5–12.8)	38.4 (34.9–41.9)	47.0 (43.0–50.9)
Level of education expected				
Agriculture	31.0 (18.5–43.5)	11.4 (7.4–15.4)	41.9 (31.0–52.9)	15.7 (10.4–21.1)
Mining and quarrying	2.3 (0.0–5.5)	8.3 (2.4–14.1)	33.8 (23.5–44.1)	55.6 (44.2–67.0)
Industry	2.9 (1.2–4.7)	6.5 (4.2–8.7)	32.9 (28.1–37.7)	57.7 (51.9–63.6)
Services	1.2 (0.5–1.9)	4.1 (2.7–5.4)	16.8 (14.1–19.6)	77.9 (74.8–81.1)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: 95-percent confidence intervals are in parentheses. *N* = 2,000.

except agriculture expects to get a university education, and a TVET education was the second likeliest selection. In agriculture, the largest block of youth expects to get a TVET education, followed by only a basic education. Because so few expect to get a secondary education, the proportion expecting to complete a secondary education is statistically the same as the proportion expecting to complete a university education.

We can gain more insight by comparing, by sector, youth views on the level of education needed to get a decent job and the level of education youth expect to get (Table 6.12). No matter what their view of the level of education required to get a decent job, a large proportion of youth in agriculture expects to complete no more than a basic education. Because of the small sample, many of these numbers are statistically similar. However, it is very clear that most youth who believe that a TVET education is necessary expect to complete a TVET education. The same applies to beliefs about a university education. In other sectors, the proportion that expects to complete only a basic education when they think that higher levels are necessary to get a decent job is very small. Many in mining and industry expect to complete a TVET education, whereas many in industry expect to have a university education as their highest level.

Table 6.12
Expectations of Educational Achievement, by Sector of Employment

Education Required for a Decent Job	Education Expected			
	Basic	Secondary	TVET	University
Agriculture				
Basic	65.4 (47.9–83.0)	3.4 (0.0–10.3)	24.3 (11.0–37.7)	6.8 (0.0–15.2)
Secondary	48.5 (27.4–69.7)	21.5 (8.5–34.5)	19.1 (5.9–32.3)	10.9 (2.9–18.8)
TVET	20.2 (8.1–32.3)	10.9 (4.8–16.9)	62.1 (48.2–76.1)	6.8 (1.8–11.8)
University	26.2 (9.1–43.2)	7.9 (0.7–15.2)	14.0 (3.7–24.3)	51.9 (32.4–72.4)
Mining and quarrying				
Basic	100.0 (100.0–100.0)	—	—	—
Secondary	—	26.3 (5.1–47.4)	41.9 (24.7–59.1)	31.8 (13.0–50.6)
TVET	—	5.8 (0.0–13.7)	50.8 (33.2–68.4)	43.4 (26.2–60.6)
University	3.2 (0.0–9.4)	—	10.0 (0.0–20.7)	86.8 (74.8–98.7)
Industry				
Basic	18.9 (1.2–36.5)	11.3 (0.0–23.2)	26.7 (10.5–42.9)	43.2 (22.7–63.7)
Secondary	3.3 (0.0–7.8)	27.6 (15.3–39.9)	25.2 (15.4–34.9)	44.0 (29.9–58.0)
TVET	3.1 (0.1–6.1)	4.6 (1.6–7.6)	54.2 (46.8–61.5)	38.1 (30.4–45.8)
University	0.5 (0.01–1.5)	1.5 (0.0–3.7)	12.2 (7.1–17.3)	85.8 (80.2–91.4)
Services				
Basic	6.5 (0.0–16.1)	17.1 (0.7–33.5)	10.7 (1.7–19.7)	65.7 (47.5–83.9)
Secondary	3.2 (0.1–6.3)	14.7 (7.3–22.0)	28.4 (19.5–37.2)	53.8 (43.5–64.0)
TVET	1.1 (0.1–2.1)	2.5 (1.1–3.9)	29.2 (24.2–34.2)	67.2 (62.0–72.5)
University	0.4 (0.0–0.9)	1.9 (0.6–3.1)	4.6 (2.8–6.4)	93.2 (90.0–95.4)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: 95-percent confidence intervals are in parentheses. — = no respondents gave this answer. *N* = 2,000.

Changing Jobs and Geographic Mismatch by Sector

As noted, the vast majority of youth plan to stay in their jobs. This rate is lowest for youth in industry, where 72.6 percent planned to stay, compared with 78.0 percent in services, 83.7 percent in mining and quarrying, and 84.6 percent in agriculture. The figure for agriculture is statistically above that of industry, but the figures for mining and quarrying, industry, and services are statistically equal, based on 95-percent confidence intervals.¹³

Of the youth who would look for another job, the highest proportion is for those who worked in agriculture, at 42.5 percent. However, that number is statistically the same for all sectors, based on a 95-percent confidence interval.¹⁴

For those who would move for work, Ulaanbaatar is the magnet (Table 6.13). Youth in all four sectors would move to Ulaanbaatar at a rate of between 62.6 percent (for services) and 100 percent (for mining and quarrying). Their second choice would be an aimag center, but that choice is far behind. Of the 136 youth in the survey who said they would move for work, only 15, or 11.1 percent, said that they would move abroad.¹⁵

Conclusions About Types of Employment

The Mongolian unemployment rate is low and has been declining. Even though unemployment is low, employment is not necessarily satisfactory. In fact, in Mongolia, low-productivity jobs predominate in the form of informal employment and animal husbandry. We do find, however, that the more-productive forms of employment, such as formal wage and salary employment, and the more-productive sectors, such as mining and quarrying, are expanding. This suggests that the trend regarding the quality of employment is positive.

Table 6.13
Locations People Would Move to for a New Job, by Sector of Employment

Location	Sector of Employment			
	Agriculture	Mining and Quarrying	Industry	Services
Ulaanbaatar	72.2 (54.2–90.3)	100.0 (100.0–100.0)	70.6 (56.2–85.1)	62.6 (50.2–75.0)
Aimag center	27.9 (9.8–46.1)	—	37.4 (20.4–54.5)	26.7 (16.7–36.7)
Soum center	5.6 (0.0–16.6)	—	5.3 (0.0–12.9)	6.6 (1.0–12.2)
Countryside	—	—	5.5 (0.0–13.3)	1.3 (0.0–3.9)
Abroad	5.5 (0.0–15.8)	—	10.6 (1.5–19.8)	13.4 (5.8–21.0)

SOURCE: ILS-RAND Mongolian Youth Survey, 2014.

NOTES: 95-percent confidence intervals are in parentheses. — = no respondents gave this answer. *N* = 136.

¹³ These findings draw from questions FA2 and H11 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

¹⁴ These findings draw from questions FA2 and H14 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

¹⁵ These findings draw from questions FA2 and H15 of the ILS-RAND Mongolia Youth Survey; see Appendix C.

Among youth, the majority work in formal employment. Formal employment provides work with the fewest hours per week and days per month, but the highest income. Youth also labeled it more agreeable than informal employment or animal husbandry. The greatest benefit of animal husbandry was reported to be autonomy at work, while the biggest problem of formal and informal employment was the distance from home to work. Both these findings mirror findings reported in Chapter Five about the employed population overall. Among the three types of employment, youth in informal employment are most likely to want to change jobs, but those in all three sectors who want to change and relocate are most likely to move to Ulaanbaatar.

Youth in all three sectors have a strong preference for a TVET education or university education. Their actions appear to mirror their preferences, except in the case of animal husbandry. There, a higher proportion of youth expects to complete only a basic education than believes that more than a basic education is needed for a decent job. This might suggest that there are barriers to education in rural areas.

In terms of sectors, the majority of youth work in services, and very few youth work in mining. Although mining pays well and can produce high amounts of government revenue, it rarely employs a large share of the workforce anywhere in the world. Services provide the opportunity for working the fewest hours per week and the fewest days per month, although mining pays the best. Agriculture lags on all three dimensions. Where agriculture outranks the other sectors is in the distance from home to work. For the three other sectors, youth find this to be the most disagreeable part of their jobs. Where youth in all four sectors agree is that their coworkers are treated relatively well, and for those who would relocate for a new job, most would choose Ulaanbaatar.

So far we have covered labor supply, NEET youth, labor demand, and labor-market outcomes. In the next chapter, we tie together the results and provide policy implications.

Policy Implications

The performance of the Mongolian labor market has both positive and negative elements. In this chapter, we review our findings and then discuss policy implications.

Although still a minority of total employment, formal employment is rising. The ILS-RAND Mongolian Youth Survey showed that formal jobs are better across a number of dimensions. These jobs require fewer hours per week and days per month, and they pay more than informal jobs or animal husbandry. In addition, employment in the more-productive sectors—services, industry, and mining—is rising. Although mining will never provide a large level of employment, it could have positive links to other sectors and could spur innovation in mining-related research. Education is rising as well, and education pays. Each additional year of education results in about a 9-percent to 10-percent increase in compensation, and graduates of TVET institutions and universities receive higher compensation than do graduates of secondary schools, on average.

Overall, the labor market seems to function fairly well. Although many people in Mongolia view unemployment as a problem, the unemployment rate is relatively low by international standards. It has also been falling. This means that most people who want to work at the going compensation level can find work, and most employers who need people at the going compensation level can find employees. However, this situation says nothing about whether those jobs are good or bad, high paying or low paying, formal or informal, full time or part time. In other words, the *quantity* of jobs does not appear to be a problem, but the *quality* of jobs might be. In addition, notably, the unemployment rate remains high in aimag centers.

Some of the positive trends in labor-market performance might have stemmed from macroeconomic events, such as high levels of foreign direct investment (FDI) through early 2013 and fiscal and monetary stimulus. But others, such as high returns to education, are less likely to have been influenced by such macroeconomic events.

We focus this chapter on practical implications for Mongolian policymakers. However, our methods and findings might have implications for other developing countries. In particular, such countries can benefit from fielding a localized version of the ILS-RAND Mongolian Youth Survey. In addition, many of the findings and constraints are likely to be true of other countries, and so the policy recommendations for addressing these findings or solving these constraints can provide a useful guide to policymakers in developing countries.

Areas of Concern for Labor Policy

We have found that the supply of labor, as measured by LFP, is lower than in many comparable countries. It is certainly not as low as in the most poorly performing regions in this regard, such as the Middle East, but there is scope for increasing it.

Part of the reason for a low labor supply might be high educational enrollments. This is an important investment for Mongolia and should pay off in the future. However, part of the reason might also be exits from the labor force by older people, and especially women over the age of 50. For youth not participating in the labor market, obstacles cited were often education-related or lack of work experience. In addition, even though educational enrollments are high, there appear to be access problems regarding education and training in rural areas.

Another issue related to labor supply is the NEET youth—young people not in employment, education, or training. The groups of special concern among NEET youth are those who are not performing household activities but are unsuccessfully looking for work (the unemployed) and those who are not performing household activities and not looking for work (idle youth). These groups seem to be especially prevalent in urban areas, with idle NEET youth, especially males, prevalent in Ulaanbaatar and unemployed NEET youth, both males and females, prevalent in aimag centers. The ILS-RAND Mongolian Youth Survey found that NEET youth face problems accessing opportunities for education, as well as information about job opportunities. These youth also might face social problems at home.

Rural to urban migration might also be contributing to low labor supply. We found that many rural to urban migrants do not take part in the labor market. Data from the 2013 MLFS suggest that a major reason for younger individuals to move from the countryside to the city is to study, and thus they do not participate in the labor force. Among the elderly, where LFP is low, we do not have the data to support making statements about the reasons for migration from the countryside to the city, but two plausible reasons for doing so are to join their adult children in the cities or to seek medical treatment. However, some might also be people who moved for work but simply could not find it, or who do not know how to find work and so dropped out of the labor market.

Employers, the demand side of the labor market, did not report regulatory barriers to hiring. In addition, rising educational attainment suggests that the productivity of Mongolian labor is increasing, and expected productivity is a source of demand. In addition, the majority of youth from most broad education categories are working in fields they studied for, indicating that employers are demanding what the educational system produces, to a certain extent. However, there is evidence for skill mismatch in fields that are trained in both the TVET and higher educational systems. Improvements in meeting market demand will be a challenge.

Although a low unemployment rate indicates that the labor market is functioning smoothly, it does not provide any information about other labor-market outcomes and the quality of jobs. For most Mongolian youth who have jobs, the most disagreeable aspect of their work is the distance between home and work, which could refer to the physical distance or the time it takes to get to work, or both. Those not in the labor market believe they face a number of obstacles to finding a job, chief among them a belief that there is not enough work available, likely meaning no jobs that match their skills; not enough work experience; and educational gaps. In fact, lack of work experience and educational gaps tend to play a role in several dimensions of labor-market outcomes. In addition, those seeking work tend not to use government

services when they look for a job. This indicates either that they do not know about those services or that they do not believe the services are helpful.

An additional labor-market outcome is the existence of low-productivity jobs. Labor productivity is low in Mongolia, and the level of informality is high. However, both of these phenomena seem to be moving in the right direction. Specifically, high-productivity sectors and high-productivity job types seem to be growing, and the level of informality seems to be declining. Most youth work in higher-productivity types of employment or higher-productivity sectors. Youth also expect to achieve the level of education they believe is necessary for a decent job—and, in fact, to exceed that level, with many expecting to continue on to a university degree. However, for some, educational attainment appears to be a barrier. This is most prevalent among youth working in animal husbandry or other agricultural sectors. Thus, access to education might be a problem in rural areas.

Vocational education graduates might face unique job challenges. Mongolian data and the ILS-RAND Mongolian Youth Survey found that many young people have a positive view of a TVET education and that TVET graduates are paid well. But the data also show that TVET graduates have a high variance in salary and in employment, meaning that while some do well, others do not. Younger TVET graduates tend to face higher unemployment rates than graduates of secondary schools and universities. In addition, there is widespread agreement that TVET needs to be improved—as is happening—but that there needs to be more coordination with the private sector.

Finally, the ILS-RAND Mongolian Youth Survey found that many people are working in professions that are not in line with their educational specialty. There is nothing wrong with this, especially if the job is rewarding and is what the young person wants to do. But it does suggest that education should focus on broader skills applicable to many sectors, particularly soft skills, along with general or transferable hard skills. Our employer interviews also suggested that soft skills, critical thinking, and other general skills are necessary for workplace success and are not being taught as well as they could be.

Developing Policies

In the next section, we provide a number of policy suggestions. In this section, we provide a framework for developing policies.¹ To decide on potential policies, it is useful to have a set of criteria. Only policymakers can have the final say on these criteria, since, ultimately, they are responsible for developing policies. However, here we suggest a set of basic criteria against which to measure policies in Mongolia. We suggest that policies should be

- effective—they should help solve the problem they are designed to tackle
- low cost—all else being equal, policies chosen should be cheaper than policies not chosen
- politically feasible—policymakers must be able to reach agreement on the policy under consideration
- easy to implement—agencies and other responsible entities tasked with carrying out the policy should possess the means to do so

¹ This section draws on a presentation to the RAND and ILS project teams on May 12 and May 16, 2014, by Jeffrey Wasserman, vice president, RAND Corporation; director, RAND Health; and professor, Pardee RAND Graduate School.

- equitable across the population—they should treat males and females and younger and older Mongolians fairly
- equitable across geography—they should treat Ulaanbaatar, aimag centers, and rural areas fairly.

Mongolian policymakers might have other criteria they need to consider as they develop actions to improve the labor market and the economy.

Although the above criteria all seem reasonable, they present policymakers with a very difficult problem. Specifically, there is a good chance that the criteria conflict. An effective policy might not be low cost. A policy that is equitable across geography might not be effective. A policy that is politically feasible might not be equitable across the population.

Accordingly, when considering policies, it is useful to construct or to think in terms of a criteria alternatives matrix, where the alternatives are different policies and the criteria are conditions the policies must meet (Table 7.1).

Policymakers can then use this matrix to systematically see which criteria their policy options meet. Even if a policy alternative meets many criteria, that alternative might not be chosen. Policymakers will and should attach different levels of importance to each criteria, so a policy that meets two important criteria but not three less-important criteria might be selected over a policy that meets three less-important criteria but not two important criteria. Although the role of the analyst is to present the data, the analysis, and the conclusions stemming from the analysis, policymakers will base their choices not only on the analysis but also on other considerations, such as political experience and judgment.

One policy option that is always on the table should be the status quo—letting present trends continue and making no changes. This is always a valid option because new policies have costs and risks, as well as unforeseen problems with implementation.

In the next sections, we suggest specific areas in which government action could be useful or for which more analysis might be merited.

Government Policies for Improving the Labor Market

We now turn to suggestions for government policies to improve the labor market. Most of these focus on improving outcomes, but some also can improve how it functions. We present a summary in Table 7.2, along with noting two potential criteria: whether implementation will

Table 7.1
The Criteria Alternatives Matrix

	Criteria 1: Effective	Criteria 2: Low Cost	Criteria 3: Politically Feasible	Criteria 4: Easy to Implement	Criteria 5: Population Equity	Criteria 6: Geographic Equity
Policy 1: Status Quo						
Policy 2						
Policy 3						
Policy 4						
Policy 5						

Table 7.2
Steps to Improve the Mongolian Labor Market

Policy Area and Policy	Implementation	
	Ease	Time
Education at all levels		
Ensure access, especially for rural and NEET youth	Hard	Medium term
Incorporate the education of soft skills and critical thinking	Hard	Medium term
Provide greater career guidance throughout education	Medium	Short term
Strengthen and formalize internships to provide practical training	Easy	Medium term
TVET		
Move toward international standards in the new qualifications framework	Hard	Medium term
Increase cooperation and consultation with the private sector	Easy	Short term
In the long term, consider consolidation of TVET institutions	Hard	Long term
Enhance short-term training	Medium	Medium term
Enhance coordination between the ministries of Labour and Education, Culture, and Science	Easy	Short term
NEET youth		
Use the school system to identify and intervene early with youth at risk of NEET	Medium	Medium term
Provide more guidance and counseling when problems are present	Hard	Medium term
Improve the investment climate in aimag centers	Hard	Long term
Government employment services		
Conduct evaluations of government services' accessibility and quality	Medium	Medium term
Conduct outreach in schools and youth-serving organizations	Easy	Medium term
Introduce competition by allowing private offices to charge fees	Easy	Short term
Social welfare and other programs		
Continue social welfare reforms considering labor-market effects and using conditional cash transfers	Hard	Medium term
Continue pension reforms considering labor-market effects	Medium	Medium term
Improve transportation links	Medium	Medium term
Future labor-market research		
Repeat the ILS-RAND Mongolian Youth Survey	Easy	Short term
Launch a longitudinal survey of youth	Medium	Medium term
Conduct a labor-market needs assessment (employer survey)	Medium	Medium term
Investigate job-market motivations and barriers for women	Easy	Short term
Investigate job-market motivations and barriers for older people	Easy	Short term
Investigate job-market motivations and barriers for the disabled	Easy	Short term

be easy, medium, or difficult, and whether implementation can take place in the short term, medium term, or long term. Mongolian policymakers will need to determine additional criteria by which to judge these policy directions and then decide which criteria are most important as a means of prioritizing which policies to introduce first. We note that even if a policy might be difficult or take a long time to implement, policymakers might still want to start it immediately if it is likely to bring large benefits or help fulfill other goals. They also might want to wait, and instead implement easy policies that will show immediate benefits if doing so will provide support for future policies and if doing so will bring benefits to the population.

We applied a limited set of criteria to evaluate the ease of implementation and the time for implementation of the recommendations. We judged both of these factors based on information available to us. The actual ease of implementation and time for implementation might differ from our expectations based on a more detailed knowledge of conditions in Mongolia.

Ease of implementation refers to the degree to which efforts to implement the recommendation involve building new infrastructure, developing new institutions, and making significant changes to existing policies or promulgating new laws. We considered ease of implementation to be

- hard if it involves several of the investments and efforts listed above
- medium if it requires one of the investments or efforts listed above
- easy if it does not require new investments or new initiatives but can be implemented by supplementing what is already in place.

Time for implementation refers to the duration of time required to implement the recommendation. We considered time for implementation to be

- long term if it would be a three- to five-year effort
- medium term if it would be a one- to two-year effort
- short term if it would be an effort that can be implemented within six months to one year.

Implementing these policies and programs cannot be the responsibility of only the Ministry of Labour. They touch on other ministries as well, particularly the Ministry of Education, Culture, and Science and the Ministry of Population Development and Social Protection.² Therefore, considerable intergovernmental coordination might be required.

As noted in Chapter Four, many policies influence labor demand, including investment policy. Analyzing Mongolia's investment policies was beyond the scope of this study. However, such a review is necessary, as are reforms that enable investors to easily start, expand, and close their businesses. An environment conducive to foreign investment would also be helpful, since foreign investment is a prime pathway for introducing new technologies and management methods and for creating global linkages. Recent declines in FDI have been one of the causes of the economic slowdown in Mongolia, and government officials have recognized the need to reverse this decline. An environment conducive to all forms of investment can help create high-productivity jobs, the lack of which is a problem faced by Mongolia.

² We use the ministry names as established under the 28th prime minister of Mongolia, Chimed SAIKHANBILEG, in December 2014.

The World Bank's Doing Business program provides a good start toward analyzing the investment environment, but not the full picture, since some of its subcategories are tied to specific types of business. In *Doing Business 2015* (World Bank, 2014), Mongolia ranked 72nd overall out of 189, ranked best in protecting minority investors (17th) and enforcing contracts (24th), and ranked worst in getting electricity (142nd) and trading across borders (173rd). That last ranking is a particular problem, because as a small, open economy, Mongolia cannot afford to have difficult international trading conditions. Within the EAP group of countries, Mongolia ranked eighth overall in ease of doing business, out of 25 countries, behind Singapore, Hong Kong, Malaysia, Taiwan, and Thailand, but ahead of China. However, China has an enormous market and other benefits, and so it is necessary for Mongolia to have a better investment climate to compete. Mongolia also ranked ahead of all Central Asian countries, but behind Russia (62nd) and well behind such small transition economies as Georgia (15th), Latvia (23rd), and Lithuania (24th).

Education at All Levels

The main problem of the Mongolian labor market, as we identified in previous chapters, is not the unemployment rate but rather the productivity of employment. One of the determinants of this is the set of skills of the workforce. The trends in educational attainment and enrollment in Mongolia are positive, and education pays off strongly. However, education and skill formation appears to be a problem along a number of dimensions.

Youth out of the labor force, NEET youth, and youth in low-productivity sectors indicate that education is a barrier. This includes not achieving the education they think is necessary for a decent job, not getting enough education, believing there is a mismatch between their education and the needs of the labor market, and not finding training opportunities. Youth also note that lack of work experience is a problem. In addition, although youth in education believe that their education is preparing them for employment, youth in employment do not believe this as strongly. This suggests a number of areas for improvement.

Access: There might be barriers to general education and professional courses and qualification training, especially among rural youth, but also among NEET youth—young people out of education who might want to go back for additional education or some form of training. One barrier could be geographic—appropriate education and training is not available where a young person lives. Solutions could include greater information outreach to all youth in eighth grade and below about educational opportunities throughout Mongolia. One barrier could be financial. Solutions could include travel and relocation assistance for those who need to relocate for secondary school or TVET. And one barrier could be psychosocial, in that young people might have difficulty adjusting to a new location. Solutions could include greater adult support, such as guidance counselors or social workers, or peer support provided by older students.

Content: Youth noted a mismatch between their education and the needs of the labor market. Employers also noted that new employees often lacked certain soft skills. Some of this is to be expected—education is not necessarily focused strictly on job skills, nor should it be. However, educational reforms could include additional instruction involving soft skills. Particular skills should include teamwork, presentation skills, and personal behavior in employment. Skills should also include critical thinking, in which students, no matter what they are studying, are taught to evaluate arguments and provide their own reasoned case for or against a cause of action. The Ministry of Education, Culture, and Science has been implementing

reforms in this direction. Consultation with employers might help ensure that the reforms will contribute not only to an educated population but to a job-ready youth population.

Career guidance: Young people in the ILS-RAND Youth Survey indicated a strong desire to work and a desire for jobs in which they could develop their skills. But they do not necessarily know which sectors have those jobs or how to prepare for such jobs. Greater efforts at instituting career guidance throughout education would help young people better prepare for their transition from school to work.

Practical skills: Employers also noted a wide gap between educational content and practical skills. Again, this is to be expected to a certain extent. However, this can be remedied through expanded opportunities for internships and career guidance. Even secondary school students, as opposed to TVET and university students, could benefit from internships in which they are introduced to workplace behaviors and opportunities. In addition, workplace behaviors could be taught in secondary school in some form of short course.

Strengthening and Integrating TVET Reforms

TVET institutions provide a special challenge. On the one hand, many people who complete a TVET education do very well on the labor market in terms of salaries that are higher than those received by secondary school graduates. On the other hand, some TVET graduates do not do well in terms of unemployment. And there is evidence of skill mismatch.

Mongolia has embarked on major reforms of its TVET institutions, including improving the curriculum, improving equipment, and upgrading the skills of instructors. Some institutions have a variety of international linkages and operate at international standards. Others do not. A number of further reforms could help. In general, where further spending takes place for the TVET system, we recommend most of it be directed toward improving the quality of equipment, curriculum, and instruction.

However, the TVET system is also at a crossroads. To continue with the reforms and ensure sustainment, the system must further strengthen and integrate these reforms. For example, the private sector has been engaged to some extent at the NCVET, but it should also have a more direct role in interacting with TVET institutions. The TVET system should build direct linkages with business and industry groups in the areas of curriculum development, internship development, and career guidance. Moreover, significant investments have been made in upgrading facilities and equipment in the TVET institutions, but these must be maintained and kept relevant for the needs of business and industry. There should be a role for industry representatives in overseeing TVET institutions and ensuring that equipment and facilities are kept up-to-date.

International standards: Mongolia is changing the TVET curriculum to meet the five-level Mongolian Qualifications Framework. The plan is for these levels not to be comparable to the levels of advanced-country qualifications frameworks. Mongolia would benefit if it were a long-term goal for Mongolian qualifications to be of the same quality as international qualifications. That would ensure high standards and make Mongolian TVET graduates more desirable for international investors.

Coordination with the private sector: Legally, the TVET system coordinates with the NCVET. It might be useful to go beyond the legal requirements and establish formal and regular coordination mechanisms with other industry groups, such as VETP, referred to in Chapter Four. If enough of such groups do not exist, new advisory councils could be created, starting with major Mongolian companies and foreign investors. The advantage of relying on

foreign investors, especially those from economically advanced countries, is that they will be more aware of international demand and the international standards to which Mongolia will want to move. In addition, regular surveys of employers, including assessments of the needs of the labor market, with the results made public, could provide a boost to improving the TVET system. Such regular coordination with employers could boost the probability of success of other potential reforms, such as the introduction of apprenticeship programs.

Consolidation: Over the long term, policymakers should consider consolidating the TVET system into fewer, but higher-quality, institutions. Consolidation will allow economies of scale, as well as better opportunities for upgrading the skills of instructors. Because Mongolia is a large and sparsely populated country, and because access to education is already a problem, this must be handled carefully. Specifically, consolidation should be done only in tandem with policies that help youth find the right TVET institution and attend it.

Short-term training: Related to TVET is the role of the professional education centers. These institutions, which provide short courses in the trades and other occupations, play an important role in rehabilitating skills of both youth and adults, but government officials suggested in interviews that professional education centers face some of the same challenges that TVET institutions do. The centers lack a strong practical component, and the quality of the materials, trainers, and the infrastructure requires improvement. In addition, access to such courses in rural areas appears to be limited; despite the problems with these courses, they appear to pay off in terms of employment, so improving access would benefit youth. It is also important to ensure better coordination between TVET institutions, the professional centers, and employers.

Enhance interministerial cooperation: For TVET to achieve higher quality, it will need cooperation between the Ministries of Labour and Education, Culture, and Science, even though it is currently the responsibility of the Ministry of Labour. This is particularly true in the education of soft skills and critical thinking, where Ministry of Education, Culture, and Science curriculum specialists will add value. Even with good technical skills, TVET students will need soft skills and critical thinking to fully succeed.

NEET Youth and Aimag Centers

Mongolia has a high NEET rate and a particular problem of unemployed youth and idle youth, particularly males, and particularly in aimag centers and Ulaanbaatar. These are young people who are not in employment, education, training, household activities, or job-seeking activities. These youth represent a problem for both the present and the future. For the present, they are not contributing to the economy, not building skills, and not helping at home. In some ways, they are a drain on the economy. This has implications for the future because they are not building skills that they can use throughout their work lives.

Early identification: NEET youth come predominantly from homes where parents do not have jobs, where parents have low levels of education, and in which incomes are low. These youth might also exhibit characteristics and behaviors that suggest they might have trouble transitioning to adulthood. Early identification can take place in the school system, since that is the one institution in which all youth participate. Such early identification should then be followed by interventions to help ensure that youth get the tools they need to continue education or find employment.

Greater counseling: NEET youth have similar aspirations as non-NEET youth, but they might face different barriers. Education is one of these, and was discussed above. Another

cited issue is problems at home. The ILS-RAND Mongolian Youth Survey was not able to dig more deeply into the nature of these problems, but this suggests that NEET youth are more likely to face social or personal problems that keep them from achieving the level of education or employment they desire. Solutions lie in the realm of social welfare programs.

Many NEET youth are supported by their parents, and some are able to support themselves. However, a notable proportion of the group gains its income from social programs, suggesting that there are already some programs applicable to NEET youth. However, whether these programs are targeted well enough, or include the types of support that could help such youth, even including help from a social worker or psychologist, is beyond the scope of this study. Further investigation would be useful, as would an examination of whether NEET youth could benefit from more information regarding education, training, and employment opportunities.

Improving the investment climate in aimag centers: The problems of NEET youth are compounded by the poor labor-market situation in aimag centers. These areas feature the highest unemployment in Mongolia and other negative labor-market indicators. Improving the areas will be difficult, and there is continuing debate about the effectiveness of place-based development policies. However, a number of policies could help. First, better infrastructure linking aimag centers to Ulaanbaatar and to world markets would make them better places for investment. Second, zones could be created that feature more business-friendly laws and regulations, reducing the cost of investment. Investment incentives could also be offered, although these would have to be evaluated carefully before they are offered, and results should also be evaluated after they are granted, since there is high potential for waste. Small urban centers are often places that talented young people leave, and this is likely the case in Mongolia. If investment conditions were improved and more investment took place, such young people would have more reason to stay, creating a virtuous circle in which successful businesses attract more investment, giving workers more reason to stay.

Government Employment Assistance

The ILS-RAND Mongolian Youth Survey found that few youth rely on government employment offices or other services, and private employment offices, for job assistance. There could be two reasons for this. One could be effectiveness—youth might have found that these offices and services are not helpful. The second could be informational—youth might not know of the existence of these offices or what they do. This suggests a number of policy measures.

Evaluate government services: Because of the potential benefit that a strong employment services program can bring to Mongolia, these services should be evaluated periodically, preferably by independent, third-party evaluators. Such evaluations would investigate how well the services are meeting their goals, particularly outcomes of the services, rather than such inputs as money spent. Once problems are identified, solutions can be implemented through pilot programs, which could then be broadened once proved effective.

Provide information about services more broadly: Employment offices are present throughout Mongolia. Greater awareness could be created through a specific outreach program to students during the first year of secondary school or the first year of TVET education, and then refreshers each year. Outreach could include a simple information kiosk in institutions, or even visits to classrooms. In addition, signs or other notices could be posted where youth are most likely to congregate.

Introduce greater competition for innovation: Right now, no employment office can charge for its services. All, private and public, are funded by the Employment Support Fund. A pilot program allowing private offices to charge for services should be instituted. Such a program would provide the incentive for offices to improve their services, and either job seekers or employers could bear the cost. By allowing private offices to charge, they would need to offer better services than would government offices, since the government offices are free. This need to offer better services would bring about innovation, and such innovations could be adopted by the public employment offices. If innovations did not occur, there would have been little cost to the government. In the end, it matters little whether people in Mongolia find jobs because of government assistance or private assistance. It matters only that they find productive employment and rewarding careers.

Social Welfare and Other Programs

Programs designed to provide social support might also provide a disincentive to joining the labor force. This is especially true of programs that provide additional income. The recipient might find that with the social support, there is no need—or less of a need—to find a job. In some cases, social supports are contingent on remaining below a certain income threshold, and, thus, there is an added disincentive to participate in the labor force because it could cause the potential recipient to be ineligible for those benefits, especially in a context where benefits are generous relative to wages.

Mongolia has a large number of social welfare programs, but expenditures on the 68 funded by the Social Welfare Fund under the Social Welfare Law constitute only a small proportion of GDP and, consequently, are unlikely to affect the labor market. However, there are other programs that could affect the labor market, such as pensions or a program offering lifetime payments to mothers with certain numbers of children.

A review of the literature on Mongolian labor markets suggests that social welfare programs implemented since 2005 might have exerted a downward pressure on LFP. Mongolia expanded welfare programs and implemented a series of cash transfer policies starting in 2005, notably the Child Money Program (CMP), a payment to every child under age 18 (Araujo, 2006), allowances for newly married couples (in 2006–2010), allowances for newborn babies (in 2006–2010), and a food and nutrition program funded by the Asian Development Bank.³ CMP, in particular, has a wide coverage; after starting, in a matter of months it became the largest social assistance intervention in terms of budget share (1.4 percent of GDP in 2006), and in 2014 the program was equal to total expenditures from the Social Welfare Fund. The program might encourage mothers of children age 18 years or younger to opt out of the labor market.

Changes to the law on unemployment benefits paid by the social security fund might have affected labor searches between 2009 and 2011. Beginning in 1994, the usual duration for benefits was 76 days, but from August 2009 to January 2011, this duration was extended to 126 days to ease burdens of joblessness caused by an economic crisis. No study has estimated changes to overall employment, possibly because it might be difficult to disentangle the effect

³ CMP gave cash allowances to poor families on the condition that they met certain criteria (school-age children must be attending school or nonformal education, must be living with family, involved in nationwide vaccination programs, and could not be involved in any form of child labor), although these conditions were dropped in 2006. CMP was discontinued in 2009 because of problems with its targeting methodology and sustainability issues.

of the crisis and the disincentive effect of added benefits (Batchuluun and Djalkhav, 2014, p. 59).

Continue reforms to social welfare programs considering labor-market effects and using conditional cash transfers: The country is currently undergoing a reform of its social welfare programs. The negative effects of such programs on the labor market are not necessarily bad, since even though government programs might have negative implications for the labor market, they might also have positive implications for human welfare. What it does mean is that all else being equal, if economic growth is a policy priority, policies should be designed to fulfill their goals while minimizing negative effects on the labor market. One way other countries have done this is through conditional cash transfers. Recipients receive some benefit, but in return they must meet some condition, such as sending their children to school or actively seeking employment. As part of these reforms, we strongly recommend that formal evaluation, preferably by independent third parties, be included. Evaluation of whether the program is working would help improve it and make sure the government is actually solving the problem and improving lives rather than just distributing money.

Continue pension reforms: Pension and retirement laws present a prime example of a policy that can fulfill a purpose in one area (providing support to older people) while harming goals in another (suppressing LFP). In Chapter Two, we noted that the LFP of older women was much lower than that for men. We hypothesized that this is a result of the pension age for women being lower than of men.

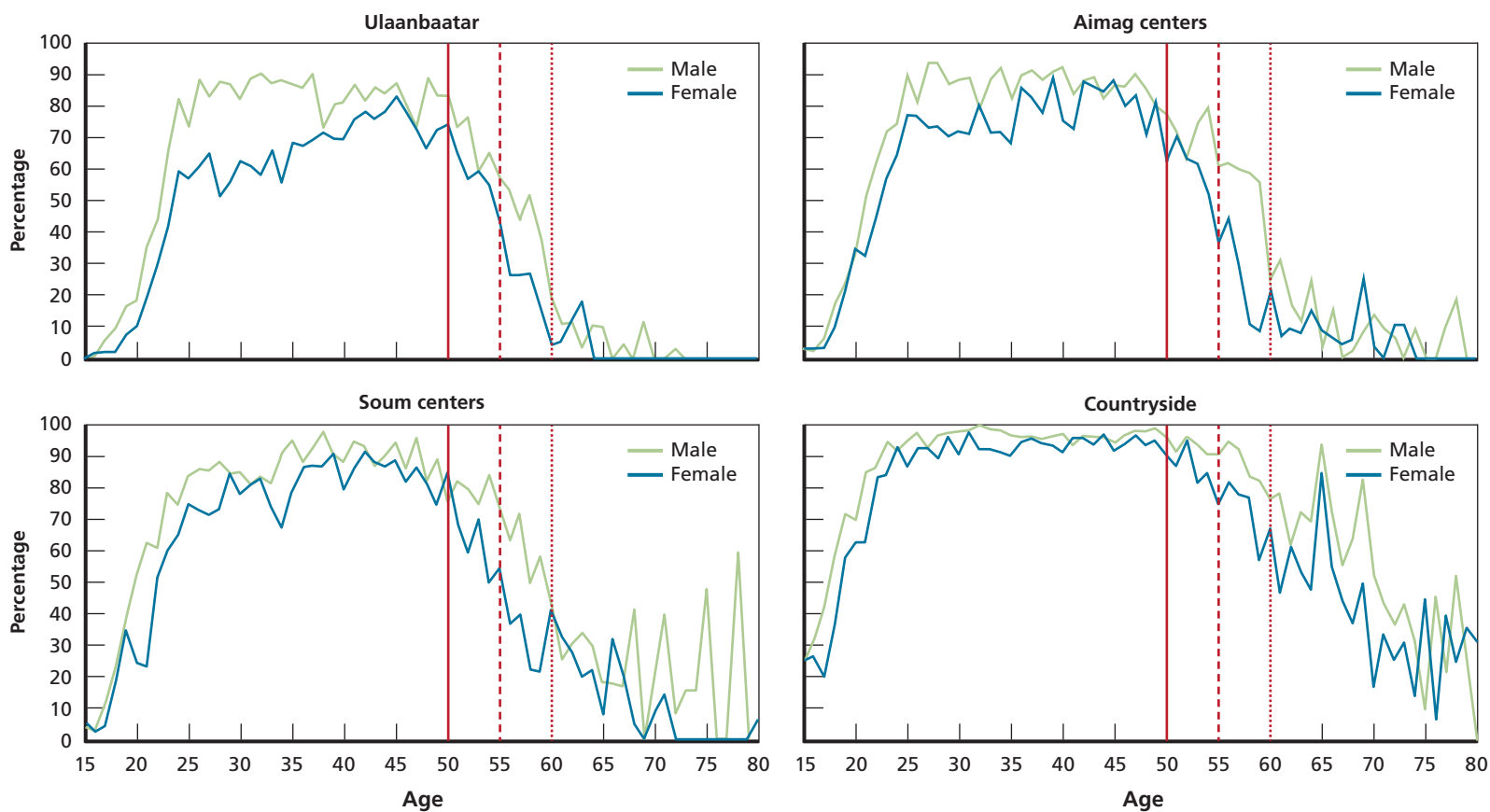
Previous literature provides support. One World Bank study found that Mongolia's Law on Pensions and Benefits provided by the Fund of Social Insurance might be partly responsible for relatively low LFP rates among older women (Khan, van den Brink, and Aslam, 2013). The disincentive effect is made more salient when considering that pension benefits provide an important source of income for rural and urban households alike. A World Bank study from 2008, analyzing household income and expenditure surveys from 1990 to 2005, found that, on average, pensions account for 7 percent to 12 percent of urban household incomes and 6 percent to 11 percent of rural incomes (Dorfman, 2008, p. 14).

We conducted our own analysis to confirm this. The retirement age for women is 55 years—50 if the woman has four or more children. For men, the retirement age is 60. Therefore, we tracked LFP rates of men and women by age in Ulaanbaatar, aimag centers, soum centers, and the countryside (Figure 7.1). In the figure, we have added lines at ages 50, 55, and 60 to depict the ages at which pension benefits are provided to women (50 and 55) and men (60).

All else being equal, men and women should exit the labor market at comparable ages. LFP is consistently high in rural areas for both men and women well past the age at which pension benefits are provided. This is expected given the agricultural nature of employment in these areas. However, in soum centers, aimag centers, and Ulaanbaatar, a strong divide between male and female LFP starts to emerge around age 50, the point at which some women can start receiving pension benefits, and then especially at age 55, when most women can receive pension benefits. This suggests that these pensions are inducing women to exit the labor market early, reducing labor supply and decreasing overall economic production in the Mongolian economy.

Mongolia has introduced reforms that change the program from defined benefit to defined contribution. Ensuring that these reforms are implemented can help the labor market. A defined contribution plan will not only help economize on the government budget but can

Figure 7.1
Labor-Force Participation Rate, by Age and Geographic Location, 2013



SOURCE: MLFS, 2013.

NOTE: The vertical lines at ages 50, 55, and 60 depict the ages at which pension benefits are provided to women (50 and 55) and men (60).

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provide incentives for people to stay in the labor market so they can contribute more toward their pensions.

Improving transportation to work: In the ILS-RAND Mongolian Youth Survey, youth in formal and informal employment and youth in mining, industry, and services all noted that one of the least agreeable aspects of their work was the distance from home to work. It is not clear that this presents a barrier to improving the labor market, but it might. If so, there are solutions. If the issue is transportation, then options include better public transport; a better, more efficient road network; and better transportation demand management. If the issue is lack of affordable housing near workplaces, then solutions could include removing any regulatory barriers that might exist to mixed-income housing or developing new neighborhoods near employment sites.

Future Directions for Research

Mongolia has an effective and capable NSO Office, a growing number of foreign-trained academics capable of conducting research at international standards, and a new, high-potential labor research center, the ILS of the Ministry of Labour. Already, the ILS has produced numerous useful reports, including annual barometer surveys and a ten-year labor supply-demand forecast. Besides the analytic directions mentioned above, such as an evaluation of government labor support and evaluations of future social welfare programs, we recommend a number of other studies.

First, there is great value in repeating the ILS-RAND Mongolian Youth Survey at regular intervals. The survey is unique and specific to Mongolia, but is at an international standard and could be adopted and localized by other countries. Repeating the survey would help policy-makers understand whether the use of government programs is rising, whether young people are meeting their educational goals, and whether barriers to employment are being lowered.

A variation is to create a national longitudinal survey of youth. This survey would follow a specific cohort of youth through time to specifically see how they grow and meet their aspirations for education and employment. A longitudinal survey is an excellent method for finding causal relationships between conditions and activities during youth and subsequent life outcomes, including employment, asset accumulation, and family formation.

A number of special populations merit further investigation and study. Our overall diagnosis of the Mongolian labor market found that LFP by women over age 50 is low. Furthermore, female LFP is lower than male LFP at all age levels. Accordingly, surveys to assess the labor-market motivations of women and barriers to their participation could help bring more women into the labor market and keep them there.

A survey of the motivations of older Mongolians in general and barriers to their participation could also help expand the size of the labor market and, with it, the size of the Mongolian economy. Work might be inappropriate for some older Mongolians, but others might want to work and could find accessing job opportunities to be difficult.

Likewise, a survey focusing on the disabled population could further help expand the labor market. In addition, disabled people often face unique barriers but want to work, living as normal a life as possible. According to the *Mongolian Statistical Yearbook 2013* (NSO, 2013), 64,500 disabled people received money from the social insurance fund in 2013. This might or might not be an undercount, as some disabled might not register in the social insurance fund. A nationally representative survey could help identify the size of this population and its poten-

tial contribution to the labor market. Finding new ways to assist the population's participation in the labor force could help both them and Mongolia.

The above surveys would focus on groups of people. It will also be important to learn more about business attitudes and needs. Improving the investment climate is an essential part of creating greater labor demand. A first step could be to conduct what is known as a *labor-market needs assessment*, which consists of surveying employers to learn what skills they need in their businesses, where the biggest skill gaps are, and whether such gaps are harming the potential for business expansion and economic growth.

To be useful, such a survey should enable employers to note specific skills, such as the ability to create a presentation, rather than just job categories. Furthermore, tailoring the survey to specific economic sectors could increase its usefulness. For example, employers might say they need people to have more technical skills, but the necessary technical skills will vary by sector. We note that creating sector-specific labor-market needs assessments would add to cost, since more surveys would be needed to cover the entire economy.

Finally, analysts should work to establish evidence on causal relationships between specific programs or policies and economic outcomes, and between macroeconomic performance and the labor market. We noted above that government services should be evaluated, but this can go further. In the area of establishing the relationship between policies and outcomes, randomized controlled trials that assign individuals to a treatment group that receives a government intervention or a control group that does not receive the intervention will be useful, as will designing policies to include a monitoring and evaluation component that tracks progress on a set of indicators and can incorporate improvements during implementation.⁴ For example, in Chapter Four we noted that young people who had taken a professional course or qualification training in the previous three years had higher rates of employment than those who did not, but a formal evaluation is needed to determine whether this is due to the training course or to superior motivation on the part of people who enroll in such courses. In the area of macroeconomic performance and labor-market outcomes, using a computable general equilibrium model or other macroeconomic simulation model can help clarify the pathways from, for example, commodity prices to employment or tariff changes to wages.

The Way Forward

The Mongolian labor market has had some positive developments since the early 2000s. Educational achievement levels are rising, and higher-productivity employment is increasing. Trends largely seem to be moving in a positive direction. However, there are a variety of areas that would benefit from policymaker attention.

Whatever policies are created, we suggest that policymakers first decide the criteria against which they want to evaluate their proposed policies. Candidate criteria include effectiveness, cost, political feasibility, ease of implementation, equity across the population, and equity across geography. There might be others that are important in Mongolia. Whichever criteria are chosen, it is likely that proposed policies will not be able to meet them all, and that

⁴ An example of a program evaluation using a randomized controlled trial is that being undertaken of vocational training for youth by researchers at the National University of Mongolia and partners (Batchuluun et al., 2014).

some will conflict. However, seeing how well proposed policies meet criteria can help policymakers choose which policies to adopt and implement.

We also suggest that policymakers adopt the idea of innovation and experimentation to policies, especially to assistance programs. Policies should not be changed lightly, since policy certainty helps businesses and people plan their activities better. However, no policy will be exactly right when first instituted. Piloting new policies can provide a first test of whether they will work and whether they will be difficult to implement. Building in an evaluation component can provide evidence on whether they are working and guidance on how to improve them. In the realm of social welfare and education subsidies, for example, developing small-scale programs with limited participation that can be scaled up if successful is another way to deploy a modest amount of resources toward trying out new initiatives. This potential suggests that policymakers should be willing to experiment and change course when it appears that something is not working or could be done better.

The ILS-RAND collaboration was, at its heart, a collaboration between a Mongolian government unit and an international policy research organization. Such collaborations can help provide new information and policy guidance to Mongolia, but they serve a more important function: the building of local capacity. The ILS has already provided value through its work and is on a pathway to improve further. Likewise, Mongolia has other residents who can operate at international standards. Policymakers would benefit themselves and Mongolia by ensuring opportunities for the improvement of local capacity and by drawing on that capacity to inform future policy development and implementation.

International Comparisons

In this appendix, we present underlying data for selected years for Figures 1.3, 1.5, 1.7, and 3.1, in which we compare the Mongolian labor market with the labor markets of other small transition countries.

Table A.1
Labor-Force Participation in Mongolia and Transition Countries

Country	2000 (%)	2006 (%)	2012 (%)
Armenia	71.5	65.9	66.9
Azerbaijan	68.5	69.1	70.2
Bulgaria	61.3	64.8	67.2
Estonia	69.8	72.8	75.0
Georgia	66.3	67.1	68.7
Hungary	59.7	61.7	64.2
Kyrgyz Republic	69.5	70.1	70.5
Latvia	67.1	71.4	74.6
Lithuania	71.0	67.6	72.9
Mongolia	63.5	62.9	65.1
Slovak Republic	69.7	68.5	69.6
Slovenia	67.5	70.9	70.9
Tajikistan	69.9	69.6	70.5
Turkmenistan	64.0	63.8	64.1

SOURCE: World Bank World Development Indicators.

NOTE: This table provides underlying data for Figure 1.3 for selected years.

Table A.2
Employment-to-Population Ratio in Mongolia and Transition Countries

Country	2007	2009	2011
Armenia	46.5	51.0	54.1
Azerbaijan	64.7	65.9	65.9
Bulgaria	62.1	63.1	58.7
Estonia	69.9	64.1	65.5
Georgia	58.1	56.1	57.9
Hungary	57.0	55.4	56.0
Kyrgyz Republic	64.3	N/A	N/A
Latvia	68.5	61.2	61.3
Lithuania	65.1	60.5	61.2
Mongolia	58.6	60.5	61.4
Slovak Republic	60.7	60.2	59.6
Slovenia	68.1	67.5	65.0

SOURCE: World Bank World Development Indicators.

NOTES: This table provides underlying data for Figure 1.5 for selected years. N/A = not available.

Table A.3
Unemployment Rate in Mongolia and Transition Countries

Country	2007 (%)	2009 (%)	2012 (%)
Armenia	28.4	18.7	18.5
Azerbaijan	6.5	5.7	5.4
Bulgaria	6.9	6.8	12.3
Estonia	4.7	13.8	10.1
Georgia	13.3	16.9	15.0
Hungary	7.4	10.0	10.9
Kyrgyz Republic	8.2	8.4	8.4
Latvia	6.0	17.1	14.9
Lithuania	4.3	13.7	13.2
Mongolia	7.2	5.9	5.2
Slovak Republic	11.0	12.1	13.9
Slovenia	4.8	5.9	8.8
Tajikistan	11.8	11.6	11.5
Turkmenistan	11.5	11.3	11.3

SOURCE: World Bank World Development Indicators.

NOTES: This table provides underlying data for Figure 1.7 for selected years. The unemployment rate is the modeled ILO estimate.

Table A.4
NEET Rates in Mongolia and Other Countries

Country	2003 (%)	2007 (%)	2010 (%)	2011–2012 (%)
Canada	12.9	12.1	13.5	7.7
Estonia	15.1	13.0	19.1	6.4
France	14.1	14.5	16.7	7.1
Germany	12.9	12.6	12.0	3.5
Greece	19.6	16.8	18.3	8.3
Hungary	18.8	15.6	18.9	4.8
Israel	32.3	29.7	27.4	24.2
Italy	18.6	20.0	23.0	11.4
Japan	9.8	7.6	9.9	10.1
Mexico	24.8	24.2	24.4	18.9
Mongolia	21.6	21.0	21.3	20.7
Slovak Republic	23.9	17.2	18.8	N/A
Slovenia	10.0	10.1	8.8	3.4
Spain	14.6	15.7	23.7	12.0
Turkey	41.1	41.3	36.6	24.8
United Kingdom	13.6	14.9	15.9	9.5
United States	N/A	13.1	16.1	7.1
OECD average	15.2	14.0	15.8	8.2

SOURCE: OECD Database, MLFSs.

NOTES: This table provides underlying data for Figure 3.1. N/A = not available.

Methodology

In this appendix, we review both the secondary data and primary data sources from which we drew to conduct our analysis and develop recommendations. We also provide technical details of the methodology used for sample size estimation and analysis to produce survey estimates.

Analysis of Secondary Data

This study relied on a number of secondary data sources. These are described below.

Mongolian Labor Force Survey

The MLFS, conducted by the NSO of Mongolia, is a quarterly survey of the working-age population on employment-related status and activities. The survey is nationally representative and consistent with ILO standards for labor-force surveys. Our study used data from the 2002–2003, 2006–2007, 2010, 2012, and 2013 administrations of the MLFS. The data for 2002–2003 cover the third quarter of 2002 through the second quarter of 2003. The data for 2006–2007 cover the third quarter of 2006 through the second quarter of 2007. The data for 2010, 2012, and 2013 cover the first quarter through the fourth quarter of each year, respectively.

Analysis of the MLFS was conducted using sampling weights provided in the data and using standard statistical software.

Mongolian Household Socioeconomic Survey

The MHSES is an annual survey of a representative sample of Mongolian households conducted to inquire about socioeconomic circumstances. Our study used data collected in 2012. The sample of the 2012 survey was drawn from 2005 population data, which was updated using registries kept at local administrative offices. The population was divided into three strata for purposes of sampling: (1) Ulaanbaatar (capital), (2) aimag centers, and (3) soum centers and the countryside. This survey collected information on household income, household expenditures, and household demographics and education.

Analysis of the MHSES was conducted using sampling weights provided in the data and using standard statistical software.

International Data

Our study also drew information from a number of international sources, including the World Bank World Development Indicators, OECD indicators, the joint World Bank and Interna-

tional Finance Corporation 2009 and 2013 Enterprise Surveys, and the World Bank's 2015 Doing Business Survey.

Collection and Analysis of Primary Data

Interviews

This study collected primary data from a number of different sources through interviews. Our sources included government officials in the Ministry of Labour; the Ministry of Education, Culture, and Science; and the Ministry of Population Development and Social Protection. We conducted site visits to and interviews of representatives of two TVET institutions. Researchers associated with our study also spoke with representatives of such international organizations as the World Bank, private businesses, private research organizations, and universities.

During interviews, extensive notes were taken and subsequently analyzed to draw general themes and to add detail and texture to the quantitative data. All people interviewed were assured confidentiality. Therefore, although the information they provided was used in the report, we do not connect that information with specific names.

The ILS-RAND Mongolian Youth Survey

The ILS-RAND Mongolian Youth Survey is an original survey of a nationally representative sample of 15- to 34-year-olds, designed jointly by the ILS, of the Mongolian Ministry of Labour, and RAND and administered by SICA, LLC, a private Mongolian survey research organization. The pilot study was conducted from August 7 to 8, 2014. Enumerator training was conducted from August 15 to 16, 2014. The main survey data collection period occurred between August 25 and October 26, 2014. The survey was regularly monitored in-country by the ILS and remotely by RAND.

Survey Design of the ILS-RAND Mongolian Youth Survey

The questionnaire for the ILS-RAND Mongolian Youth Survey, developed jointly by the ILS and RAND, draws on multiple sources with all questions adapted for the Mongolian context. The survey questions were drawn from the 2012 Mongolian Labor Force Survey (NSO, 2012); the second round of the 2012 Kurdistan Region of Iraq Labor Force Survey (Kurdistan Region Statistics Office, 2012); the 2009 ILO School-to-Work Transition Survey (Elder, 2009); and the 2011 Korea Youth Panel Survey (Korean Ministry of Employment and Labor and the Korea Employment Information Service, 2011). Questions were added and adapted to address the research questions of this study.

Sampling

The primary objective of this survey was to produce national estimates of educational achievement, employment rates and experiences, labor-market aspirations, and related variables for youth (ages 15–34) using a probability sample of noninstitutionalized youth in Mongolia.

Clustered Approach

The survey took a *clustered* design approach to improve the efficiency of fieldwork. This study used a *two-stage* design, with the first stage involving the random sampling of units or clusters, and the second stage involving the random selection of households within sampled clusters. The *kheseg* is the smallest administrative unit in the capital city of Ulaanbaatar. The *bagh* is the smallest administrative unit in the aimags (provinces) outside Ulaanbaatar. Therefore, the primary sampling unit (PSU) or cluster was the *kheseg* in Ulaanbaatar and the *bagh* elsewhere, and the secondary sampling unit (SSU) was individual households within *khesegs* and *baghs*. Given the necessary costs associated with travel for in-person data collection, the two-stage design is beneficial, as it allows the survey teams to interview multiple households within a small geographical area (the PSU), rather than interviewing selected households randomly dispersed across the country. Local registration offices maintain administrative data on each household in an administrative unit, and these data were used to build the sampling frame for households within clusters. We describe sampling of PSUs in more detail below; simple random sampling of SSUs was conducted within a selected PSU.

Stratification

To ensure that the sample was representative across key groups of interest, the population was *stratified* using certain variables. The population of Mongolia comes from 21 provinces in four regions, in addition to Ulaanbaatar, so province and region are important strata that reflect the geographic diversity. Given cost and logistical considerations, it would not have been possible to obtain a sufficient sample size to ensure precise estimates for every province, or for each region. However, we wanted to ensure that youth from each region were adequately represented in the national sample. As a result, we conducted *explicit* stratification on region to ensure that we included clusters from all regions for a geographically representative sample; stratification ensures against sampling, by chance, a nonrepresentative set of clusters. It also generally improves the precision of national-level estimates.

The sample allocation by region and province were *proportionate* so that the sample size for each region, province, and Ulaanbaatar was proportionate to its population. Proportionate sampling will not give us equal precision in each region and province, as some have higher population than others. However, disproportionate sampling—oversampling in smaller areas while undersampling in larger ones to ensure the similar precision of all estimates—has the disadvantage that it might substantially reduce the efficiency or precision of national-level estimates for any given total sample size.

Other important strata that were included in the sampling are education (less than secondary, secondary, TVET, and university) and age group (15–24, 15–29, 30–34). Table B.1 shows the number of clusters sampled by province and Ulaanbaatar. Note that the proportionate sampling by region yields a self-weighting sample, so that sampling weights to account for disproportionate selection probability are not necessary.

Intraclass Correlation

When determining the necessary sample size to achieve a desired level of precision (and when doing the analysis on the collected data), it is necessary to account for the fact that observations within the same cluster in the two-stage sampling design will exhibit dependence or similarity. This reduces precision relative to a simple random sample of the same size that does not collect

Table B.1
Clusters Sampled, by Geographic Location

Capital or Aimag	District	Aimag Center	Soum Center and Countryside	Total Clusters
Ulaanbaatar	Baganuur			2
	Bayangol			14
	Bayanzurkh			21
	Nalaikh			3
	Songinokhairkhan			19
	Sukhbaatar			10
	Khan-Uul			9
	Chingeltei			11
Arkhangai		1	5	6
Bayan-Ulgii		2	4	6
Bayankhongor		2	4	6
Bulgan		1	3	4
Govi-Altai		1	3	4
Govisumber		1	0	1
Darkhan-Uul		6	1	7
Dornogovi		2	3	5
Dornod		2	2	4
Dundgovi		0	3	3
Zavkhan		1	4	5
Orkhon		6	0	6
Uvurkhangai		2	5	7
Umnugovi		1	3	4
Sukhbaatar		1	2	3
Selenge		2	6	8
Tuv		1	5	6
Uvs		2	3	5
Khovd		2	4	6
Khuvsgul		3	6	9
Khentii		2	5	7
Grand total		41	71	201

data in clusters. The intracluster correlation coefficient (ICC) describes the degree of similarity among units in the same group or cluster. In statistics, the ICC is best conceptualized in terms of an analysis of variance or a random effects model. If individuals are organized into groups (e.g., kheseqs), and we partition the total variance into within-group (within-kheseg) and between-group (between-kheseg), then the ICC is the proportion of the total variance that is between-group. A high ICC suggests that there is substantial homogeneity or similarity within members of a group or cluster relative across groups, with a greater negative impact on (or, loss of) the precision of the survey estimates. For a given total sample size, the effect of a high ICC can be offset by sampling a greater number of clusters with fewer observations in each. This serves to increase the number of independent observations in the sample (since individuals in different clusters are more independent than those within clusters), increasing the effective sample size and reducing the margin of error.

The ICC is outcome-specific; that is, it can differ with each outcome or measure. Using the employment-to-population ratio or employment rate, unemployment rate, and the LFP rate calculated from the 2012 MLFS data, we estimated the ICC for individuals in a household as 0.173 and the ICC for households in a cluster as 0.10.

Number of Youth per Household

Sample size calculations were done in terms of the number of individuals (youth) we desired to be in the survey. However, our SSUs are households with youth, and all youth in a household were interviewed. Therefore, we used previous data to estimate the average number of youth per household to estimate the required number of SSUs to produce the desired sample size of youth. We restricted the sample to include households where at least one member of the household was in the 15–34 age range. We initially estimated an average of 2.49 youth per household and applied this conversion factor to map the required number of households to the desired number of youth in the precision calculation. However, the pilot study found a range of 1.39 to 2.48 youth per household across five pilot clusters. After additional field-testing and analysis of secondary data, our earlier estimate was revised, and a new estimate of 1.9 youth per household was used. Previous surveys (e.g., surveys by the Mongolian NSO) have used a cluster design that enrolled about ten households per cluster. In some cases, the number has been larger. We began the field period with a sample of ten households per cluster, and then revised it upward to include 13 households per cluster to accommodate the revised estimate of fewer youth per household to ultimately reach our target of 5,000 youth interviews (the determination of this target is discussed below).

Parameter Estimates

When calculating sample sizes, it is customary to use information available from previous surveys or other data sources. If such prior information is not available, one could assume reasonable values for the survey parameters (for example, unemployment or LFP) and conduct sensitivity analyses by varying the parameter values to see their effect on sample size. For the purposes of the ILS-RAND Mongolian Youth Survey, we accessed the necessary data through the 2010 Mongolian Census, the 2012 Mongolian Labor Force Survey, the 2013 Mongolian Labor Force Survey, and the 2013 Mongolian Statistical Yearbook. We have used a hypothetical assumption of 50 percent for youth LFP; 50 percent provides the largest standard errors for a binary variable (in the labor force or out of the labor force) and the most-conservative

calculations for determining sample size. In fact, this estimate is similar to the estimated 2013 youth LFP rate of 48.9 percent.

The *margin of error* (ME) is a statistic used to express the amount of variability in survey outcomes that result from random sampling. In other words, it expresses how certain we are that a statistic derived from a survey is “close” to the actual population statistic. The absolute ME is half the width of the confidence interval, with confidence levels typically set to 95 percent; a 95-percent level indicates that there is only a 5-percent chance that the statistic for the population is different from the statistic found in the survey. Less error ensures greater precision, but at the cost of a larger sample size. We aimed for an absolute margin of error of 5 percent or less for national estimates and estimates by age groups, gender, geography (Ulaanbaatar, aimag centers, and rural), and different education levels (less than secondary, secondary, TVET, and university). With the exception of the TVET education level, the attained sample size yields an absolute ME that is 5 percent or less for all of the estimates.

Sample Size Calculations

We conducted calculations around several estimates, including the LFP rate, employment rate, and unemployment rate. We estimated sample sizes for different precision levels or absolute MEs (3 percent and 5 percent), as well as for relative error equal to 10 percent of the population statistic. We estimated the sample size for each situation to produce a confidence interval with the desired amount of error. We determined the final sample size given the need to balance the objective of greater precision against the constraints of survey time and cost.

If we denote p = point estimate of the statistic of interest, e = margin of error, and Z_{95} = Z-value for a 95-percent confidence interval, then

$$\text{required sample size} = \frac{Z_{95} \times p(1-p)}{e^2}$$

As noted above, when conducting a multistage sampling strategy yielding a *clustered* sample, we must account for intraclass correlation, the extent to which individuals within a cluster tend to be similar—or, stated formally, the extent to which sampled units lack statistical independence. For a clustered sample, the *effective* sample size (ESS) is smaller than the actual or nominal sample size (NSS). The ESS is the sample size needed by a simple random sample to achieve a given precision that, in the case of clustering, reduces the effective sample size because of clustering. The ESS is less than the actual number of observations, or NSS, in a clustered sample because a simple random sample is more efficient. Note that the difference between the NSS and ESS captures the loss of precision associated with the clustered design.

To use this concept in the determination of the necessary sample size for our clustered design, the actual sample size, or NSS, is adjusted using the ICC. More precisely, the difference equals what is known as the *design effect* (DEFF), which is derived from the ICC. The DEFF associated with a simple random sample is 1. In a clustered sample, if the sample is obtained from m clusters, with n persons sampled per cluster, and the ICC is r , then the DEFF from clustering is greater than 1, as follows: $\text{DEFF} = 1 + (n - 1) \times r$.

The NSS equals the $\text{DEFF} \times \text{ESS}$. That is, we need to take the estimate of ESS from the sample size calculations, and inflate it by the DEFF of a specific design, to get the actual number of individuals to be surveyed under a clustered design.

Table B.2 illustrates the results of using different estimates of the target number of households and the number of youth per household. For a given total sample size (number of households or individuals), the greater the number of households sampled within a cluster, the greater the DEFF, since this means there are fewer clusters. As discussed earlier, the statistics of interest, such as LFP rate, employment-to-population ratio, and unemployment rates, are measured for youth in the survey. Thus, the sample size calculations correspond to the number of youth. We can convert the NSS to the number of households by dividing by the estimated number of people ages 15 to 34 living in a household. The final sample size of households is the figure to be used for fieldwork.

Based on initial estimates from different scenarios corresponding to different statistics of interest, ranging between 10 percent for the unemployment rate and 50 percent for the employment-to-population ratio and LFP, we estimated that a reasonable sample size for this study was 5,000 youth, which corresponds to roughly 2,010 households (based on an estimate of 2.49 youth per household). This sample size provides a level of precision for the national-level estimates, with an absolute margin of error of 5 percent or less, and satisfies financial and logistical constraints. This sample size allowed us to achieve precision for most but not all groups of interest (gender, region, age group, and education level). We discuss this in more detail in the subsequent sections.

Margin of Error Calculations

Based on calculations for multiple statistics of interest, we arrived at an estimated total sample size requirement of 5,000 youth. In a second step, we wanted to evaluate whether this estimate would produce adequate precision across multiple subpopulations of interest: gender, age group (15–24, 15–29, 30–34), education level (less than secondary, secondary, TVET, and university), and geography (Ulaanbaatar, aimag centers, and rural). In each subgroup, we used

Table B.2
Design Effect Estimates Based on Number of Youth per Household
with Youth and Number of Households Sampled

Target Number of Households Sampled	Number of Youth per Household	DEFF	Youth per Cluster
10	2.49	2.42	25
10	1.9	2.23	19
12	1.9	2.47	23
13	1.9	2.58	25
14	1.9	2.7	27
10	1.39	2.06	14
12	1.39	2.28	17
13	1.39	2.39	18
15	1.39	2.61	21
16	1.39	2.72	22

a hypothetical point estimate of 50 percent, because this value has the largest variance (or most uncertainty) for proportions (binary outcomes) and yields the worst precision or largest absolute error.

Next, we estimated population sizes for the different strata, and applied these distributions to the total sample size. We assumed a 95-percent confidence level in all calculations. Finally, we computed the margin of error for each subgroup using (1) the point estimate for the statistic, (2) the estimated sample size based on population composition, and (3) the Z -value for the 95-percent confidence interval, with the formula below, where p = point estimate, n = sample size, Z_{95} = Z -statistic for the 95-percent confidence interval, and

$$\text{standard error} = \sqrt{\frac{p \times (1 - p)}{n}} :$$

$ME = Z_{95} \times \text{standard error}.$

Results of Calculations

The final sample size was 4,544 youth: 4,508 surveys of youth collected from 201 clusters during the main study and 36 additional surveys of youth collected from five clusters during the pilot study (Table B.3).¹ This corresponded to 2,633 households: 2,605 collected during the main study, with approximately 13 households per cluster, and the additional 28 collected during the pilot. The absolute error for the overall estimate was 2.3 percent, for a population statistic of 50 percent. The error across all subgroups of interest was 5 percent or less, except for the TVET group (12 percent), which had a smaller sample size than other subgroups because of its lower prevalence (Table B.3).²

In terms of our sampling procedure, in the first stage of our multistage sampling strategy, we pulled a random sample of 201 clusters nationwide. In the second stage, 19 households (13 main plus six reserve households) were randomly selected within each cluster. The total number of households sampled includes 602 households that SICA drew from its reserve list to replace households where an interview could not be conducted because of one or more of the five reasons listed in Table B.4. Although we reached our targeted number of households, our final sample was fewer than 5,000 youth. Given that we had reached our planned timeline for the survey, and our estimates remained within our desired boundaries for precision, we stopped survey administration at the end of our planned timeline. In the end, the number

¹ The 36 respondents in the pilot data were not from clusters that were randomly sampled, as in the main survey data. However, the same questionnaire was used, with only modest changes after the pilot, which did not affect the questions analyzed in this report. We felt it important to include the respondents from the pilot survey as there is no reason to believe that they would be systematically different from the main survey respondents and would alter the overall representativeness of the sample. The number of pilot respondents constitutes less than 1 percent of total respondents.

² With our initial estimate of 2.49 youth per household and targeted sample size of 5,000 youth, we estimated we would need just over 2,000 households and just over 200 clusters, with ten households per cluster. However, during the fielding, we revised our estimate to approximately 1.9 youth per household, and thus we had to either increase the number of clusters or the number of households per cluster, or both. After carefully considering cost, time, and effect on the precision of our estimates, we determined that we would mainly increase the number of households per cluster, targeting 201 clusters, with approximately 13 households per cluster. The initial DEFF was estimated at 2.42, but with fewer youth per household obtained during initial fieldwork results, the new DEFF was revised to be 2.58 (Table B.2).

Table B.3
Sample Size Calculations for Mongolian Youth Survey

Stratum and Levels	Proportion of Youth	Number of Youth	Effective <i>N</i>	Standard Error (%)	Absolute Margin of Error (%)	Household Sample Size
Overall						
Total	1.0	4,544	1,761	1.2	2.3	2,392
Gender						
Male	0.49	2,233	865	1.7	3.3	1,175
Female	0.51	2,311	896	1.7	3.3	1,216
Geography						
Ulaanbaatar	0.45	2,022	784	1.8	3.5	1,064
Aimag centers	0.21	959	372	2.6	5.1	505
Rural	0.34	1,563	606	2.0	4.0	823
Age group						
15–24	0.50	2,286	886	1.7	3.3	1,203
15–29	0.77	3,499	1,356	1.4	2.7	1,842
30–34	0.23	1,045	405	2.5	4.9	550
Education level						
Less than secondary	0.34	1,563	606	2.0	4.0	823
With secondary diploma	0.40	1,809	701	1.9	3.7	952
With TVET	0.04	171	66	6.1	12.0	90
With university	0.22	986	382	2.6	5.0	519

NOTES: The LFP rate was the statistic chosen on which to power the calculations. To obtain the most-conservative sample size estimates, a population proportion of 0.5 was chosen. The design effect was calculated as 2.58. A 95-percent confidence interval was constructed using a Z-statistic of 1.96. The estimated number of youth per household for households with youth was estimated as 1.9.

of youth actually sampled was closer to 4,755, or 1.82 youth per household.³ To calculate the response rate, we included the number of youth who were reported to be living in a household but could not be reached after three attempts (139), as well as the number of youth who refused the interview (108). Based on eligibility, we also considered the number of households that could not be reached after multiple tries and the number of household-level refusals as

³ The timing of the survey (late summer and early fall) coincided with the end of the summer holiday, when youth and other household members might still have been in transition away from their normal places of residence during the year. This might partially account for the lower number of youth per household.

Table B.4
Outcome of Survey Administration to the Sampled Households

Sampling Outcome	Number of Youth
Number of households sampled	2,613
Number of youth in the households	4,755
Number of youth who could not be reached after three attempts	139
Number of youth who refused interview	108
Number of youth interviewed	4,508
Number of replacement households (and reason for replacement)	602
Number of missing dwellings	278
Number of households that could not be reached after multiple tries	233
Number of household refusals	51
Number of households in inaccessible clusters	13
Number of households without youth in the household	27

nonresponse (Table B.4). Thus, the response rate for our main survey administration was calculated as 89 percent: $(4,755 - 139 - 108) / (4,755 + 233 + 51) = 0.89$.

Nonresponse Weighting

Since the sample was drawn by region and province proportional to size, it is a self-weighting sample, and sampling weights are not needed. However, nonresponse weights are needed to account for systematic nonresponse (if nonresponse were random, the rate of nonresponse would be similar across all characteristics, and the sample would remain representative). To develop nonresponse weights, we used a logistic regression model to predict the likelihood of nonresponse. The logistic regression model included gender, education level, age, household size, number of youth in the household, respondent relationship to the head of household, and geography as predictors. The final model used to generate the weights is shown in Table B.5. The C-statistic associated with the model is 0.67, suggesting a reasonably good fit.

The nonresponse weight is created as the inverse of the predicted probability of being a respondent, according to the model above. Table B.6 illustrates some descriptive statistics of the nonresponse weights created, both as the inverse of the probability of response and in normalized, or standardized, form. The normalized nonresponse weight is created by standardizing the estimated weight to have a mean of 1.

Poststratification Weighting

When conducting a national survey, producing results that are representative of the population is of paramount importance. Sometimes, because of reasons beyond our control, we unintentionally end up with an oversample of some groups of respondents, as well as an undersample of others. In other words, the way a certain characteristic (such as age, education, gender) is distributed among respondents might differ from its population distribution. This has the potential to introduce bias into any estimate obtained from the sample data. To the extent that this is caused by different rates of response for different groups, we can correct for these biases

Table B.5
Logistic Model of the Probability of Response, Using Maximum Likelihood Estimation

Parameter	Degrees of Freedom	Estimate	Standard Error	Wald Chi-Square	Probability > Chi Squared
Intercept	1	3.8794	0.3596	116.3613	< 0.0001
Aimag	1	−0.0778	0.1672	0.2167	0.6416
Soum	1	0.3288	0.2011	2.6723	0.1021
Country	1	0.209	0.2216	0.8896	0.3456
Male	1	−0.857	0.1405	37.2342	< 0.0001
Ages 20–24	1	−0.3849	0.2151	3.2009	0.0736
Ages 25–29	1	−0.5551	0.2186	6.45	0.0111
Ages 30–34	1	−0.0663	0.2486	0.0712	0.7896
Basic education or less	1	0.7055	0.3239	4.7442	0.0294
Secondary education	1	0.1981	0.2685	0.5441	0.4608
TVET education	1	0.1825	0.3387	0.2902	0.5901
University education	1	−0.1444	0.2688	0.2888	0.591
Number of youth in household	1	−0.156	0.0482	10.4799	0.0012

Table B.6
Summary Statistics of the Nonresponse Weights

Variable	N	Mean	Standard Deviation	Minimum	Maximum	Sum
Nonresponse weight	4,544	1.055	0.036	1.009	1.292	4,792
Normalized nonresponse weight	4,544	1	0.034	0.956	1.225	4,544

using nonresponse weights. Sometimes there are other unobserved factors or evidence of selection. To account for such differences, we can correct mathematically with a poststratification survey weight. Poststratification is a method for adjusting the sampling or nonresponse weights further by direct comparison with population data. As discussed below, we decided not to create poststratification weights for the analysis of the ILS-RAND Mongolian Youth Survey.

To calculate a poststratification weight, we need an auxiliary data set, ideally measured during a similar time frame, to which we can compare our sample data. Such auxiliary or benchmark data should have a large sample size to provide stable estimates with low sampling error. Typically, comparisons are made to the census, or to a large national survey. We can then compare this auxiliary data file to the nonresponse-weighted survey sample to make sure that the distribution of demographic characteristics (such as age, education, gender) is similar to that of the auxiliary data. If the distributions are close enough, there is no need to calculate poststratification weights. However, if they differ by more than a few percentage points, it is appropriate to calculate the weights.

In the ILS-RAND Mongolian Youth Survey, we compared our sample with data from the following sources: (1) the 2010 Mongolian Census, (2) the 2010 MLFS, (3) the 2012 MLFS,

and (4) the 2013 MLFS. The ILS-RAND Mongolian Youth Survey sample distribution for age levels and education had some statistically significant differences with respect to distributions in the other data sets. The source of this discrepancy was not obvious. One explanation could be that households that agreed to participate differed systematically from those that did not agree to participate. However, the ILS-RAND survey had low nonresponse, so systematic nonresponse should not be the reason for this. The survey also included model-based nonresponse weights to account for youth refusals; the model included categorical age and education variables as predictors.

Although poststratification seemed merited and is a reasonable approach in principle, it requires that the auxiliary data distributions are accurate, contemporaneous (i.e., close in time), and reliable. Comparisons across the three MLFS data sets revealed considerable differences in estimates of age and education. The 2010 census is not ideal, because it was conducted several years before this survey and also varied from the results of the three MLFS data sets. This meant that we could not determine which could be the most appropriate data set on which to base poststratification weights. Poststratification weighting would correct one set of errors, but creating weights based on an inappropriate comparison would create new errors. As a result, we decided to not include a set of poststratification weights.

Analysis

The survey data were analyzed using the survey procedures in the SAS (Statistical Analysis System) software, which accounts for the clustering at the *kheseg* or *bagh* level. Nonresponse weights were incorporated in the analysis of survey data necessary to produce the tables used in the report. Where appropriate, parameter estimates are presented along with confidence intervals to reflect the amount of uncertainty around a survey estimate. RAND and the ILS developed an analysis plan to carry out the survey analysis. The results shown in this report provide a subset of the total analysis of the survey data.

ILS-RAND Mongolian Youth Survey Questionnaire

Institute for Labour Studies, Ministry of Labour, Mongolia, and RAND Corporation

MONGOLIAN YOUTH SURVEY

The data collected in this questionnaire will be protected according to Mongolia Law on “Citizen’s Privacy” and “Statistical Law” and only be used for research purposes.

SECTION AA. INTRODUCTORY DATA

AA1	Name of province and capital city, code				AA9	Household number in the cluster:			
AA2	Name of soum/district, code				AA10	Supervisor			
AA3	Name of bagh/khoroo, code				AA11	Surveyor			
AA4	Name of kheseq, code				AA12	Input operator			
AA5	Address/street/gate number				AA13	Number of questionnaire			
AA6	Residency:	Capital city	1		AA14	Name of head of the household:			
		Provincial center	2		AA15	Phone number of			
		Soum center	3		the head of household:				
		Countryside	4		AA16	What is the total number of individuals?			
AA7	Region No								
AA8	Cluster number:								

AA17	AA17a. Personal number of household member	AA17b. Age	AA17c. Sex:		AA17d. Highest completed level of education:	AA17e. Status of household member:
			Male	Female		
					No education	1
					Primary / 4th, 5th grade/	2
					Basic / 8th, 9th grade/	3
					Completed secondary	4
					Primary level of technical and vocational education	5
					Higher special with diploma	6
					College/university (bachelor degree)	7
					Post-graduate (master and higher)	8
					Head of household	1
					Husband/wife	2
					Son/daughter	3
					Father/mother	4
					Brother/sister	5
					Father/mother in law	6
					Son/daughter in law	7
					Grandfather/mother	8
					Niece/nephew	9
					Grand-niece/nephew	10
					Other relatives	11
					Friend	12
					Other	13
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

AA18	Total number of individuals ages 15 to 34 in the household				AA21	Name of survey participant	
AA19	Meeting result:				AA22	Phone number of survey participant:	
	Meeting conducted	1	AA20		AA23	ID number of the survey participant (personal number of HH member)	
	Meeting not conducted	2	AB1				
AA20	Date of interview:						
		YYYY	MM	DD			

Move to question B1

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SECTION AB. ELIGIBLE YOUTH NOT CURRENTLY AVAILABLE

<p>AB1 For <NAME>, who is currently not available, when will this person next be available?</p> <p>Available in the same household within the time frame for data collection. Make arrangements to return. 1 AB2</p> <p>Not available within the time frame for data collection 2 AB6</p> <p>AB2 Interview result:</p> <p>Meeting conducted 1 AB7</p> <p>Meeting not conducted 2 AB3</p> <p>AB3 What is the reason of meeting not conducted?</p> <p>Meeting refused 1 STOP</p>	<p>Not available during scheduled time 2 AB4</p> <p>Other reason 3 AB4</p> <p><i>If choose 2 or 3 --> ATTEMPT TO RESCHEDULE</i></p> <p>AB4 Interview result:</p> <p>Meeting conducted 1 AB7</p> <p>Meeting not conducted 2 AB5</p> <p>AB5 What is the reason of meeting not conducted?</p> <p>Meeting refused 1 STOP</p> <p>Not available during scheduled time 2 AB6</p> <p>Other reason 3 AB6</p>
--	---

AB6 Since we were not able to meet with <NAME> at this time, we would like to collect some basic information about this person.

AB6a Personal number of household member

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

AB6b Name _____

AB6c What is the reason this person is not currently in the household?

Works in another location in Mongolia.	1	AB6e
Studying in another location in Mongolia.	2	AB6e
Works in another country	3	AB6d
Studies in another country	4	AB6d
Has joined the army	5	AB6e
Left for another location in Mongolia for another reason not mentioned above	6	AB6e
Left for another country for another reason not mentioned above	7	AB6d

AB6d If this person is in another country, does he/she intend to remain in that country or return within the next five years?

Remain in that country	1
Return to Mongolia	2

AB6e About how much time (MM/DD) in the last six months did they live in this household?

MM					DD				

AB6f Is he/she enrolled in school?

Yes	AB6g
No	AB6h

AB6g If currently enrolled in school, in what level is he/she enrolled?

Primary / 4th, 5th grade/	1
Basic / 8th, 9th grade/	2
Secondary	3
Primary level of technical and vocational education	4
Higher special with diploma	5
College/university (bachelor degree)	6
Post-graduate (master and higher)	7

AB6h What is the highest level of completed schooling?

No education	1
Primary / 4th, 5th grade/	2
Basic / 8th, 9th grade/	3
Secondary	4
Primary level of technical and vocational education	5
Higher special with diploma	6
College/university (bachelor degree)	7
Post-graduate (master and higher)	8

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AB6i Whether this person is enrolled or not enrolled in school, does this person currently work?

Yes	1
No	2

AB6j What is this person's living arrangements when not staying in this household?

Only resides in this household	1
Have their own living arrangements where they reside alone or with their own spouse and family	2
Reside in the household of a relative or other family member	3
Reside in the household of non-family or non-relative	4
Reside in a university or school dorm	5
Have other living arrangements not mentioned	6

AB6k What is this person's marital status?

Single	1
Married	2
Unmarried, living with partner	3
Divorced	4
Widow or widower	5
Separated	6

AB6l May I please have an address where he/she can be reached?

AB6m May I please have a phone number where he/she can be reached?

AB7 Date of interview:

_____	_____	_____
YYYY	MM	DD

AB8 Name of survey participant _____

AB9 Telephone number

AB10 Registration number

_____	B1
-------	-----------

SECTION B. BACKGROUND INFORMATION FOR HOUSEHOLD MEMBER AGE 15 - 34
B1 Please tell me your name (to the respondent).

B2 Are you...?

Male	1
Female	2

B3 What is your relation to head of the household?

Head of household	1
Husband/wife	2
Son/daughter	3
Father/mother	4
Brother/sister	5
Father/mother in law	6
Son/daughter in law	7
Grandfather/mother	8
Niece/nephew	9
Grand-niece/nephew	10
Other relatives	11
Friend	12
Other	13

B4 How old are you?

[ENTER AGE IN FULL YEARS AS OF TODAY'S DATE]

B5 What is your birthdate?

_____	_____	_____
YYYY	MM	DD

B6 Does your body have any disability?

Yes	1
No	2

Note: A disability is an impairment that can occur to one or more of the following: vision; auditory; language and speech; musculoskeletal; cognitive/mental; or other.

B7 Where were you born?

Mongolia	1
Foreign country	2

B8 About how long have you lived in this household in the past 6 months?

_____	_____
MM	DD

B9 Have you always lived in this area?

Yes	1	C1
No	2	B10

B10 What year did you move here?

YYYY

B11 Why did you move here?

To go to school	1
To take a job or look for a job	2
Moved with a spouse	3
Moved with parents or family	4
Other: _____	5

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SECTION C. SCHOOLING AND TRAINING

<p>C1 Can you read and write? Yes 1 No 2</p> <p>C2 Have you ever attended school? Yes 1 C6 Yes, but stopped before completing compulsory schooling 2 C3 No 3 C28</p> <p>C3 Why did you stop attending school?</p> <table border="0"> <tr><td>Study environment is not good</td><td>1</td></tr> <tr><td>School is located far away</td><td>2</td></tr> <tr><td>Can't pay costs for stationery and clothes</td><td>3</td></tr> <tr><td>Can't pay tuition fee</td><td>4</td></tr> <tr><td>Failed examinations</td><td>5</td></tr> <tr><td>Study is bad, have no aspiration to study</td><td>6</td></tr> <tr><td>Help on household income</td><td>7</td></tr> <tr><td>Moved</td><td>8</td></tr> <tr><td>Dormitory is not sufficient</td><td>9</td></tr> <tr><td>Help on homework</td><td>10</td></tr> <tr><td>To herd</td><td>11</td></tr> <tr><td>To get married</td><td>12</td></tr> <tr><td>Parent discharged from school</td><td>13</td></tr> <tr><td>Ill</td><td>14</td></tr> <tr><td>Disabled</td><td>15</td></tr> <tr><td>Other</td><td>16</td></tr> </table> <p>C4 What is your last completed year of schooling? [] []</p> <p>C5 What is your highest education level attained? No education 1 C29 Primary education / 4, 5th grade 2 Basic education / 8, 9th grade 3</p> <p>C6 Are you currently going to school, college or university, or other educational institution? Yes - full time 1 C11 Yes - part time 2 C11 No 3 C7</p> <p>C7 What is your most recently completed year of schooling? [] []</p> <p>C8 What is your highest education level attained? <i>NOTE TO ENUMERATOR: If respondent chooses 4, they will answer C9, and then skip to C29. They will not answer C10.</i></p> <table border="0"> <tr><td>No education</td><td>1</td><td rowspan="4">C29</td></tr> <tr><td>Primary / 4th, 5th grade/</td><td>2</td></tr> <tr><td>Basic /8th, 9th grade/</td><td>3</td></tr> <tr><td>Completed secondary</td><td>4</td></tr> <tr><td>Primary level of technical and vocational education</td><td>5</td><td>C9</td></tr> </table>	Study environment is not good	1	School is located far away	2	Can't pay costs for stationery and clothes	3	Can't pay tuition fee	4	Failed examinations	5	Study is bad, have no aspiration to study	6	Help on household income	7	Moved	8	Dormitory is not sufficient	9	Help on homework	10	To herd	11	To get married	12	Parent discharged from school	13	Ill	14	Disabled	15	Other	16	No education	1	C29	Primary / 4th, 5th grade/	2	Basic /8th, 9th grade/	3	Completed secondary	4	Primary level of technical and vocational education	5	C9	<table border="0"> <tr><td>Higher special with diploma</td><td>6</td><td rowspan="3">C9</td></tr> <tr><td>College/university (bachelor degree)</td><td>7</td></tr> <tr><td>Post-graduate (master and higher)</td><td>8</td></tr> </table> <p>C9 What is/was your field of study in your secondary school? No special field of study 1 Mathematics 2 Foreign language 3 Natural sciences 4 Art/physical culture 5 History, social science 6 Engineering, technical science 7 Other 8</p> <p>C10 What was your main profession (major)? [] [] [] [] <i>Move to C29 question</i></p> <p>C11 What kind of school are you studying in? Secondary school, private 1 Secondary school, state owned 2 TVET, state owned 3 TVET, private 4 University, state owned 5 University, private 6</p> <p>C12 Location of the school you are studying: (Name of city/province/soum) <i>If it is a foreign school, write the name of the country and the code.</i> [] [] [] []</p> <p>C13 When did you enter this school? [] [] [] [] YYYY</p> <p>C14 Does your school charge tuition or fees? Yes 1 C15 No 2 C17</p> <p>C15 How much are tuition or fees? [] [] [] [] [] /thousand MNT/</p> <p>C16 How do you pay your tuition or fee? Paid by parents, brother/sister, grandfather grandmother 1 Paid by relatives 2 Scholarship 3 Paid by myself 4 Paid by organization/employer 5 Paid by wife/husband 6 Studying using tuition fee loan 7 Studying using donation/state fund 8 Other 9</p>	Higher special with diploma	6	C9	College/university (bachelor degree)	7	Post-graduate (master and higher)	8
Study environment is not good	1																																																			
School is located far away	2																																																			
Can't pay costs for stationery and clothes	3																																																			
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Help on homework	10																																																			
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Parent discharged from school	13																																																			
Ill	14																																																			
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Other	16																																																			
No education	1	C29																																																		
Primary / 4th, 5th grade/	2																																																			
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Post-graduate (master and higher)	8																																																			

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C17 What is your most recently completed year of schooling or university?

C17a Secondary

C17b TVET

C17c UNIV

C18 What is your highest education level attained?

NOTE TO ENUMERATOR: If respondent chooses 3, they will answer C19, and then C21, and will not answer C20.

No education	1	C21
Primary / 4th, 5th grade	2	
Basic /8th, 9th grade	3	C19
Completed secondary	4	
Primary level of technical and vocational education	5	C19
Higher special with diploma	6	
College/university (bachelor degree)	7	C19
Post-graduate (master and higher)	8	

C19 What is your field of study in your secondary school?

No special field of study	1
Mathematics	2
Foreign language	3
Natural sciences	4
Art/physical culture	5
History, social science	6
Engineering, technical science	7
Other	8

C20 What is your main profession (major)?

(please write the obtained main qualification and profession)

C21 What is your average mark in your school(current year)?

A. 90 - 100	1
B. 80 - 89	2
C. 70 - 79	3
D. 60 - 69	4
F. 59 or lower	5

C22 Please evaluate the following related to your school environment, conditions, and quality of training.

(5-Very Satisfied, 4-Satisfied, 3-Neither satisfied nor not satisfied (neutral), 2-Not satisfied, 1-Not satisfied at all)

Satisfaction with school	
Equipment for training	
Contents of lesson, curriculum	
Skills of teachers	
Sufficiency of classrooms	
Consultancy and supporting programs for career guidance	
Treatment and ethics of teachers	

Treatment and ethics of classmates

School environment

Training quality

Activities organized by the school

C23 What is the highest level of education/training you expect to complete?

Primary / 4th, 5th grade	1	C26
Basic / 8th, 9th grade	2	
Completed secondary	3	C24
Primary level of technical and vocational education	4	
Higher special with diploma	5	C24
College/university (bachelor degree)	6	
Post-graduate (master and higher)	7	C24

C24 What is or will be the special field in university that you are studying (if you are in university) or that you are planning to study (if not yet in university)?

Science	1	C26
Literature/arts	2	
Commerce/business administration	3	C26
Industry/technical	4	
Education	5	C26
Engineering	6	
Health sciences	7	C26
Medicine	8	
Other, please specify	9	C26
Have not decided yet	10	

C25 Why didn't you select a field yet?

Don't have information for selection of field	1
Don't have opportunity to get advice about field and education	2
Didn't determine my future goal yet	3
Will select when time will come	4
Will decide later because it will depend on results of entry examination	5
Other	6

C26 What are you planning to do after graduating from your current level of schooling?

Will study for master, PhD degree	1
Will study at university, college/bachelor degree	2
Will study at TVET	3
Will continue on to secondary school	4
Will attend short term professional training	5
Will look for a job	6
Will go abroad to study	7
Will go abroad to work	8
Will rest for some time	9
Will remain at home	10

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No plans	11		Primary level of technical and vocational education	4	
Other, please specify _____	12		Higher special with diploma	5	
Don't know	98		College/university (bachelor degree)	6	
			Post-graduate (master and higher)	7	C33
C27 Do you feel the education or training you are receiving will be useful for the needs of the job market?					
Very useful	1	C34	C32 If you don't plan on participating in any education, training, course, or program, or do not know if you will, what might prevent you from furthering your education or training?		
Somewhat useful	2		No financial possibility	1	
Not useful	3		No information	2	
C28 Why didn't you attend school?					
Didn't reach study age	1		No interest	3	
Study environment is not good	2		Because didn't select profession yet	4	
School is located far away	3		Don't know well about improving professional skills	5	
Can't pay costs for stationery and clothes	4		No activities related to the job I want to have	6	
Can't pay tuition fee	5		Don't know about requirements of job preparation training	7	
Failed examinations	6		Heard about job preparation training but didn't think about participation	8	
Study is bad, have no aspiration to study	7		Organization didn't have possibilities for practical training	9	
Help on household income	8		Do not require further education or training	10	
Moved	9		Other	11	
Dormitory is not sufficient	10		C33 Do you feel the education or training you received in the past was useful for the needs of the job market?		
Help on homework	11		Very useful	1	
To herd	12		Somewhat useful	2	
To get married	13		Not useful	3	
Parent discharged from school	14		Did not attend any education or training	4	
Ill	15		C34 Have you studied in a professional course or qualification training in the last three years?		
Disabled	16		Yes	1	C35
Other	17		No	2	C36
C29 Do you plan to continue your education or training at a later stage?					
Yes	1	C30	C35 Which types of profession course or qualification training did you receive?		
No	2	C32	Building decoration and building finishing	1	
Do not know yet	3	C32	Cooker and baker	2	
C30 Choose up to (3) reasons for pursuing further education or training.					
To work in a new profession.	A		Seam, model and pattern	3	
To improve in my current profession.	B		Hairdresser and beauty massage and reflex therapy	4	
At the request of my parents.	C		Vegetable and agriculture	5	
To change my social scene.	D		Operator of heavy equipment	6	
To learn other subjects.	E		Driver	7	
To acquire deeper knowledge in specific subjects	F		Accountant and registration	8	
For personal improvement.	G		Cash and seller	9	
To improve my social status	H		Bar man and servant	10	
Other	I		Cellular phone repair electrician	11	
C31 What is the highest level of education/training you expect to attain after you continue your education/training at a later stage?					
Primary / 4th, 5th grade	1	C33	Electrician	12	
Basic / 8th, 9th grade	2		Welder, plumber and fitter	13	
Completed secondary	3		Foreign language	14	

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Carpenter and goldsmith	15	Participate in individual and group programs for career guidance	T
Handicraft	16	Participate in tours to get acquainted with activities of organizations	U
Processing meat and meat products	17	Other, please specify	V
Management of state administration	18	NONE OF THE ABOVE	W
Other	19		

C36 Did you or will you participate in following training program and activity in order to prepare for profession or work?

If A-V --> C38; If W --> C37

Participated in the individual training for the profession to be selected	A
Participated in group training for the profession to be selected	B
Participate in ONLINE training	C
Participate in the retraining organized by the school	D
Prepare by myself	E
Participate in foreign language training, course	F
Participate in TOEIC/TOEFL preparation training	G
Participate in computer training	H
Get information from internet	I
Get information from TV, newspapers and magazines	J
Attend lecture and seminar about selection of profession	K
Get information from contents of lesson and training	L
Get information from books and handouts	M
Take psychological test	N
Get information from teachers and school	O
Get advice from parents	P
Get advice from brothers and sisters who already graduated from school	Q
Participate in program at work place and in industrial practice	R
Participate in the labour fair organized by school	S

C37 If you did not or will not participate in any training, course, or program, what is the reason?

No financial possibility	1
No information	2
No interest	3
Because didn't select profession yet	4
Don't know well about improving professional skills	5
No activities related to the job I want to have	6
Don't know about requirements of job preparation training	7
Heard about job preparation training but didn't think about participation	8
Organization didn't have possibilities for practical training	9
Other	10

C38 Did you ever stop your education to work or look for work full-time and then re-enter school at a later date?

Yes	1	C39
No	2	D1
Never attended school	3	D1

C39 Why did you choose to reenter the education system?

Could not find suitable work	1
Needed different education or training in order to change my career	2
Was not sure what I wanted to do yet	3
Finally had sufficient money to pay for education	4
Not ready to face the "working" world yet	5
Other	6

SECTION D. LABOR FORCE PARTICIPATION

D1 Did you work during the last 7 days, even for one hour, as an employee or self-employed, or as an unpaid worker in a business or farm owned by the household or relatives?

As an employee	1	FA
Self-employed	2	FA
Unpaid worker in a business or farm owned by household or relatives	3	FA
No	4	D2

D2 Although you didn't work last week, did you have any job or business from which you were temporarily absent or on a break?

Yes	1	
No	2	E1

D3 What is the main reason you didn't work last week?

Strike or labor stoppage	1
Technical breaks, machinery break-downs	2
Temporary lay-off	3
Lock-out	4
Have a job but have not started yet	5
The work is seasonal	6
Reduction in economic activity	7
Workplace shutdown due to financial difficulties	8
Temporary disorganization, suspension of work (mechanical electrical breakdown, shortage of raw materials, fuel)	9
Bad weather or natural phenomena	10
Illness or injury	11
Leave or vacation/nonwork related travel	12

Lack of raw materials, financial shortage or lack of customers	13	
Did not like what I would be doing on the job	14	
Education or training leave	15	
Maternity leave, care for baby, or parental leave	16	
Care for elderly	17	
Personal, family responsibilities	18	
Other	19	
Don't know	98	

D4 During this absence period, have you received any wages (in cash or in kind) or enterprise profits?

Yes	1	FA1
No	2	

SECTION E. NON-WORKING CASES

E1 Were you willing and able to work if an opportunity would have been available in the last 7 days?

Yes	1	E3
No	2	E2

E2 What is the reason you are not willing or able to work?

Home work	1	
Studies	2	
Going to study	3	
Disability	4	
Don't want to work	5	
Cared for child	6	
Ill	7	
Didn't reach labor age	8	
Cared for patient and elder	9	
Wanted to work but gave up	10	
Other	11	

E3 Have you actively sought work (or tried opening a business) in the last 30 days?

Yes	1	
No	2	E10

E4 How long have you been actively seeking work?

years	month	days
-------	-------	------

E5 Which of the following have you done?

/Please order most important 3 things/

Registered by labor and allowance service department (public employment service)	A
Visiting governmental institutions	B
Visited career center at education/training institute	C
Attended job fairs	D
Registered at private employment office	E
Directly attend a workplace (factory, shop, facility)	F
Sent application to employers	G
Look at advertisements in newspapers	H

D5 How long will it take you to get back to this work?

Will be back this same week	1	FA1
In four weeks or less	2	
More than four weeks with certain return date	3	
Uncertain	4	E1
Will not return	5	
Don't know	6	

Reply to newspaper advertisements I

Look at job advertisements on the internet J

Respond to job advertisements on the internet K

Put announcement and advertisement on information board of public place L

Visited and registered by "Labour Day" M

Asked relatives and friends to inform you about jobs N

Asked relatives or friends to recommend you in a job O

Requested a loan in order to start a business P

Sought land, buildings, equipment or machinery to start a business Q

Applied for a permit or license to start a business R

Participated in training to improve skills (language, computer, technical) S

Preparation for TOEIC/TOEFL T

Participated in training for job interview preparation U

Considering, but didn't take any steps V

Didn't search for additional work W

Other, specify X

Doesn't know 98

E6 Since you started looking for work, how many jobs have you applied for?

--	--	--

E7 Since you started looking for work, how many interviews have you been to?

--	--	--

E8 What is the number of unsuccessful applications for jobs?

--	--	--

If greater than 0 --> E9. If 0 --> E11.

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E9 What is the reason for most recent unsuccessful

application?

Didn't pass employment interview	1
Didn't pass special examination	2
Diffidence	3
Didn't meet requirements for education, profession and skills	4
Didn't meet requirements for age, gender, physical condition and appearance	5
Teamwork skill	6
Lack of skill to introduce myself	7
Other/please write	8

E11
E10 What is the main reason that *you* did not look for work in the last 30 days?

Waiting to go back to the previous employment	1
Already found work to start later	2
Already made arrangements for self-employment to start later	3
Full-time student	4
Disabled by physical or mental disease that prevents him/her from working	5
Has income without needing to work	6
Pregnant	7
Caring for a child	8
Caring for an elderly person	9
Caring for another person (non-child, non-elderly)	10
Committed to housework or other family responsibilities	11
Less than labor age	12
Affected by natural disaster and sudden event (drought, flood, fire, other)	13
Depends on seasonal work	14
Awaiting busy season	15
On education leave or training	16
Believing that there is no work	17
Tired of looking	18
Not knowing how or where to look for job	19
Can't find appropriate work (in areas of relevance to one's skills, capacities)	20
Could not find suitable work	21
Not qualified for work	22
No aspirations for work	23
Not yet started to seek work	24
Temporary family reasons or illness prevented search in last 4 weeks, otherwise would look	25
Didn't like salary and working conditions	26
Didn't like work environment and location	27
Lack of education and work experience	28
Is preparing for job, attending a training	29

Was waiting to go to the army, abroad	30
Other (specify)	31
Doesn't know	32

E11 Have you ever worked in the past, even for an hour?

Yes	1	E12
No	2	E13

E12 How long has it been since you last worked for at least one hour?

(Note down in years, months and days)

years	month	days		

E13 Do you want to work in the future?

Yes	1	E14
No	2	E32

E14 What sort of job do you want to have (occupation)?

Manual job	1
Clerical job	2
Technical job	3
Administrative job	4
Managerial job	5
Professional job	6

E15 What form of a job do you want?

Permanent	1
Temporary	2
Seasonal	3
Part-time	4

E16 How many hours in the week would you like to work on average?

--	--	--	--

E17 Are you ready to work today if you will get a job?

Yes	1
No	2

E18 Have you ever refused a job that was offered to you?

Yes	1
No	2

E20
E19 Why did you refuse?

Wages offered were too low	1
Work was not interesting	2
Location was not convenient	3
Work would not match my level of qualifications	4
Work would require too few hours	5
Work would require too many hours	6
Waiting for a better job offer	7

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There was no contract length offered	8	Short professional training with certificate financed by Employment Support Fund (ESF)	
Contract length is too short	9	Discounted loan supported by ESF	
Saw no possibilities for advancement	10	Business trainings supported by ESF	
Didn't like the working conditions	11	Discounted loan supported by SME development fund and Soum Development Fund	
Not a job I was interested in	12	Program for preparation of national professionals	
Did not like the way employer treated others/me	13	Employment service or labour exchange	
Did not like work environment	14	Career guidance consultancy and training	
Found another job	15	Training related to labour market	
Was going to study	16	Registered to work abroad	
Private reason (birth of a child, went abroad, etc.)	17	Tuition fee support from Employment Support Fund	
Got sick, lost ability to work	18		
Other, please specify	19		

E20 Where do you get information about job opportunities?
/Select up to three of the most frequently used./

Job announcement newspaper	A
State employment support organization	B
Private labour exchange	C
Internet	D
Employer	E
Newspaper, magazines	F
Friends	G
Relatives	H
Other/please write/	I

E21 What is the minimum level of salary per month you would accept to take a job? /thousand MNT/

E22 What are the most important characteristics of a job to you?
(Please place a number ranking each by order of importance to you)

Salary, wages	
Benefits, such as retirement, vacation, medical	
Stability	
Occupational safety	
Reputation of organization	
Difficulties of the duty	
Workload	
Appropriate to my level of qualification	
Opportunity for development	

E23 Are you aware of the following resources?
/Please check the appropriate number: If Yes - 1; No - 2/

Enumerator, for each item below, if they respond "yes," then they should answer the same item in E24 indicating if they participated in it.

Labour fair and many other public activities	
www.labornet.mn, www.hudulmur.mn, www.mergejil.mn and get service	
Electronic job information boards located in provinces, districts and khoros	

E24 If you indicated you were aware of the resource, did you utilize that resource or participate in it as a concrete activity?

Labour fair and many other public activities	
www.labornet.mn, www.hudulmur.mn, www.mergejil.mn and get service	
Electronic job information boards located in provinces, districts and khoros	
Short professional training with certificate financed by Employment Support Fund (ESF)	
Discounted loan supported by ESF	
Business trainings supported by ESF	
Discounted loan supported by SME development fund and Soum Development Fund	
Program for preparation of national professionals	
Employment service or labour exchange	
Career guidance consultancy and training	
Training related to labour market	
Registered to work abroad	
Tuition fee support from Employment Support Fund	

E25 Have you received any advice/help/assistance from the public employment services?

None	1
Advice on how to search for job	2
Information on vacancies	3
Guidance on education and training opportunities	4
Placement at education/training programs	5
Other	6

E26 Have you ever received any advice/help/assistance from any private employment services?

None	1
Advice on how to search for job	2
Information on vacancies	

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Guidance on education and training opportunities	4	Being male/female	7
Placement at education/training programs	5	Discriminatory prejudices (for example, age, disability, religion, race, appearance)	8
Other	6	Low wages in available jobs	9
E27 What have you mainly been doing while looking for a job?		Poor working conditions in available jobs	10
Staying at home and only looking for a job	1	Lack of information about availability of work	11
Staying at home and also responsible for household chores	2	Undecided about what type of work to do	12
Helping in family business	3	Location	13
Taking additional education/training courses	4	Problems at home	14
Spending time with friends	5	Appearance, physical development	15
Doing volunteer work (without pay)	6	Other	16
Planning to start own business	7		
Other	8	E31 What kind of training do you think would be most helpful in finding a job?	
E28 Would you consider moving to find work?		Completion of vocational training	1
Yes	1	Completion of secondary education	2
No	2	Completion of college or university	3
E29 Where will you move?		Apprenticeship with an employer	4
Ulaanbaatar	A	Entrepreneurship training to start own business	5
Aimag center	B	Computer and IT training	6
Soum center	C	Foreign language	7
Countryside	D	Professional training	8
Abroad	E	Other	9
E30 What has been the main obstacle in finding a good job?		E32 What are your plans for the nearest 1 year?	
Not enough education	1	To get a job I am interested in	1
No suitable training opportunities	2	To be self-employed	2
Mismatch between education requirements for a good job and the education that I received	3	Just rest	3
No work experience	4	Study at domestic school	4
Not enough jobs available	5	Study abroad	5
Considered too young	6	Go to army	6
		Take care of a baby, concentrate for work at home	7
		Don't have any plans	8
		Other	9

SECTION FA. WORKING CASES: FIRST ACTIVITY

FA1 Where is the main location where this work takes place?		FA2 To which industry does your industry or business belong?	
At own home and has no special workplace	1	Name of industry, ISIC Code	
At own home and has special workplace	2		
At pasture and plantation field	3		
In vehicle	4		
At office	5	FA3 What is the organization's ownership status?	
Shop, service and repair place (fast sale point)	6	Government organization	1
Centralized market/supermarket	7	State-owned enterprise	2
At employer's home	8	Mixed private-public	3
In the building	9	Enterprise owned by a province	4
At mine	10	Foreign government	5
Industrial place or manufacturing plant	11	Mongolian private organization	6
At rail station	12	Foreign private organization	7
Garden and park	13	Other	8
At street	14		
Waste disposal point	15	FA4 What is the private organization's responsibility status?	
At other place	16	Incomplete partnership	1
		Organized partnership	2

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Cooperative	3
NGO	4
Stock company	5
Limited liability company	6
Citizen who was officially registered but it is not possible to determine their income	7
Citizen who was not officially registered and it is not possible to determine their income	8

FA5 How many persons including yourself are employed in this workplace (firm/organization)?

9 or fewer	1
10-19	2
20-49	3
50-249	4
250-499	5
500 or more	6
Doesn't know	98

FA6 What is your main occupation in this job?
/Profession, Code: YAMAT/

--	--	--	--	--

FA7 Is this job...?

Permanent	1
Temporary (fixed term; for example, a two-month job NAME might not return to)	2
Seasonal (expect to return to it)	3
Casual (For the day or a few days)	4
Task-based (depends on finishing a particular task, no matter how long)	5

FA8

In this job/work activity, are you a...?

Paid employee	1
Employer	2
Self-employed	3
Member of a producer's cooperative and partnership	4
Employed in animal husbandry	5
Unpaid worker in a family business <u>not</u> in animal husbandry	6
Unpaid worker in a different business or voluntary work (other than apprentice)	7
Apprentice (unpaid)	8
Worker not classifiable by status	9

FA9

How long have you been working by this profession?

Less than one month	1
1 to 5 months	2
6 to 11 months	3
1 to 2 years	4
3 to 4 years	5
5 to 9 years	6
10 or above	7

FA10 Does your current work comply with your obtained profession?

Yes	1
A little bit	2
No	3

FA11 When you got a job, where did you get information about this job?

Newspaper	1
TV	2
Radio	3
Relatives	4
Friends	5
Internet/job announcement, website of organization	6
State employment support organization, employee	7
Private labour exchange	8
Employee of bagh and khoroo, apartment	9
Announcements at public places	10
Employer	11
Public activities like labour fair, etc.	12
Training center	13
Student support center of the school, counsel	14
Other	15

FA12 How important were the following characteristics when getting this job?

/5- Influenced a lot, 4- Influenced, 3- Medium, 2- Not influenced, 1- Not influenced at all/

Level of education	
Mark of study	
Foreign language	
Professional skill	
Appearance	
Age, gender	
Personal connection	
Graduated school	

FA13 Is the workplace environment in your job agreeable along these lines below?

5. Very agreeable; 4. Somewhat agreeable; 3. Neither agreeable nor disagreeable (Neutral); 2. Somewhat disagreeable; 1. Very disagreeable

Occupational safety	
Autonomy at work	
Distance between job and home	
Reputation of the organization	
Work place environment	
Treatment of co-workers	
Treatment of management	
Staff discounts for goods and services	

FA14 Have you ever refused a job that was offered to you?		
Yes	1	
No	2	FA16

FA15 Why did you refuse?	
Wages offered were too low	1
Work was not interesting	2
Location was not convenient	3
Work would not match my level of qualifications	4
Work would require too few hours	5
Work would require too many hours	6
Did not like working conditions	7
Waiting for a better job offer	8
There was no contract length offered or contract length was too short	9
Saw no possibilities for advancement	10
Other	11

FA16 How many hours do you usually work in this activity per week?

FA17 Approximately how many days of the month do you work in this activity? | | |

FA18 How frequently do you receive your wages in this activity?

Hourly	1
Daily	2
Weekly	3
By 15 days	4
Monthly	5
Quarterly	6
For each work result	7

FA19 Do you receive any of the following benefits? <i>/Yes-1, No-2, Don't know-98/</i>	
Social insurance	
Allowance for care of a child	
Paid vacation (regular leave)?	
Paid sick leave	
Award, promotion, bonus and additional salary	
Bonus for heavy and harmful conditions	
Additional aid for health	
Aid for pensioner	
Qualification—raising training	
Allowance for sudden dismissal	

FA20 What is the typical income (in thousands of MNT) that you earn at this work activity?

Work Activity	Typical Income (thousands of MNT)
Hourly	1
Daily	2
Weekly	3
By 15 days	4
Monthly	5
Quarterly	6
For each work result	7

FA21 Do you receive any non-cash payments for your work activity that is not counted in your wage estimation above?		
Yes		1
No		2

FA23

FA22 Using the same period of time to estimate cash income, approximately how much is the cash value of non-cash payments received for your work activity?

_____ /thousand MNT/

FA23 Do you have another work activity?		
Yes	1	FB1
No	2	G1

SECTION FB. WORKING CASES: SECOND ACTIVITY

FBI Where is the main location where this work takes place?	
At own home and has no special workplace	1
At own home and has special workplace	2
At pasture and plantation field	3
In vehicle	4
At office	5
Shop, service and repair place (fast sale point)	6
Centralized market/supermarket	7
At employer's home	8
In the building	9
At mine	10

Industrial place or manufacturing plant	11
At rail station	12
Garden and park	13
At street	14
Waste disposal point	15
At other place	16

FB2 To which industry does your industry or business belong?
Name of industry, ISIC Code

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FB3 What is the organization's ownership status?		Unpaid worker in a different business or voluntary work (other than apprentice) 7	
Government organization	1	FB5	Apprentice (unpaid) 8
State-owned enterprise	2		Worker not classifiable by status 9
Mixed private-public	3		
Enterprise owned by a province	4		
Foreign government	5		
Mongolian private organization	6	FB4	FB9 How long have you been working by this profession?
Foreign private organization	7		Less than one month 1
Other	8		1 to 5 months 2
			6 to 11 months 3
			1 to 2 years 4
FB4 What is the private organization's responsibility status?			3 to 4 years 5
Incomplete partnership	1		5 to 9 years 6
Organized partnership	2		10 or above 7
Cooperative	3		
NGO	4		FB10 Does your current work comply with your obtained profession?
Stock company	5		Yes 1
Limited liability company	6		A little bit 2
Citizen who was officially registered but it is not possible to determine their income	7		No 3
Citizen who was not officially registered and it is not possible to determine their income	8		
FB5 How many persons including yourself are employed in this workplace (firm/organization)?			FB11 When you got a job, where did you get information about this job?
9 or fewer	1		Newspaper 1
10-19	2		TV 2
20-49	3		Radio 3
50-249	4		Relatives 4
250-499	5		Friends 5
500 or more	6		Internet/job announcement, website of organization 6
Doesn't know	98		State employment support organization, employee 7
FB6 What is your main occupation in this job?			Private labour exchange 8
/Profession, Code: YAMAT/			Employee of bagh and khoroo, apartment 9
			Announcements at public places 10
			Employer 11
			Public activities like labour fair, etc. 12
			Training center 13
			Students support center of the school, counsel 14
			Other 15
FB7 Is this job...?			FB12 How important were the following characteristics when getting this job?
Permanent	1		/5- Influenced a lot, 4- Influenced, 3- Medium, 2- Not influenced, 1- Not influenced at all/
Temporary (fixed term; for example, a two-month job NAME might not return to)	2		Level of education
Seasonal (expect to return to it)	3		Mark of study
Casual (for the day or a few days)	4		Foreign language
Task-based (depends on finishing a particular task, no matter how long)	5		Professional skill
			Appearance
			Age, gender
			Personal connection
			Graduated school
FB8 In this job/work activity, are you a...?			
Paid employee	1		
Employer	2		
Self-employed	3		
Member of a producer's cooperative and partnership	4		
Employed in animal husbandry	5		
Unpaid worker in a family business not in animal husbandry	6		

FB13 Is the workplace environment in your job agreeable along the lines below?

5. Very agreeable; 4. Somewhat agreeable; 3. Neither agreeable nor disagreeable (Neutral); 2. Somewhat disagreeable; 1. Very disagreeable

Occupational safety	
Autonomy at work	
Distance between job and home	
Reputation of the organization	
Workplace environment	
Treatment of co-workers	
Treatment of management	
Staff discounts for goods and services	

FB14 How many hours do you usually work in this activity per week?

For Week:

FB15 Approximately how many days of the month do you work in this activity?

| | |

FB16 How frequently do you receive your wages in this activity?

Hourly	1
Daily	2
Weekly	3
By 15 days	4
Monthly	5
Quarterly	6
For each work result	7

FB17 Do you receive any of the following benefits?

/Yes-1, No-2, Don't know-98/

Social insurance	
Allowance for care of a child	
Paid vacation (regular leave)?	
Paid sick leave	
Award, promotion, bonus and additional salary	
Bonus for heavy and harmful conditions	
Additional aid for health	
Aid for pensioner	
Qualification—raising training	
Allowance for sudden dismissal	

SECTION G. PART-TIME AND UNDER EMPLOYMENT

G1 Taking together the average hours per week you told me you worked in each activity, it seems that your total normal hours per week is:

Enumerator: Add up all the hours per week from FA16, FB14, and FB23. Write down the number of hours.

	9

Enumerator: Confirm totaled hours with respondent. If incorrect, change FA16, FB14 and FB23 to match the total number of hours they believe they work on average per week. Make sure to enter the correct total in G1.

FB18 What is the typical income (in thousands of MNT) that you earn at this work activity?

Hourly							1
Daily							2
Weekly							3
By 15 days							4
Monthly							5
Quarterly							6

For each work result

7

/thousand MNT/

FB19 Do you receive any non-cash payments for your work activity that is not counted in your wage estimation above?

Yes	1	
No	2	FB21

FB20 Using the same period of time to estimate cash income, approximately how much is the cash value of non-cash payments received for your work activity?

Work activity:

/thousand MNT/

FB21 What is the reason for doing a second job?

To pay tuition fee	1
Parents' income is not enough for household's consumption	2
To increase salary, income	3
According to my interest	4
To get work experience	5
To get my pocket money	6
Influenced by working friends	7
Required by people around me	8
To pay for training and courses	9
Other /please write...../	10

FB22 Do you have another work activity?

Yes	1	G1
No	2	

FB23 Not counting your first and second activity, how many hours do you typically spend in all these other work activities per week?

	1	2	3
1	1		
2		1	
3			1

SECTION G. PART-TIME AND UNDER EMPLOYMENT

G2 Would *you* want to work more hours per week than your current situation?

Yes	1	G4
No	2	

G3 Since *you* would like to work more, what is the MAIN reason for working less than what you would like to?

Slack work/business conditions	1
Could only find part-time work	2

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Seasonal work	3		G7 Which of the following have you done to find additional work or a job with more hours? <i>/Select all that apply:/</i>		
Job started/ended within the reference period	4			Registered by labor and allowance service department (public employment service)	A
Strike	5			Visited governmental institutions	B
Lock-out	6			Visited career center at education/training institution	C
Reduction in economic activity (no work available, lack of raw materials, clients, orders, etc.)	7			Attended job fairs	D
Temporary disorganization, suspension of work (mechanical, electrical breakdown, shortage of raw materials, fuel, etc.)	8			Registered at private employment office	E
Child care problems	9			Directly attended a workplace (factory, shop, facility)	F
Other family/personal obligations	10			Sent application to employers	G
Health/medical limitations	11			Looked at advertisements in newspapers	H
School/training	12			Replied to newspaper advertisements	I
Pay for other work is not enough	13			Look at job advertisements on the internet	J
Other	14			Responded to job advertisements on the internet	K
				Put announcement and advertisement on information board of public place	L
				Visited and registered by "Labour Day"	M
		Asked relatives and friends to inform you about jobs	N		
		Asked relatives or friends to recommend you for a job	O		
		Requested a loan in order to start a business	P		
		Sought land, buildings, equipment or machinery to start a business	Q		
		Applied for a permit or license to start a business	R		
		Participated in training to improve skills (language, computer, technical)	S		
		Prepared for TOEIC/TOEFL	T		
		Participated in training for job interview preparation	U		
		Considered, but didn't take any steps	V		
		Didn't search for additional work	W		
		Other, specify	X		
		Don't know	98		

- G4** Were you willing and able to work an additional job/work activity or more hours at the current one if an opportunity to do so would have been available in the last 7 days?
- | | |
|-----|---|
| Yes | 1 |
| No | 2 |
- G5** Have you sought additional work, a job with more hours or sought to open a business in the last four weeks?
- | | |
|-----|---|
| Yes | 1 |
| No | 2 |
- G6** How long (*in weeks*) have you been seeking additional work or a job with more hours?
- | | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

SECTION H. EMPLOYED YOUTH JOB PERCEPTIONS

H1 To what extent are you satisfied with your main (primary activity) job?
/5-Very satisfied, 4- Satisfied, 3- Normal, 2- Not satisfied, 1- Not satisfied at all/

Working hours	
Resting hours	
Salary, income	
Staff discounts for goods and services	
Duty	
Comforts	
Cleanliness	
Occupational hygiene	

Occupational safety	
Workplace environment	
Treatment of the employer	
Equal rights of employees	
Treatment of coworkers	
Pressure at workplace	
Workload	
Opportunity for development	
Position distribution of duties	
Work is interesting	
Other	

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H2 To what extent does your main job match your interests and character? Very well matched 1 Somewhat matched 2 Neither matched nor not matched (neutral) 3 Somewhat not matched 4 Not matched at all 5 Don't know 98	H9 Does the uncertainty of the situation bother you? Yes 1 No 2
H3 Do you hope to change your main job in the future? Yes 1 No 2 Not sure 3	H10 Will your current work influence your future work and profession? Yes 1 No 2 Don't know 98
H4 What is the most important reason for wanting to change your job? To get higher pay 1 To have better working conditions 2 To have better career prospects 3 To be able to better combine work with family responsibilities 4 Other 5	H11 Do you plan to continue in this job [stable employment]? Yes 1 No 2
H5 What preparations are you doing in order to change your job? Participate in professional training, retraining 1 Get consultancy and information about occupation 2 Ask people I know 3 Directly contact employers 4 Watch TV, look at newspapers etc. 5 Register at labour departments and exchanges 6	H12 What is the reason you think you plan to stay in this job? Good and stable income 1 Good salary 2 Possibility to get loan and financial support 3 Good climate in the collective 4 Interested in the work 5 Good working conditions and environment 6 Have regular customers 7 Can't get better job, business 8 Possible to do while studying 9 Good experience 10 Other 11 Don't know 98
H6 Hypothetically, if you were not working, what is the minimum level of salary per month you would need to accept a job ? _____ /thousand MNT/	H13 What is the reason you think you will not continue in this job? Bad sale, few customers 1 Lack of knowledge and skills for business 2 Working without profit 3 Can't find workplace, high rent 4 Partner separated 5 Couldn't get loan and financial support 6 Private reason/study, birth, etc. 7 Go abroad 8 Work in formal sector 9 Not satisfied with work 10 No opportunity for development 11 Low salary 12 Study 13 Other 14
H7 What is the minimum level of salary per month it would take to get you to change your main job? _____ /thousand MNT/	H14 If you look for another job, would you consider moving to find other work? Yes 1 No 2
H8 Thinking about the next 12 months, how likely do you believe it is that you will be able to keep your main job if you want to? Very likely 1 Likely, but not certain 2 Not likely 3 Don't know 98	H15 H16

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H15 Where will you move? Ulaanbaatar A Aimag center B Soum center C Countryside D Abroad E	H19 What was the main type of training? Apprenticeship training 1 Mentoring (on-the-job training with other staff) 2 Training in new technologies 3 Business development/entrepreneurship training 4 Foreign-language training 5 Accounting/book-keeping 6 Other 7
H16 Are you a member of a trade union or association of workers? Yes 1 No 2	H20 Who provided the training? Your employer 1 A private-sector training institution 2 A government training institution 3 Private contractor 4 Other 5
H17 Why not? Have a negative view of trade unionism 1 Not aware of any unions to join in my workplace 2 It is discouraged by my employer 3 Not sure what a union can do to help me 4 Never been approached to join 5 Never considered joining 6 Do not have time 7 Not interested in public affairs 8 Too expensive 9 Other 10	H21 How long was the training? Less than a week 1 1-4 weeks 2 1-3 months 3 3-6 months 4 6-12 months 5 More than 1 year 6
H18 Did you receive any training specifically related to your current work activity? Yes 1 No 2	H22 Who paid for the training? Yourself/your family 1 Your employer 2 Government 3 International organization 4 Other 5

SECTION I. YOUTH OPINIONS AND ASPIRATIONS

I1 In your opinion, a person needs at least what level of education/training to get a decent job these days? No education 1 Primary / 4th, 5th grade 2 Basic / 8th, 9th grade 3 Secondary 4 Primary level of technical and vocational education 5 Higher special with diploma 6 College/university (bachelor degree) 7 Post-graduate (master and higher) 8	I3 Could you please tell me the most important goal in your life? Being successful in work 1 Making a contribution to society 2 Participating in local community affairs 3 Upholding religious faith 4 Having lots of money 5 Having a good family life 6 Having leisure time 7 Having a lot of different experiences 8 Finding purpose and meaning in life 9 Building self-esteem and confidence, and finding personal fulfillment 10
I2 What is the highest level of education/training you expect to attain? No education 1 Primary / 4th, 5th grade 2 Basic / 8th, 9th grade 3 Secondary 4 Primary level of technical and vocational education 5 Higher special with diploma 6 College/university (bachelor degree) 7 Post-graduate (master and higher) 8	I4 Which of the following qualities do you think is the most useful in finding a good job? <i>/Select up to most important 5/</i> Computer use skills A Scientific or technical qualifications B Knowledge of chosen industry/field skills C Command of English D Command of Chinese E

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Command of Korean	F	Public administration and defense	11	
Command of Russian	G	Education	12	
Command of other languages	H	Health and social work	13	
Oral communication skills	I	Other community, social and personal services	14	
Written communication skills	J	Private household service	15	
Customer-handling skills	K	Extraterritorial organizations and bodies	16	
Problem-solving skills	L	Not sure	17	18
Research skills	M	Do not wish to work	18	116
Teamwork skills	N	Other	19	
Knowledge of the business world	O			
Management skills	P			
Numeracy skills	Q	17 Why did you select this industry?		
Reading skills	R	Good salary	1	
Writing skills	S	Better working conditions and environment compared with other industries	2	
Office administration skills	T	Opportunity for development	3	
Having completed an apprenticeship or an appropriate training course	U	Possibility to get experience and start own business	4	
Practical experience	V	Not routine, with changes and movement	5	
Willingness to work hard	W	Psychological calm	6	
Willingness to learn	X	People will be around	7	
Positive attitude	Y	Possibility to improve knowledge and skills	8	
Ambition	Z	Other/please write	9	
Good general education	AA			
		18 What kind of organization would you like to work in?		
Good appearance	AB	Government	1	
Ability to adapt to changes	AC	State-owned enterprise	2	
Quick decision-making skills	AD	Mixed private-public	3	
Time management skills	AE	Enterprise owned by a province	4	
Other	AF	Mongolian private business	5	
		Mongolian NGO	6	
15 In your opinion, do you feel that a woman has equal opportunities to a man for receiving a job promotion or being successful?		Foreign government	7	
Equal opportunities for women and men	1	Foreign private business	8	
Greater opportunities for men	2	Foreign NGO	9	
Greater opportunities for women	3	Household production run by family members	10	
Do not know	4	Farming or herding	11	
		Doesn't know	98	110
16 If you choose anything, in which sector do you want to work?		19 Why do you choose the above organization?		
Agriculture, hunting, forestry and fishing	1	Good salary	1	
Mining	2	Suitable for me in many ways	2	
Manufacturing	3	Opportunity for development	3	
Electricity, gas and water supply	4	Not routine, with changes and movement	4	
Construction	5	Psychological calm	5	
Wholesale and retail trade, repair	6	People will be around	6	
Hotels and restaurants	7	Possibility for improving knowledge and skill	7	
Transport, storage and communications	8	This type of organization has good reputation in the society	8	
Finance/insurance	9	Good condition of social welfare for employees	9	
Real estate, renting and business activities	10	110 What is the salary you would like to have?		

(In thousand MNT)

111 What is the occupation you would like to work?

/Write name of occupation, ISCO code./

--	--	--	--	--

112 Which sector of the economy do you think is now doing the most hiring of workers?

Agriculture, hunting, forestry and fishing	1
Mining	2
Manufacturing	3
Electricity, gas and water supply	4
Construction	5
Wholesale and retail trade, repair	6
Hotels and restaurants	7
Transport, storage and communications	8
Finance/insurance	9
Real estate, renting and business activities	10
Public administration and defense	11
Education	12
Health and social work	13
Other community, social and personal services	14
Private household service	15
Not sure	16
Other	17

113 Which sector do you think provides the best overall compensation for workers (wages + benefits)?

Agriculture, hunting, forestry and fishing	1
Mining	2
Manufacturing	3
Electricity, gas and water supply	4
Construction	5
Wholesale and retail trade, repair	6
Hotels and restaurants	7
Transport, storage and communications	8
Finance/insurance	9
Real estate, renting and business activities	10
Public administration and defense	11
Education	12
Health and social work	13
Other community, social and personal services	14
Private household service	15
Not sure	16
Other	17

114 Do you intend to seek work in the sector or sectors you identify above?

Yes	1
No	2

116**115** Why do you not intend to seek work in the sector you identified as providing the best overall compensation for workers?

Wages offered are too low	1
Work is not interesting	2
Location is not convenient	3
Work does not match my level of qualifications	4
Work requires too few hours	5
Work requires too many hours	6
Waiting for a better job offer	7
There is no contract length offered	8
Contract length is too short	9
See no possibilities for advancement	10
The work is seasonal	11
The work is only part-time	12
Other	13
Don't know	98

116 Where do you get your money from? (Check all that apply)

My regular job	A
Unemployment or pension/social security benefits	B
Training allowance or educational grant	C
My parents and/or family	D
My spouse or partner	E
My relatives	F
Other social allowance, monetary aid and assistance	G
Savings interest	H
Asset income	I
Income of real estate	J
Charity organization	K
Rental income	L
Work in the "black" economy	M
Other	N

117 Have you ever registered as a jobseeker with the labor and allowance service department (public employment service)?

Yes	1
No	2

118 Have you ever received any advice/help/assistance from the employment services?

None	1
Advice on how to search for a job	2
Information on vacancies	3
Guidance on education and training opportunities	4
Placement in education or training programs	5
Other	6

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I19	How helpful was the advice/help/assistance you received from the employment services?	
	Not at all helpful	1
	Somewhat not helpful	2
	Not helpful nor unhelpful (neutral)	3
	Somewhat helpful	4
	Very helpful	5

I20	Do you have work experience other than your current work or, if not employed, your previous job?	
	Yes	1
	No	2

I21	For how many years did you work in your previous job?	

I22	What was the main activity of this workplace (firm/organization)?	
	/Write industry name, ISIC code/	

I23	What was the type of organization?	
	Government	1
	State-owned enterprise	2
	Mixed private-public	3
	Enterprise owned by a province	4
	Mongolian private business	5
	Mongolian NGO	6
	Foreign government	7
	Foreign private business	8
	Foreign NGO	9
	Household production run by family members	10
	Farming or herding	11
	Doesn't know	98

I24	What was your employment status?	
	Permanent	1
	Temporary (fixed term; for example, a two-month job you might not return to)	2
	Seasonal (expect to return to it)	3
	Casual (For the day or a few days)	4
	Task-based (depends on finishing a particular task, no matter how long)	5

I25	In this job/work activity, are you a...?	
	Paid employee	1
	Employer	2
	Self-employed	3
	Member of a producer's cooperative and partnership	4
	Employed in animal husbandry	5
	Unpaid worker in a family business <u>not</u> in animal husbandry	6

I31

	Unpaid worker in a different business or voluntary work (other than apprentice)	7
	Apprentice (unpaid)	8
	Worker not classifiable by status	9

I26	Where was your job located?	
	Ulaanbaatar	1
	Aimag center	2
	Soum center	3
	Countryside	4
	Abroad	5

I27	What type of contract did you have for this activity?	
	Labor contract	1
	Work performance contract	2
	Employment contract	3
	Oral contract or mutual consent	4
	No agreement	5

I28	What was your main occupation in this job?	
	/Write industry name, ISCO code/	

I29	When did you start and end this job?	
	Started	
		YYYY MM
	Stopped	
		YYYY MM

I30	What was the main reason to leave organization/workplace?	
	Was a temporary job	1
	Organization liquidated	2
	Bankruptcy of organization	3
	Fired or laid off	4
	Low salary	5
	Bad working conditions and environment	6
	Discrimination	7
	Not complying with knowledge and skills	8
	Not complying with profession and education	9
	Baby care, birth, marriage	10
	Disappointed with employer and collective	11
	Interested to change job	12
	Health condition	13
	Moving to other place	14
	To run own business	15
	Didn't comply with my character	16
	Pressure of legal environment	17
	Tax and insurance pressure	18
	Low income and profit	19
	No financial support	20
	Called to military service	21
	Resumed education/returned to school or study	22
	Temporary interruption of work	23

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<p> 130 What is the reason for your decision to start your own business? <i>/5- Very important, 4- Important, 3- Medium, 2- Not important, 1- Not important at all/</i> </p>	
Lost livestock and animals due to natural disaster and sudden event (drought, fire, flood, etc.)	24
Other reason not stated above	25

<p> 131 How important are the following for selection of a profession? <i>/5- Very important, 4- Important, 3- Medium, 2- Not important, 1- Not important at all/</i> </p>	
Personal interest	
Financial opportunity/good salary	
Good reputation in the society, demanding	
Requiring physical work	
Opportunity for sustainable work	
Providing occupational safety	
Not a routine work, requiring movement	
Mental calm	
With opportunity for development and education	
Useful for society	
Not limited with time and space	
To do volunteer work	
Possibility to implement own goals	

<p> 132 In which of the following trainings and activities would you like to participate if given the opportunity? <i>/Select up to 3/</i> </p>	
Individual training for profession to be selected	A
Group training for profession to be selected	B
ONLINE training	C
Foreign-language training, course	D
Retraining organized by school	E
Training for TOEIC/TOEFL preparation	F
Computer training	G
Lecture and seminar about selection of profession	H
Psychological test	I

<p> 133 Have you established or do you plan to establish an NGO or private business? <i>/Yes, established, 2- Plan to establish, 3- No, have not considered it/</i> </p>	
Yes, established	1
Plan to establish	2
No, have not considered it	3

<p> 134 Do you intend to open this NGO or private business in the next 2 years? <i>/Yes, No/</i> </p>	
Yes	1
No	2

<p> 135 What steps have you taken to establish or plan to establish an NGO or private business? <i>/Registered the organization with the appropriate government agency, 2- Hired staff, 3- Leased space, 4- Other steps not listed above, 5- Have not taken any steps/</i> </p>	
Registered the organization with the appropriate government agency	A
Hired staff	B
Leased space	D
Other steps not listed above	D
Have not taken any steps	E

<p> SECTION J. FAMILY BACKGROUND </p>	
<p> J1 What is the highest education level of your father? <i>/No education, 2- Primary / 4th, 5th grade, 3- Basic / 8th, 9th grade, 4- Completed secondary, 5- Primary level of technical and vocational education, 6- Higher special with diploma, 7- College/university (bachelor degree), 8- Master, 9- Ph.D., 10- Don't know/</i> </p>	
No education	1
Primary / 4th, 5th grade	2
Basic / 8th, 9th grade	3
Completed secondary	4
Primary level of technical and vocational education	5
Higher special with diploma	6
College/university (bachelor degree)	7
Master	8
Ph.D.	9
Don't know	98

<p> J2 What is the highest education level of your mother? <i>/No education, 2- Primary / 4th, 5th grade, 3- Basic / 8th, 9th grade, 4- Completed secondary, 5- Primary level of technical and vocational education, 6- Higher special with diploma/</i> </p>	
No education	1
Primary / 4th, 5th grade	2
Basic / 8th, 9th grade	3
Completed secondary	4
Primary level of technical and vocational education	5
Higher special with diploma	6

<p> J3 Is your father employed? <i>/Yes, No/</i> </p>	
Yes	1
No	2

<p> J4 What is his position? <i>/Paid employee, 2- Employer, 3- Self-employed, 4- Member of a producers' cooperative and partnership, 5- Employed in animal husbandry, 6- Unpaid worker in a family business not in animal husbandry, 7- Other/</i> </p>	
Paid employee	1
Employer	2
Self-employed	3
Member of a producers' cooperative and partnership	4
Employed in animal husbandry	5
Unpaid worker in a family business not in animal husbandry	6
Other	7

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<p>J5 Does he have an obtained profession?</p> <table border="0"> <tr><td>Yes</td><td>1</td></tr> <tr><td>No</td><td>2</td></tr> <tr><td>Don't know</td><td>98</td></tr> </table> <p>J6 What is his obtained profession? /Write occupation, ISCO code./</p> <table border="1"> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> <p>J7 Is your mother employed?</p> <table border="0"> <tr><td>Yes</td><td>1</td></tr> <tr><td>No</td><td>2</td></tr> </table> <p>J8 What is her position?</p> <table border="0"> <tr><td>Paid employee</td><td>1</td></tr> <tr><td>Employer</td><td>2</td></tr> <tr><td>Self-employed</td><td>3</td></tr> <tr><td>Member of a producers' cooperative and partnership</td><td>4</td></tr> <tr><td>Employed in animal husbandry</td><td>5</td></tr> <tr><td>Unpaid worker in a family business <u>not</u> in animal husbandry</td><td>6</td></tr> <tr><td>Other</td><td>7</td></tr> </table> <p>J9 Does she have an obtained profession?</p> <table border="0"> <tr><td>Yes</td><td>1</td></tr> <tr><td>No</td><td>2</td></tr> <tr><td>Don't know</td><td>98</td></tr> </table> <p>J10 What is her obtained profession? /Write occupation, ISCO code./</p> <table border="1"> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> <p>J11 What is your current marital status?</p> <table border="0"> <tr><td>Single</td><td>1</td></tr> <tr><td>Married</td><td>2</td></tr> <tr><td>Unmarried, cohabitating (or living with a partner)</td><td>3</td></tr> <tr><td>Divorced</td><td>4</td></tr> <tr><td>Widow or Widower</td><td>5</td></tr> <tr><td>Separated</td><td>6</td></tr> </table> <p>J12 Does your wife/husband/cohabitant or partner have an obtained profession?</p> <table border="0"> <tr><td>Yes</td><td>1</td></tr> <tr><td>No</td><td>2</td></tr> </table> <p>J13 What is the obtained profession of your wife/husband/cohabitant or partner? /Write occupation, ISCO code./</p> <table border="1"> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> <p>J14 What is the form of work of your wife/husband/cohabitant or partner?</p> <table border="0"> <tr><td>Permanent</td><td>1</td></tr> <tr><td>Temporary</td><td>2</td></tr> <tr><td>Seasonal</td><td>3</td></tr> <tr><td>Part time</td><td>4</td></tr> <tr><td>Study</td><td>5</td></tr> <tr><td>Not employed</td><td>6</td></tr> </table>	Yes	1	No	2	Don't know	98						Yes	1	No	2	Paid employee	1	Employer	2	Self-employed	3	Member of a producers' cooperative and partnership	4	Employed in animal husbandry	5	Unpaid worker in a family business <u>not</u> in animal husbandry	6	Other	7	Yes	1	No	2	Don't know	98						Single	1	Married	2	Unmarried, cohabitating (or living with a partner)	3	Divorced	4	Widow or Widower	5	Separated	6	Yes	1	No	2						Permanent	1	Temporary	2	Seasonal	3	Part time	4	Study	5	Not employed	6	<p>J15 What is the employment status of your wife/husband/cohabitant or partner?</p> <table border="0"> <tr><td>Paid employee</td><td>1</td></tr> <tr><td>Employer</td><td>2</td></tr> <tr><td>Self-employed</td><td>3</td></tr> <tr><td>Member of a producers' cooperative and partnership</td><td>4</td></tr> <tr><td>Employed in animal husbandry</td><td>5</td></tr> <tr><td>Unpaid worker in a family business <u>not</u> in animal husbandry</td><td>6</td></tr> <tr><td>Other</td><td>7</td></tr> </table> <p>J16 Please think about all income from all members of the household. How much is it in a typical month?</p> <table border="1"> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> <p>/thousand MNT/</p> <p>J17 What are the sources of income of your household? (Check all that apply.)</p> <table border="0"> <tr><td>Salary of household members</td><td>A</td></tr> <tr><td>Salary of parents</td><td>B</td></tr> <tr><td>Pension of parents</td><td>C</td></tr> <tr><td>Salary of wife/husband</td><td>D</td></tr> <tr><td>Interest from savings in a bank</td><td>E</td></tr> <tr><td>Income from household entity and business</td><td>F</td></tr> <tr><td>Child money</td><td>G</td></tr> <tr><td>Benefits/losing ability to work, other benefits</td><td>H</td></tr> <tr><td>Other</td><td>I</td></tr> </table> <p>J18 Who is the main person who is making your household income?</p> <table border="0"> <tr><td>Father/mother</td><td>1</td></tr> <tr><td>Me</td><td>2</td></tr> <tr><td>Wife/husband</td><td>3</td></tr> <tr><td>Brother/sister, younger brother/sister, grandfather</td><td>4</td></tr> <tr><td>Relatives</td><td>5</td></tr> <tr><td>Other</td><td>6</td></tr> </table> <p>J19 How many persons in the household work for a salary/wage?</p> <table border="1"> <tr><td> </td><td> </td><td> </td></tr> </table> <p>J20 How many persons are in the household who are without work and activity?</p> <table border="1"> <tr><td> </td><td> </td><td> </td></tr> </table> <p>J21 Are there any people age 15-34 who formerly come from this household and live outside of this country who you have not mentioned to me already?</p> <table border="0"> <tr><td>Yes</td><td>1</td></tr> <tr><td>No</td><td>2</td></tr> </table> <p>J22 Please state using the list below the main reason that each member resides outside Mongolia. /1-Work, 2-Study, 3-Seeking medical treatment, 4-Other (write)/</p> <table border="1"> <tr><td>Former Household Member 1</td><td> </td></tr> <tr><td>Former Household Member 2</td><td> </td></tr> <tr><td>Former Household Member 3</td><td> </td></tr> <tr><td>Former Household Member 4</td><td> </td></tr> <tr><td>Former Household Member 5</td><td> </td></tr> </table>	Paid employee	1	Employer	2	Self-employed	3	Member of a producers' cooperative and partnership	4	Employed in animal husbandry	5	Unpaid worker in a family business <u>not</u> in animal husbandry	6	Other	7						Salary of household members	A	Salary of parents	B	Pension of parents	C	Salary of wife/husband	D	Interest from savings in a bank	E	Income from household entity and business	F	Child money	G	Benefits/losing ability to work, other benefits	H	Other	I	Father/mother	1	Me	2	Wife/husband	3	Brother/sister, younger brother/sister, grandfather	4	Relatives	5	Other	6							Yes	1	No	2	Former Household Member 1		Former Household Member 2		Former Household Member 3		Former Household Member 4		Former Household Member 5	
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J23 For each former household member age 15-34 in J22 that you named as residing abroad:

/1-Remain abroad, 2-Return to Mongolia/

Former Household Member 1	<input type="checkbox"/>
Former Household Member 2	<input type="checkbox"/>
Former Household Member 3	<input type="checkbox"/>
Former Household Member 4	<input type="checkbox"/>
Former Household Member 5	<input type="checkbox"/>

J24 Do you have any children?

Yes	1	J25
No	2	END

J25 How many and what are their ages?

Enumerator: For each child, note the age in the box. Add more boxes as necessary to account for all children of the respondent.

Child	Age
1	years
2	years
3	years
4	years
5	years

THANKYOU FOR YOUR INFORMATION

Researcher's Name and Signature:	Researcher's Code:	Date: 2014/ /
Supervisor's Name and Signature:	Supervisor's Code:	Date: 2014/ /
Auditor's Name and Signature:	Auditor's Code:	Date: 2014/ /
Data Entry's Name and Signature:	Data Entry's Code:	Date: 2014/ /

Abbreviations

CMP	Child Money Program
DEFF	design effect
EAP	East Asia and the Pacific
FDI	foreign direct investment
GDP	gross domestic product
ILO	International Labour Organization
ILS	Institute for Labour Studies, Ministry of Labour (Mongolia)
LFP	labor-force participation
ME	margin of error
MHSES	Mongolian Household Socioeconomic Survey
MLFS	Mongolian Labor Force Survey
NCVET	National Council on Vocational Education and Training
NEET	not in employment, education, or training
NGO	nongovernmental organization
NSO	National Statistical Office of Mongolia
NSS	nominal sample size
OECD	Organisation for Economic Co-operation and Development
OT	Oyu Tolgoi LLC
SSU	second sampling unit
STEM	science, technology, engineering, and mathematics
TVET	technical and vocational education and training

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Despite a recent slowdown, Mongolia has experienced dramatic economic growth in the 2000s, exceeding global trends. Foreign direct investment, mining, infrastructure spending, and, more recently, strong fiscal and monetary stimulus measures have driven much of this growth. The country now faces challenges in terms of creating jobs without overly relying on public spending fueled by natural resource exploitation. In 2014, the Mongolian government commissioned RAND to collaborate on a study of the labor market with the Institute for Labour Studies (ILS) of the Mongolian Ministry of Labour. Using a supply-demand framework, this study analyzed the Mongolian labor market to identify where it is performing well, where it is underperforming, and whether there are constraints to improvement. RAND and ILS especially focused on youth labor and education issues, using a new survey developed by the two organizations. The ILS and RAND teams chose this focus because of the importance of youth labor-market success to the economic future of the country and because analysis of Mongolian labor data showed relatively high rates of youth not in school or the labor market compared with a variety of other economies, including other similar transition economies. The Mongolian Ministry of Population Development and Social Welfare has recognized this importance by announcing 2015 as the year of youth development. The ILS-RAND Mongolian Youth Survey is a nationwide survey that provides new insights into the challenges faced by youth, as well as their achievements and aspirations, to inform the development of policy to address these concerns.



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