

**JOBS
WORKING
PAPER**
Issue No. 81

Navigating Labor Market Challenges with a Focus on Youth and Women's Employment: Labor Supply Analysis for Mongolia

Alexandra Avdeenko, Anne-Lore Fraikin,
Carola Gruen, Natalia Millan

NAVIGATING LABOR MARKET CHALLENGES WITH A FOCUS ON YOUTH AND WOMEN'S EMPLOYMENT: LABOR SUPPLY ANALYSIS FOR MONGOLIA

Alexandra Avdeenko, Anne-Lore Fraikin, Carola Gruen, Natalia Millan

May 2024



© 2024 International Bank for Reconstruction and Development / The World Bank.

1818 H Street NW, Washington, DC 20433, USA.

Telephone: 202-473-1000; Internet: www.worldbank.org.

Some rights reserved

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Nothing herein shall constitute or be considered to be a limitation upon or waiver of the privileges and immunities of The World Bank, all of which are specifically reserved.

Rights and Permissions



This work is available under the Creative Commons Attribution 3.0 IGO license (CC BY 3.0 IGO)

<http://creativecommons.org/licenses/by/3.0/igo>. Under the Creative Commons Attribution license, you are free to copy, distribute, transmit, and adapt this work, including for commercial purposes, under the following conditions:

Attribution—Please cite the work as follows: Alexandra Avdeenko, Anne-Lore Fraikin, Carola Gruen, Natalia Millan. 2024. “Navigating Labor Market Challenges with a Focus on Youth and Women’s Employment: Labor Supply Analysis for Mongolia” World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO.

Translations—If you create a translation of this work, please add the following disclaimer along with the attribution: This translation was not created by The World Bank and should not be considered an official World Bank translation. The World Bank shall not be liable for any content or error in this translation.

Adaptations—If you create an adaptation of this work, please add the following disclaimer along with the attribution: This is an adaptation of an original work by The World Bank. Views and opinions expressed in the adaptation are the sole responsibility of the author or authors of the adaptation and are not endorsed by The World Bank.

Third-party content—The World Bank does not necessarily own each component of the content contained within the work. The World Bank therefore does not warrant that the use of any third-party-owned individual component or part contained in the work will not infringe on the rights of those third parties. The risk of claims resulting from such infringement rests solely with you. If you wish to re-use a component of the work, it is your responsibility to determine whether permission is needed for that re-use and to obtain permission from the copyright owner. Examples of components can include, but are not limited to, tables, figures, or images.

All queries on rights and licenses should be addressed to World Bank Publications, The World Bank Group,

1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: pubrights@worldbank.org. Images: © World Bank. Further permission required for reuse.

MONGOLIA JOBS DIAGNOSTIC:
More vibrant and inclusive labor markets for economic recovery and diversification

*Navigating Labor Market Challenges with a Focus on Youth and
Women's Employment: Labor Supply Analysis for Mongolia*

Alexandra Avdeenko, Anne-Lore Fraikin, Carola Gruen, Natalia Millan



KWPF
KOREA-WORLD BANK
PARTNERSHIP FACILITY



WORLD BANK GROUP
Jobs

May 2024

Abstract: Mongolia's working age population is young, educated, and predominantly urban – creating a pool of well-educated young people living in urban centers. But Mongolia struggles to utilize its human resources in an effective and inclusive way. Labor force participation and employment rates are low and declining, while unemployment, including long-term unemployment, is high. Those who work often work excessively long hours. The share of the working age population with tertiary education is high – and compares well with that of high-income countries – but returns to tertiary (and upper secondary) education have declined in recent years. Women with tertiary degrees outnumber men, but the gender gap in labor force participation remains high and women are also still underrepresented in the higher-paying science and engineering fields. School-to-work transitions are slow, resulting in large numbers of graduates, especially better educated women, who are NEET (not in employment, education or training). Growth in real wages is considerable but lags the gains in labor productivity. Disparities exist by gender, age, education, and location, making certain groups, including women and youth, particularly vulnerable to labor market inequities. With the old-age dependency ratio set to rise in the 2040s, Mongolia's demographic window will soon be closing. To promote economic growth and harness its demographic dividend, it will be critical for Mongolia to better utilize available labor resources through increased employment, reduced labor market disparities, and higher productivity.

Keywords: labor supply, labor market disparities, gender, youth, school-to-work transition, NEET

ACKNOWLEDGEMENTS

This paper was prepared by Alexandra Adveenko (Consultant), Anne-Lore Fraikin (Consultant), Carola Gruen (Consultant), and Natalia Millan (Economist) as a background paper for the Mongolia Jobs Diagnostic. The paper benefited from valuable feedback from Yang Huang (Senior Economist), Gordon Betcherman (Consultant), and Mongolmaa Norjinkham (Senior Social Protection Specialist) and peer reviewers Mohamed Ihsan Ajwad (Senior Economist), Wendy Cunningham (Lead Economist), Abia Safir (Senior Economist), and Achim Daniel Schmillen (Program Leader). The team extends special thanks to the National Statistical Office of Mongolia and the Research Institute for Labor and Social Protection for providing data for undertaking the analysis.

The publication of this paper and the Mongolia Jobs Diagnostic has been made possible through a grant from the Korea-World Bank Partnership Facility (KWPF).

ACRONYMS

EAP	East Asia and Pacific Region
GDP	Gross domestic product
ICLS	International Conference of Labour Statisticians
ICSE-18	International Classification of Status in Employment (2018 version)
ILO	International Labour Organization
ILOSTAT	ILO Database of Labour Statistics
ISCO-08	International Standard Classification of Occupations (2008 version)
LFS	Labor Force Survey
MNT	Mongolian Tugrik
NEET	Not in education, employment, or training
NSO	National Statistical Office
OECD	Organisation for Economic Co-operation and Development
TVET	Technical and vocational education and training
UN	United Nations
WAP	Working age population
WDI	World Development Indicator
WSS	Wage Structure Survey

EXECUTIVE SUMMARY

Mongolia is a relatively young country which urbanized rapidly and currently enjoys favorable demographic conditions. However, like other Asian countries, it is expected to begin to age rapidly. In 2022, Mongolia's age dependency ratio was 58.9 percent – broadly in line with the average for OECD countries and lower middle-income countries. The ratio will continue to decline until the 2040s, when population aging will reverse this trend (UN World Population Prospects). During this period, Mongolia could potentially benefit from a demographic dividend if labor productivity and the employment rate were to rise.

Significant internal migration flows, especially to the capital Ulaanbaatar, resulted in rapid urbanization. In 2021, nearly three-quarters of the working age population lived in urban areas, 47 percent in Ulaanbaatar, another 26 percent in aimag centers, creating a pool of well-educated young workers.

The country has a highly educated workforce, driven largely by high levels of education among women and people in urban areas, but the quality and inequality of educational attainment remain a concern. Nearly one-third of the working-age population (ages 15+) has a college degree. However, there is a large gender gap (in favor of women) and an urban-rural gap (in favor of urban areas). Importantly, educational attainment does not automatically translate into corresponding levels of learning: improving the quality of education emerges as a key challenge for Mongolia.

Labor force participation increases with education, but is generally low, especially in urban areas, among women, and among young people. In 2021, 56.9 percent of the working-age population were part of the Mongolian labor force. Although this estimate is comparable to countries with similar GDP per capita levels, the participation rate is relatively low compared to the standard comparator countries for Mongolia used in this report.¹ Labor force participation generally increases with education and is highest for the college educated. In recent years, Mongolia has experienced a decline in labor force participation, particularly among women.

Unemployment is high, especially in urban areas, among youth, and among those with upper secondary education. The unemployment rate was 8.1 percent in 2021, a high rate when compared to the standard and aspirational comparator countries. Long-term unemployment is also significant, with close to one-third of the unemployed having been searching for work for 12 months or more.

Despite being better educated than men, women have low and declining participation rates; the decline is largely driven by the dynamics in rural areas, where many of the less-educated women live. The gender gap in labor market participation is widening, with female participation declining, especially among those with lower secondary education. Many of these women live in rural areas, which has contributed to an eight-percentage point decline in female participation in rural areas since 2010. The low participation of women can largely be attributed to caregiving responsibilities, as participation is particularly low during the childbearing and childrearing years. Participation is also low among older female workers, reflecting their lower retirement age.

¹ In this report, the following countries are used as standard comparator countries for Mongolia: Vietnam, Armenia, Azerbaijan, Colombia, and Thailand; aspirational comparator countries include Chile, Russian Federation, Malaysia, and Kazakhstan (see Betcherman and Jalil, 2022).

Mongolians work long hours, and the share of part-time work is low. On average, Mongolians worked 47.6 hours per week in 2021, and the share who worked excessive hours (per the ILO definition of 49 hours or more) was close to 50 percent. Among 141 countries for which data are available, only 16 countries have a higher incidence of excessive working hours than Mongolia. On the other hand, the share of part-time work, defined here as less than 40 hours, was only 6.4 percent in 2021. Long working hours can be detrimental to health and labor productivity and can also be a barrier to the labor force participation of women, youth, and older workers.

Returns to upper secondary and college education among wage workers have been falling in recent years. Returns to upper secondary and college education remain significant, though they have been falling since 2018 and especially so for men. On average, between 2010 and 2020, returns to college education were around 36 percent for women and 32 percent for men. In 2020, returns to college education among wage workers were 29.8 percent for women, versus just 17.6 percent for men. Although internationally comparable data shows that returns to tertiary education for Mongolia are relatively low, they nonetheless remain significant.

Real monthly wages increased, but not as fast as labor productivity. There is a significant urban-rural divide, but overall wage inequality remained largely unchanged since 2010. The 2010–2021 average annual growth in real wages (excluding self-employment) was 4.9 percent, while labor productivity grew by 5.8 percent annually. Wages were relatively flat between 2013 and 2018. A significant increase in average wages is observed in 2019, which may partly reflect a structural break in the data series.² There are large differences in wages by location with rural employees earning 85.6 percent of what urban workers earn. Within urban areas, wages are highest in Ulaanbaatar. The distribution of wages was fairly constant over the 2010–2021 decade, with the ratio of the 10th to the 90th percentile ranging from 27 percent to 33 percent.

Women earn significantly less than men: the gender wage gap is significant, and it has been rising in recent years. The gender wage gap is highest among those with a medium educational attainment and among women aged 25-34, which coincides with the childbearing and childrearing years when female labor force participation is lowest. Moreover, in rural areas the gender wage gap has widened over the past decade. Possible reasons for the gender wage gap include the fact that, on average, women work fewer hours than men. Further, women’s fields of study in higher education differ significantly from that of men, with women being much less likely to study science or engineering, fields that often offer higher paying jobs.

Controlling for individual factors such as hours worked, education, and occupation still leaves more than half of the gender wage gap unexplained. If women had the same endowments as men, they would earn even less, and the wage gap would even be larger. These findings are consistent with previous research on the gender wage gap in Mongolia and suggest that women’s lower earnings are the result of unobservable characteristics, such as social norms, differing aspirations, or discrimination. Findings from the 2017-2020 World Values Survey show that Mongolians, both men and women and across generations, have relatively traditional attitudes towards women and work.

² There is a change in the way wage workers are identified in the LFS series. Until 2018, respondents were directly asked whether they were wage employees/interns/apprentices. Since 2019, an individual is defined as wage employed if s/he was working for someone else for salary or for business owned by non-household members or working for salary in a business owned by household members which is an independent entity.

Focusing on youth, labor force participation is low. In 2021, labor force participation for 15–24-year-old Mongolians was 26.9 percent, but participation varies widely across subgroups. In rural areas, one in three youth participate, compared to 24 percent of urban youth. The participation rate is less than 20 percent for young people with lower secondary education, but two-thirds of college-educated youth are in the labor force. There is also a significant gender gap: only about one-fifth of young women are active in the labor market, compared to one-third of young men.

Youth unemployment is high, and well-educated youth are particularly vulnerable. The unemployment rate for 15–24-year-olds reached 19.2 percent in 2021, with higher rates for women (22.3 percent) than men (17.2 percent). These rates are high relative to the working-age population and to comparator countries. The unemployment rate for college-educated youth has been above 20 percent for most of the past decade and was as high as 30.5 percent in 2016.

Young people are just as likely as the working age population to be in wage employment but are paid less; a disproportionate share of youth are unpaid family workers. Youth are more likely than the national average to be employed in agriculture; accordingly, a disproportionate share of employed youth hold agricultural jobs. Real monthly wages for youth are lower than the national average but follow a similar trend.

The share of youth who are not in employment, education or training (NEET) is high, particularly in urban areas, among females, and among the college educated. About one in five young people aged 15-24 were NEET in 2021. Young women are particularly at risk of becoming NEET, especially after reaching college graduation age, indicating that female graduates face increased barriers to transitioning into employment. Results further suggest that many NEET, especially young women, have stopped looking for work.

A. SETTING THE SCENE: STYLIZED FACTS AND CONTEXTUAL INFORMATION

Section A provides an overview of Mongolia's relevant characteristics and current challenges for its labor market and economy. In particular, the section discusses recent demographic trends, the education profile of the working-age population, urbanization, the role of agriculture and informal employment, and the seasonality of economic activities. The section also includes: (i) a box introducing the main data sources used for the analysis, including a brief discussion of data availability, changes in methodology, and change in key concepts; and (ii) a box on how the comparator countries have been selected.

Demographic trends

Mongolia is a relatively young country and currently enjoys favorable demographic conditions. With a 1.4 percent average annual growth rate, Mongolia's population grew from 2.18 million in 1990 to 3.35 million in 2021 and is projected to reach 4.4 million by 2050 (Figure 1, panel a). The age dependency ratio³ was 58.9 percent in 2022. The ratio is comparable with OECD countries (55 percent) and lower middle-income countries (56 percent), but higher than in most standard and aspirational comparator countries selected for Mongolia, where it ranges from less than 45 percent (Colombia, Malaysia, Thailand) to around 50 percent (Armenia, Russian Federation) (Figure 1, panel b).⁴ Mongolia's youth-dependency ratio⁵ stands out as being the highest (51.6 percent), while the old-age dependency ratio⁶ is low at 7.3 percent. Both facts indicate that Mongolia is still a relatively young country. The total dependency ratio is expected to start declining in 2024 until the 2040s, when population aging will reverse this trend (UN World Population Prospects). During this period, Mongolia could potentially benefit from a demographic dividend if labor productivity and the share of the working-age population that is gainfully employed would rise.

However, like other Asian countries, Mongolia's population is expected to age rapidly, posing future challenges for the country's health and pension systems. Life expectancy at birth is projected to reach 70 years in 2050 (up from 60 years in 1990). The population aged 15-64 years will increase from 2.1 million to 2.9 million between 2021 and 2050, and its share in total population is expected to remain above 64 percent for the next three decades.⁷ The old-age dependency ratio, after dropping to 5 percent in 2010, has been on the rise since 2015 and is expected to surpass 18 percent by 2050 (Figure 1, panel a). Projections show that it will take only 25 years for the share of the population aged 65 and older to double from 7 percent to 14 percent; in the United Kingdom, United States, and France, the same transition took between 45 and 115 years (World Bank 2016). An aging population will put pressure on pension and health care systems, making labor force participation and productive employment, especially of youth and women, ever more important.

³ The age dependency ratio, or total dependency ratio, is the ratio of dependents (people younger than 15 or older than 64) to the working-age population (people aged 15-64), expressed as the proportion of dependents per 100 working-age population (World Development Indicators).

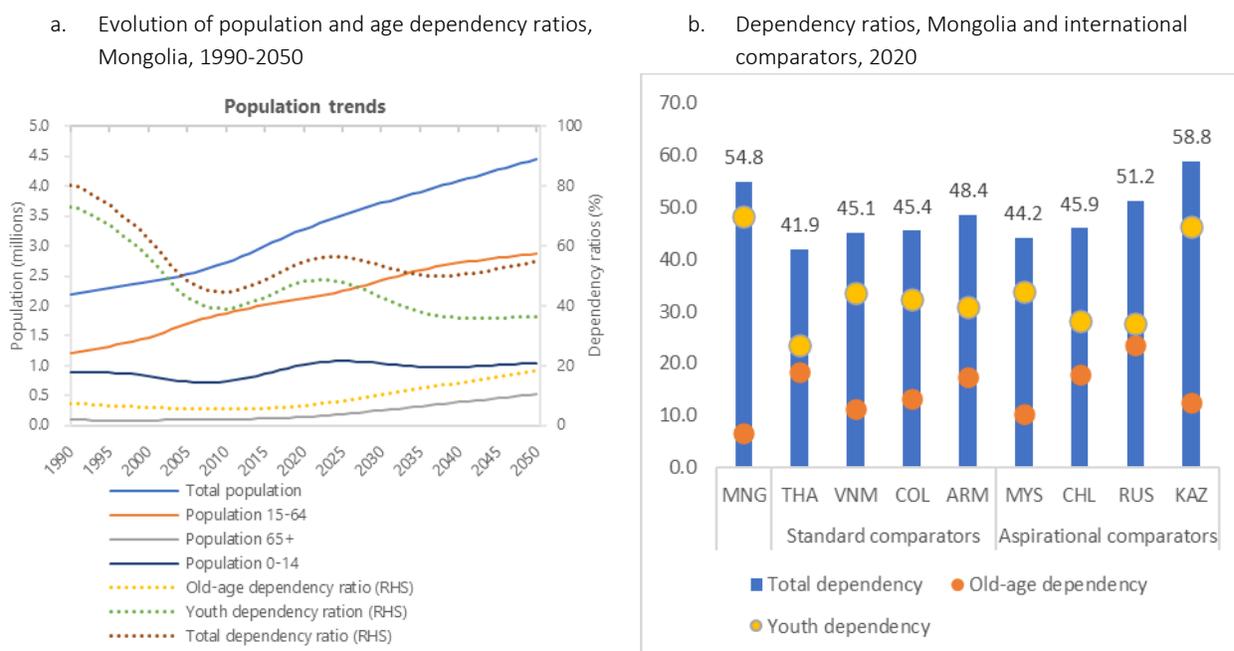
⁴ See Box 1 for an explanation of the selection of comparator countries for Mongolia used in this report.

⁵ Ratio of the population ages 0-14 to the total population.

⁶ Ratio of the population ages 65+ to the total population.

⁷ UN World Population Prospects

Figure 1: Mongolia is a relatively young country, but is expected to soon start to age rapidly



Source: Panel a: UN World Population Prospects (accessed: December 2021); panel b: World Development Indicators (accessed April, 2023).

Box 1: Selection of comparator countries for benchmarking indicators for Mongolia

In this report, Mongolia is benchmarked against standard, aspirational, and high aspirational comparator countries (Betcherman and Jalil, 2022). The approach for selecting comparator countries generally follows Lin and Xu (2016), with some adaptations. The methodology involved various steps. The starting point was to identify potential **standard comparators** (with a GDP per capita of up to 150 percent of Mongolia's); **aspirational comparators** (with a relative GDP per capita of 150–250 percent); and **high aspirational comparators** (with a GDP per capita of greater than 250 percent relative to Mongolia). The selection was then narrowed down in three ways. First, slow-growth countries were eliminated. Second, further analysis was carried out, using competitiveness, human capital, export, and manufacturing indicators, to develop profiles of potential comparators. In a third step, qualitative information was introduced to prioritize country characteristics that are similar to endowments and features that are important distinctions for Mongolia, such as natural resource abundance, transition economy, Asian, and having a large youth population.

This approach identified the following countries to be appropriate benchmarks for Mongolia:

- **Standard comparators:** Armenia, Azerbaijan, Colombia, Thailand, and Vietnam
- **Aspirational comparators:** Chile, Kazakhstan, Malaysia, Russian Federation,
- **High aspirational comparators:** Australia, Canada, Estonia, and the Republic of Korea

Source: Betcherman and Jalil (2022).

Educational profile

The working-age population is becoming increasingly more educated; the share with at least college education in Mongolia is on par with countries with more than double its GDP per capita. In general, access to education is widespread in Mongolia, with enrollment rates in basic education being nearly universal and the share of pre-school coverage (ages 3-5) being almost 70 percent (World Bank, 2020). Access to higher education has been rising significantly: the share of people aged 25 and older with at least a college degree increased significantly since 2010, from 19 percent in 2010 to 33 percent in 2021. Another third of Mongolia's workforce aged 25 or older has successfully completed some form of TVET training (Figure 2, panel a). Mongolia's share of college-educated people is significantly higher than the simple average of 15.7 percent and 20.4 percent in standard or aspirational comparator countries (WDI 2017-2020 data), and places the country more on par with high aspirational comparators (Figure 2, panel b).

However, higher educational attainment does not automatically translate into higher levels of learning. According to the World Bank Human Capital Index, children born in Mongolia in 2020 will be 63 percent as productive when they grow up as they could have been if they had complete education and full health.⁸ Out of the average years of schooling in Mongolia (13.6 years), the number of quality-adjusted learning years is just 9.4 years; this implies that students lag in learning by four years compared to the number of years they attended school (World Bank 2020). Test results of 5th graders revealed that in 2018, only 41.2 percent were proficient in mathematics, 37.6 percent in Mongolian language studies, and 46.4 percent in social studies (World Bank 2020). These figures suggest that improving the quality of education to prepare young people for better jobs and improved living standards is a key challenge for Mongolia (World Bank 2020).

Box 2: The report's main data sources

The empirical analysis presented in the report is largely based on two sets of micro data: the Labor Force Survey (LFS) for the period 2010-2021 and the 2020 round of the Population and Housing Census, both collected by the Mongolia National Statistical Office (NSO). The comparative analysis typically uses aggregate statistics from the World Development Indicators (WDI) and ILOSTAT.

Mongolia's Labor Force Survey is designed to provide national statistics on the labor force, employment, and unemployment for monitoring and planning purposes. The first LFS was conducted in the early 1990s. Initially conducted over a two-year window, the LFS has been an annual survey since 2010. The questionnaire and sampling strategy have been revised several times in the past. A fundamental revision of the questionnaire was done in 2019. Since then, the LFS is based on new internationally accepted methods in accordance with the resolution concerning statistics of work, employment, and labor underutilization adopted by the 19th International Conference of Labour Statisticians. In particular, the revised framework for forms of work, status in employment (ICSE-18), and measures of labor underutilization have been implemented.⁹ Despite these major changes, most aggregate labor market

⁸ The Human Capital Index measures the amount of human capital that a child born in a certain year can expect to attain by age 18. The index conveys the productivity of the next generation of workers compared to a benchmark of complete education and full health. For more information on the Human Capital Project of the World Bank, see [Human Capital \(worldbank.org\)](https://www.worldbank.org/human-capital).

⁹ The 2019 report of Labour Force Survey summarizes major changes as follows: "In the previous method, unpaid interns, training workers and volunteer workers were included in employment persons, while in the new method, the employment persons exclude these persons and include only those who work for pay and profit. The main job's criterion for the employment with more than one job was the highest paid job, while the new method defines the main job's criterion is the most time-consuming job, regardless of salary or income. The old method was used to measure the working age population who want to engage a job, in terms of the

statistics remain largely comparable over time, but the comparability of disaggregated estimates is likely to be affected (e.g., urban-rural statistics differ since 2019). Annex B provides more information on the changes in relevant key concepts.

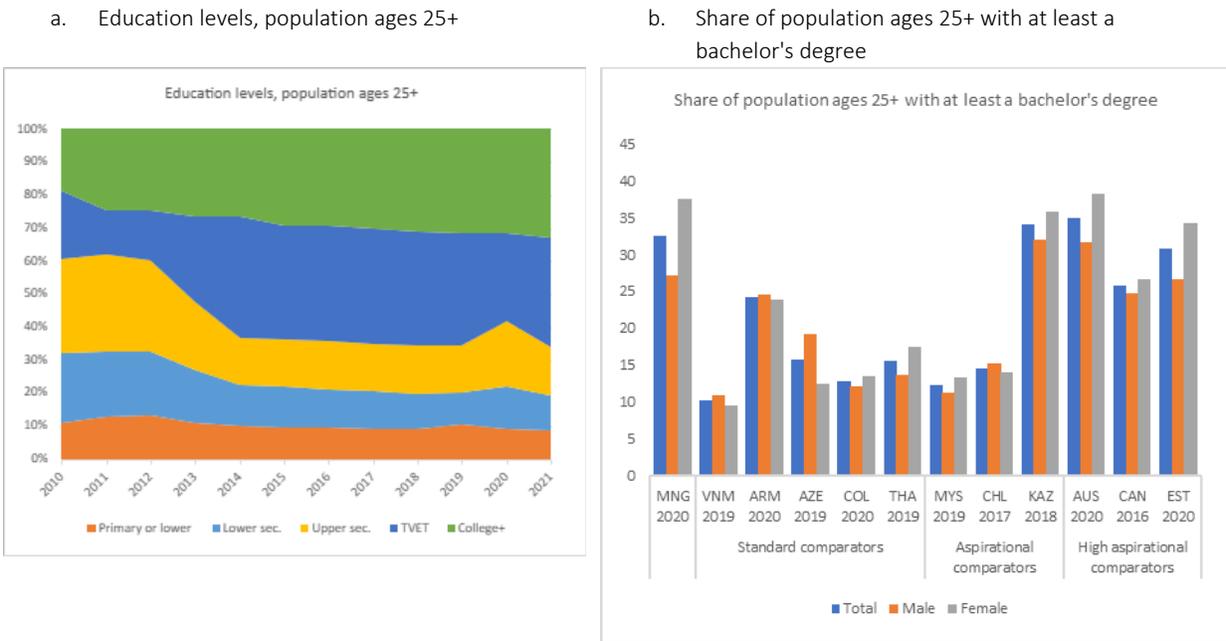
The **Population and Household Census of Mongolia** is conducted every five years. It covers all aimags (provinces), soums (districts outside Ulaanbaatar), bags (subdistricts outside Ulaanbaatar), and districts and khoroos in Ulaanbaatar. The following population groups are covered: Citizens of Mongolia who are in the country at the time of census and foreigners and persons without citizenship who are living in Mongolia for more than 183 days and foreigners without citizenship who are taking permission to stay for over 6 months from the authorized organizations. The units of analysis are households, dwellings, and members of households. The census collects basic statistical data required to study changes in economic, social, and demographic status. It provides important information for assessing issues such as population growth, migration, settlement, education, employment, housing conditions, and behavior of the various population groups. The report utilizes information from the latest census round, conducted in 2020. Although only basic information is collected, the results on economic parameters are an ideal benchmark for the estimates obtained from the LFS.

Further, there are considerable inequalities by gender and location in acquiring education. Educational attainment is significantly higher for women in Mongolia. This is not uncommon in many countries, but the gender gap in higher education is particularly large: while the share of women ages 25+ with at least a bachelor’s degree was 37.1 percent in 2021, it was 27.8 percent for men, resulting in a gender gap of 9.3 percentage points. Among comparator countries, only Australia and Estonia have similar gender gaps favoring women, at 6.7 and 7.6 percentage points, respectively (Figure 2, panel b). Inequalities are also considerable with respect to location. Disparities start early in life, with unequal access to early childhood education (preschool coverage reaches only 46 percent in rural areas) and continue for regular school years as well as entry into the labor market (World Bank, 2020).

Disparities are also salient with respect to learning outcomes. There is a gender gap in performance starting at secondary school and beyond, with boys lagging behind girls, especially in rural areas. Early childhood education in rural areas, when available, tends to be of lower quality and students lag their peers in urban areas in learning outcomes. Nomadic and minority children are also at a disadvantage. These findings suggest that children from poorer and rural families lack equal opportunities to finding good jobs in adulthood.

unemployed, the new method broadly considers the labor underutilization including three groups of people: unemployed, potential labor force and time-related underemployment. Also, the unemployment criteria by the old method was not employment and job seekers or willing to work”, however, according to the new method, it has been changed to “not employment and job seekers and willing to work”. For more details, please refer to: http://web.nso.mn/nada/index.php/catalog/120/related_materials (accessed January 2022).

Figure 2: Education levels are high and rising, but there are significant gender gaps



Source: Panel a: Labor Force Survey 2010-2021, ages 25+; panel b: World Development Indicators.

Note: The significant shift from upper secondary education to TVET education in 2013/14 is caused by differences in recording the education level.

Learning outcomes have been affected by the COVID-19 pandemic, with poorer households being the most disadvantaged. Mongolia is one of the countries with the longest school closure during the pandemic. While TV lessons and take-home materials were provided during periods of shutdown, remote learning remained largely ineffective and did not reach every student. Children in poorer and rural households were less likely to participate in interactive educational activities, partly due to limited access to computers or TVs.¹⁰

Urbanization

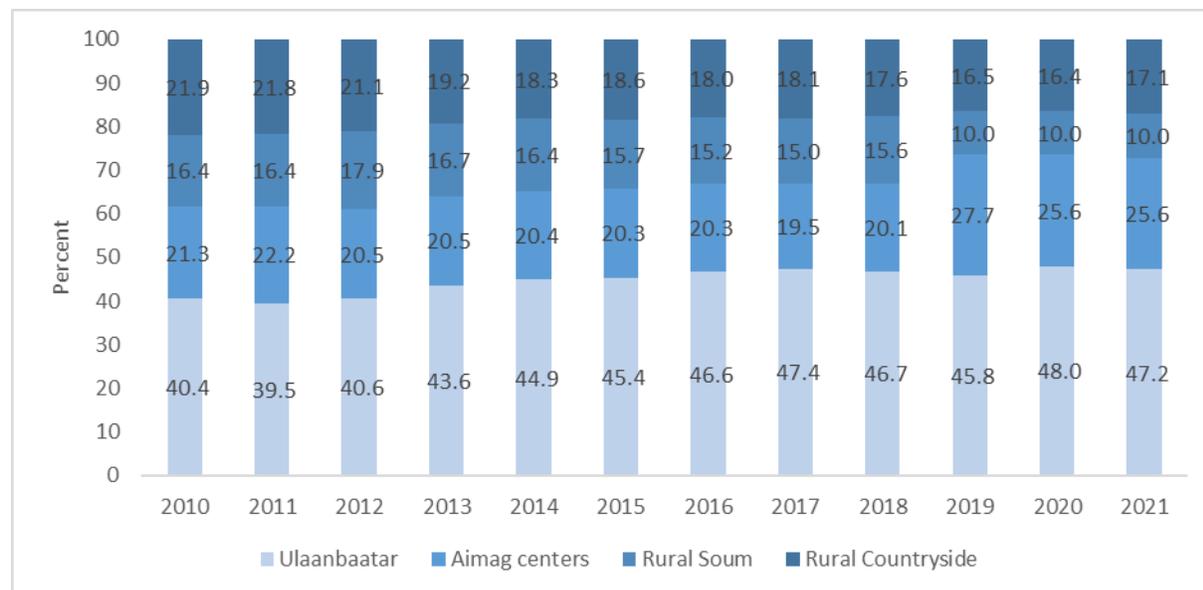
In recent years, Mongolia has become increasingly urban; almost half of the working-age population now lives in Ulaanbaatar. Between 2000 and 2021, the population share living in urban areas increased by more than 13.6 percentage points, from 59.4 percent to 73 percent, with about half (47.2 percent) of the population living in Ulaanbaatar and a quarter (25.6 percent) living in aimag centers.¹¹ Mongolia is now more urbanized than the average country at its level of GDP per capita and most comparator countries used in this report. Labor Force Survey data also show that the share of the working-age population (ages 15 and above) living in urban areas has risen significantly during the period analyzed in this report 2010-2021 (Figure 3). Urbanization is mainly the result of significant internal migration flows, especially to Ulaanbaatar. In search of education and job opportunities, many decide to leave remote areas. Such a shift

¹⁰ Schools reopened in September 2021 and in February 2022, the Ministry of Education conducted a comprehensive study to assess learning deficits in math, reading, and sciences of students in grades 1-12.

¹¹ Mongolia is divided into 21 provinces or aimags and the capital city or provincial municipality, Ulaanbaatar. Aimags are subdivided into 331 soums (second-level administrative subdivision, or district) and Ulaanbaatar is subdivided into nine districts. Aimag centers refer to urban areas outside of Ulaanbaatar.

toward urban areas may bring about increased productivity through agglomeration effects, as well as structural transformation as the economy moves away from agriculture.

Figure 3: Mongolia is becoming increasingly urban; almost half of the working-age population now lives in Ulaanbaatar and about three-quarters live in urban areas



Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

Note: The chart shows the distribution of the working-age population for the years 2010-21.

Employment trends

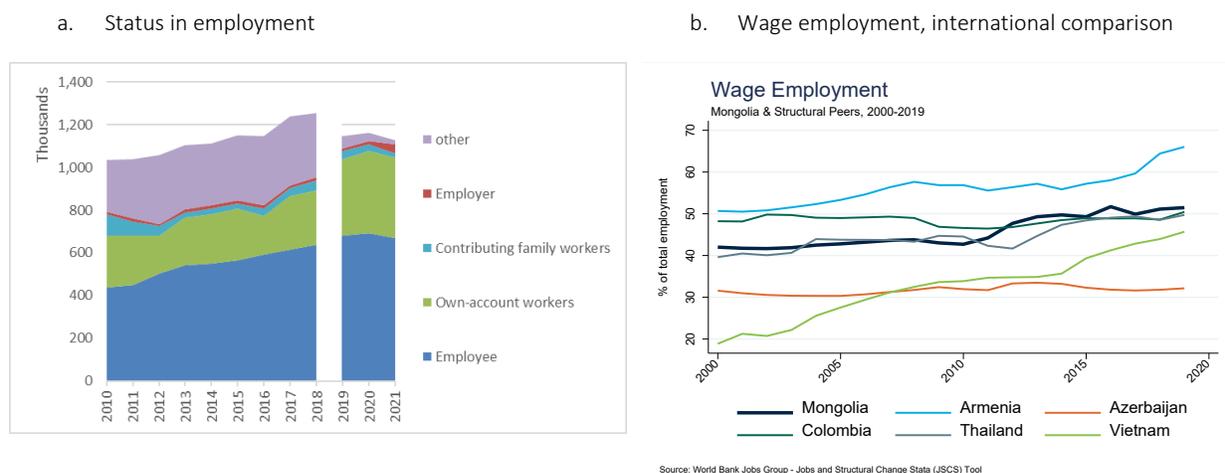
Total employment has increased significantly during the past decade, and wage work in particular has become more important. Since 2010, total employment increased by 12 percent and in 2020, about 1.16 million people were in employment. A significant share are own-account workers, which since 2019 include herders (workers engaged in animal husbandry).¹² In 2020, the group accounts for one-third of total employment (Figure 4, panel a). Wage employment increased steadily, and by 2021, wage jobs accounted for about 60 percent of total employment. The share of wage employment is more than twice as high in urban areas as compared to rural areas (75.1 percent vs. 27.3 percent), and wage work has increased in both the private and public sectors. Among the standard comparator countries, only Armenia has a higher share of wage employment (Figure 4, panel b).

Over the past decade, the private sector has led employment growth; public sector jobs remain attractive, especially for women. In 2010, the share of jobs in private entities was 29.9 percent, and 51.8 percent a decade later. In contrast, the share working for the household fell from 40.7 percent in 2010 to 24.0 percent in 2021. A fall in the share working for government entities is also observed. Almost double the share of women are employed in government entities (15.0 percent men and 28.6 percent women), an employer

¹² Since 2019, Mongolia's Labor Force Survey uses a revised questionnaire which, among other changes, classifies the status in employment according to the ICSE-18 definition. Revisions contributed to a significant shift from employers to (i) working in family business and (ii) not engaged in gainful employment. While total employment was adjusted downwards by 9 percent, the size of wage employment remained largely unaffected by the change in concept of status in employment (National Statistical Office of Mongolia, World Bank, Ministry of Labour and Social Protection, 2022).

type which is more dominant in urban areas (24.3 percent) as opposed to rural areas (15.5 percent). In 2021, private entities made up the largest share of employment in urban areas (over 60 percent), while this was the case for household work in rural areas. Moreover, younger individuals are more likely to be employed in the private sector as opposed to the public sector.¹³

Figure 4: Employment is shifting toward wage work; only in Armenia is the share of wage employment higher



Source: Panel a: Mongolian Statistical Information Service; panel b: World Bank Jobs Groups, Jobs and Structural Change Stata Tool.
 Note: Break in series in 2019 due to the Labor Force Survey implementing the revised employment status concept.

Older cohorts are more often self-employed; better educated youth are more likely to be in wage employment. In 2021, 29 percent of young workers aged 25-34 were self-employed. For young workers, higher education is clearly associated with a higher chance to be in wage employment: among workers with college-education or higher, 85 percent hold wage jobs, compared to 54 percent with below-college education. While only a small minority are contributing family workers, low-educated women in rural areas are at a higher risk of falling into this category.

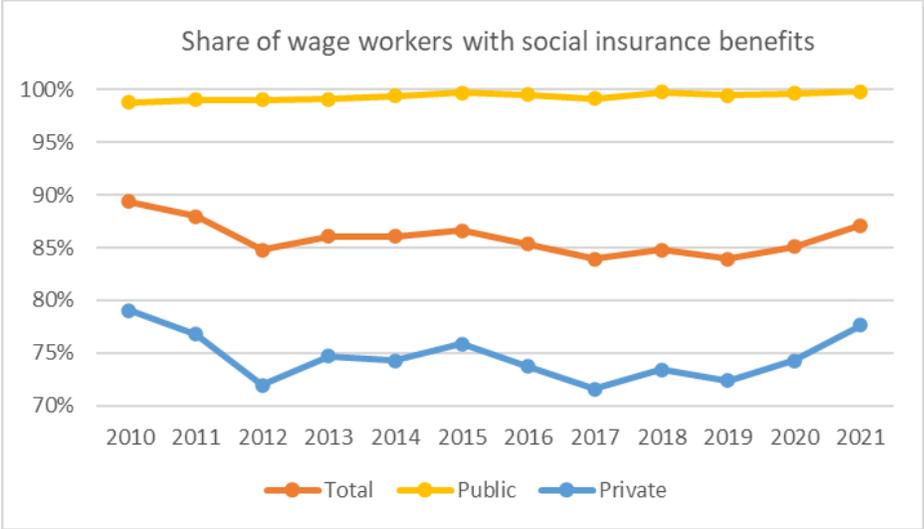
The majority of wage earners in Mongolia are covered by the social insurance system, but there are significant differences in coverage depending on the level of education. The share of wage workers covered by social insurance was 87.1 percent in 2021, very close to the average between 2010 and 2021 (85.6 percent), with also little difference between rural and urban areas (87 and 85.5 percent respectively). While 94.9 percent of wage earners with a college education or higher are covered, only 65.2 percent of those with a lower secondary education and 54.9 percent of those with a primary education or lower are covered in 2021; for those with an upper secondary education (including vocational training), the share is 81.7 percent.

Social insurance coverage also differs by gender (in favor of women), partly because they are more likely to work in the public sector, where nearly all employees are covered. The share of female wage workers covered by social insurance is higher than that of their male counterparts (89.8 percent vs. 84.3 percent in

¹³ For a brief jobs portrait of Mongolia’s youth, see Spotlight 2.

2021), since women are more likely to work in the public sector (government entities). Notably, coverage in the private sector is only around 77.6 percent, but coverage has increased in recent years (**Figure 5**).

Figure 5: Share of wage workers covered by social insurance

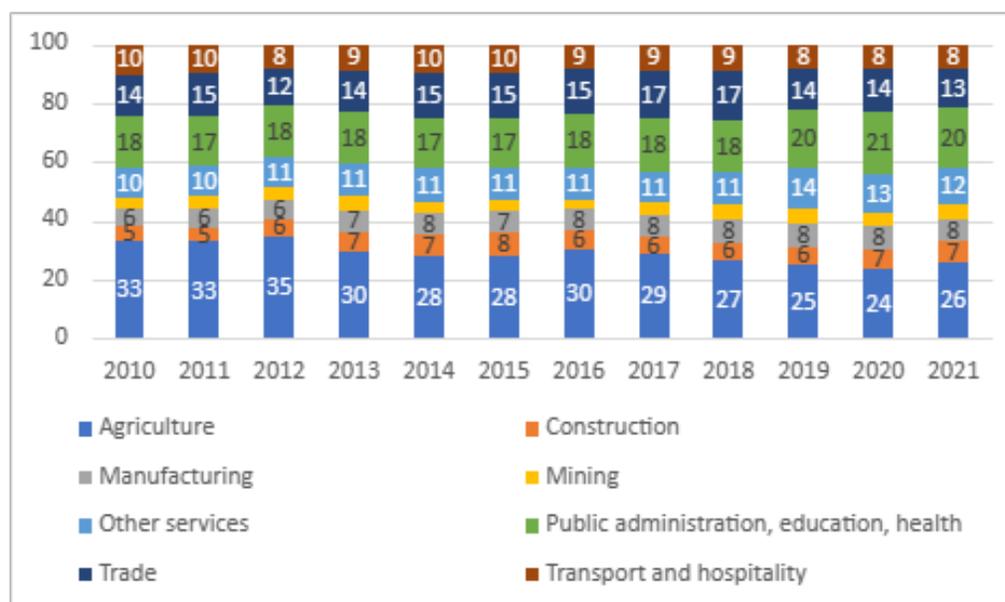


Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

Despite rapid urbanization, agriculture remains the largest sector in terms of employment, but employment in agriculture has been on a steady decline. In 2010, agriculture accounted for 33 percent of employment and by 2021 this share dropped to 26 percent (Figure 6). In part, this pattern reflects increased urbanization in the country, as agricultural jobs are predominantly concentrated in rural areas.¹⁴ There is no particular sector that has expanded significantly to absorb agricultural workers; employment shares gradually increased in several industries, including the public sector and other service sectors. Mining, while important economically, has not accounted for more than 6-8 percent of employment since 2010. The manufacturing employment share increased somewhat but also remains small at 8 percent. Employment shares in construction and trade fluctuated, though within a margin of only about 3 percentage points. A further breakdown of “other services” shows a marginal increase in shares of jobs in financial and real estate and administrative support sectors. Together, increasing employment in services and a stagnant and limited manufacturing sector are potential symptoms of a resource-rich economy experiencing Dutch Disease, but limited growth in manufacturing jobs is also observed widely in developing countries due to the diffusion of frontier technologies.

¹⁴ In 2021, 69 percent of employment in rural areas was in the agricultural sector.

Figure 6: Share of employment by industry, 2010-21 (percent)



Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

Note: *Other services* includes utilities, information and communication, financial and insurance activities, real estate activities, professional, scientific, and technical activities, administrative and support service activities, and other service activities.

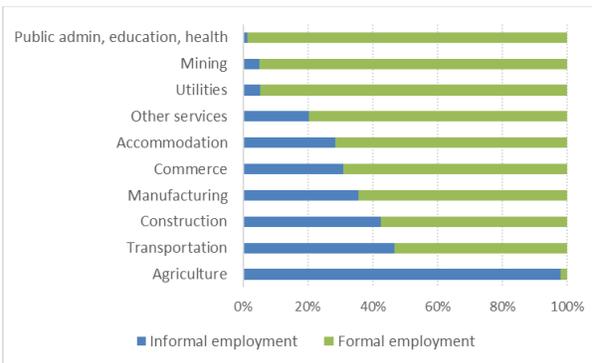
Considering all workers, including the self-employed, informal employment is high. 41.2 percent of workers were considered informal in 2021.¹⁵ Most informal workers were working in agricultural activities (62 percent), many of them working as own-account workers in household market enterprises (self-employed). Excluding agricultural activities, the share of informal employment in total employment declines but remains significant, reaching 21.4 percent in 2021. Outside agriculture, informal employment is concentrated in trade (26 percent), construction (20 percent), and manufacturing and transportation (each approximately 15 percent). The within-sector composition between formal and informal employment varies widely. Agricultural jobs are almost exclusively informal. In transportation, about half of employment is informal; in manufacturing, one-third are informal workers. Only in mining, utilities, as well as public administration, education, and health is the within-sector share of informal employment less than 10 percent (Figure 7, panel a).

Excluding agricultural activities, the share of informal work is relatively high even among formal sector firms. Looking at the breakdown by type of production unit reveals important linkages between the formal sector and informal employment. Economy-wide, more than 85 percent of informal employment happens in the informal sector, and about 13 percent of informal workers are hired by formal sector firms. When excluding agricultural activities, the share more than doubles, reaching 34 percent (Figure 7, panel b). This finding suggests that many formal sector employers rely on informal workers, perhaps to better navigate fluctuations in labor demand and to increase operational flexibility. More research is needed to gain a better understanding of the links between formal sector firms and informal employment in Mongolia.

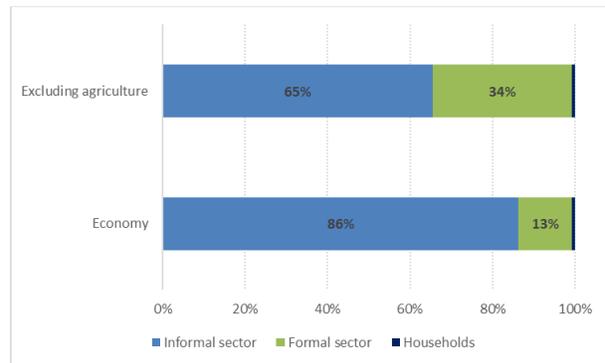
¹⁵ Since 2019, Mongolia's Labor Force Survey allows to calculate *informal employment* according to the ILO definition (see [Indicator description: Informality – ILOSTAT](#)). For information on how to identify informal employment using LFS data, see Glossary.

Figure 7: The share of informal employment varies according to sector and production unit

a. Distribution of informal employment by sector, 2021



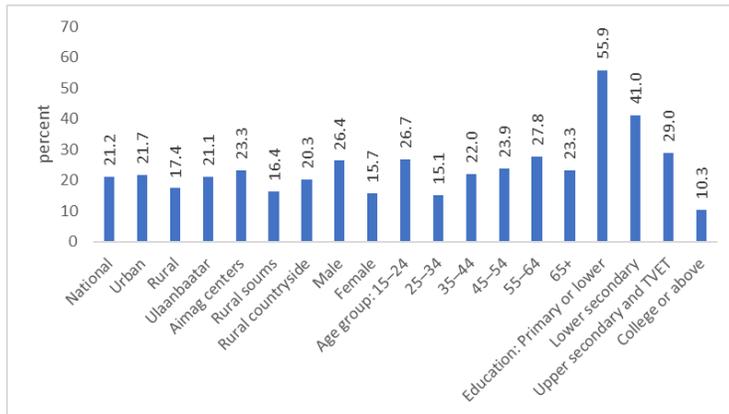
b. Distribution of informal employment by production unit, 2021



Source: World Bank estimates based on LFS 2021.

Informal work also varies significantly according to location, gender, age, and education. Looking at individual characteristics, if only nonagricultural work is accounted for, informal work is somewhat higher in urban areas, accounting for over one-fifth of nonagricultural workers. Informal work is also higher among males and differs by age group, with youth ages 15-24 and older workers ages 55-64 having the highest levels. The greatest variation in informal work is found by educational status: among those with a college education or higher, the share of nonagricultural informal work is only 10 percent, in contrast to nearly thirty percent of those with upper secondary education (including technical and vocational education and training (TVET)); informality is even higher for those with lower educational levels (Figure 8).

Figure 8: Informal employment outside agriculture varies by area, gender, age, and education



Source: World Bank staff estimates based on Labor Force Survey 2021, ages 15+ unless otherwise noted.

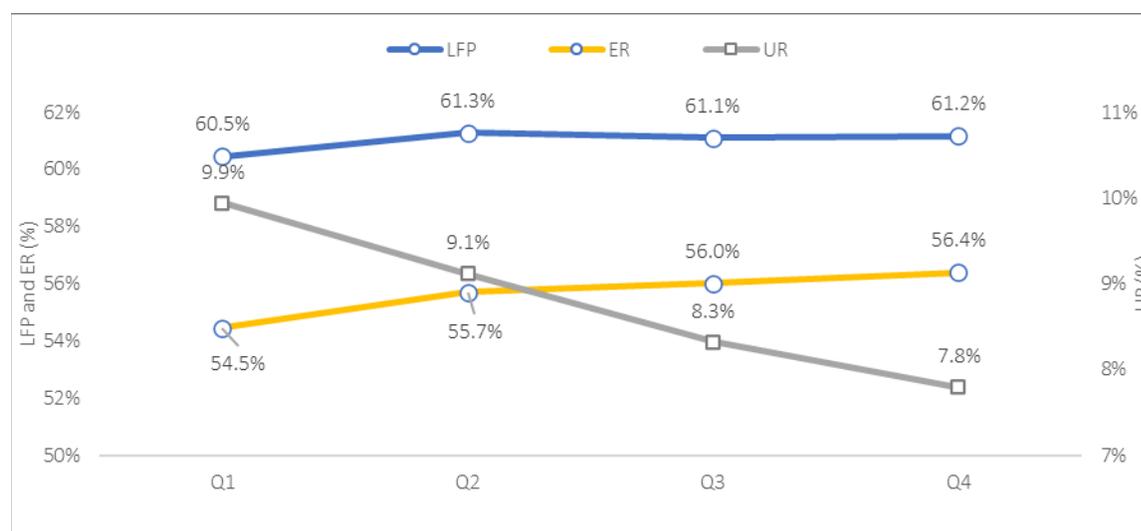
Note: TVET = technical and vocational education and training.

Seasonality of economic activity

Mongolia's economy is impacted by its strong continental climate and the traditional nomadic lifestyle of a significant part of the population. With long and cold winters, and warm but short summers, the country's climatic conditions are likely to contribute to seasonal patterns in economic activities. Also, many of Mongolia's rural communities are traditionally nomadic pastoralists who engage in seasonal agriculture

and livestock herding.¹⁶ Hence, labor market indicators can be expected to follow a noticeable seasonal pattern. In the first three months of the year, unemployment is high, and the employment rate is relatively low. Throughout the year, both indicators typically improve. For example, aggregate estimates for the period 2015-19 indicate that, on average, employment is more than 3 percent higher in the fourth quarter (Q4) than in the beginning of the year. Notably, labor force participation remained relatively stable over the course of a year (Figure 9).

Figure 9: Seasonality in labor market indicators



Source: World Bank estimates based on LFS 2015–2019.

Note: LFP: labor force participation rate, ER: employment rate, UR: unemployment rate.

Seasonal volatility in employment is highest in construction and mining; trade, the largest nonfarm employer, is less affected. A comparison of quarterly employment figures by sector provides a more refined view of seasonal variations. During the period 2015-19, the construction sector experienced the largest employment increase between Q1 and Q2 (27 percent), and the biggest decline between Q3 and Q4 (19 percent). The mining and quarrying sector is also exposed to fluctuations in employment as harsh winters can disrupt mining operations. Sectors with sizeable employment shares and relatively low volatility include wholesale and retail trade, transportation and storage, as well as education services. Agricultural employment grows at a moderate rate throughout the year and typically declines during the winter months (sector-specific results are shown in Annex Table C.1).

B. ANALYSIS OF KEY LABOR SUPPLY INDICATORS

*Section B presents a detailed analysis of trends that shaped Mongolia’s labor market from 2010 to 2021. The focus is on key labor supply indicators, including a discussion of the extensive and intensive margins of labor supply, wages, returns to education, and additional available labor supply resources - that is the unemployed and potential labor force. Two spotlights deepen the discussion on labor supply for **women** and **youth**, zooming in on labor market disparities these groups face.*

¹⁶ In 2020, herders accounted for 23 percent of total employment (National Statistical Office of Mongolia, World Bank, Ministry of Labour and Social Protection, 2022).

Snapshot of the Mongolian working-age population and the state of its labor market in 2021

Recent estimates suggest that about one in two Mongolians of working age is employed. In 2021, Mongolia's working-age population of 15 years and older comprises 2.152 million people, with 1.22 million (56.9 percent) participating in the labor force. Among those in the labor force, 91.9 percent (or 1.12 million) are in employment, resulting in an employment-to-population ratio of 52.3 percent. Nearly 60 percent of the employed population are wage workers¹⁷, more than one-third are self-employed, and the remaining 1.5 percent are contributing family workers. Nearly 100,000 people, or 8.1 percent of the labor force, are unemployed. More than 900,000 people, or 43 percent of the working-age population, are economically inactive (Figure 10).

Figure 10: Snapshot of the Mongolian labor market 2021

Working-age population (15+)										
2,152,085 (66.2%)										
In the labor force					Not in the labor force					
1,225,303 (56.9%)					926,782 (43.1%)					
Employed			Unemployed	Youth (15-24)		Prime-age (25-54)			Older (55+)	
1,125,523 (91.9%)			99,780 (8.1%)	283,656 (30.6%)		290,268 (31.3%)			352,857 (38.1%)	
Employee	Self-employed	Unpaid family workers	In school	Not in school	Housework	Disabled / retired	Other	House work	Disabled / retired	Other
667,668 (59.3%)	440,874 (39.2%)	17,019 (1.5%)	233,084 (82.2%)	50,572 (17.8%)	136,423 (47%)	70,754 (24.4%)	83,091 (28.6%)	3,693 (1%)	339,958 (96.3%)	9,206 (2.6%)

Source: World Bank staff estimates based on Labor Force Survey 2021.

Utilizing available labor resources: labor force participation and employment rate have declined in recent years

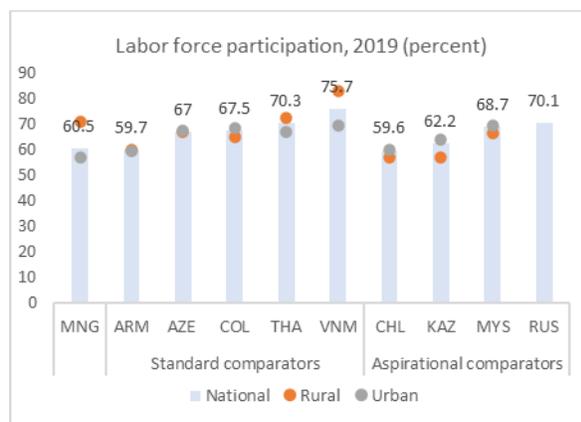
Mongolia's labor force participation rate is comparatively low and has declined in recent years, but aggregate estimates mask a substantial rural-urban divide. In 2021, 56.9 percent of people aged 15 or above were part of the Mongolian labor force. This rate is close to the average labor force participation rate globally (58.3 percent) and in EAP (57.9 percent). However, using harmonized data from 2019, participation in Mongolia is relatively low compared to most standard or aspirational comparators (Figure 11, panel a).¹⁸ Notably, there is a persistent difference between rural and urban areas. Until 2019, labor force participation was roughly 73 percent in rural locations and only around 55 percent in urban areas, resulting in a gap of about 20 percentage points; in comparator countries, only Vietnam has a comparable urban-rural gap in participation. Since then, Mongolia's participation rates dropped across the board, but the decline was somewhat more pronounced in rural locations. Still, by 2021 the difference in rural and urban participation rates remained large at 14.3 percentage points (Figure 11, panel b).

¹⁷ Wage workers refer to employed individuals who reported to be working as employee for wage.

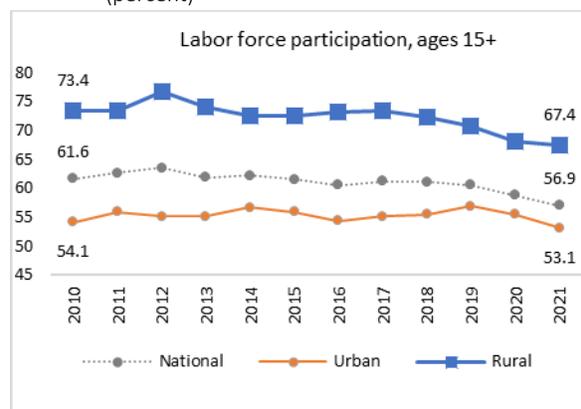
¹⁸ Comparing labor market indicators across countries must be done with caution because not all countries have adopted the 19th ICLS resolution which exclude own production from the definition of employment, adopted by Mongolia in 2019. Nonetheless, many of the comparator countries have adopted the 19th ICLS resolution (e.g., Chile, Armenia, Malaysia, Vietnam, and Kazakhstan, and possibly others); the low share of subsistence agriculture in most of the comparator countries makes the labor market indicators fairly comparable, regardless of the employment definition used.

Figure 11: Labor force participation in Mongolia is relatively low and exhibits a wide urban-rural divide

a. Mongolia and comparator countries, 2019 (percent)



b. Mongolia, national, urban and rural, 2010-21 (percent)



Source: Panel a: ILOSTAT, based on 2019 national labor force surveys, 2020 for AZE; ages 15+; Panel b: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

Labor force participation is highest among workers with college education; a declining trend in participation is seen for most education levels. While in most countries, labor force participation increases with educational attainment, this is only partly the case for Mongolia. Working-age individuals with at least a college degree consistently had the highest labor force participation rate (70.1 percent), well above those with upper secondary or TVET education (53.1 percent) (Figure 12, panel a). For most of the years analyzed, however, those with lower secondary had the lowest labor force participation rate - below that of their counterparts with primary or less education.¹⁹ Further, participation has fallen for all education levels, with the largest decline experienced by those with lower secondary, followed by college and above.

Labor force participation is highest among prime working age adults (25-54 years). Participation typically varies greatly by age group. In Mongolia, it is highest among those ages 35-44; this group also experienced one of the largest declines in labor force participation in 2010-21 when compared to other age groups (Figure 12, panel b).²⁰ Prime-age adults (25-54 years) are likely to have completed school and are not approaching retirement age²¹, which makes them most likely to participate in the labor market. Labor force participation is lowest among those 65 and older, with levels below 20 percent. Less than 50 percent of older adults (ages 55-64) and youth (ages 15-24) participate in the labor market. Participation has been falling for your youth, in part due to remaining longer in school.²²

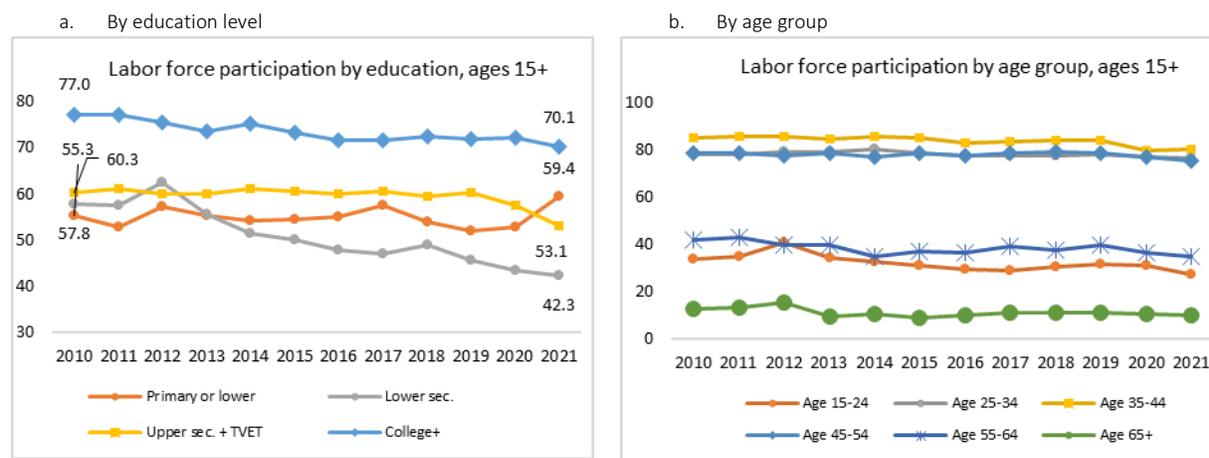
¹⁹ The average in labor force participation rate between 2010 and 2021 was 73.4 percent for college or above, 59.4 percent for upper secondary or TVET education, 50.8 percent for lower secondary education, and 54.9 percent for individuals with primary or below.

²⁰ Labor force participation among young people (15-24 years old) also declined considerably. See Spotlight 2 for an in-depth discussion of youth participation.

²¹ In Mongolia, the retirement age for men is 60 years, for women 55 years.

²² Results from multivariate regressions on the determinants of labor force participation are shown in Annex Table C.2.

Figure 12: Labor force participation is highest, but falling, among those with college education or higher and among those aged 35 to 44 years



Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

As an alternative indicator of utilizing available labor resources, employment rates largely mirror the trends in labor force participation. Mongolia’s employment rate fluctuated around 55.9 percent between 2010 and 2019 and declined somewhat since then. In 2021, it reached 52.3 percent (Figure 13). While employment rates react more directly to cyclical changes in economic activity than participation rates, they are in the longer term significantly affected by government policies affecting education and income support measures, and by policies that facilitate employment of disadvantaged groups such as women and youth.

Prime working age adults have the highest employment rates by far. Along the lifecycle, the employment rate peaks between the ages of 35-44; it is lowest for youth and those aged 55 and older. On average, the employment rate of prime working-age adults (25-54 years) is generally above 70 percent for the period under study. In stark contrast, only about a quarter of young people (aged 15-24) were employed, a finding consistent with continued investment in education, but also indicative of high youth unemployment (see also Spotlight 2). Employment rates drop off significantly once individuals reach age 55, with rates around 40 percent for the 55-64 age group between 2010 and 2021; in recent years, however, just 35 percent of this age group were employed. Naturally, due to retirement, the employment rate is lowest in the age group of 65+, at around 10 percent (Figure 14).

Like labor force participation, employment rates differ greatly across locations. In 2021, the employment rate was 63.8 percent in rural areas compared to 48.0 percent in urban areas. Higher rural employment shares, especially in the rural countryside as opposed to rural soum centers, can be linked to the dominant type of economic activity: Rural communities often engage in self-employed agricultural work and animal husbandry, where many family members are contributing workers (Figure 15).²³

Employment rates are lowest and continue to fall for workers with lower secondary education; employment is highest for those with college education. Across education levels, rates are relatively

²³ Rural labor supply is not only higher at the extensive margin (more people work), but also at the intensive margin (people work longer hours): on average, actual working hours in main job are 49.5 hours in rural areas compared to 46.6 hours in urban areas (LFS 2020).

volatile, but most seem to follow a downward trend. Employment rates are clearly the highest for college-educated workers but have come down from above 70 percent in 2010 and seemed to stabilize at around 65 percent since 2016. A similar longer-term downward trend is found for workers with upper secondary education or TVET education. The finding that already low employment rates for people with lower secondary education keep declining is particularly worrisome. Employment rates for workers with primary or less education appear to fluctuate around 50 percent, with a significant uptick in 2021 (Figure 16).

Figure 13: Employment rates are lower in urban areas

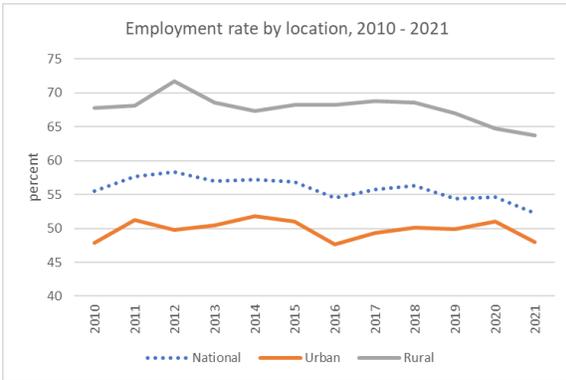


Figure 14: Employment rates peak between the ages of 35 and 44; in general, they are highest for prime-aged workers 25–54

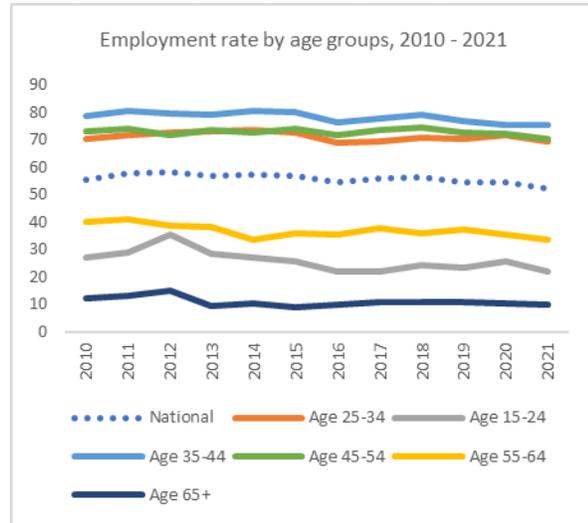


Figure 15: Employment rates are relatively low in urban areas

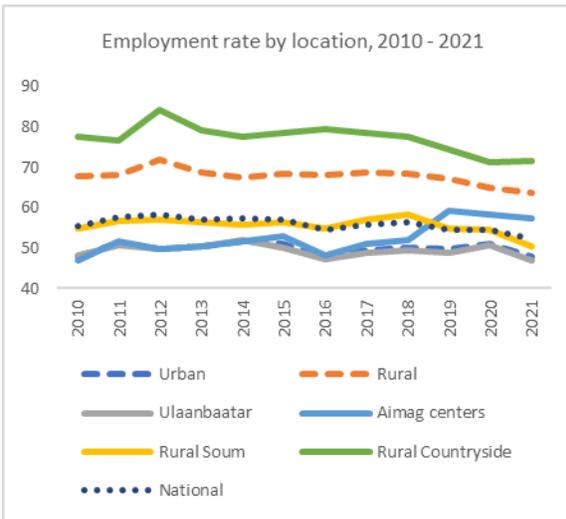
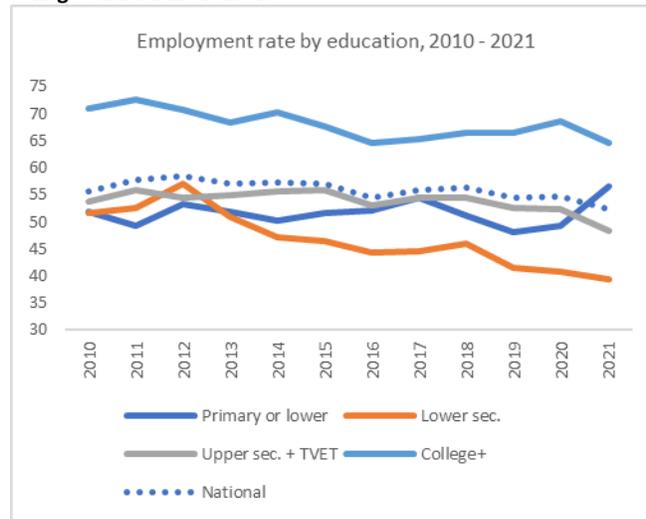


Figure 16: Employment is the lowest among those with lower secondary education and is the highest among those with college education or above



Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

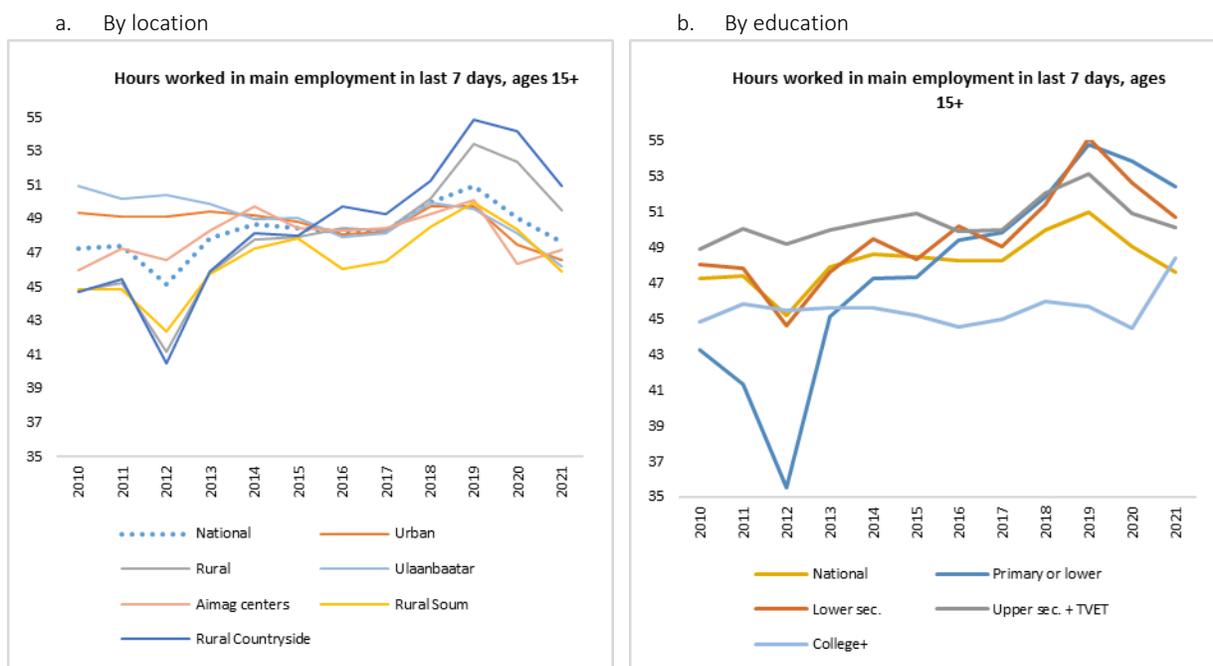
The intensive margin of labor supply: Mongolians work long hours

Employed people in Mongolia work exceptionally long hours, and the share of part-time work is low. The number of actual hours worked between 2010 and 2021 averaged 48.2, with a slight increase over time. Out of 157 countries for which data on average hours per week and employed person are available,

Mongolia ranks 9th.²⁴ The ILO defines “excessive hours” as working more than 49 or more hours per week, and close to half of all workers in Mongolia surpass this threshold (NSO, 2019 LFS).²⁵ For 141 countries with comparable data, the average share of excessive working hours is 21 percent and only 16 countries have a higher share than Mongolia.²⁶ Long working hours can have detrimental effects on health and labor productivity and are also an impediment to women’s labor force participation, as well as for older workers.

Among the employed, men, people who live in rural areas, who have not completed college education, or who work in the private sector work the longest hours. On average, in 2021, the number of hours worked in the past 7 days was 49.5 (46.6) in rural (urban) areas, and 50.0 (44.9) among men (women). Those with a college education work the least number of hours. People in the private sector work considerably long hours (an average of 49.6 in 2021) whereas public sector workers worked closer to the legal full-time work week of 40 hours.²⁷ The rise in working hours over the 2010-21 period appears to be driven by private sector activities and work in rural areas (Figure 17, panels a, c).

Figure 17: Hours worked in last 7 days, by location, by gender, by education, by private vs. public sector, 2010-21 (percent)



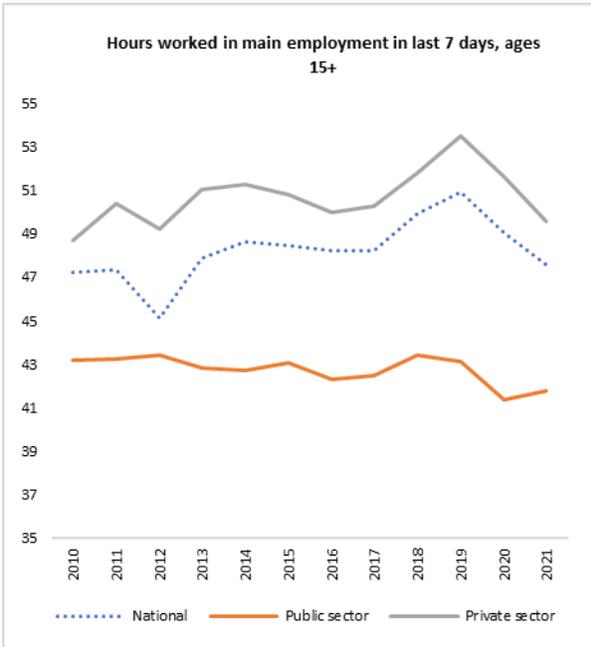
²⁴ Based on ILO data from circa 2020, which ranks average hours per week per employed person from highest to lowest. The global average is 39 hours.

²⁵ For men, the figure is 54.4 percent and for women it is 38.8 percent.

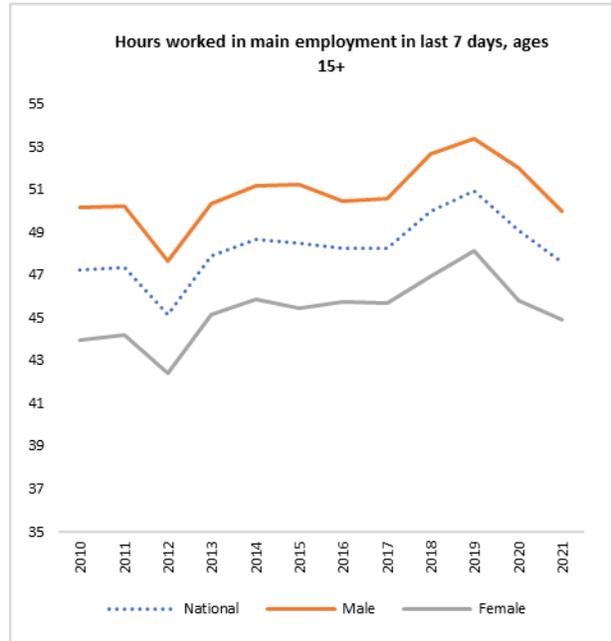
²⁶ Based on ILOSTAT data from circa 2020.

²⁷ According to Mongolian labor legislation, the number of hours per week must be no more than 40 hours, with the length of a normal working day being no more than eight hours. However, there is limited compliance. According to the 2019 wage structure survey (WSS) conducted by the Research Institute of Labor and Social Protection, 58.6 percent of employees who worked during rest days or public holidays were not paid extra compensation.

c. By sector



d. By gender



Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

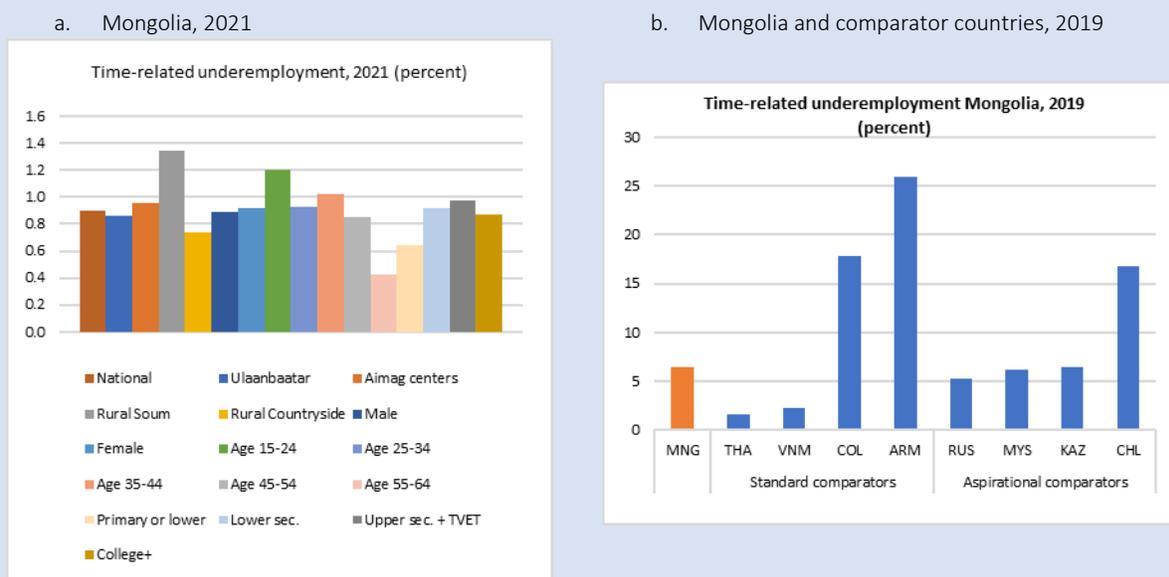
Box 3: Mongolia's low incidence of part-time work and time-related underemployment

Part-time work, i.e., people who agree to working fewer than 40 hours per week, is not very common: in 2021, the share of part-time workers is 6.4 percent. Part-time employment is an important instrument of contemporary labor market policies in many countries, enabling women (and men) to balance family and employment responsibilities. Mongolia's revised Labor Law, adopted in 2021, formally introduced the employment relationships of 'part-time', 'homebased work' and 'remote work', also to boost employment rates and labor force participation through flexible work arrangements.

In contrast to voluntary part-time employment, time-related underemployment signals insufficient volumes of work – or labor underutilization. Persons who are in employment, wanting to work additional hours and are available to work additional hours, given the opportunity for more work, are classified as time-related underemployed.²⁸ Broadly, the concept captures to what extent employed people's desire for work is not met.

Since working long hours is common in Mongolia, the incidence of time-related underemployment is low. In 2021, less than one percent of the employed population is considered time-related underemployed. The share is somewhat higher in rural areas (rural soum centers) and for youth, while older age groups (55-64 years) and the low-educated are less often affected (Figure 18, panel a). An international comparison using 2019 data confirms that Mongolia's labor underutilization, when measured through time-related underemployment, is relatively low. Only Thailand and Vietnam have lower rates, while in Armenia, Colombia, and Chile between 16 and 26 percent of the employed population reports to be underemployed (Figure 18, panel b).

Figure 18: Labor underutilization, measured through time-related underemployment, is low in Mongolia

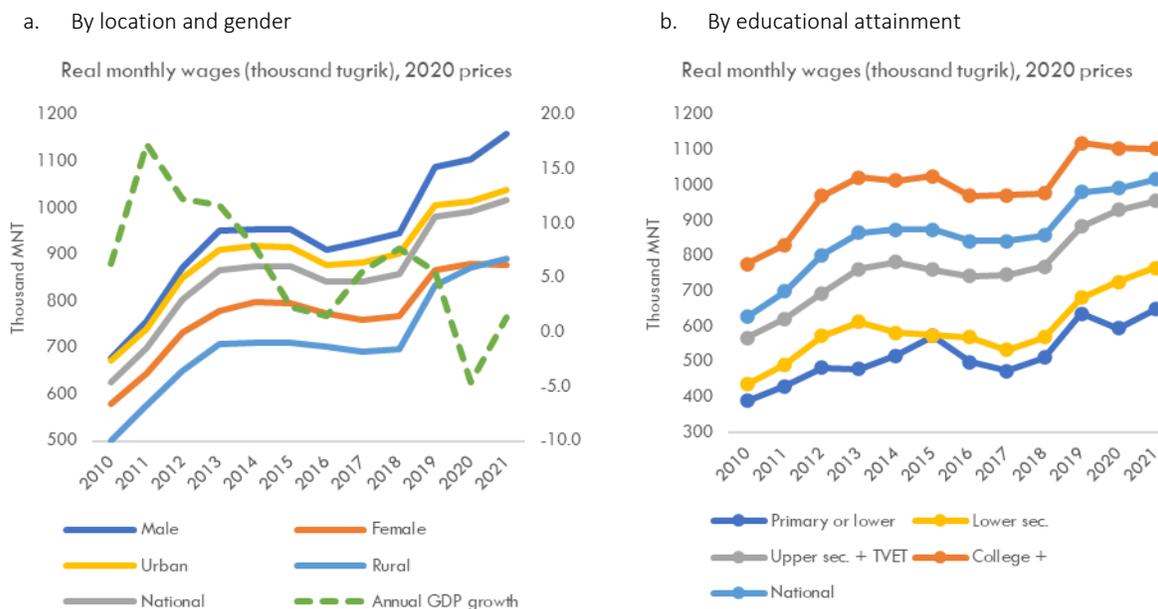


Source: Panel a: World Bank staff estimates based on Labor Force Survey, 2021; panel b: ILOSTAT – ILO modeled estimates.
 Note: Upper secondary includes TVET education.

Compensation: productivity gains support higher wages, but workers benefit unevenly

Over the past decade, most workers benefited from rising wages. Between 2010-21, the average real monthly wage increased from MNT 627,000 to MNT 1,017,000 – an increase that corresponds to an annual growth rate of 4.7 percent.²⁹ During periods of economic growth, real wages increased significantly but stagnated when GDP growth rates fell. Wage growth has been broadly comparable in rural and urban areas and across education levels, but male workers have benefited more than female workers, especially since 2017 (Figure 19, panel a, b).³⁰

Figure 19: Real wages, by location, gender, and educational attainment, 2010-21



Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

Although wage growth has been substantial, it has lagged behind productivity growth. Annual growth in labor productivity was nearly 6 percent (annual increase of 5.8 percent between 2010 and 2021) (Tudela-Pye and Merotto, 2023). Notably, productivity in the industry and services sectors increased, while at the same time employment in these sectors almost doubled between 2000 and 2018 (ibid.). This trend would be reflected in higher real wage increases for workers in these sectors compared to the rest of the economy. Most productivity increases would have occurred within sectors. Still, structural transformation processes contributed to the overall value-added per capita growth, mostly through services.

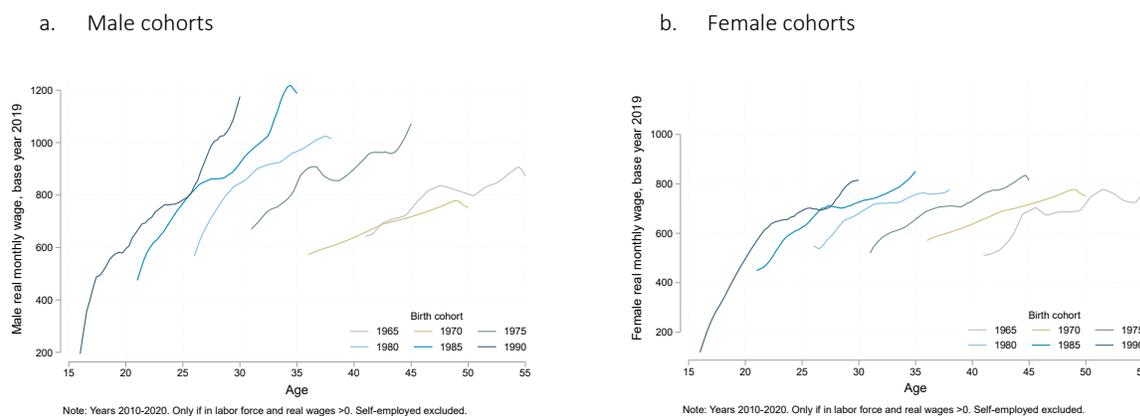
²⁸ The specified hours threshold is 40 hours per week, determined in line with the Mongolian labor law (Clause 43, Resolution of 19th ICLS). Same definition is used by the Mongolian Statistics Office (as of January 2022); See also <https://ilostat.ilo.org/resources/concepts-and-definitions/description-time-related-underemployment/>. According to ILOSTAT, national definitions of time-related underemployment vary significantly between countries, as do the operational criteria used, affecting the comparability of the data.

²⁹ Real monthly wage expressed in 2020 prices (based on reported wage for the last seven days). Earnings from self-employment are not included.

³⁰ For a detailed discussion on gender disparities in the labor market, see Spotlight 1.

Some groups benefited more than others: younger cohorts, especially men, realized larger wage increases. While over the life cycle average wages increased for all age groups, younger cohorts benefited from stronger wage growth. For example, the 1990 age cohort earned MNT 1,000 (2019 prices) per month before the age of 30, while the five-year older cohort (of 1985) earned the same wage after the age of 30. When the analysis is disaggregated by gender, it becomes clear that the effect is largely driven by the dynamics among male workers – among which younger cohorts realized steeper wage growth (Figure 20, panel a). For female workers, the rise in wages has been rather similar across birth cohorts (Figure 20, panel b).

Figure 20: Wages are rising faster for younger cohorts as compared to older cohorts, especially for men



Source: World Bank staff estimates based on Labor Force Survey 2010-2020, ages 15+.

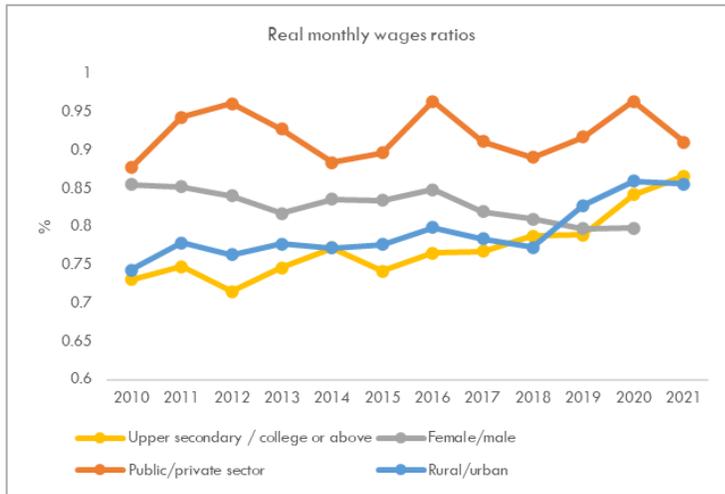
Notes: Self-employed not included. Only if real wages >0.

As relative wages of rural workers and those with upper secondary education have improved, long-standing wage gaps have narrowed since 2010. Gender wage differentials, however, have increased. Average wages in rural areas are significantly lower than wages in urban areas. A similar discrepancy in wages is found for different education levels. Following a similar trend over time, these gaps narrowed by about 10 percentage points between 2010 and 2021.³¹ While the catching up of rural wages is encouraging, possibly indicating higher productivity and better-quality jobs in rural areas, a closing gap between workers with upper secondary education and college educated workers suggests falling college premiums. In contrast, the gender wage gap increased somewhat over time – with men’s wages being significantly higher than women’s wages. By 2021, women’s wages represented about 80 percent of men’s wages, down from around 85 percent in 2010 (Figure 21).³²

³¹ For example, the ratio of rural to urban monthly real wages was about 75 percent in 2010 and had narrowed to 86 percent by 2021.

³² For a more detailed discussion on the gender wage gap, see Spotlight 1.

Figure 21: The wage gaps between men and women, rural and urban areas, and upper secondary and college education levels are falling

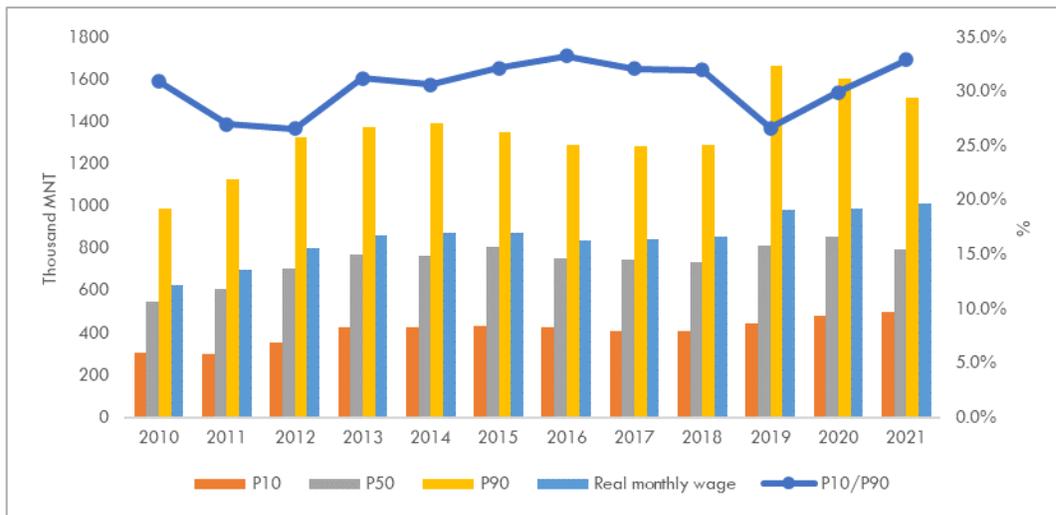


Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

Note: Rising (falling) ratios reflect narrowing (widening) wage gaps between the groups.

Because the different trends in relative wages largely cancel each other out, the distribution of wages has remained fairly constant since 2010. Looking at the gap in wage income between the top and bottom ten percent of the wage distribution, the 10/90 ratio was ranging between 27 percent to 33 percent between 2010 and 2021 (Figure 22). The 10/90 ratio is somewhat higher for women, indicating that women’s wages are more broadly dispersed than wages for male workers.³³

Figure 22: Wage distribution among the Mongolia population has remained relatively stable



Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+, self-employed not included.

³³ The 10/90 ratio in wage income is 37.5 percent among women and 29.0 percent among men.

Returns to investment in education: in recent years, private returns have converged across education levels

After peaking in 2017, the returns to upper secondary and college education have declined and are approaching the returns of lower secondary education. Mincer wage regressions show that the returns to education have been rather volatile for Mongolian workers over the last decade.³⁴ Estimates for the returns to upper secondary and college education for the population aged 15+ averaged 42 percent and 38 percent, respectively, during 2014-2017, but have fallen since then.³⁵ At the same time, returns to lower secondary education increased significantly and, in 2020, reached a level that is comparable to that of higher qualification levels (Figure 23, panel a). One possible reason for falling returns to college education could be that college graduates are increasingly working in jobs intended for TVET or high school graduates. Results from the 2017 Graduate Tracer Study confirm that about one in six university graduates feel they are overqualified for their job; further research would be needed to confirm if this phenomenon has increased over time.

Returns to tertiary education in Mongolia appear to be low compared to most peer countries. Internationally comparable data on returns to education are available from circa 2010 (Montenegro and Patrinos, 2021).³⁶ Compared to standard and aspirational comparator countries, Mongolia has relatively low returns to tertiary education at 10.1 percent; only Russia exhibits lower returns. Higher returns are achieved in Thailand (17.2 percent) and Colombia (19.6 percent). The share of tertiary-educated in Mongolia, however, is similar to that of high aspirational countries where returns to education tend to be lower in general. Compared to estimates available for high aspirational comparators, Mongolia's returns to tertiary education are between those for Australia (3.8 percent) or Estonia (6.4 percent), and South Korea (12.7 percent) (Figure 23, panel b).

Box 4: Estimating private returns to education using the Mincer earnings function

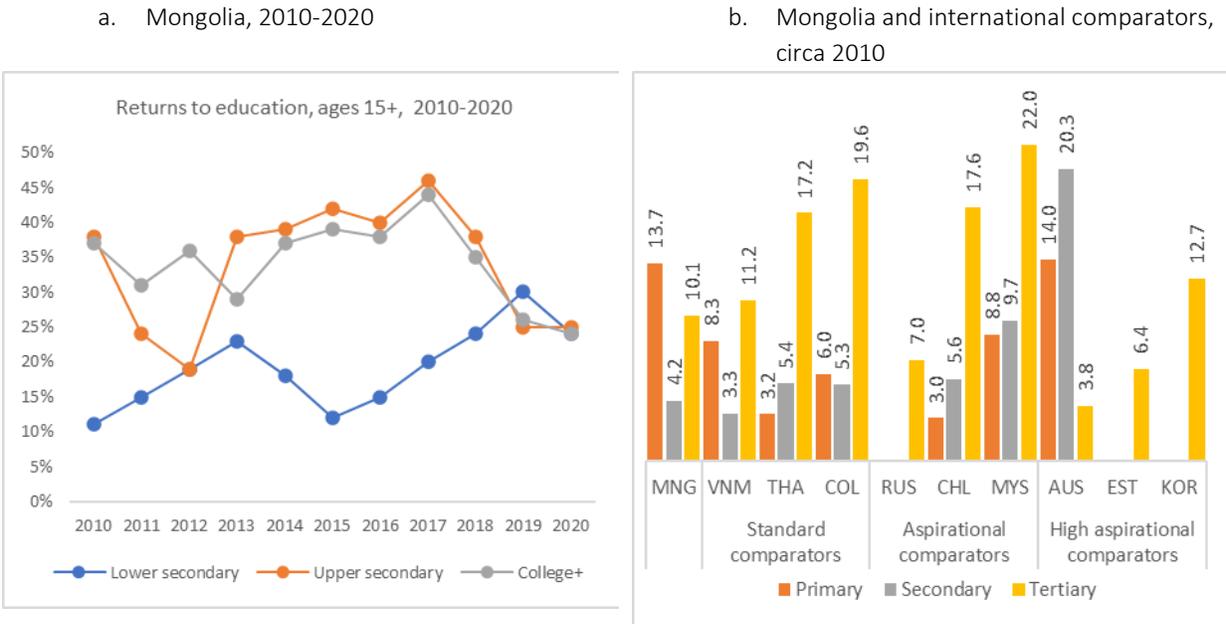
The Mincer earnings equation is used to estimate average monetary returns for each level of education, relative to the level preceding it. In more detail, in this report, the Mincer equation estimates the logarithm of monthly wages on a set of indicators for each educational level in a given year (LFS 2010-2020) for wage workers. The estimation further controls for survey year fixed effects; survey year and age; survey year and age squared; survey year and female; female; survey year and rural; and a dummy for residing in a rural area. Detailed results are presented in Annex Table C.3.

³⁴ See Box 4 for details on the methodology.

³⁵ The decline has been somewhat smaller when focusing on younger cohorts only (see Annex Table C.3).

³⁶ For details on the methodology, see <https://www.emerald.com/insight/content/doi/10.1108/IJM-03-2021-0184/full/html>.

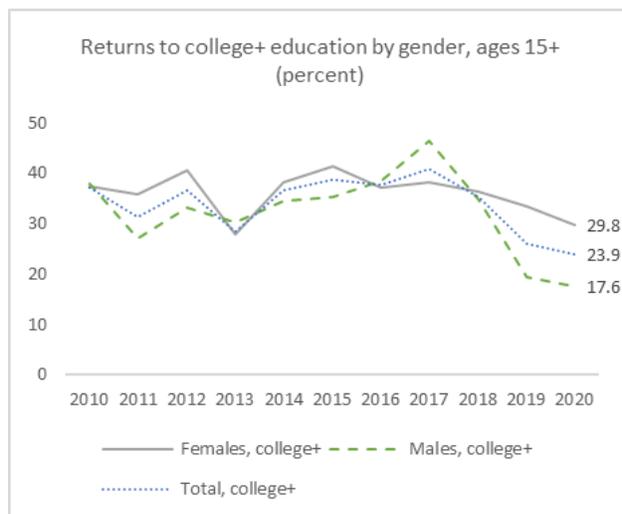
Figure 23: Returns college education have fallen in recent years and comparable international data show they are relatively low



Source: Panel a: World Bank staff calculations based on Labor Force Survey 2010-2020, ages 15+; Panel b: Montenegro and Patrinos (2021). Returns for Mongolia are 2011 based on the Socioeconomic Household Survey. Note: Upper secondary includes TVET education.

The decline in college premiums is largely driven by male graduates. The fall in returns to college education in recent years, especially in 2019 and 2020, is particularly strong among men. For women, on the other hand, college premia have been relatively stable. As a result, the gender gap in college premia has been growing. In 2020, a woman would earn 29.8 percent more if she was college educated or above compared to her having only completed upper secondary education. The additional return from higher education for men was only 17.6 percent, resulting in a 12.2 percentage point gender difference (Figure 24, panel a). In comparator countries, and, more generally, globally, returns to tertiary education do tend to be higher for women and a possible explanation is self-selection bias; that is, women who obtain tertiary education and participate in the labor market may have unobservable characteristics that make them more competitive in the labor market.

Figure 24: Women now have higher returns to college education than men



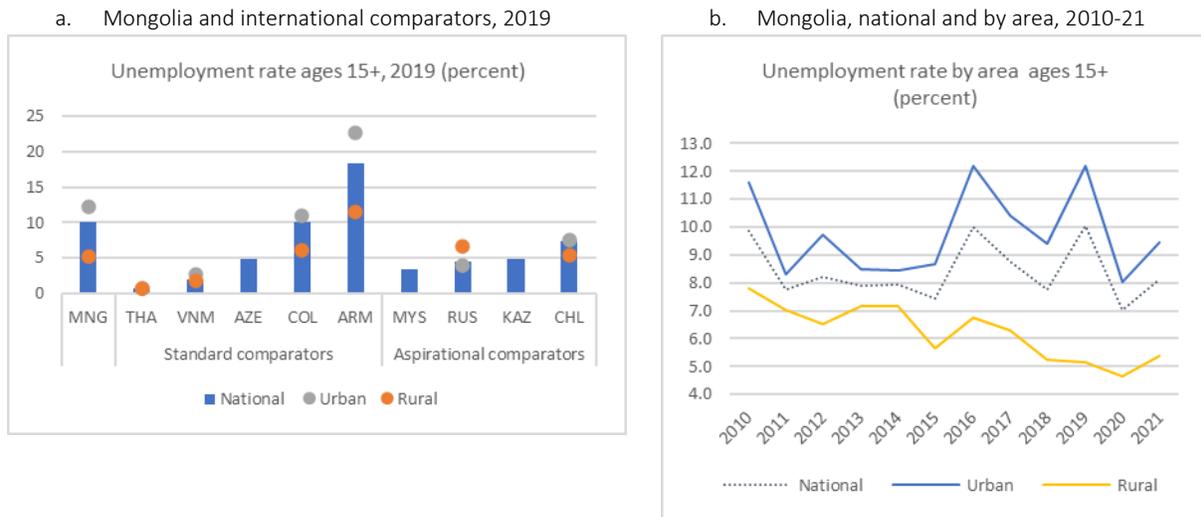
Source: World Bank staff calculations based on Labor Force Survey 2010-2020, ages 15 and above.

Additional labor supply resources: unemployment and the potential labor force

Unemployment in Mongolia is relatively high. The country’s unemployment rate averaged 8.4 percent between 2010 and 2021 (8.1 percent in 2021). Within the set of comparator countries, only in Armenia was unemployment at a substantially higher level; and Mongolia’s unemployment rate was almost twice as high as in the aspirational comparators (Figure 25, panel a).

Overall unemployment figures mask large disparities. Disaggregated results show that Mongolia’s unemployment is significantly higher in urban areas, similar to what is observed in Armenia and Colombia. In Mongolia, the unemployment rate of urban residents was 9.5 percent in 2021 (average for 2010-21 is 9.8 percent), while in rural areas, it was 5.4 percent (average for 2010-21 is 6.2 percent). The urban-rural gap was 4.1 percentage points in 2021, slightly above the average in the past decade (3.5 percentage points). Notably, rural unemployment declined steadily since 2010, while the unemployment rate in urban areas varies a lot over time – but without a clear trend (Figure 25, panel b). The increase in the urban-rural divide may reflect alternative, and improving, job opportunities in rural areas (i.e., agricultural day laborer jobs, casual and seasonal work), as well as migration to urban areas in search of employment.

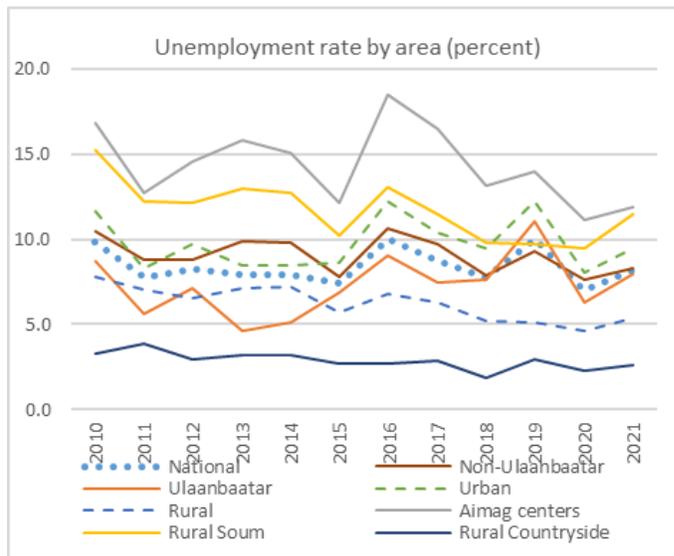
Figure 25: Unemployment is relatively high, especially in urban areas



Source: Panel a: ILOSTAT based on 2019 national labor force surveys, ages 15+; data by urban/rural not available for AZE and MYS; panel b: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

Unemployment rates are particularly high in urban areas (especially in aimag centers), as well as in the rural soum centers. Further disaggregation reveals that unemployment is highest in aimag centers, followed by rural soum centers and Ulaanbaatar. Rural areas in general and especially the rural countryside have lower unemployment rates – a finding probably related to people living in these areas being more likely to be involved in self-sustaining agricultural work (Figure 26).

Figure 26: Unemployment is highest in aimag centers and lowest in the rural countryside

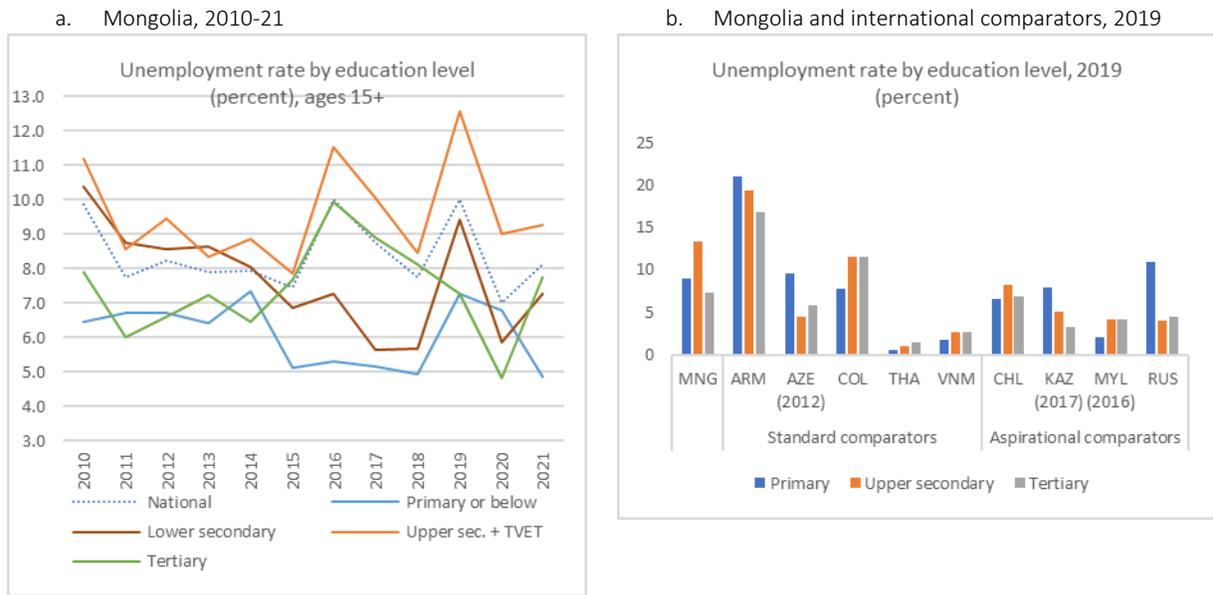


Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

Note: Non-Ulaanbaatar includes urban and rural areas.

Unemployment is highest among those with intermediate levels of education. Cutting across education levels, unemployment is highest for those with upper secondary or TVET education; in 2021, unemployment for this group reached 9.3 percent, versus a national average of 8.1 percent. Notably, after a steady decline since 2016, unemployment for the college-educated has risen in 2021 and was above the rates for people with lower secondary education or below (Figure 31, panel a). Unemployment also varies significantly across education levels in comparator countries: it tends to rise with education in Colombia, Thailand, and Vietnam and fall in Armenia. In Kazakhstan and Russia, higher levels of education tend to coincide with lower levels of unemployment (Figure 31, panel b).

Figure 27: Higher education levels do not necessarily result in lower unemployment



Source: Panel a: Labor Force Survey 2010-21, ages 15+. Panel b: ILOSTAT based on 2019 national labor force surveys except MYS (2016), KAZ (2017) and AZE (2012), ages 15+.

Note: Upper secondary includes TVET education.

Women are less often unemployed. Unemployment rates fluctuate significantly between 2010 and 2021 and on average, unemployment was higher for men than women (average male unemployment rate was 9 percent compared to 7.8 percent for females). In 2021, the unemployment rate was 8.5 percent for men and 7.7 percent for women. Since unemployment rate varies significantly over time, so does the gender gap (Figure 28). Part of the gender gap may be associated with the fact that men have a higher tendency to be employed in seasonal jobs such as agriculture and construction.

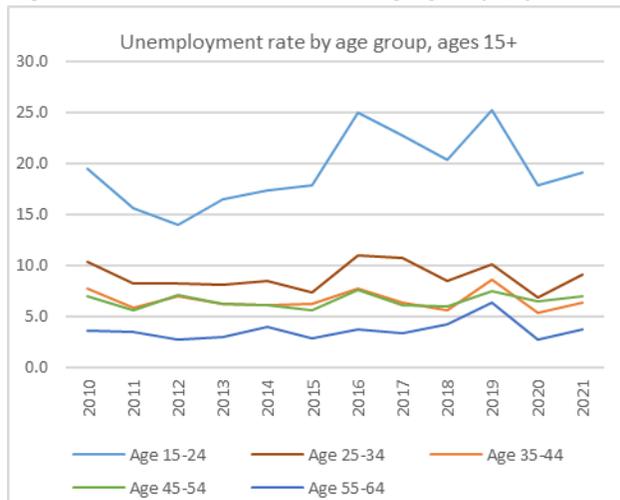
Figure 28: Women have lower unemployment rates than men



Source: Labor Force Survey 2021, ages 15+.

Youth unemployment is high and rising: young labor market entrants with upper secondary education face a higher risk of unemployment. The unemployment rate is highest for youth (ages 15-24); it was 19.2 percent in 2021, more than double the average rate for the working age. This is close to the average over the past decade (19.3 percent), but the data show a general upward trend over the 2010-21 period (Figure 29). For youth, the difference in unemployment rates is particularly prevalent when comparing individuals who have not completed upper secondary (14.6 percent) with individuals with upper secondary or above (20.2 percent). For the age group 25-34, the unemployment rate is lower (9.2 percent) but still above the national average of 8.1 percent, and rates differ less across educational levels. The gap between individuals who have a college degree and those who have none is 2.9 percentage points (unemployment rates of 7.7 percent and 4.9 percent, respectively).³⁷

Figure 29: In contrast to other age groups, youth unemployment is especially high and rising



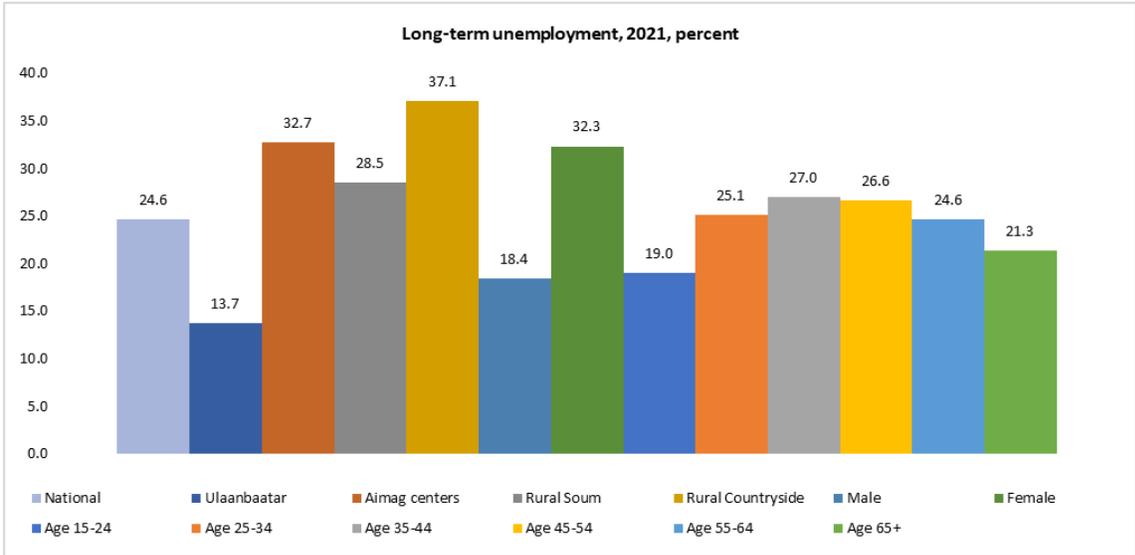
Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

Long-term unemployment poses a particular challenge: on average, more than one in three unemployed has been searching for a job for at least 12 months. The share of long-term unemployed was about 35.3

³⁷ For a detailed discussion on youth unemployment, see Spotlight 2.

percent over the last decade. While it declined significantly in 2021 (24.6 percent), it becomes clear that long-term unemployment is a major challenge for Mongolia.³⁸ Long-term unemployment was higher in rural areas than urban areas (31.4 percent vs. 22.8 percent), and only 13.7 percent in Ulaanbaatar in 2021, in part a reflection of better job opportunities in the capital city even though unemployment in general is high [in urban areas]. Long-term unemployment also varies by gender and along the lifecycle as prime working age adults are more likely to be long-term unemployed compared to the younger generations (Figure 30).

Figure 30: Long-term unemployment is more prevalent among females, prime working age individuals and those living outside of Ulaanbaatar



Source: World Bank staff estimates based on Labor Force Survey 2021, ages 15+.

Mongolia’s unemployment rate understates the true extent of non-employment: a significant share of the inactive would be willing to work but do not meet all the criteria to be counted as unemployed. Recognizing that labor market attachment varies among jobless people, the potential labor force³⁹ includes people who appear to be just outside the labor force, that is people who want to work but meet only two of the three criteria for unemployment. In 2021, the size of the potential labor force was 71,400 people and the combined rate of unemployment and potential labor force reached 13.2 percent. The reasons for joblessness can be many and varied, including unrealistic expectations on the part of job seekers or discouragement, i.e., not looking for work because of the belief that there is no work available. A recent study in Mongolia found that most jobless people have realistic labor market expectations and formal education levels are largely appropriate for the aspired occupational tasks; average wage expectations are

³⁸ The share was 32.4 percent in 2020, as published in a recent report on the dynamics of unemployment in Mongolia (National Statistics Office of Mongolia, World Bank, and Ministry of Labour and Social Protection, 2022).

³⁹ The potential labor force refers to persons not in employment who express an interest in this form of work but for whom existing conditions limit their active job search and/or their availability. For a recent analysis of the size and characteristics of Mongolia’s potential labor force, see National Statistics Office of Mongolia, World Bank, and Ministry of Labour and Social Protection, 2022.

also broadly in line with actual wages. Rather, it was found that the dominant reason for joblessness given by non-employed respondents was a shortage of jobs (National Statistical Office of Mongolia et al., 2022).

Spotlight 1: Women in Mongolia's Labor Market

Like in many other countries, women in Mongolia – in a variety of ways – are not equally represented in the labor market. Gender gaps are evident in participation and pay, occupational choices, or hours worked. The following discussion takes a deep dive on gender-related labor market disparities that women face in Mongolia.

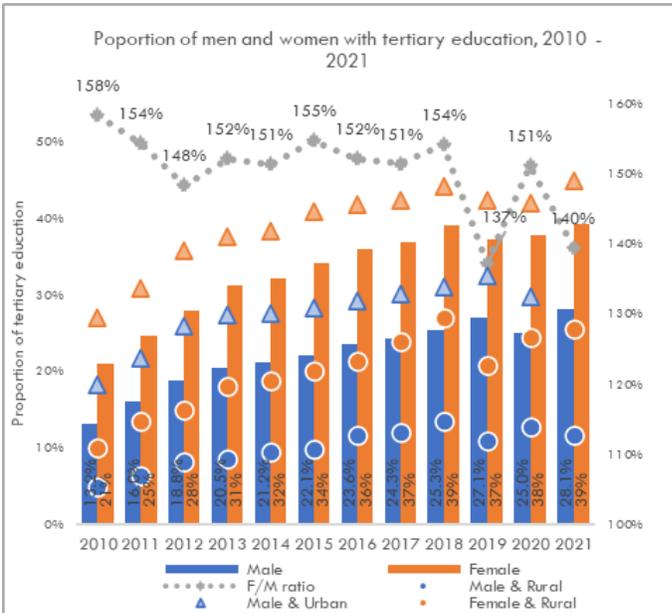
Women are better educated, especially in urban areas, but less likely to pursue careers in technical professions.

Mongolia's rise in tertiary education has mainly been driven by urban women. The share of women aged 15+ with a tertiary degree increased from 20.9 percent in 2010 to 39.2 percent in 2021 at an average annual growth rate of 6 percent (Figure 31, panel a). While the increase occurred at a faster rate for men, their share remains considerably lower, at 13.2 percent 2010 and 28.1 percent in 2021, corresponding to an average annual rate of 7.4 percent. Accordingly, the gender gap decreased slightly. The female to male ratio of tertiary education attainment was 158.3 percent in 2010 and 139.5 percent in 2021. For men and women, the increase in college-educated graduates is driven by urban areas, but rural areas have been catching up. In 2021, the share of women with tertiary education is almost twice as high in urban areas compared to rural areas (45 percent vs 25.5 percent).

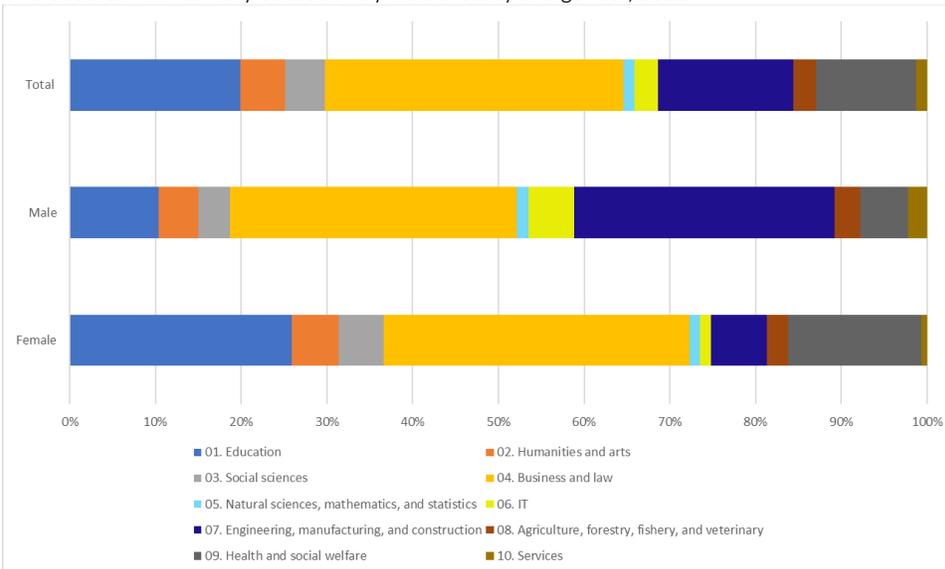
Certain fields of studies such as science and engineering are still predominantly comprised of male students. The field of study chosen by men and women differs, with important implications for labor market prospects: Women are more likely to study fields related to education or health and social welfare, rather than better paying fields of science or engineering (Figure 31, panel b). At the TVET level, there is also significant occupational segregation, with females being underrepresented in police and defense, energy, mining, and transport, among others (Figure 31, panel c). Occupational and professional segregation at TVET and tertiary levels are rooted at the secondary education levels and linked to gender-stereotyped views, lack of gender sensitization and career counseling at the school which affect students' beliefs and learning (Center for Social Work Excellence, 2019).

Figure 31: The increase in college education is mainly driven by urban women, but women are more likely to study fields related to education or health and social welfare, rather than science or engineering

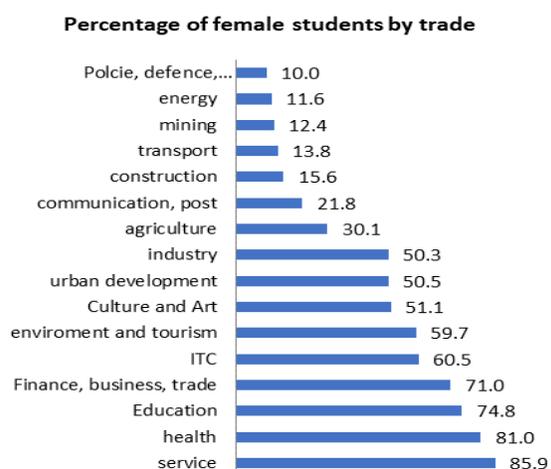
a. Share of men and women with a tertiary education degree, 2010-21



b. Graduates from tertiary education by field of study and gender, 2021



c. Percentage of TVET female students by trade, 2018



Source: Panel a: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15-34; panel b: Ministry of Education and Science; Panel c: Center for Social Work Excellence, 2019

Female labor force participation is comparatively low, especially in urban areas and for women with lower secondary education.

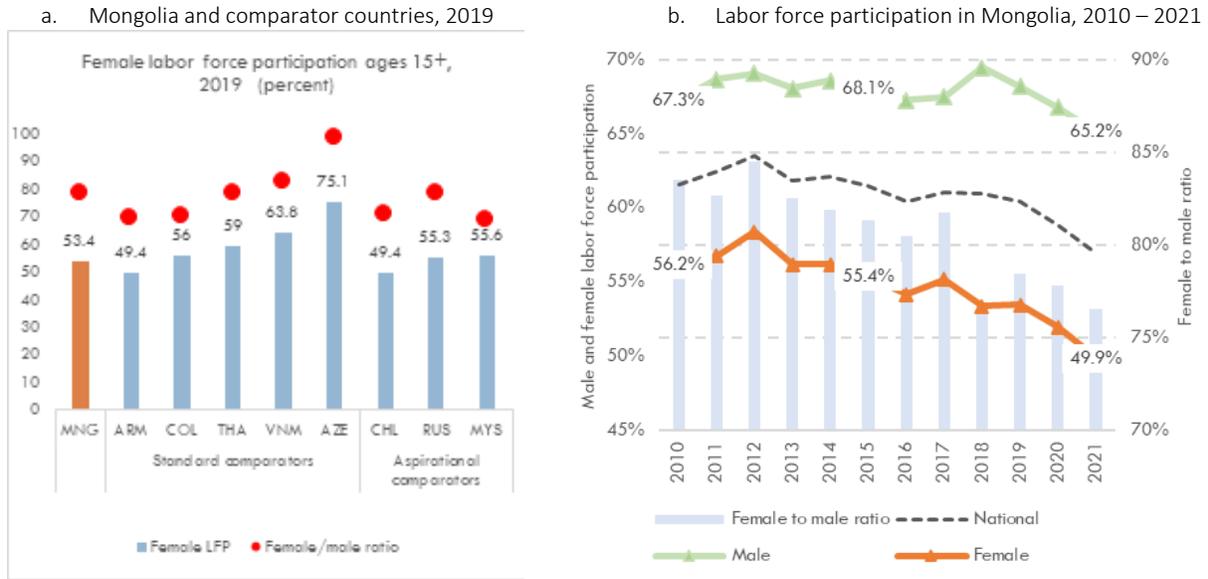
While female participation in Mongolia is comparable to countries with similar GDP per capita level, it is below the rates of standard comparator countries. Across countries, female labor force participation tends to follow a U-shaped relationship: as economies develop, participation first declines but rises again later on. For Mongolia, women’s participation rate of 49.9 percent (2021) is low compared to many advanced economies and the global participation rate of 57.8 percent. It is in line with rates measured in economies with similar income level and East Asia and Pacific (EAP) countries (average of 46.7 percent). Compared to standard comparators, female participation in Mongolia was low in 2019: at 53.4 percent, the rate was significantly below that of Thailand (59 percent), Vietnam (63.8 percent), and Azerbaijan (75.1 percent). Mongolia’s rate was more in line with rates observed in aspirational comparators, like Malaysia or Russia (~55 percent). Looking at the gender gap in participation, the relatively low participation rate of men contributes to Mongolia’s small, but increasing, gender gap. Only in Vietnam and Azerbaijan are the gender gaps smaller – the result of relatively high participation rates for both men and women. In other comparators, the female-to-male ratio in participation is below Mongolia’s rate, indicating that male participation in these countries is significantly above participation observed for male workers in Mongolia (Figure 32, panel a).

Despite their higher educational attainment, labor force participation of women is below that of men and declined further in recent years. Female labor force participation for ages 15+ decreased from 56.2 percent in 2010 to 49.9 percent in 2021, while male participation remained stable at around 66 percent. Consequently, the gender gap increased over time: in 2021, the female to male ratio in labor force participation was 76.5 percent, compared to 83.5 percent in 2010 (Figure 32, panel b).

Similarly, female employment rates have slightly decreased over the last decade, leading to a rising gender gap in employment. In line with labor force participation, the employment rate has consistently been higher for men than women between 2010 and 2021 and while male employment rates have remained stable, female employment was 51.1 percent in 2010 and has decreased to 46.0 percent in 2021, with a gender gap in the 10-13 percentage-point range during the decade. Thus, the gender gap in employment has

increased over the past decade: women’s employment rate was 84.8 percent of men’s employment rates in 2010 and this ratio has decreased to 77.2 percent in 2021.

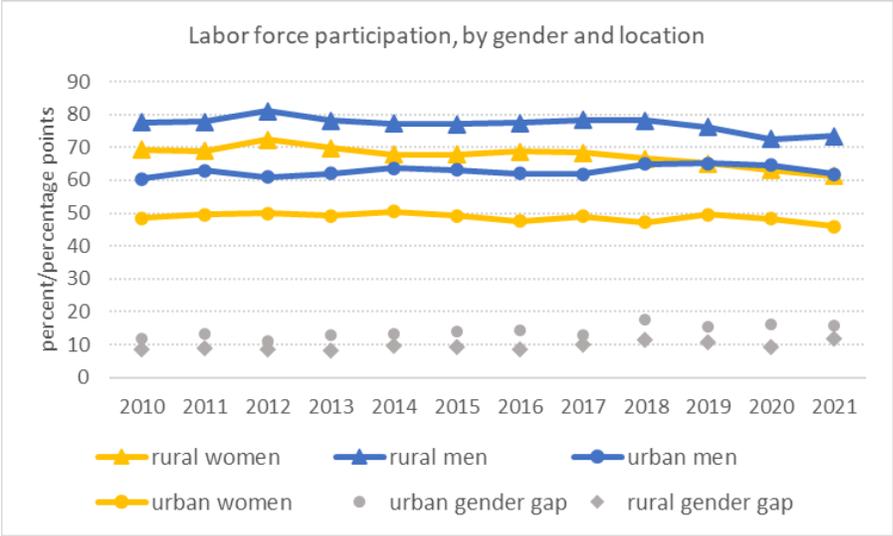
Figure 32: Female labor force participation is low and on the decline



Source: Panel a: ILOSTAT based on 2019 national labor force surveys; Panel b: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

The decline in Mongolia’s female labor force participation is largely driven by dynamics in rural areas, but female participation is lowest in urban areas. Between 2010 and 2021, female labor force participation in rural areas declined significantly from 69.3 percent to 61.4 percent; in urban areas, the rate remained fairly stable for most years, albeit at a much lower level. On average, between 2010-2018, only half of urban women (49 percent) participated in the labor market. Since 2019, participation declined further, reaching 46 percent in 2021. For men, rural participation declined from 77.7 percent in 2010 to 73.4 percent in 2021, and while male urban participation also fluctuated over time, there is less of a discernible longer-term trend. Still, the gender gap in participation has widened in both rural and urban areas. By 2021, the difference between male and female participation was 12 percentage points in rural areas and 16 percentage points in urban locations. These results imply that barriers to female labor force participation may be especially present in urban areas (Figure 33).

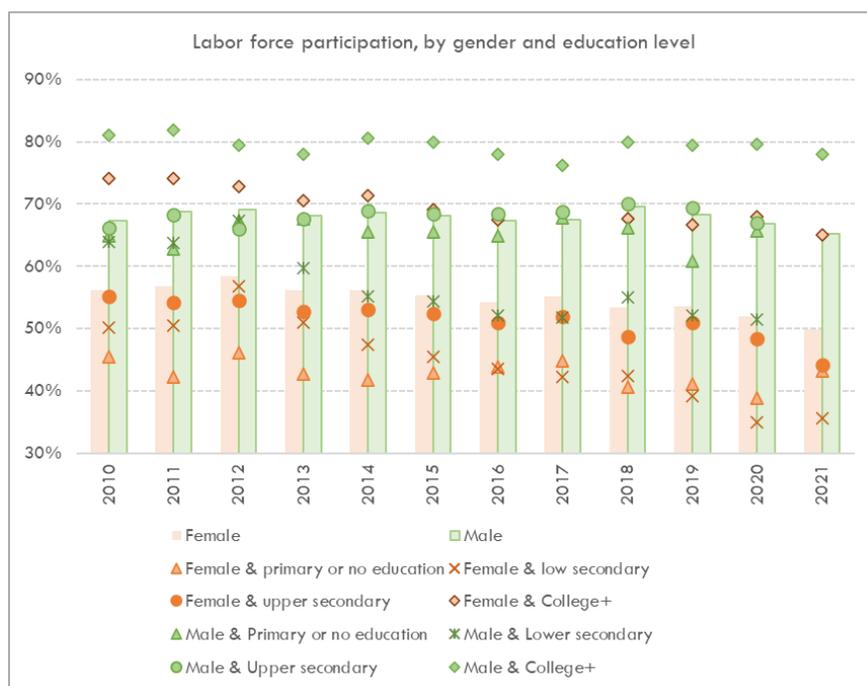
Figure 33: Female labor force participation is lowest in urban areas, contributing to a large and rising gender gap in participation among the urban labor force



Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

While the decline in female participation is evident across all education levels, it has been largest for women with lower secondary education. Since 2010, a clear downward trend in female participation is observed for all education levels, but it is most pronounced for women with lower secondary education. Their rate has fallen from 50.2 percent in 2010 to 35.6 percent in 2021, and since 2016, is at par or below the participation rate of women with primary or less education. Among women with tertiary education, labor force participation in 2021 was 65 percent, down from above 70 percent in 2010. Men’s participation follows a similar pattern across education levels. Broadly, the gender gap in participation decreases with education. Still, among college-educated workers the gender gap remains significant and has been rising in recent years (Figure 34).

Figure 34: The fall in female labor force participation is more pronounced among women with lower secondary education; there exists a gender gap in labor force participation between men and women with tertiary education



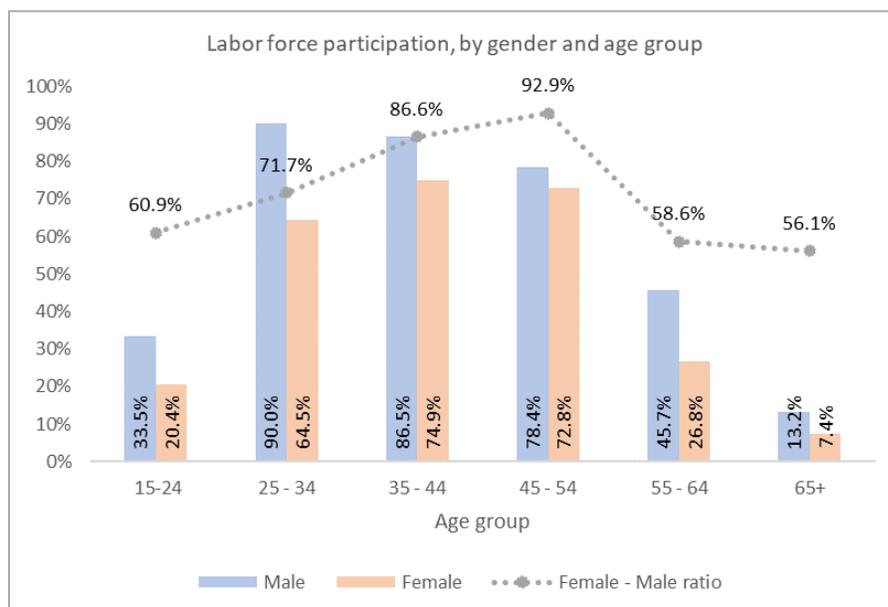
Source: World Bank staff estimates based on Labor Force Survey 2002-21, ages 15+.
 Note: Upper secondary includes TVET education.

Young children pose the greatest risk for women to be out of the labor force.

Labor force participation varies over the lifecycle, as does the gender gap in participation. For young people (ages 15-24), female participation lags significantly behind male participation, partly because women continue schooling for longer. The female to male participation ratio remains low during childbearing and child-rearing years (ages 25-34), as women are the main care takers for small children. The gap is smallest for the age group 45-55 and increases sharply once workers reach their retirement age (55 years for women and 60 years for men) (Figure 35).⁴⁰

⁴⁰ According to the Labor Force Survey in 2021, the labor force participation of men aged 45–54 was 78.4 percent, while the labor force participation of women of the same age was 72.8 percent. However, after age 55 (the retirement age of women), the gender gap in labor force participation increases because men’s retirement age is set at 60. It decreases again after age 65, when both men and women are retired.

Figure 35: The gender gap in labor force participation is highest in the childbearing and child-rearing years (ages 25-34) and after women retire at age 55



Source: World Bank staff estimates based on Labor Force Survey 2021, ages 15+.

Controlling for confounding factors confirms that having young children reduces female labor force participation. Regression analysis shows that female labor force participation increases with age but at a decreasing rate. Notably, having young children (5 years or younger) reduces female participation, while the impact of living with older children (between 6 and 14 years) differs by location. In urban areas, school-aged children are positively correlated with female participation, but the relationship is negative for rural locations. Similarly, the correlation between marital status and female labor force participation is found to be positive in rural areas, but negative in aimag centers, as well as Ulaanbaatar. Employment opportunities and access (or transportation) to schools are likely to differ between urban and rural areas, therefore contributing to differing results.⁴¹ This is consistent with findings from the 2017-2020 World Values Survey which show that Mongolians, both men and women and across generations, have relatively traditional attitudes towards women, work, and childrearing.

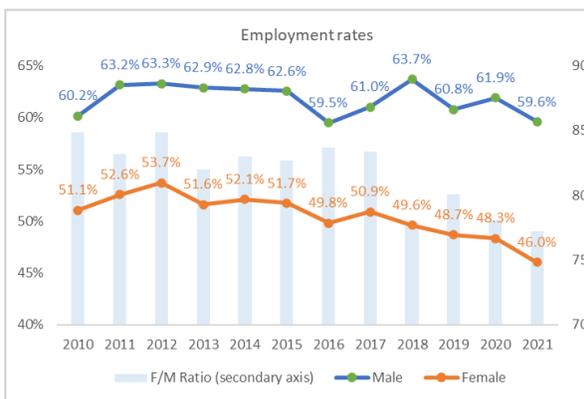
Gender-related occupational segregation is evident in Mongolia's labor market.

Women are more likely to work in wage employment. In 2021, 63.4 percent of employed women were in wage employment compared to 55.6 percent of employed men. Conversely, 35.4 percent of employed men were self-employed compared to only 21.4 percent of working women. Women are also slightly more likely to work as contributing family workers (1.8 percent vs. 1.2 percent of men) and less likely to be an employer (3.7 vs. 6.9 percent). Women are also much less likely to be working informally than men: in 2021, 25.9 percent of men and 15.1 percent of women were working informally (not including employment in the agricultural sector).

⁴¹ In addition to the factors discussed here, the receipt of social assistance is sometimes found to provide disincentives to work. A recent analysis did not find evidence that Mongolia's flagship program, the Child Money Program, which is a generous universal cash transfer program targeting families with children, provides disincentives to the labor force participation of mothers (World Bank, 2023).

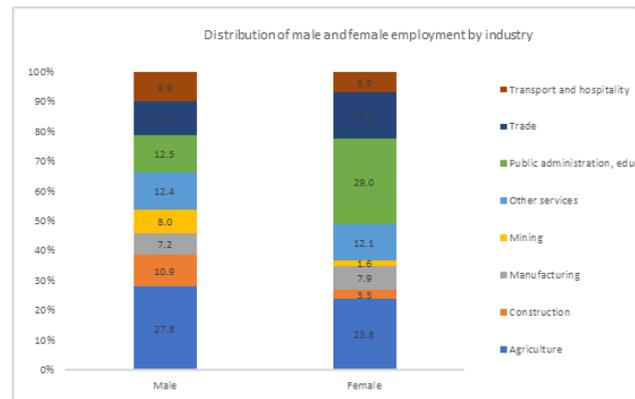
In line with differences in their chosen field of study (see above), women are significantly more likely to work in public administration, education and health; men are overrepresented in the mining industry. In 2021, almost one-third of women were working in the public administration, education and health sector, versus less than one-sixth of men. On the other hand, while 8 percent of men were working in mining, where wages tend to be the highest, this was the case for just 1.6 percent of women. Women are also underrepresented in construction, agriculture, and manufacturing, but more likely to work in trade than men (Figure 37).

Figure 36: Female employment rates have declined, widening the gender gap in employment



Source: World Bank staff estimates based on Labor Force Survey 2010-2021, ages 15+.

Figure 37: Women are overrepresented in public administration, education and health, and underrepresented in mining



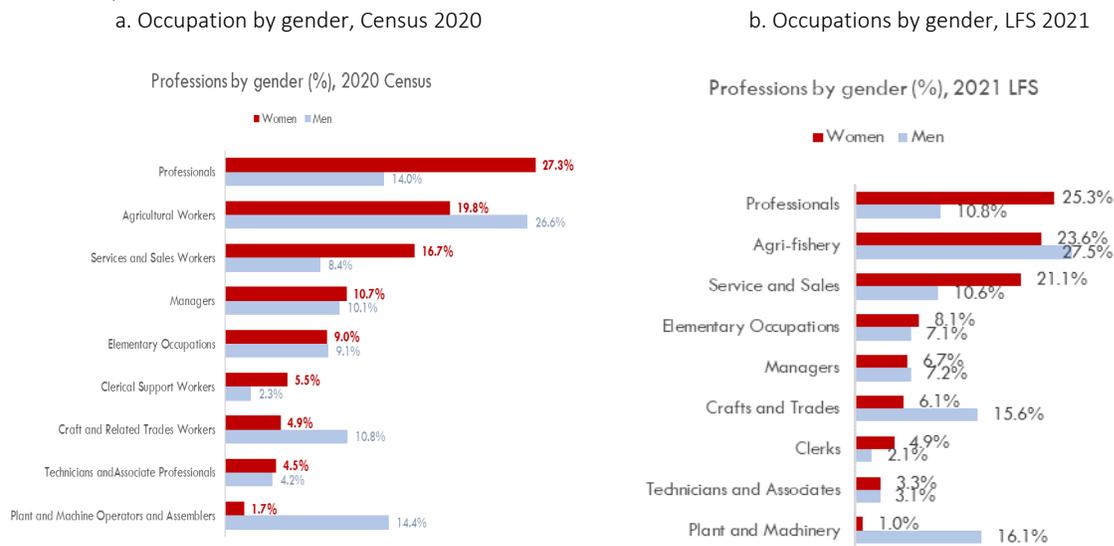
Source: World Bank staff estimates based on Labor Force Survey 2021, ages 15+.

Sorting into occupations also differs: women are more likely to work as professionals (mainly in education), while men are more likely to work in agriculture or as plant and machine operators and assemblers. The 2020 census reveals a clear occupational sorting: compared to men, women ages 15-65 are more likely to work as professionals (27.3 percent vs. 14 percent), service and sales workers (16.7 percent vs. 8.4 percent), and clerical support workers (5.5 percent vs. 2.3 percent) (Figure 38, panel a). Men, on the other hand, dominate in the plant and machine operators and assembler occupation (14.4 percent vs. 1.7 percent of women) and as agricultural workers (26.6 percent vs. 19.8 percent). For other professions, the 2020 census data do not reveal important gender differences. These findings are broadly confirmed by the Labor Force Survey 2021: Mongolian women were more likely to be professionals (25.3 percent vs. 10.8 percent of men) and in service and sales (21.1 percent vs. 10.6 percent) (Figure 42, panel b). Men were more likely to be employed in crafts and trades (15.6 percent vs. 6.1 percent of women) and plant and machinery (16.1 percent vs. 1.0 percent of women). Even within these broad categories, there is an important variation in the job title between men and women. For instance, among women professionals, teaching professionals make up the largest group (32 percent of women professionals in 2020)⁴², followed by business professionals (28 percent of women professionals in 2020) whereas the largest group of men professionals are classified architects or engineers (31.1 percent men professionals compared to 4.8 percent of women professionals), reflecting men and women’s educational backgrounds. Furthermore, 28 percent of men

⁴² Using 2020 Census data, ages 15-65. Among women professionals, 14.6 percent are primary or pre-primary teaching professionals, 14.1 percent are secondary teaching professionals and 3.3 percent are other teaching professionals.

managers are identified as directors, but this proportion drops to 17.4 percent of women managers, who are most often identify as general managers (31.4 percent).

Figure 38: Men and women sort into different occupations: women are more likely to work as professionals and service and sale workers, men are more likely to work as agricultural workers, plant and machine operators and assemblers

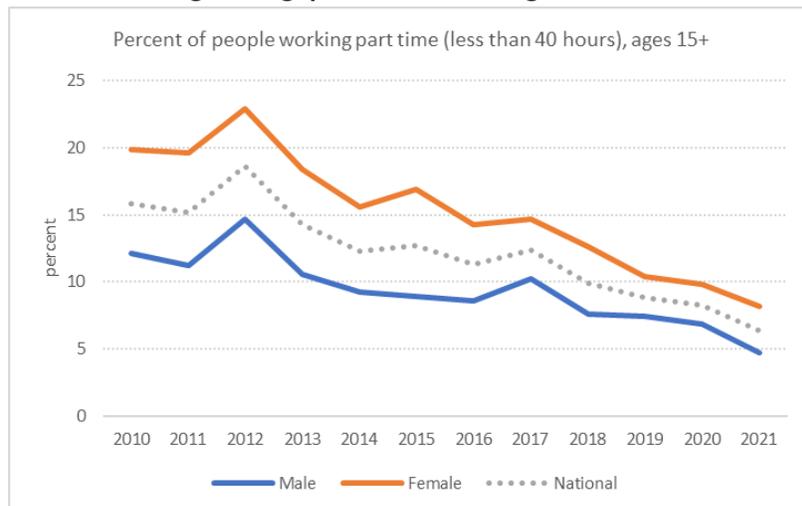


Source: Panel a: Census 2020, ages 15+, armed forces not considered; panel b: World Bank staff estimates based on Labor Force Survey 2021, ages 15+.

Women are gainfully employed for fewer hours per week and carry the main burden of caregiving.

Women are more likely to work part-time. The share of part-time work, defined as working less than 40 hours per week decreased between 2010 and 2021 for both men and women, but it has fallen at a faster rate for women: in 2010, 19.8 percent of women and 12.2 percent of men worked part-time and in 2021, 8.2 percent of women and 4.7 percent of men did. Following these trends, the gender gap in part-time work, which favors women, decreased from 7.7 percentage points in 2010 to 3.5 percentage points in 2021 (Figure 39). A fall in part-time work is particularly concerning for women’s ability to take part in the labor market since women face the burden of having to balance work with home and caregiving responsibilities.

Figure 39: Though women are more likely to work part time compared to men, part-time work and the associated gender gap have been falling

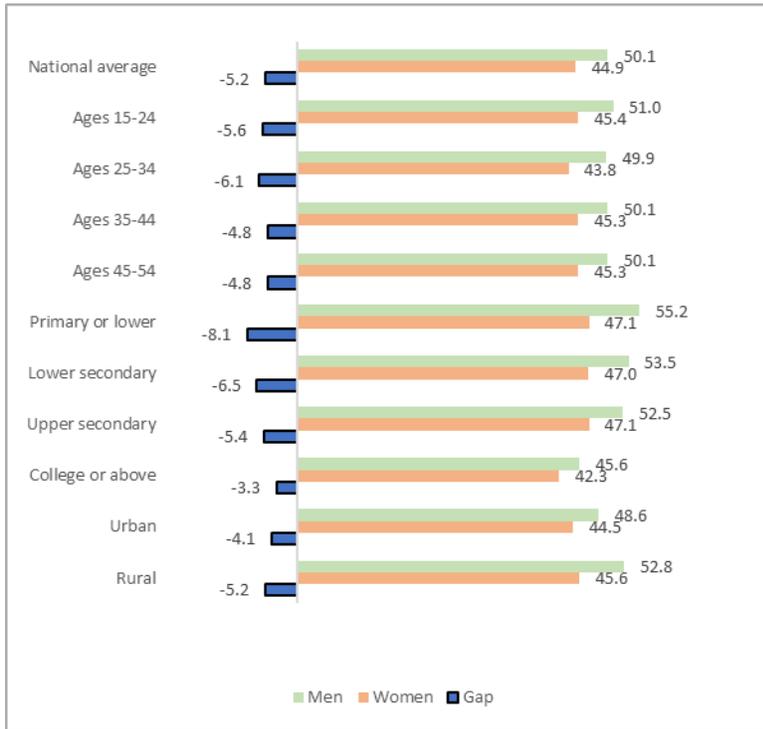


Source: World Bank staff estimates based on Labor Force Survey 2010-2021, ages 15+

The gender gap in working hours is larger for lower educational levels, in rural areas, and varies by age. Men with primary education or below spend 8.1 more hours in gainful employment than their female peers, while men with tertiary education only work 3.3 more hours compared to female graduates. Additionally, in 2021, men worked 4.1 more hours in urban areas and 5.2 more hours in rural areas compared to women. Finally, the gender gap is particularly high at ages 25 to 34 and ages 45 to 54; the former gap could be explained by the fact that it is the age group when women are more likely to have young children; caring responsibilities are therefore a likely driving factor behind women working less hours at this age (Figure 40).

Working women remain highly involved in caregiving activities: on average, working women spend 6.2 fewer hours per week in gainful employment than men and devote 3.8 more hours per week to childcare. For ages 15 to 55, working men work on average 6.2 more hours than working women. These extra hours men spend working in gainful employment, women are typically engaged in caregiving activities. In 2021, working women were involved in caregiving tasks an average of 7.5 hours a week, while working men spent about half the time on similar activities (on average 3.8 hours a week).

Figure 40: The gender gap in working hours per week is higher at lower education levels and in rural areas



Source: World Bank staff estimates based on Labor Force Survey 2021, ages 15-54.

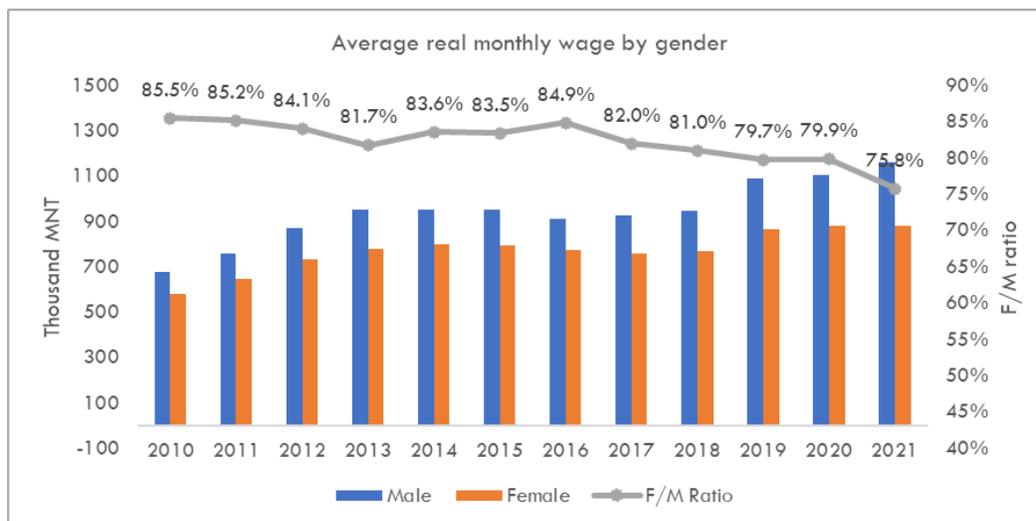
Note: The chart shows the average number of working hours during the week prior to the survey for men and women who work, respectively, and the difference between women’s and men’s working hours.

Occupational segregation and unfair treatment of women in the labor market are likely contributors to Mongolia’s gender pay gap.

Mongolia’s gender pay gap widened between 2010 and 2021. Not only are women less likely to be employed, but the economic inequalities are also reflected in differences in wages. In 2021, women earned on average 75.8 percent of men’s average monthly wage (men earned on average MNT 1,159,000 per month vs MNT 878,000 per month for women). Further, the gender wage gap increased over time. In 2010, the female to male wage ratio was 85.5 percent and dropped only slightly until 2016. The ratio continued to deteriorate at a faster rate, reaching about 76 percent in 2021 (Figure 41).⁴³ One potential reason for the gender wage gap is the sorting of men and women into different sectors of economic activity: while women are overrepresented in low-paying jobs in the service sector, men are more likely to work in high-paying sectors such as mining, manufacturing, and construction (see also Figure 38; Schmillen and Sandig, 2018).

⁴³ When the female-to-male wage ratio drops, it means women earn less relative to men, thereby signaling an increase in the gender wage gap.

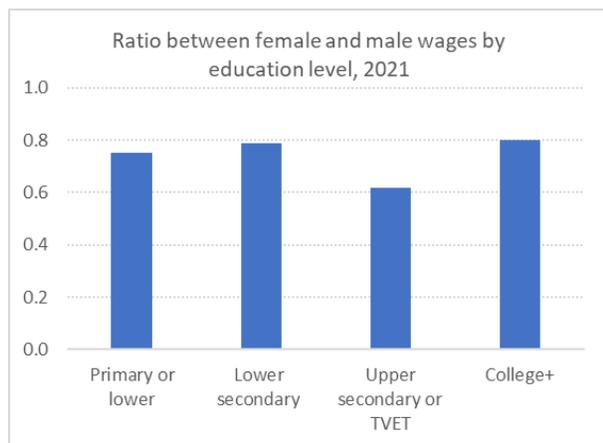
Figure 41: The gender wage gap has increased over the 2010-21 period



Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15-75.

The gender wage gap is not uniform across workers’ characteristics but varies by age and education. The gender wage gap rises with age: it is already present at 18 years, particularly large around the age of 30, and decreases from age 55 onwards. The gap closes as workers approach their retirement age⁴⁴ but widens again at older ages. By education level, the largest gender wage gap is observed among workers with medium levels of education: while female workers with lower secondary education or college education earned about 80 percent of their male peers in 2021, women with upper secondary or TVET education earned only about 62 percent of their male counterparts (Figure 42).

Figure 42: The gender wage gap is larger for workers with medium education levels



Source: World Bank staff estimates based on Labor Force Survey 2021, ages 15+.

Note: The chart shows the female-to-male wage ratio; a lower ratio means a larger wage gap.

Looking at within-group variations, wages are more equally distributed among women than men. The earnings distribution for men is more unequal: there is a higher density of higher-earning and especially lower-earning men compared to women. In fact, the ratio of the real wage in the 10th percentile as a share

⁴⁴ The retirement ages for men and women in Mongolia are 60 and 55 years, respectively.

of the 90th percentile for women, which averages at 37.5 percent between 2010 and 2021, has risen over time as compared to the equivalent ratio for men, which fluctuated around 29 percent, indicating a more unequal distribution.

Although male and female wages are determined by individual factors such as age, education level, or hours worked, women’s wages are systematically lower. As expected, wages of both male and female workers increase with hours worked, but multivariate analysis confirms that women systematically earn less than their male peers. Starting with a basic model of wage determinants, additional control variables such as age, education, and cohort fixed effects were included. In most specifications it is found that women earned about 17 percentage points less than men. Notably, when controlling for tertiary education, the penalty for being female increases further and female wages are about 20 percentage points lower (detailed results shown in Annex Table C.4).

Even if women shared the same endowments as men (e.g., education, age, or sector of activity), they would still earn less than their male peers. In 2021, the predicted male-female wage gap was about 22 percent. Applying a standard Oaxaca-Blinder wage decomposition, nearly 50 percent of the gap is explained through differences in personal and job characteristics, including age, education, and sector of activity. Put differently, bringing women's endowments in line with men's would increase women's wages by 10 percent, but a difference in wages of 11 percent remains unexplained. In particular, gender differences in the industry distribution account for nearly 15 percent of the wage gap, while differences in occupations cannot explain the gap any further. Notably, observed differences in the age structure and educational attainment work in favor of women, i.e., the gender wage gap would be even larger if women had the same age and education endowments as men (a summary of the results is shown in Annex Table C.5; see Box 5 for a brief discussion of the applied methodology).

More than half of the gender wage gap remains unexplained after controlling for individual characteristics, suggesting that unobserved factors are at play in the wage determination process, with little change (or improvement) over time. About 52 percent of the gender wage gap remains unexplained after controlling for individual characteristics (see Box 5). This residual gap is typically attributed to differences in the returns to characteristics, or to unobserved variables that are not included in the analysis (e.g., policies, culture, lifestyle, unfair treatment of or discrimination against women, among others). Further, results show that the shares of the explained and unexplained parts of the gender wage gap remained relatively stable over time. Therefore, and like Schmillen and Sandig (2018), the analysis suggests that a substantial part of the gender wage gap in Mongolia is caused by unobservable factors in the labor market such as discrimination, societal attitudes, or different aspirations.

Box 5: Understanding the gender wage gap: the role of productivity characteristics of men and women and their labor market returns

Which attributes and characteristics, if any, play a role in explaining the gender wage gap? What are the main wage determinants, and do they differ for male and female workers? In other words, how well can Mongolia’s labor market translate female characteristics into wages?

A standard procedure known as the Oaxaca-Blinder decomposition can help answer these questions. To analyze labor market outcomes by groups, mean differences in (log) wages are decomposed into two parts, using a counterfactual scenario. An earnings function is estimated for male workers, and the coefficients from the regression are used to calculate predicted log wages for male and female workers. The gender wage differential can then be divided into a portion that is explained by group differences in observed productivity characteristics (that is, endowments such as education, hours worked, work experience, sector of main activity), and a residual

gap that cannot be accounted for by observable differences but is attributed to gender differences in market returns to the measured productivity characteristics – often interpreted as labor market discrimination (Jann, 2008).

We use a set of linear regression models to decompose the difference in log wages between men and women, both over time and for the latest LFS round available. Results show that both the predicted wage differential and its unexplained portion are substantial. Depending on the model specification, the size of the explained portion of the wage gap varies between (close to) zero and 50 percent. While it is not uncommon that adding more control variables leads to an increase in the ‘explained’ portion, results for Mongolia warrant a closer look. First, worker characteristics are of little importance in explaining the gender wage gap. Rather, gender differences in the sector distribution have the largest explanatory power, accounting for almost 15 percent of the wage gap. Further, women have a relative advantage over men on two key variables: educational attainment and age. If women weren’t as educated as they are, the wage gap would be even larger. Related to their higher education levels, women are older when entering the labor market, which again benefits them in the wage determination process, but to a lesser extent. These findings are consistent across model specifications, highlighting the complexity of wage determination in Mongolia and the challenges faced by women in particular.

Second, the unexplained portion is of similar magnitude when taking into account that women in Mongolia are less likely to participate in the labor market. Wages are only observed for people who are gainfully employed, and these people may not be a random sample of the able working-age population. Typically, workers with lower earnings potential are more likely to self-select out of the labor market, causing the sample to be biased towards better earning workers. This sample selection bias can be accounted for by first estimating the likelihood of participating in the labor market, and then adjusting the wage differential for the selection effect. For Mongolia, depending on the model specification, the predicted gender wage gap is sometimes smaller when the selection effect is taken into account. However, using the full set of explanatory variables, results on the size of the wage gap and its unexplained portion are similar to those obtained from the Oaxaca-Blinder decomposition.

The reliability of results on wage differentials hinges on the assumption that the variables used in wage regressions correctly measure the underlying wage determinants. Tenure or general work experience is often assumed to be a key determinant of productivity and hence earnings. As data on *actual work experience* is usually not collected in the standard LFS, proxies measuring *potential work experience* are often constructed, using available information on worker’s age and years of schooling. Such proxy variables will be the same for every person of the same age and education level, disregarding the fact that many women have labor market intermittencies because of childbirth and care responsibilities. While estimating alternative measures of work experience for Mongolia is beyond the scope of this report, it is worth noting that disregarding differentials in labor force attachment is likely to affect the interpretation of the gender wage gap. Since women often have different work trajectories and are more likely to take time off during childbearing years, it is likely that a larger part of the observed wage gap can be attributed to differences in labor force attachment between male and female workers (see ADB (2019) for an empirical application of the expected work experience measure in the Philippines).

Spotlight 2: Youth in Mongolia’s Labor Market

Mongolia’s demographic window is still open, creating opportunities for younger generations and economic development alike. Harnessing the demographic dividend requires youth to accumulate skills that are demanded by the labor market (i.e., occupation-specific technical skills as well as cognitive and socio-

emotional skills) and businesses to generate new and productive jobs.⁴⁵ While Mongolia's youth is better educated than older generations, the quality of education is a source of concern (see Section A: Educational profile). In addition, school-to-work transitions are slow in Mongolia, resulting in a large number of young people not in employment, education, or training (NEET). High rates of unemployment and economic inactivity are of particular concern for young people, as limited work experience in the early labor market years can contribute to skill depreciation and may aggravate the chances of finding productive employment later in life. Against this backdrop, the following discussion focuses on labor market indicators for youth (mainly age group 15-24 years) and provides a detailed picture of NEET as well as a brief characterization of the jobs that Mongolia's youth are likely to hold.

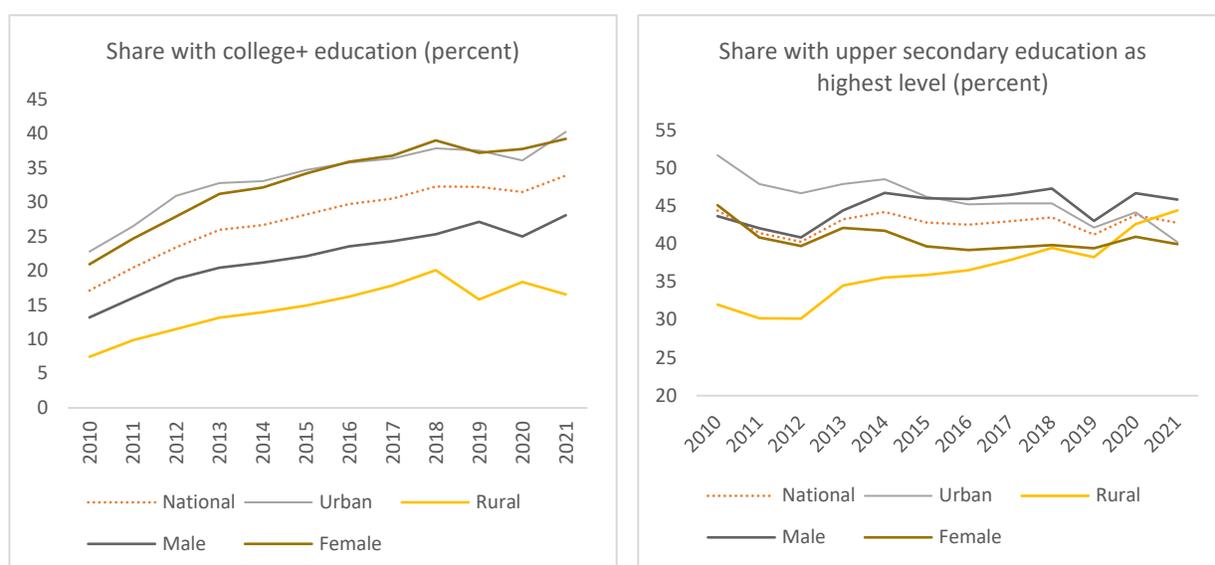
Younger cohorts are better educated but tend to participate less in the labor market.

Youth are significantly more educated than older generations and enter the labor market later. For the age group 15-34, a steady increase in the share of individuals who have completed college (or above) is observed since 2010 (Figure 43, panel a). The gender gap among college-educated youth favors women and has widened from 7.8 percentage points in 2010 to 11.1 percentage points in 2021. The opposite holds for youth with secondary education and TVET graduates, where the gender gap has widened considerably in favor of young men since 2010. Notably, with respect to the share with upper secondary education or TVET as the highest level, youth in rural areas have caught up with their urban peers (Figure 43, panel b) in part because the share has declined in urban areas in favor of college education. Given the trend of increased human capital accumulation, youth stay longer in the education and training system and join the labor market at a later age.

Figure 43: Educational attainment has risen significantly for youth, especially females

a. Share of with college+ education

b. Share with upper secondary education or TVET as highest level



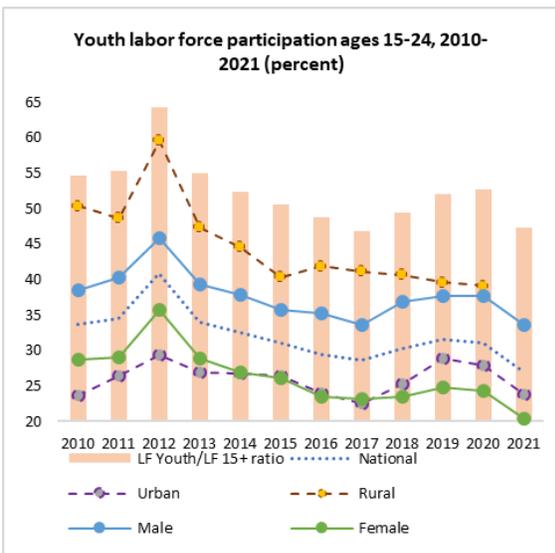
Source: World Bank staff estimates based on Labor Force Survey 2010-2021, ages 15-34.

⁴⁵ For a recent analysis of Mongolia's labor demand, see Gruen (2023).

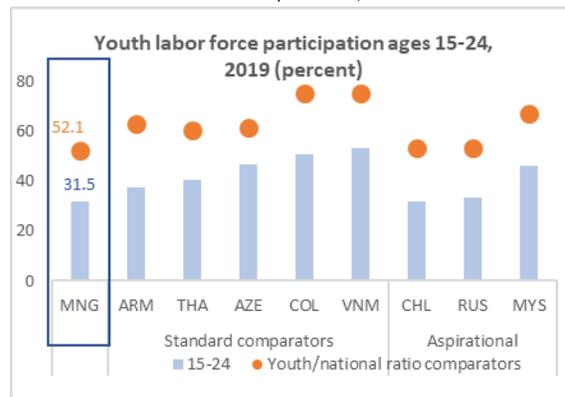
Compared to Mongolia’s national average as well as comparator countries, youth labor force participation and employment rates are low. The 2010-21 period shows an initial decline in the ratio between youth and national labor force participation followed by an upward trend between 2017 and 2020. Still, participation of youth is low when compared to the national average: in 2021, youth labor force participation (ages 15-24) was 26.9 percent, compared to 56.9 percent for the population ages 15+. Looking at trends in population subgroups, youth participation remained the lowest in urban areas and among young women (Figure 44, panel a). Notably, standard comparator countries show higher youth participation rates, ranging from 37.5 percent in Armenia to 52.9 percent in Vietnam; rates are similar to Mongolia in two of the aspirational comparator countries for which data are available (Chile, Russia), but higher in Malaysia (Figure 44, panel b). Parallel to labor force participation, the employment rate among youth is low as well (21.7 percent in 2021 vs. the national rate of 52.3 percent), with little variation between 2010 and 2021 (25.9 percent on average) (Figure 44, panel c). Relative to comparator countries, Mongolia’s youth employment rate is also low: in 2019, the relevant rate was only somewhat higher in Armenia, Russia, and Chile, but considerably higher in all other countries. Similarly, the ratio of youth employment to the national rate is also higher in most comparator countries (Figure 44, panel d).

Figure 44: Youth labor force participation and employment rates are low and show a downward trend between 2010 and 2021

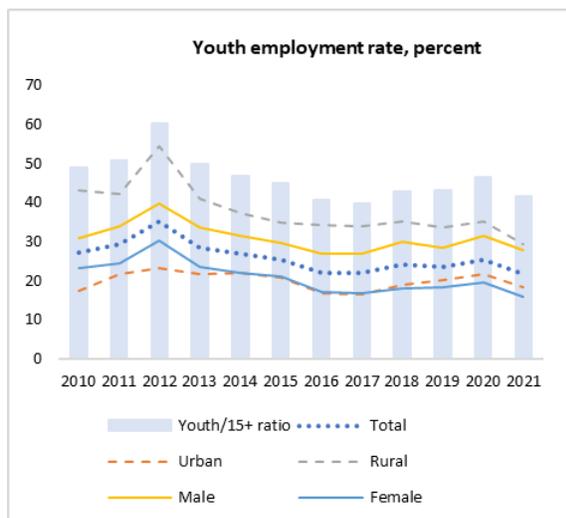
a. Youth labor force participation rate, Mongolia, 2010-21



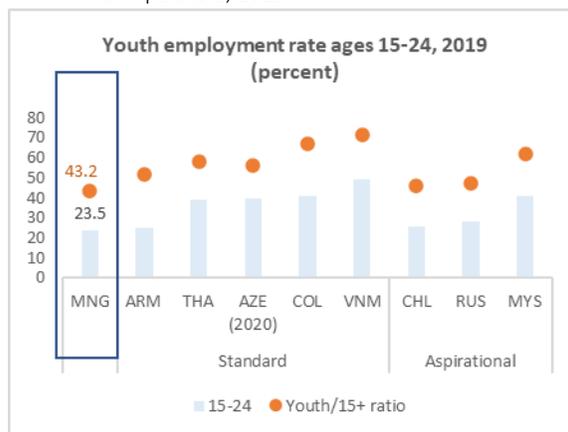
b. Youth labor force participation rate, Mongolia and international comparators, 2019



C. Employment rate, Mongolia, 2010-21



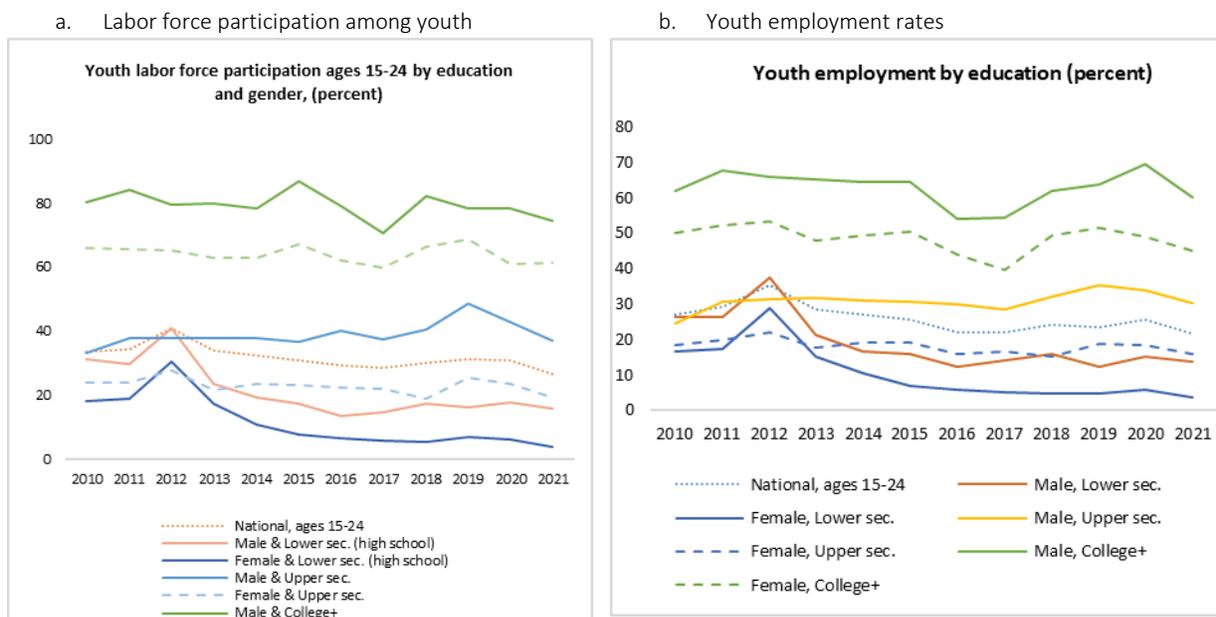
d. Employment rate, Mongolia and international comparators, 2019



Source: Panels a and c: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15-24. Panels b and d: ILOSTAT based on 2019 national labor force surveys (2020 for AZE).

Only for college-educated youth and young men with upper secondary education are activity rates above the national average; the gap to lower education levels is widening. Participation rates for college-educated youth are more than twice as high as those for youth with upper secondary or TVET education. A similar pattern is observed for employment rates. For both indicators, college-educated youth experience the largest gender gap, favoring male graduates (Figure 45, panel a, b). Looking at employment rates, particularly between the two highest qualification levels, a 20-percentage point difference may indicate that job searches have become more competitive and that a college education is a key to obtaining a job.

Figure 45: Labor force participation and employment rates, age 15-24 by education



Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+.

Note: Upper secondary includes TVET education.

Few Mongolians combine education with work. The majority of youth (84.1 percent in 2021) report not participating in the labor market because they are enrolled in education. About 7.9 percent were unavailable for work for other reasons. Taking care of children and household work are more commonly cited among females (5.7 percent and 2.2 percent for young women and 0.3 percent and 0.5 percent for young men, respectively). Only few combine work with school: just 1.7 percent of youth ages 15-24 were working and studying in 2021 and only 0.2 percent were studying and unemployed, that is, actively searching for a job and available for work. In many countries, youth tend to combine school with work, thereby gaining early work experience. Being exposed to the world of work at a young age can help facilitate the school-to-work transition and also help develop “employment soft skills” which are valued by employers (such as punctuality, reliability, and respect).

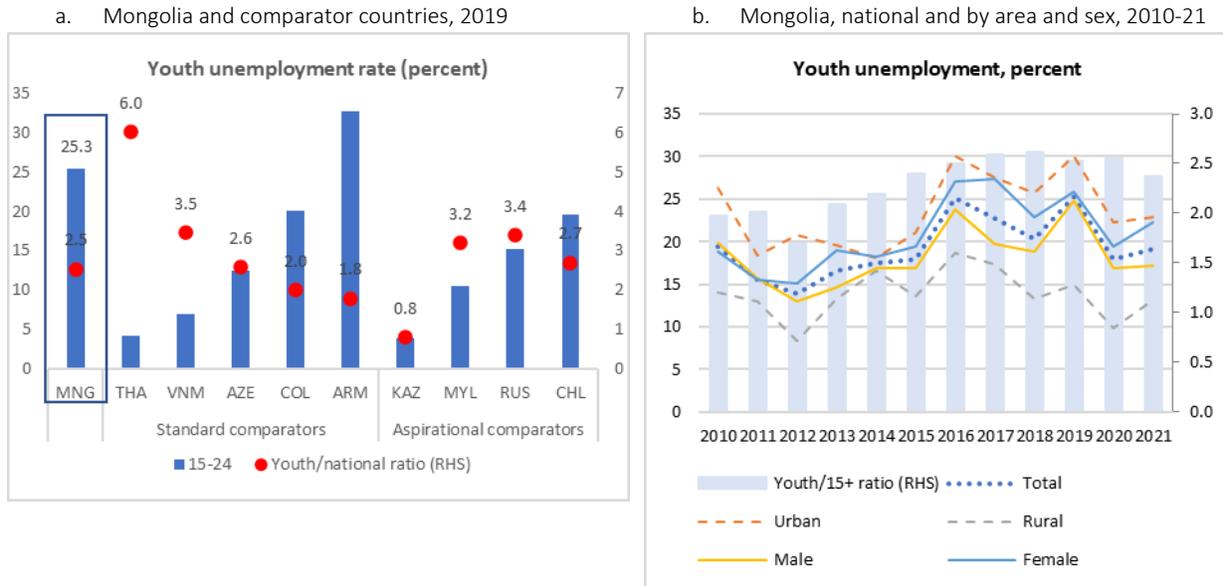
While generally high, youth unemployment is concentrated among women, college graduates, and in urban areas.

Youth unemployment is high in Mongolia: in 2021, about one in five economically active youth was unemployed, while unemployment in the working age population was about 8 percent. The long-term average (2008-2020) of youth unemployment suggests that Mongolia’s average rate of 14.5 percent has been somewhat above the EAP regional average (10.4 percent).⁴⁶ With the exception of Armenia, the rate of youth unemployment in Mongolia is also high when compared to standard or aspirational comparator countries. Still, a high youth-to-national unemployment ratio is not uncommon: while Mongolia’s youth unemployment was 2.5 times the national average in 2019, among standard and aspirational comparators, only Colombia, Armenia, and Kazakhstan had lower ratios (Figure 46, panel a).

Youth unemployment showed an upward trend in recent years, mainly driven by the dynamics in urban areas and among women. While rates for other age groups have been relatively steady, youth unemployment significantly increased during the last decade. As a result, the ratio of youth unemployment to the national unemployment rate (ages 15+) has been rising. While the gender gap in youth unemployment varied over time, disparities between urban and rural areas steadily increased since 2014. In 2021, youth unemployment stood at 22.9 percent in urban areas and 13.2 percent rural locations (Figure 46, panel b).

⁴⁶ Data retrieved from World Development Indicators. Age group 15-24.

Figure 46: Youth unemployment is on the rise and rates are especially high in urban areas and among females

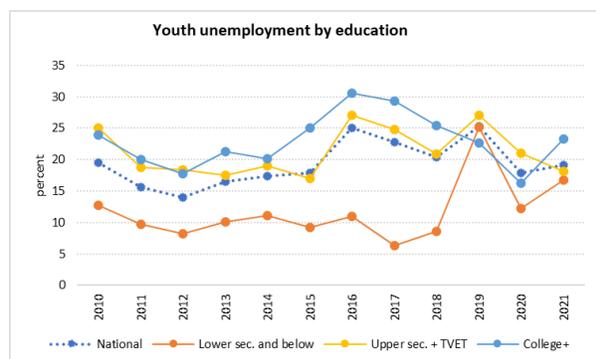


Source: Panel a: ILOSTAT based on 2019 national labor force surveys; panel b: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15-24.

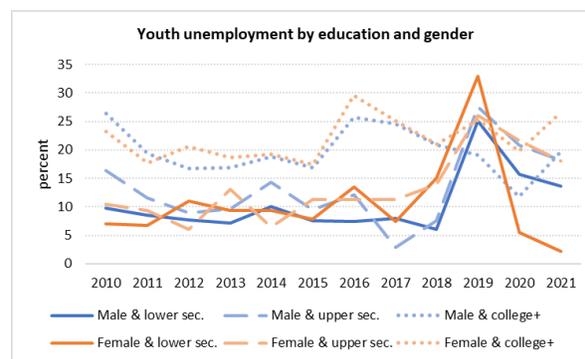
Better educated youth do not have a lower risk of unemployment. Unemployment rates of college graduates and youth with upper secondary or TVET education are typically above the national average. Unemployment among college-educated youth is especially high: it reached 30.5 percent in 2016 but has since declined. Unemployment among lower educated youth was relatively stable at around 10 percent in the past but has increased in recent years. Still, it remains below the rate of better educated youth (Figure 47, panel a). Gender differences exist but are relatively small, suggesting that youth unemployment is linked to qualification levels rather than gender (Figure 47, panel b). Higher rates among better educated youth could indicate a shortage of productive jobs, skills mismatches, overly optimistic labor market expectations of young graduates, or problems with labor market intermediation. In a recent study, well-educated jobseekers reported a general shortage of jobs as the main barrier to employment (National Statistics Office of Mongolia et al., 2022).

Figure 47: Youth unemployment rises with educational attainment

a. Youth unemployment by education



b. Youth unemployment by education and gender



Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15-24.

Long-term unemployment has not increased among youth and is generally below the national level. The share of long-term unemployed youth prior to the 2020 Labor Force Survey was 25.8 percent, vs. 31.4 percent for the working age population. Like the long-term unemployment rate for the working-age, the rate has oscillated significantly in the past decade, peaking in 2011 and 2014, and there is a general downward trend.

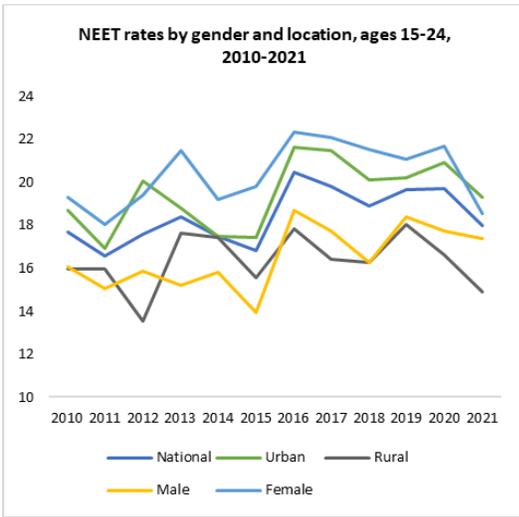
A significant proportion of young people are at risk of becoming detached from the labor market.

A significant share of Mongolia’s youth is not in education, employment, or training. Indicators such as labor force participation or employment may provide a distorted picture of youth labor market performance. Since many youth are still in the human capital acquisition stage, low labor force participation or employment rates may not necessarily be of concern. The share of youth not in education, employment, or training (NEET rate) is often a preferred indicator of labor market performance, as it identifies the share of young people not involved in productive or investing activities. Globally, the average NEET rate was 18.4 percent between 2010-21. In Mongolia, the NEET rate has been rather volatile since 2010. In 2021, nearly every fifth young person was NEET (18 percent) (Figure 48, panel a). Compared to its peer countries, Mongolia has a relatively high incidence of NEET. Only Armenia and Colombia have significantly higher NEET rates. Across comparator countries and Mongolia, women are more likely to be NEETs (Figure 48, panel b).⁴⁷

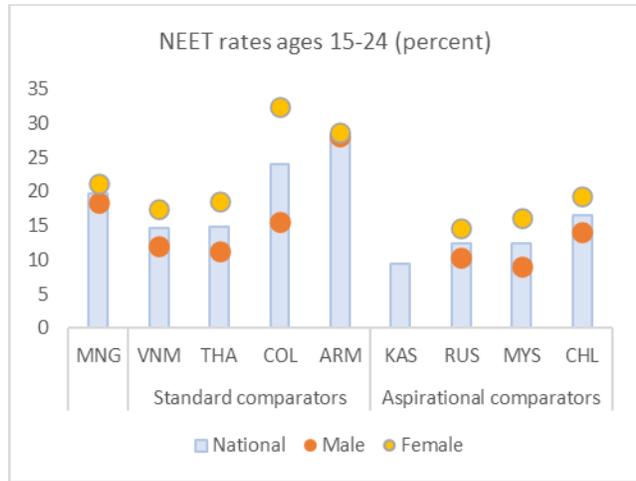
⁴⁷ Given its GDP per capita level, Mongolia’s NEET incidence is slightly below the international trend (Annex Figure C.1, panel a). Developments since the 2000s show that Mongolia’s NEET rate has not followed a clear trend and remained above the level of most of its peer countries (Annex Figure C.1, panel b).

Figure 48: NEET rates are high and rising

a. Mongolia NEET rates by gender and location, ages 15-24



b. NEET rates, Mongolia and international comparators

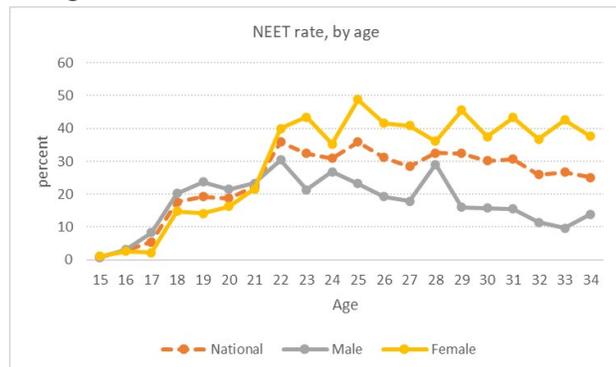


Source: Panel a: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15-24; panel b: ILOSTAT based on 2019 national labor force surveys except Kazakhstan (KAZ) and the Russian Federation (RUS) (2016), Malaysia (MYS) (2018).

Young women face a higher risk of becoming NEETs, especially after reaching college graduation age. Until youth are in their early twenties, the risk of being NEET increases at a similar rate for young men and women. Higher female enrolment in tertiary education is reflected in a somewhat lower NEET rate for women younger than 20 years. At 21 years of age, NEET rates are similar for men and women, at around 23 percent, but the gender gap widens substantially once youth reach college graduation age. As more and more young men find employment, their NEET rate begins to fall, levelling off at around 15 percent at age 30. In contrast, NEET rates continue to rise for women in their mid-twenties as they graduate college but delay labor market entrance due to care responsibilities, reaching 40 percent and more (Figure 49).

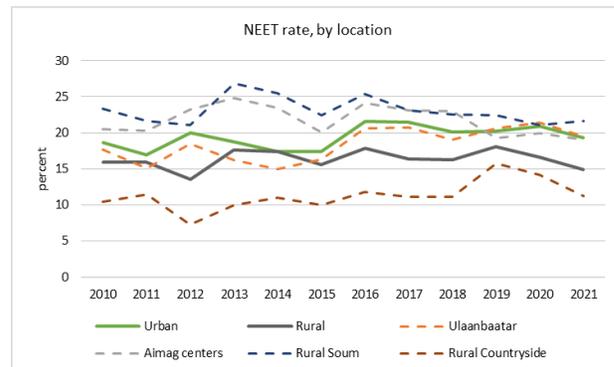
The growing number of idle youth in the capital and other urban areas is offset by a downward trend in (certain) rural areas. Looking at the simple rural-urban divide, youth NEET rates (ages 15-24) are higher in urban than rural areas (19.3 percent vs. 14.9 percent in 2021). However, a further breakdown by location shows that youth in rural soum centers used to be the hardest hit, while young people living in the rural countryside were the least affected. While the incidence of NEET among rural soum center youth has steadily declined since around 2013, their rates are still among the highest observed, but the gap with NEET rates in Ulaanbaatar or other urban areas was only 2.2 percentage points in 2021 (Figure 50).

Figure 49: Male and female NEET rates diverge at around age 22, when many young people finish college education



Source: World Bank staff estimates based on Labor Force Survey 2021, ages 15-34.

Figure 50: The share of NEET youth NEET varies by location



Source: World Bank staff estimates based on Labor Force Survey 2021, ages 15-24.

NEET rates also differ significantly by educational attainment; youth with the lowest or highest levels of education are more likely to be affected. In 2021, NEET rates are high for youth with less than lower secondary education, reaching 33.6 percent, but highest for college graduates (41 percent). While fluctuations make it difficult to identify longer-term trends⁴⁸, results indicate that only for youth with lower secondary education have NEET rates fallen since 2010 – a finding consistent with the trend towards more education (see Annex Figure C.2, panels a-c).

Higher NEET rates among those with tertiary education reflect the fact that youth with this level of education have largely completed their schooling, but not yet transitioned into employment. As shown in Table 1, most youth ages 15-24 with only lower secondary education are still attending school (87 percent), compared to 56 percent of those with upper secondary education. The share for those with primary education or below is just 40.2 percent, presumably because many who have not yet reached the lower secondary level have dropped out of school. Naturally, the rate is only 7.4 percent among the college educated as few go on to pursue post-graduate studies. Since college graduates often face difficulties accessing the labor market, fewer college-educated youth in school is the driving factor behind higher NEET rates among youth with this education level (in 2021 the rate was 41 percent versus the national rate of 18 percent).

Taking into account the activity status of young people in NEET indicates that many young people – especially young women – have stopped looking for work. In general, the share of young people in NEET who are inactive is significantly higher than the share who are unemployed. This finding also holds for college-educated youth, with a worryingly large gender discrepancy: about one third of college-educated young women were inactive NEET in 2021 (32.3 percent), versus one-sixth (17 percent) of their male counterparts.

⁴⁸ For some categories, the number of observations may be insufficient to obtain robust estimates, especially when gender-specific estimates are calculated.

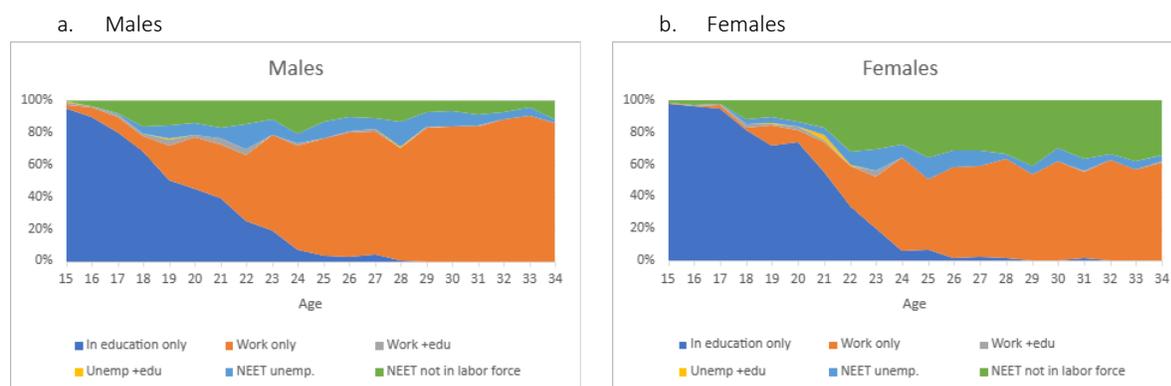
Table 1: Activity status, by area, gender, and education, 2021 (percent)

		In education only	Inactive NEET	Unemployed NEET	Total NEET	Unemp + edu	Work only	Work + edu
	National	60.1	13.0	4.9	18.0	0.2	20.1	1.7
By area	Urban	62.1	14.1	5.2	19.3	0.2	17.0	1.5
	Rural	55.5	10.6	4.3	14.9	0.2	27.2	2.2
By gender	Male	54.8	11.7	5.7	17.4	0.1	25.6	2.1
	Female	65.2	14.3	4.2	18.6	0.4	14.6	1.3
By education	Primary or lower	40.2	25.2	8.4	33.6	0.0	26.2	0.0
	Lower secondary	86.7	3.4	1.1	4.5	0.0	7.6	1.2
	Upper secondary	55.9	16.0	4.7	20.7	0.4	21.0	2.1
	College+	7.4	25.6	15.4	41.0	0.2	49.2	2.1
Females by education	Primary or lower	37.9	38.2	14.7	52.9	0.0	9.2	0.0
	Lower secondary	93.9	2.3	0.1	2.4	0.0	3.1	0.6
	Upper secondary	64.6	15.9	2.9	18.8	0.6	14.4	1.6
	College+	6.5	32.3	15.9	48.1	0.4	43.2	1.9
Males by education	Primary or lower	42.2	14.5	3.2	17.7	0.0	40.1	0.0
	Lower secondary	79.9	4.4	2.1	6.5	0.1	11.9	1.7
	Upper secondary	47.0	16.0	6.6	22.6	0.1	27.7	2.6
	College+	8.8	16.6	14.7	31.3	0.0	57.5	2.5

Source: World Bank staff estimates based on Labor Force Survey 2021, ages 15-24.

The school to work transition differs for young men and women, with women being less likely to join the labor force after finishing school. Figure 51 shows the share of males and females who are in school, working, doing both, unemployed and in school (a negligible share) or NEET, either unemployed or economically inactive, for the year 2021, according to their age (ranging from age 15 to 34). Before the age of 18, 80 percent of males and more than 90 percent of females are enrolled in the education system. The share of males who are in school drops sharply at age 18, to around 68 percent, whereas a larger share of women remain in school (over 80 percent). Between the ages of 18 and 22, nearly 30 percent of males are already in employment. At age 22, the share of young men who are NEET peaks at 30 percent, but about half of them are actively searching for jobs. In contrast, 40 percent of women aged 22 are NEET, but less than 10 percent are looking for a job. Between the ages of 24 and 29, female inactivity reaches its highest level in the lifecycle, coinciding with the period of family formation and childrearing. Around the age of 30, women enter the labor market at a slightly higher rate, as their children are more likely to be of school age and require less care. At age 34, more than 60 percent of women are in employment, but this is in contrast to 86 percent of men. A large share remain out of the labor force.

Figure 51: The school to work transition differs between males and females



Source: World Bank staff estimates based on Labor Force Survey 2021, ages 15-34.

Note: The charts show the share of males and females who are who are in school, working, doing both, unemployed and in school or NEET, either unemployed or economically inactive according to their age in years.

Results obtained from multivariate analysis confirm that being female, having young children, and having tertiary education are positively associated with being NEET. Regression analysis shows that higher education levels are associated with an increased likelihood of being NEET; this is especially the case for the college educated (see Annex Table C.6). A brief portrait of jobs for Mongolia’s youth.

When young people work, they are similarly likely to be in wage work as the working-age population, but a disproportionate share of youth are employed as unpaid family workers. The share of wage employed individuals in the age range of 15-24 was 63.3 percent in 2021, slightly above the national average of 59.3 percent (Table 3). The share of unpaid family workers in this age range is above average (with 7.9 percent, versus 1.5 percent at the national level). This is in part a reflection of higher youth employment in rural areas, specifically the rural countryside, where rural youth employment rates reach as high as 32.7 percent in 2021, compared to the national average for youth of just 23.4 percent.

Table 2: Employment status, national and ages 15-24 (percent)

	National	Age 15-24
Employer	5.4	1.2
Other types of employment	10.4	14.1
Own-account workers	23.4	13.5
Self-employment	39.2	28.8
Unpaid family workers	1.5	7.9
Wage employment	59.3	63.3
Total	100	100

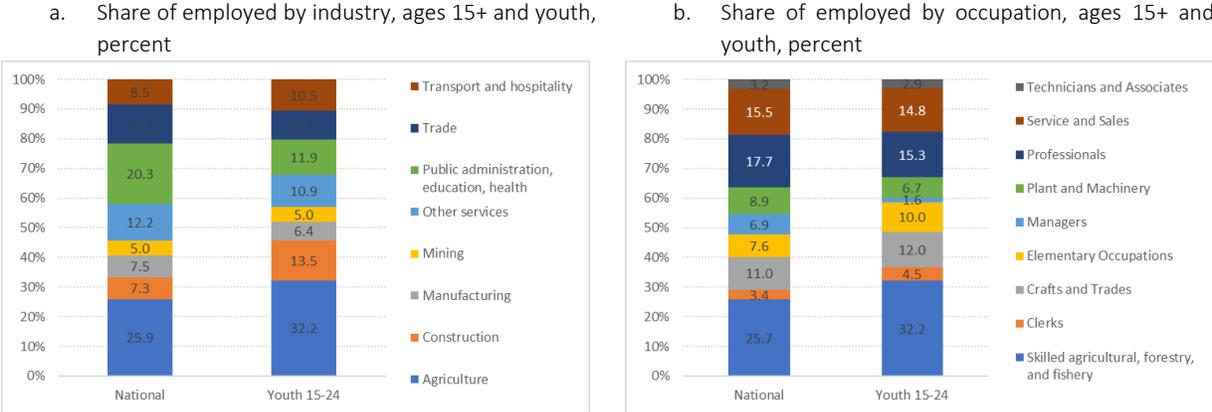
Source: World Bank staff estimates based on Labor Force Survey 2021, ages 15+ and 15-24.

Youth are equally likely to work part-time, but the share of youth working part-time has declined significantly over the past decade. The share of youth working part-time (less than 40 hours per week) is

6.8 percent in 2021, on par with the national rate of 6.4 percent. Compared to the long-time average of 19 percent for the period 2010-21, part-time job opportunities for young people have decreased considerably. Since school as well as home and care responsibilities are the main factors that keep youth out of the labor market (with school dominating), more part-time jobs or other flexible work arrangements could, in theory, enable many young people to participate early in the labor market.

Youth are more likely to be employed in agriculture. Nearly one-third of youth work in the agricultural sector, compared to the national average of 26 percent (Figure 52, panel a). The second-largest industry group is construction, employing 13.5 percent of young people, which is also above the national level of 7.3 percent, followed by “other services” (10.9 percent). Looking at the distribution by occupation, most youth are employed as agricultural-fishery workers (32.2 percent), followed by professionals (15.3 percent) and service or salespersons (14.8 percent) (Figure 52, panel b).⁴⁹

Figure 52: Share of employed youth according to industry and occupation

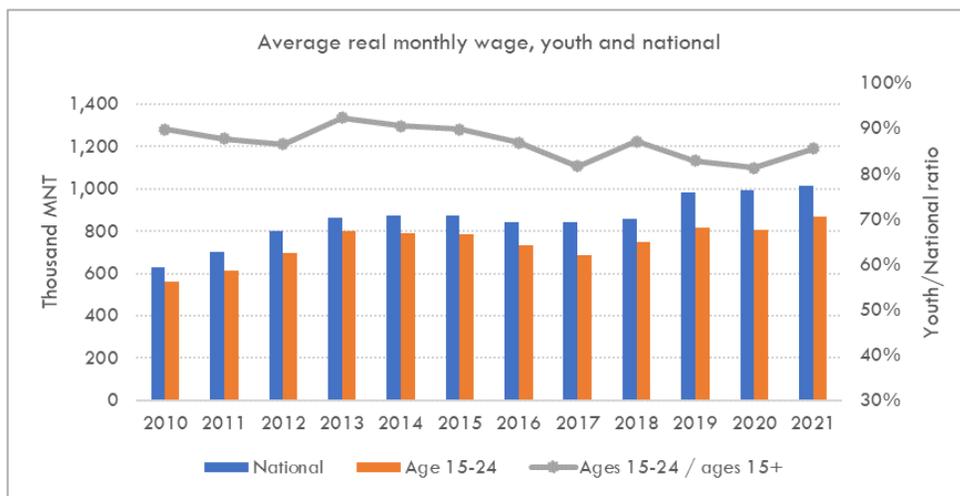


Source: World Bank staff estimates based on Labor Force Survey 2021, ages 15+ and 15-24.

Real monthly wages for youth are lower than the national average but follow a similar trend. Young people’s wages are lower than the national average (Figure 53). This is not surprising if the labor market tends to reward work experience. Real wages for young workers have been rising since 2010, but they are not rising as fast as the national average. As a result, the ratio between wages of young workers and all workers has declined somewhat over the past decade. Still, wages for youth are broadly linked to trends at the national level. For example, when average wages were stagnant or even declined between 2013 and 2017, wages for young workers declined as well. Notably, this co-movement occurs despite the fact that youth are significantly more educated than the working-age population.

⁴⁹ Annex Table C.7 provides a detailed breakdown of employment by age group and main industries.

Figure 53: Real monthly wages (thousand tugrik), in 2020 prices, 2010-21, ages 15-24



Source: World Bank staff estimates based on Labor Force Survey 2010-21, ages 15+ and 15-24.

C. CONCLUSION

Despite today’s challenging global environment, Mongolia can count on several favorable factors that, when utilized carefully, can help promote growth and diversify its economy. Mongolia’s population is young and well-educated, with women outpacing men especially in tertiary education. Rapid urbanization led to a growing pool of well-educated young workers in the capital city and, to a lesser extent, in aimag centers. Although the relationship is not linear, a higher concentration of skilled workers can have positive externalities on labor productivity and efficiency through improved access to markets and services, better technology diffusion, and economies of scale. Combined with its current favorable demographics, Mongolia could sustainably promote economic growth if it could raise labor productivity and employment rates while broadening its industrial base and economic complexity.

Yet, for various reasons, workers, especially labor market entrants, often face barriers to productive employment. While school enrollment rates and formal education levels compare favorably even with higher-income countries, the quality of education does not. Mongolia’s quality-adjusted years of learning are less than ten, implying a learning gap of four years. Although the share of college graduates has steadily increased, women are underrepresented in STEM fields, limiting their opportunities for higher-paying jobs. Many youths are neither in employment nor education, with negative impacts on future employment opportunities. Better-educated young women are particularly at risk of becoming disconnected from the labor market, contributing to low and declining female participation and employment rates. In addition to the gaps by gender and age, there are also important labor market disparities along the urban-rural divide.

But it is not only supply-side factors that have constrained Mongolia’s performance. According to survey data, the dominant reason why people are out of work is the lack of suitable jobs. Mongolia’s economy has been slow in creating formal sector, higher productivity jobs that provide stable incomes, good working conditions, and benefits. To improve the functioning of Mongolia’s labor market and fully realize the country’s potential, both supply side and demand side constraints need to be addressed.

REFERENCES

- Acemoglu, Daron and David Autor. 2011. "Skills, tasks, and technologies: Implications for employment and earnings" in Card, David and Orley Ashenfelter, eds. *Handbook of Labor Economics* Vol. 4, North Holland: Elsevier, 1043-1171. The code for the classifications is available at <https://economics.mit.edu/files/7974>.
- ADB 2019. "Expected Work Experience: A new Human Capital Measure." Asian Development Bank Economics Working Paper Series No. 570. Manila, Philippines.
- Batchuluun, Altantsetseg, and Bayarmaa Dalkhjav. 2014. Labor force participation and earnings in Mongolia. Ulaanbaatar: National University of Mongolia.
- Betcherman, G. and M. Jalil. 2022. *Applying Growth Identification Framework to benchmark Mongolia's labor market and to identify potential sources of job creation*. Draft background paper for Mongolia World Bank Jobs Diagnostic.
- Blinder, A. S. 1973. Wage discrimination: reduced form and structural estimates. *Journal of Human resources*, 436-455.
- Center for Social Work Excellence. 2019. Gender analysis in education sector of Mongolia: A Focus on Boys Education. *Mimeo*. Ulaanbaatar.
- Gassmann, Franziska, Daphne Francois, and Lorena Zardo Trindade. 2015. Improving labor market outcomes for poor and vulnerable groups in Mongolia. World Bank, Washington, DC. <https://openknowledge.worldbank.org/handle/10986/23671>.
- Gruen, C. 2023. Labor Demand in Mongolia, Background paper 3 of Mongolia World Bank Jobs Diagnostic; *mimeo*.
- International Labour Organization, ILO. 2020. Global Wage Report 2020–21: Wages and minimum wages in the time of COVID-19, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_762534.pdf (accessed January 16, 2022).
- International Labour Organization, ILO. 2022. Labour Force Surveys, <https://www.ilo.org/surveyLib/index.php/catalog/LFS/about> (accessed 16. Jan 2022).
- Jann, B. 2008. The Blinder-Oaxaca decomposition for linear regression models. *The Stata Journal* 8(4).
- International Labour Organization, ILO 2020: What is skills mismatch and why should we care? [Article: What is skills mismatch and why should we care? \(ilo.org\)](https://www.ilo.org/public/---dgreports/---dcomm/---publ/documents/publication/wcms_762534.pdf)
- Khan, Tehmina, and Monazza Aslam. 2013. Mongolia: Gender disparities in labor markets and policy suggestions. World Bank, Washington, DC. <https://openknowledge.worldbank.org/handle/10986/16500>.
- Lewandowki, P., W. Hardy, A. Park, and Y. Du. 2019. Technology, Skills, and Globalization: Explaining International Differences in Routine and Nonroutine Work Using Survey Data. May 2019, IZA Discussion Paper No. 12339.

Lin, J. Y. and Xu, J. 2016. Applying the growth identification and facilitation framework to the least developed countries: The case of Uganda. CDP Background Paper, 32.

Montenegro, C. E. and Patrinos, H. A. 2021. A data set of comparable estimates of the private rate of return to schooling in the world, 1970–2014. *International Journal of Manpower*. <https://datacatalog.worldbank.org/int/search/dataset/0059847/comparable-returns-to-education>

National Statistics Office of Mongolia 2020. Population and Housing Census of Mongolia, https://1212.mn/BookLibraryDownload.ashx?url=Census2020_Mongolia_Eng.pdf&ln=En (accessed January 16, 2022).

National Statistics Office of Mongolia, World Bank, and Ministry of Labour and Social Protection. 2022. Dynamics of Unemployment – 2020. Ulaanbaatar.

Oaxaca, R. 1973. Male-female wage differentials in urban labor markets. *International economic review*, 693-709.

OECD. 2022. Hours worked (indicator). doi: 10.1787/47be1c78-en (accessed on January 16, 2022).

Schmillen, Achim and Sandig, Nina-Weimann. 2018. Perceptions of Precariousness: A Qualitative Study of Constraints Underlying Gender Disparities in Mongolia's Labor Market. World Bank, Washington, DC.

Tudela-Pye, J. and D. Merotto. 2023. Macroeconomics Diagnostics, Background paper for Mongolia World Bank Jobs Diagnostic, *mimeo*.

World Bank. 2023. Mongolia Economic Update. April 2023. World Bank, Washington, DC.

World Bank 2016. *Live Long and Prosper: Aging in East Asia and Pacific*. World Bank, Washington, DC.

World Bank. 2018. Mongolia Systematic Country Diagnostic. World Bank, Washington, DC. <https://openknowledge.worldbank.org/handle/10986/30973> (accessed 16. Jan 2022).

World Bank. 2020. Maximizing Returns on Human Capital Investment in Mongolia: Policy Note for Mongolia, <https://openknowledge.worldbank.org/handle/10986/34270> (accessed January 16, 2022).

World Bank. 2022. Mongolia: COVID, Social Protection and Jobs Diagnostics PASA (P174453).

World Bank. 2022b. Mongolia World Bank Jobs Diagnostic. Macro Note. Unpublished presentation.

Most Recent Jobs Working Papers:

79. [Heading Towards 1.5°C – Impacts on Labor Demand in Selected Countries](#) [2024]
Ulrike Lehr and Hector Pollitt.
78. [Shaping Better Jobs Policies through Measurement: Findings from a Pilot Program to Estimate Indirect Jobs](#) [2023]
Theresa Osborne and Jose Manuel Romero
77. [Occupational Choice and Energy Access – Electricity For More and Better Jobs](#) [2023]
Ulrike Lehr
76. [Measuring Ex Ante Jobs Outcome of the Bangladesh Livestock and Dairy Development Project.](#) [2023]
Mansur Ahmed, FNU Jonaed and NazmulHoque.
75. [Jobs, Food and Greening: Exploring Implications of the Green Transition for Jobs in The Agri-Food System.](#) [2023]
Gianluigi Nico and Luc Christiaensen.
74. [Who Is Most Vulnerable to the Transition Away from Coal? Ruda Śląska Residents’ Preferences towards Jobs and Land Repurposing.](#) [2023]
73. [Does Agricultural Intensification Pay?](#) [2023]
Ghislain Aihounon and Luc Christiaensen.
72. [Cost-Effectiveness of Jobs Projects in Conflict and Forced Displacement Contexts—Annexes.](#) [2022]
Virginia Barberis, Laura Brouwer, Jan Von Der Goltz, Timothy Hobden, Mira Saidi, Kirsten Schuettler and Karin Seyfert.
72. [Cost-Effectiveness of Jobs Projects in Conflict and Forced Displacement Contexts.](#) [2022]
Virginia Barberis, Laura Brouwer, Jan Von Der Goltz, Timothy Hobden, Mira Saidi, Kirsten Schuettler and Karin Seyfert.
71. [Towards a Just Coal Transition Labor Market Challenges and People’s Perspectives from Wielkopolska.](#) [2022]
Luc Christiaensen, Céline Ferré, Maddalena Honorati, Tomasz Janusz Gajderowicz and Sylwia Michalina Wrona.

[Click here for full Jobs Paper Series](#)



JOBS

Address: 1776 G St, NW, Washington, DC 20006

Website: <http://www.worldbank.org/en/topic/jobsanddevelopment>

Twitter: @WBG_Jobs

Blog: <https://blogs.worldbank.org/jobs/>