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e-ISSN: 2979-9414



Araştırma Makalesi • Research Article

Labor Market and Youth Employment: Statistical Analysis and International Comparison for Azerbaijan

İşgücü Piyasası ve Genç İstihdamı: Azerbaycan İçin İstatistik Analiz ve Uluslararası Karşılaştırma

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ANAHTAR KELİMELER

İşgücü Piyasası
Genç İstihdamı
Düzenli İş
İşsizlik
Eğitim
Azerbaycan
Uluslararası Karşılaştırma

KEY WORDS

Labor Market
Youth Employment
Decent Job
Unemployment
Education
Azerbaijan
International Comparison

ÖZ

Bu makalenin konusu günümüzün en önemli sorunlarından biri olan genç istihdamı sorunudur. Bu bağlamda çalışmada, ekonomik olarak aktif gençlerin işgücü piyasasındaki istihdam düzeyleri yaş gruplarına göre incelenmiştir. Bu amaçla, Azerbaycan Cumhuriyeti Devlet İstatistik Komitesi'nin istatistik bültenleri, Çalışma ve Sosyal Güvenlik Bakanlığı'na bağlı Devlet İstihdam Ajansı'nın verileri, Dünya Bankası, ILO ve diğer kaynakların raporları kullanılarak uluslararası karşılaştırmalar yapılmıştır. Yapılan karşılaştırmalar Azerbaycan'da genç işsizlik oranının küresel göstergelere yakın olduğunu göstermektedir. Pandemi döneminde zirveye ulaşmasına rağmen, bu gösterge sonraki yıllarda hem dünyada hem de Azerbaycan'da önemli ölçüde iyileşmiştir. İşgücü piyasasında genç istihdamının etkili bir şekilde organize edilebilmesi için, gençlerin doğru uzmanlık alanını seçmeleri, yeterli eğitim almaları ve eğitim düzeylerine, niteliklerine ve becerilerine uygun işlerde çalışmaları önemlidir. Mevcut koşullarda, mümkün olduğunca çok gencin mesleki ve uzmanlık eğitimlerine katılımını sağlamak, eğitimlerinin kalitesini artırmak ve girişimcilik faaliyetlerini desteklemek için çalışmalar sürdürülmelidir.

ABSTRACT

The article is devoted to the problems of youth employment, one of the most pressing issues of our time. Here, the employment levels of economically active youth in the labor market by age groups were studied. For this, statistical bulletins of the State Statistical Committee of the Republic of Azerbaijan, data from the State Employment Agency under the Ministry of Labor and Social Protection of the Population, as well as reports of the World Bank, ILO and other sources were used to conduct international comparisons. The comparisons show that the unemployment level of youth in Azerbaijan is close to global indicators. Despite reaching its peak during the pandemic, this indicator has significantly improved in subsequent years both in the world and in Azerbaijan. For the effective organization of youth employment in the labor market, it is important that they choose the right specialty, have adequate education and jobs that are adequate to their level of education, qualifications, and skills. In the current circumstances, work should be continued to involve as many young people as possible in vocational and specialized training, improve the quality of their education, and support entrepreneurial activity.

1. Introduction

The balance in the labor market and the improvement of employment opportunities are always in the focus of attention of both the government and the public. Many projects are being implemented in this direction in Azerbaijan, but in the current conditions there is a need for

more targeted and large-scale measures. In our research, we study the labor market not only in the context of general indicators, but also from the perspective of ensuring effective employment, approaching it from a qualitative perspective. Every person has the right to a decent standard of living, and in this regard, one of the main issues is the formation of the necessary conditions for the realization of

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Atıf/Cite as: Mirzali, I. G. (2025). Labor Market and Youth Employment: Statistical Analysis and International Comparison for Azerbaijan. *Journal of Recycling Economy & Sustainability Policy*, 4(2), 14-24.

Received 9 August 2025; Received in revised form 11 November 2025; Accepted 1 December 2025

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their labor potential and the adequate satisfaction of their material needs. For the quality of life of young people, it is important to create meaningful and sustainable employment opportunities, that is, to have decent jobs for them.

In general, the issue of employment, especially ensuring effective employment of young people, is considered one of the most important and urgent problems in the world. Thus, there are millions of unemployed people in the world, and most of them live below the poverty line. A particularly concerning thing is that there is a large number of young people among the unemployed all over the world. According to World Bank reports, there are 64.9 million unemployed youth in the world in 2023 and two-thirds of unemployed youth are women (ILO, 2023). Since it is young people who suffer the most from the problem of unemployment all over the world, special attention is paid to issues related to youth employment in the works of both local and foreign researchers.

Young people face great difficulties when entering the labor market for the first time. Not only young people without a profession and qualification, but even young people with higher education often cannot find a worthy place in the labor market, and in many cases they are forced to work in unpromising jobs that do not require qualifications. Studies show that unemployment among young people aged 15-24 in Azerbaijan is twice as high as among other age groups (ILO, 2016; SSCRA, 2024).

Since the issues mentioned are also relevant for the reality of Azerbaijan, assessing the situation of young people in the labor market is the main goal of this study. For this, statistical bulletins of the State Statistical Committee of the Republic of Azerbaijan, data from the State Employment Agency under the Ministry of Labor and Social Protection of the Population, survey materials, as well as reports of the World Bank, ILO and other sources were used to conduct international comparisons. The comparisons show that the employment level of youth in Azerbaijan is close to global indicators (13%). If one of the main reasons for unemployment is the lack of decent jobs, another reason is related to the inadequacy of education.

2. Literature Review

As we have noted, the employment problems of the population, especially of young people, remain one of the most urgent and important issues of our time. Economist J.B. Guliyev (2011: p.208) quite rightly notes that it is important for every person to work for himself and his family to live well, to have a suitable workplace for work, as well as to have a profession and specialty that meets the requirements of the workplace, otherwise many young people would have chosen crime as their profession. Despite positive changes, as noted in the "Country Programme of the Republic of Azerbaijan on Decent Work for 2016-2020", developed in cooperation between the government of Azerbaijan and the International Labor Organization (ILO), the national labor market is still characterized by structural

deficiencies, including a mismatch between demand and supply, and a higher unemployment rate among young people aged 15-24 (twice as high as among those aged 25 and older) (ILO, 2016). According to Prof. G.A. Azizova (2005: p.99), "in order to achieve the reconciliation of labor supply and demand in the labor market, it is important to stimulate the process of creating new jobs, protect and modernize existing ones." The main goal here is to achieve effective employment of young people.

We completely agree with these ideas that in order to ensure effective employment of young people, first of all, there should be decent jobs. According to Prof. T.H. Huseynov (2015: p.114), "a decent job means that the salary (or income) received by the employee should ensure a normal, at least minimum, standard of living for him and his family". We also fully agree with the scientist's opinion that if earlier it was about preventing mass unemployment, now it is about creating decent jobs, mainly in the regions. Because due to the lack of jobs in our regions, a large part of the population migrates to cities. Thus, the number of urban population is steadily increasing, exceeding the number of rural population. According to statistics, in 2024, the share of urban population in Azerbaijan reached 54.4 percent, while the rural population is 45.6 percent. (SSCRA: Azerbaijan-facts and figures 2025). Our regions cannot keep up with economic development, which does not allow improving social welfare. G.Y. Şeren and J.R. Aliyeva (2024) very rightly note that employment plays a key role in achieving social welfare, and full and productive employment should provide decent working conditions. When talking about the employment problem, one of the important issues is the availability of a decent income for everyone. R.Ş. Muradov (2006: p.190) in his research, along with the importance of opening new jobs in improving employment, also emphasizes the importance of improving the mechanism of labor remuneration.

In order to improve the economic situation and living conditions of the population, providing every person with the ability to work with satisfactory work is one of the most important issues for our country, and increasing the employment level of the population is always in the spotlight. In this direction, various state programs are being implemented in accordance with internationally proven practices, especially since 2005, positive results have been achieved. During the implementation of the 1st Employment Strategy covering 2006-2015, the unemployment rate decreased from 7.3 percent to 5 percent, the poverty rate decreased from 29.3 percent to 4.9 percent, the income of the population increased by 5.2 times, the minimum wage by 3.5 times, and the average monthly nominal wage by 3.8 times (E-Kanun, 2018). The 2nd Employment Strategy covering 2019-2030, approved by Order No. 602 of the President of the Republic of Azerbaijan dated October 30, 2018, is also very important in terms of improving the employment situation of young people.

It should be noted that one of the most important active

employment measures is the implementation of self-employment programs. In connection with the implementation of the program, training of participants has been started since 2016. Efforts are being made to increase the number of those involved in self-employment every year, vocational training is first conducted for them, and citizens are provided with the necessary assets to set up their own business on business projects that are considered successful. The increase in the number of those involved in self-employment partially increases the employment level, but at the same time affects the number of people receiving unemployment benefits. According to J.R. Aliyeva (2022), "Through self-employment programs, the integration of young people into the labor market is facilitated and conditions are created for the formation of sustainable sources of income". As part of the implemented strategies and state programs, extensive attention is also paid to strengthening the social protection of the unemployed and job seekers.

3. A Brief Look at The Demographic Indicators of Youth in Azerbaijan

First of all, it should be noted that, as in many countries, there is a decrease in the number of young people aged 14-29 in Azerbaijan. Table 1 illustrates that the number of young people aged 14-29 in Azerbaijan has decreased year by year since 2010 and in 2023 it will constitute only 22.7 percent of the country's population. In 2023, the share of

young people in the country's population decreased by 8.7 percentage points compared to 2010, with a similar decrease of 9.4 percentage points in urban areas and 8.0 percentage points in rural areas. As for gender composition, in each of the years under review, the number of men in the 14-29 age group is higher than that of women, and this difference has gradually increased, that is, the number of women has decreased more than that of men, especially serious differences are observed in the 14-24 age group. In 2010, 49.8 percent of young people aged 14-29 were women, while in 2023 this figure will be 48.3 percent. The comparisons show that the employment level of youth in Azerbaijan is close to global indicators (13%). If one of the main reasons for unemployment is the lack of decent jobs, another reason is related to the inadequacy of education.

The decreasing trend also applies to children aged 10-14. According to the research of prof. Ş.M.Muradov (2021: p.364), the total fertility rate, which is considered the most important and general indicator of population reproduction, decreased from 2.9 to 1.8 in 1991-2019. Thus, both the birth rate and natural growth rate have shown a decrease from 1992 to 2002, a gradual increase from 2002 to 2012, and a decrease again in recent years. The mortality rate has been higher in recent years compared to the previous period.

Despite the fact that in 2020, which brought both victories and sad events to the history of our people, the birth rate was lower (30% lower) – 126,571 people, the death rate was 41 percent higher than in 2010, that is, 75,647 people.

Table 1. Dynamics of the Number of Young People Aged 14-29 in Azerbaijan (*thousand persons*) and Structure (*in%*)

	2010	2017	2018	2019	2020	2021	2022	2023
Number of young people aged 14-29, total	2825,8	2574,7	2519,3	2445,3	2368,2	2328,5	2302,2	2295,1
Share of young people in the total population, %	31,4	26,3	25,5	24,5	23,7	23,2	22,9	22,7
Men	1418,5	1325,4	1302,4	1270,2	1200,0	1186,7	1181,6	1186,4
Women	1407,3	1249,3	1216,9	1175,1	1168,2	1141,8	1120,6	1108,7
% in urban areas	31,3	25,2	24,4	23,4	22,7	22,3	22,0	21,9
% in rural areas	31,6	27,4	26,7	25,8	25,0	24,4	24,0	23,6

Source: Azerbaijan Youth 2024: pp. 16-27(SSCRA 2024).

One of the main reasons for the high death rate in 2020 is the martyrdom of young sons of the homeland in the Second Karabakh War (up to 3 thousand military martyrs, more than 100 civilians). All this ultimately leads to a decrease in the number of young generations in the composition of labor resources, as well as labor potential. Therefore, the issue of more efficient use of existing potential, that is, the young workforce, is becoming more prominent.

4. Assessing the Level of Youth Employment in the Labor Market

From our research on the labor market, it is known that there was an increase in the number of employed youth from 2012 to 2019, and a decreasing trend is observed in subsequent

years (Gurbanova, 2022, 2024).

Table 2 shows that in 2023, compared to 2021, there was an increase in both the economically active population and the total number of employed population, but the number of youth in their composition decreased. While the share of youth in the employed population was 25.5 percent in 2018, this figure decreased by 1.4 percentage points in 2023 to 24.1 percent. If we look at unemployment statistics, we see that in 2018, 48.8 percent of the total unemployed were youth. In subsequent years, the share of young unemployed people gradually decreased, reaching 44.9 percent in 2022 and 43 percent in 2023.

Table 2. Number (thousand per.) and Structure (%) of Economically Active Youth (15-29 years old)

	2018	2020	2021	2022	2023
Total number of economically active population	5133,1	5252,5	5141,6	5194,4	5249,7
Number of economically active youth	1368,2	1378,0	1351,9	1324,7	1317,8
<i>Share in the composition of the economically active population, %</i>	26,65	26,2	26,3	25,5	25,1
Employed population, total	4879,3	4876,6	4831,1	4901,1	4963,3
Number of employed youth	1244,4	1223,9	1212,5	1193,0	1194,6
<i>Share in the composition of the employed population, %</i>	25,5	25,1	25,1	24,3	24,1
Unemployed population, total	253,8	368,7	310,5	293,3	286,4
Number of unemployed youth	123,8	154,1	139,4	131,7	123,2
<i>Share in the composition of the unemployed population, %</i>	48,8	41,8	44,9	44,9	43,0

Source: State Statistical Committee of the Republic of Azerbaijan. Compiled by the author based on data from Labor Market Bulletins: 2019, p. 118; 2021, p. 133; 2022, p.131; 2023, 2024 p. 131. (SSCRA, 2019-2024).

When examining the unemployment rate of economically active youth, we see that the highest unemployment rate in recent years was in 2020, when it was 11.2 percent in the 15-29 age group (15.4 percent in the 15-19 age group), and then gradually decreased and reached 9.3 percent in 2023 (Table 3). The situation is different by age group. Thus, while the unemployment rate of youth in the 25-29 age group decreased to 6 percent in 2023, this indicator is 13.1 percent

for the 15-19 and 20-24 age groups, which is 2 times higher than for the 25-29 age group. It is known that most workplaces require experience when hiring young people. Most young people in the 25-29 age group already have some qualifications or work experience. Therefore, it is easier for them to get a job than young people in the 15-24 age group.

Table 3. Number of Economically Active Youth by Age Group (*thousand per.*) and Unemployment Rate

	2018	2020	2021	2022	2023
Economically active youth, total	1368,2	1378,0	1351,9	1324,7	1317,8
<i>Including by age groups</i>					
Number of young people aged 15-19	106,2	107,6	105,3	105,1	105,8
<i>the share of unemployed people among them, %</i>	14,2	15,4	14,3	13,6	13,1
Number of young people aged 20-24	507,1	500,9	493,9	502,9	509,2
<i>the share of unemployed people among them, %</i>	12,4	15,0	14,6	13,5	13,1
Number of young people aged 25-29	754,9	769,5	752,7	716,7	702,8
<i>the share of unemployed people among them, %</i>	6,0	8,1	6,9	6,9	6,0
Total unemployment rate of young people aged 15-29, %	9,0	11,2	10,3	9,9	9,3

Source: State Statistical Committee of the Republic of Azerbaijan. Compiled by the author based on data from Labor Market Bulletins: 2019, p. 118; 2021, p. 133; 2022, p.131; 2023, 2024 p. 131. (SSCRA, 2019-2024).

Note: Since sample statistical surveys by age groups and education levels of the population are conducted separately for each year, the results of the population census conducted in 2019 were not taken into account in the indicators until 2022.

The higher unemployment rate in the 15-19 age group can also be attributed to the fact that some of the young people with higher education cannot find suitable jobs and therefore have to work in jobs that do not require qualifications. On the other hand, a large number of full-time students in higher education also work, which means that a certain part of the vacancies on the labor market are occupied by them. In this case, some of the young people aged 15-19 who are looking for work but do not have vocational education are deprived of these positions, even though they could have held them, and are left out of both employment and education. It can be

assumed that it is more advantageous for some employers to hire higher education students than young people without education, because when these students graduate from university and receive a diploma, employers will have both highly educated and experienced employees. In our opinion, this can explain the inability of economically active young people aged 15-19 to find work. Of course, young people in this age range have not completed higher education, most of them do not have vocational training, but they are forced to start working early. Therefore, it is important to involve these young people in vocational training so that they can enter the labor market more easily.

For the effective organization of youth employment, the issue of ensuring the compliance of quantitative and qualitative indicators of specialist training with the requirements of the labor market should always be in the

spotlight. Table 4. reflects the quantitative indicators of personnel training in higher, secondary specialized and vocational education institutions. When we look at the dynamics of general personnel training in our republic, we see that although there is no stable dynamics in the number of graduates of vocational and secondary specialized education institutions, the number of graduates of higher

education institutions (except for 2018) is increasing year by year. In the total number of trained specialists, with the exception of 2017 and 2018, positive dynamics are observed in the period under review. Thus, the number of graduates of these educational institutions exceeded 82 thousand in 2023, 60 percent of whom have higher education.

Table 4. Number of graduates of vocational, secondary specialized and higher education institutions (*persons*)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total	58641	65359	69179	68419	64973	65503	69152	73806	74997	82033
Number of graduates of vocational education institutions	13011	15222	15135	14614	15496	15516	14304	14233	13865	14657
<i>specific weight,%</i>	22,2	23,3	21,9	21,2	23,8	23,7	20,7	19,3	18,5	17,9
Number of graduates of secondary specialized education institutions	14559	16432	17093	16299	12361	12425	14024	16164	15093	18955
<i>specific weight,%</i>	24,8	25,1	24,7	23,8	1,0	19,0	20,3	21,9	20,1	23,1
Number of graduates of bachelor's level of higher education	31071	33705	36951	37506	37116	37562	40824	43409	46039	48421
<i>specific weight,%</i>	53,0	51,6	53,4	54,8	57,1	57,3	59,0	58,8	61,4	59,2

Source: Education, science and culture in Azerbaijan. Statistical bulletins 2015, 2017, 2019, 2021, 2024, p. 41, 42, 123, 138, 162 prepared by the author based on data (SSCRA, 2015-2024).

Thus, the number of graduates of higher education has been increasing steadily since 2018, according to these indicators, more than 200 thousand people with higher education should have entered the labor market in the last five years. However, according to the indicators in table 5., in 2023, the number of people with higher education among employed youth increased by only 2.2 thousand people compared to 2018. This suggests that the employment rate of young people with higher education is very low.

When looking at the educational structure of employed youth, it becomes clear that the share of those with vocational, secondary and higher education among them will increase by 3.5 percentage points in 2023 compared to 2018, reaching 38.8 percent. Thus, during that period, the share of those with higher education increased by 1.1 percentage points, that of those with secondary specialized education by 1.7 percentage points, and that of those with vocational education by 0.7 percentage points.

Table 5. Dynamics of Employed Youth by Educational Level (*thousand person*)

	2015	2016	2017	2018	2019	2020	2021	2022	2023
Employed young people, total	1177,5	1219,4	1237,1	1244,4	1250,5	1223,9	1212,5	1193,0	1194,6
Their share in the employed population, %	25,2	25,6	25,6	25,5	25,3	25,1	25,1	24,3	24,1
<i>Including</i>									
with higher education	237,2	247,2	250,7	255,8	257,6	254,0	260,6	246,8	258,0
<i>specific weight,%</i>	20,1	20,3	20,3	20,5	20,6	20,7	21,5	20,7	21,6
with secondary specialized education	129,3	133,6	136,0	136,1	137,7	134,7	139,8	136,1	151,6
<i>specific weight,%</i>	10,98	10,95	10,99	10,94	11,0	11,0	11,5	11,4	12,7
with vocational education	47,0	45,8	47,4	47,5	48,7	47,5	49,3	47,5	54,0
<i>specific weight,%</i>	4,0	3,75	3,8	3,8	3,9	3,9	4,1	4,0	4,5
Number of employed young people with vocational, secondary specialized and higher education, total	413,5	426,6	434,1	439,4	444,0	436,2	449,7	430,4	463,6
<i>specific weight,%</i>	35,1	34,98	35,1	35,3	35,5	35,6	37,1	36,1	38,8

Source: Labor market. Statistical bulletin 2017, 2019, 2021, 2024. p. 140 prepared by the author based on data (SSCRA, 2015-2024).

Studies show that the share of those with vocational and

specialized education in the employed population was 33.2 percent in 2018, 33.5 percent in 2019, 33.6 percent in 2020-2021, 33.7 percent in 2022, and 34 percent in 2023. In other words, there was an increase of 0.8 percentage points in

2023 compared to 2018 (Gurbanova, 2024).

Based on the data in Table 4, the total number of specialists graduating from higher, vocational and specialized education institutions in 2018-2023 is 430.5 thousand people, including 253.4 thousand people who graduated from higher education, 89.0 thousand people who graduated from secondary specialized education, and 88.1 thousand people who graduated from vocational education. However, all these numbers did not have a significant impact on the indicators in Table 5 and the educational structure of the employed population in general due to the poor employment situation of young people.

Research shows that it is typical for most countries for young people, especially for the first time, to have difficulty entering the labor market. Young people with low levels of education are recruited to temporary jobs in the labor market, and sometimes they are forced out of the labor market by highly educated people who, unable to find suitable jobs, are forced to work in positions below their educational level and skills (Khokhlova and Khokhlov 2017). The large number of people working in fields and positions that do not correspond to their qualifications and professions really hinders the correct forecasting of occupations in the labor market and the efficient distribution of planned places by specialties. This does not allow to eliminate the mismatch between education and vacancy requirements in the labor market.

From surveys conducted and regular examination of job advertisements posted online by numerous employment sites, it can be concluded that in more than 90% of cases, employers are looking for experienced workers, mainly setting an age limit (many advertisements with low requirements relate to network businesses without a stable salary), but they are not particularly interested in where these young people will gain experience and their future (Gurbanova, 2022). Until effective cooperation between the vocational education system and employers is formed, there is a need to regulate this situation by law and implement incentive measures to encourage entrepreneurs to employ young personnel.

Employment can be improved by expanding the following programs implemented by the State Employment Agency, such as, employment strategy, regional development programs, self-employment program. Besides that the projects organized jointly with the Youth Fund, the "Create Your Business Marathon", "Wage Subsidy for Employers" and "Professional Youth" projects, then the "Employment Support Project", "Creation of Inclusive and Decent Jobs for Socially Vulnerable Groups of the Population", "Development of Entrepreneurship and Self-Employment in Villages", "Mobile Coffee Houses" and other such new social projects are essentially well-thought-out measures. Special attention is paid to young people in the programs, but all of these need to cover more young people. Better results can be achieved by increasing their frequency and scope.

5. Brief Overview of Surveys on Youth Employment

5.1. Results of the Survey on Employment of Vocational and Secondary Education Graduates

In order to assess the employment of graduates of secondary education and vocational education institutions, a sample statistical survey was conducted in 2021 to determine the number of economically active population and potential labor force not included in the labor force among young people who graduated from these educational institutions in 2016-2020. Of these graduates, 109.5 thousand are economically active, including 92.0 thousand (84%) of them employed, and 17.5 thousand, i.e. 16%, are unemployed. The number of graduates not included in the economically active population is 26.7 thousand, of which 15.5 thousand are considered potential labor force.

Thus, in 2016-2020, the economic activity level of graduates of vocational and secondary specialized education institutions was calculated to be 80.4 percent, and the employment level was 67.5 percent. Of the employed 47.7 percent were secondary specialized graduates, and 52.3 percent were vocational graduates (SSCRA, 2023). These analyses, that is, the distribution of graduates by employment and unemployment levels, give reason to say that it is easier to find a job with vocational education than with secondary specialized education. Also, there are more opportunities for entrepreneurial activity among people with vocational education than others. It is also realistic for them to benefit from the self-employment program (Gurbanova, 2025).

5.2. Results of the Survey of Higher Education Graduates

In order to study the impact of the admission score for the bachelor's level of higher education on career, a survey was conducted by the Career Center branch of the State Employment Agency (SEA) and the Labor Market Bulletin No. 2 was prepared (SEA, 2024c). According to the data of the State Employment Agency of the Republic of Azerbaijan, the number of people who started their education at the bachelor's level in 2003-2014 was 355,093 people. Of these, 1,670 people were involved in the survey, of which the data of 1,583 people were considered suitable for analysis. 58 percent of those who participated in the survey were bachelor's degree holders, 37 percent were master's degree holders, and 5 percent were doctoral degree holders. When classified according to the positions they held, they included specialist staff - 65.1 percent; administrative staff - 16.9 percent; support staff - 15.2 percent; senior management - 2.8 percent.

Only 65 percent of respondents chose their specialty on their own, while 41 percent of them said they would not choose another specialty even if they had scored higher, while 46 percent said the opposite, and 13 percent were unsure (State Employment Agency, 2024c). Our research, observations, and pedagogical experience suggest that most young people currently graduating from high school choose a group of specialties rather than a specific specialty.

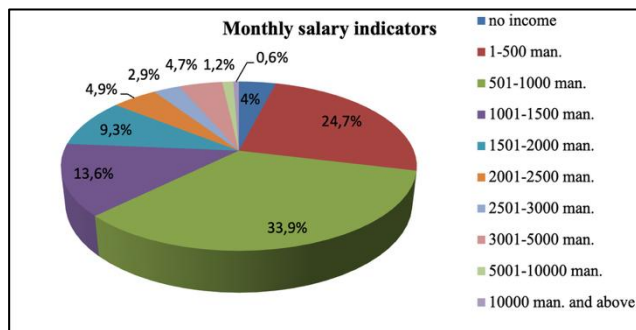
We noted that one of the problems causing mismatch in the labor market is the large number of people working in jobs that do not correspond to their specialization. The survey once again proves this, as only 51 percent of respondents answered that the job they are working in coincides with the specialization they studied, while 47 percent of them responded that their current job is in line with the career they planned during their undergraduate studies. 88.7 percent of respondents answered that the university and 91.09 percent answered that the specialization plays an important role in the success of a career.

The assessment of the impact of education level on wages showed that the average monthly income of those who completed a master's degree was 65 percent higher than that of those who completed a bachelor's degree and 13 percent higher than that of those who completed a doctorate. The average monthly income of those who completed a doctorate was 46 percent higher than that of those who completed a bachelor's degree and 11 percent lower than that of those who completed a master's degree. It was also determined that where they received their education had a certain impact on income, as the average monthly income of those who continued their master's education abroad was 45 percent higher than the average monthly income of those who continued their master's education in Azerbaijan.

As for the impact of the admission score on wages, it was found that the average salary of those who scored between 0-300 was 17 percent lower than that of those who scored 301-450, and 42 percent lower than that of those who scored 451-600. During the evaluation of the surveys, it was also found that the monthly income of those who participated in internship programs was 11 percent higher than that of others.

Monthly salary indicators are as follows: no income - 4%; 1-500 man. - 24.7%; 501-1000 man. - 33.9%; 1001-1500 man. - 13.6%; 1501-2000 man. - 9.3%; 2001-2500 man. - 4.9%; 2501-3000 manats - 2.9%; 3001-5000 manats - 4.7%; 5001-10000 manats - 1.2%; 10000 manats and above - 0.6%. 59.1 percent of respondents stated that their income did not correspond to market values, 37.3 percent said that it corresponded to them, and 3.6 percent even had income above market values.

What is noteworthy here is that more than 59 percent of respondents believe that their salary is lower than market values. This indicates that their income does not fully meet their material needs, in other words, their sense of satisfaction with their job is low.



Source: Labor Market Bulletin No. 2 (SEA, 2024c).

Graph 1. Monthly Salary Hndicators of Higher Education Graduates

If we were to assess the effective employment level of graduates according to the survey results, we can use the following indicators:

- the number of people working in their profession and specialty;
- income levels (by education level or by specialty);
- job satisfaction index.

Based on the analysis of the surveys we reviewed and conducted, we can note that, first of all, the employment level of graduates is low: about 60 percent for higher education graduates, 67.5 percent for vocational and secondary vocational education graduates. Only 51 percent of employed higher education graduates work in jobs corresponding to their specialization. 59 percent of employed people think that their average monthly income is lower than market values. 24.1 percent of respondents reported complete satisfaction with their career, 33.5 percent reported satisfaction up to 80 percent, 31 percent rated it average, and 11.4 percent rated it low.

As we know, surveys cannot fully reflect reality and the data we collect also changes regularly. In this regard, since we do not have absolute statistical indicators, we can only make an approximate assessment. In order to have a high standard of living, people first of all need a high income, and if the average monthly income of those who are in line with the market value and above is only 41 percent, taking into account the other indicators above, we can estimate the effective employment rate of the employed as approximately 50 percent.

It should also be noted that, according to the results of a survey conducted with employers by the State Employment Agency (SEA, 2024b), although they prefer higher education personnel when hiring, they do not pay much attention to the suitability of the qualification for the vacancy, paying more attention to skills.

5.2.1. Employment Rating Indicators for Higher Education Graduates

In recent years, the State Employment Agency has been preparing rating indicators for the employment level of higher education graduates. Here, the rating indicators of 102,749 graduates who graduated from only 30 universities in 2018-2022 were examined. It was found that 59,911 people (58.3%) of these graduates were employed (SEA, 2024a).

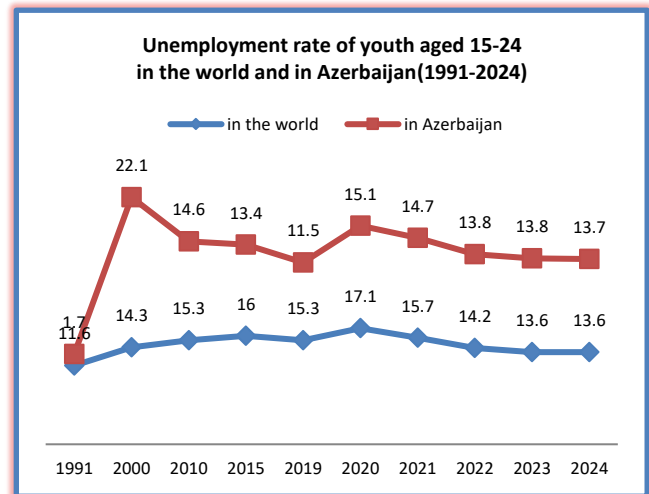
According to the SSCRA data, the areas with the lowest wages in the labor market are trade; provision of administrative and auxiliary services; tourist accommodation and public catering; recreation and entertainment. The vast majority of employed young people work in these areas. However, there are also young people working in the fields of finance and insurance; information and communication, where the average nominal wage is higher.

6. International Comparison

It is a global concern that millions of young people around the world are not in decent work, education, employment or training, and as a result are unable to provide a better life for themselves and their families. Despite the post-pandemic recovery in global labour markets, young people aged 15-24 are on average 3.5 times more likely to be unemployed than adults. In addition, the number of young people not in employment, education or training continues to grow; in 2023, this figure amounted to 269 million young people. Even for young people who are in employment, jobs are often characterized by poor quality, informality and low wages. The problem of youth employment is more acute in low- and middle-income countries than in high-income countries. The number of unemployed youth in 2023 will be 64.9 million, with an unemployment rate of 13 percent. This is the lowest figure in the last 15 years. Another issue of international concern is that 20 percent of young people are not in employment or education, and two-thirds of them are women (ILO, 2024). The report notes that there has been no progress in providing decent jobs for employed young people. Globally, more than half of young workers are in informal employment. Only in high- and upper-middle-income countries do the majority of young workers have regular and secure jobs. In low-income countries, almost three in four young workers, or 75 percent, are self-employed or work in temporary jobs.

According to World Bank data (WB, 2025a), in 1991, the unemployment rate of young people aged 15-24 in Azerbaijan was only 1.7% (the world average was 11.6%), and it rose steadily due to the political and economic situation in the country, reaching its peak (22.1%) in 2000. Starting in 2002, it gradually declined, with slight fluctuations in some years, reaching its lowest level in 2019 - 11.5%. After reaching its peak in recent years, reaching 15.1% in 2020 due to the pandemic period, it gradually decreased from 2021, falling to 13.8% in 2022, 2023, and

13.7% in 2024 (corresponding to the global indicator of - 13.6%), and has remained almost stable for the last 3 years (Graph 2.). In most years, this indicator in Azerbaijan has been lower than the global indicators.



Source: Prepared based on World Bank reports (WB, 2025a)

Graph 2. Unemployment rate of youth aged 15-24 (in %) in the world and in Azerbaijan (1991-2024)

In 2024 for some countries, this indicator was: 15.6% in Turkey, 22.8% in Iran, 9.3% in Russia, 29.9% in Georgia, 3.8% in Kazakhstan, 27.1% in Tajikistan, 9.6% in Turkmenistan, 3.3% in Moldova, 21.3% in Romania, 6.7% in Germany, etc (WB, 2025a). Among OECD countries, the highest unemployment rate for young people aged 15-24 was observed in Spain, at 26.5 percent, and the lowest in Japan, at 4 percent (OECD, 2024). As can be seen, the unemployment rate of youth aged 15-24 does not depend on whether the country is a developed or developing country, or a low-income or high-income country.

Although there was a dynamic in the overall employment level in the European Union (EU) countries until 2020, due to the global challenges caused by the coronavirus, the employment rate stopped six years of positive employment progress, reaching 72.4% in the third quarter of 2020. However, it is expected that by 2030, at least 78% of the population aged 20-64 will be involved in employment. Eurostat figures show that in 2021, one in five people in the EU were at risk of poverty or social exclusion (21.7% of the population or 95.4 million people), with child poverty at 24.4%. The EU youth unemployment rate (aged 15-25) peaked in 2013 at 24.4% as a result of the economic crisis, and has been gradually decreasing to 15% by the end of 2024 as a result of measures taken. The European Action Plan for Social Rights aims to reduce the share of people not in education or employment from 12.6% in 2019 to 9% by 2030 by improving employment prospects (EU, 2024a).

From 1990 to 2021, more than 220 active labor market programs targeting youth were implemented by the World Bank and the ILO in various countries around the world. As

a result of the implementation of these programs, youth employment and wages have increased significantly in low- and middle-income countries. According to research by World Bank experts (Susana Puerto et al., 2024), it was found that measures related to skills training and increasing entrepreneurship have a more effective impact on youth employment than investments in employment services and subsidized employment. It was found that while in high-income countries, skills training and wage subsidies have a significant impact, in low- and middle-income countries, supporting entrepreneurship and employment has a better impact. In low- and middle-income countries, the situation of young people in the labor market changes for the better after receiving a certificate in soft skills.

In general, the number of young people not in education, employment or training (NEET) in the world is high, and international funds allocate a large amount of financial resources to improve their living conditions, so that they can be involved in education and improve their skills. According to research by the World Bank (WB, 2025a), this indicator has decreased in most countries compared to previous years. For example, in 2023 it was 8.7% in Russia, 22.4% in Turkey, 24.9% in Georgia, and 13.3% in Moldova. For Azerbaijan, it was estimated to be 9.4% in 2009 and 9.6% in 2010, but indicators for subsequent years were not available.

Reducing youth unemployment and early school leaving is also a key objective for the European Union (EU). The European Commission calls on Member States to invest significantly in youth employment. Various projects and programmes are being implemented in Member States to support youth employment. Job creation, including in the emerging green and digital sectors, is a key priority in improving youth employment in the European Union countries. The Youth Guarantee, established in 2013 and reinforced in 2020, is the EU's reference policy framework for combating youth unemployment and inactivity. The priority objective is to equip young people with the skills they need to improve their employability and employability. (EU, 2024b).

The World Bank's 2019 report notes that even in the lowest-income countries, people are working in jobs that did not exist 30 years ago. Children who go to school in 2018 will grow up to work in jobs that do not yet exist (The World Bank, 2019: p. 70). Indeed, in recent years, new jobs have entered the labor market, and different skills are expected from workers. This requires maximum involvement of young people in education and, at the same time, continuous improvement of personnel training to adapt to the labor market.

The World Economic Forum's 2023 Future of Jobs Survey analyzed the labor market prospects of 673 million jobs using the ILO's global dataset of 820 million workers. According to the analysis, 69 million new jobs will be created and 83 million existing jobs will be eliminated between 2023 and 2027. This means a 14 million decrease in the number of jobs in the global labor market, or a 2%

drop in employment (WEF, 2023).

Given the current growth and development pace of the Azerbaijani economy, we believe that these pessimistic forecasts will not be reflected in our country. In particular, the restoration of life in the liberated territories, the development of infrastructure there, and the increase in investments in the economy of our regions will have a positive impact on youth employment.

7. Conclusions

Improving youth employment is relevant not only in Azerbaijan, but also for almost all countries. The important issue here is to prepare young people as personnel in accordance with the requirements of the labor market. At a time when competition is increasing, young people should not be allowed to remain out of education. Conditions should be created for each of them to master any profession and specialty that brings them income and is in demand in the labor market. International experience also shows that improving youth employment is directly related to increasing their opportunities for education, in other words, the labor market and personnel training should operate in close unity with each other. Therefore, while on the one hand, measures should be taken to improve the functioning of the labor market in order to improve the employment of the population, on the other hand, effective organization of personnel training is very important to support the efficient functioning of the labor market.

The employment problem in Azerbaijan is no longer as acute as in previous periods, that is, it is possible to find a job, but in order to have efficient employment, it is necessary to find a decent job. In the current situation, this is possible primarily through the development of the regions and the use of their potential. The flow of population from the regions and villages to the center still continues, houses are empty, and lands suitable for agriculture remain unused. Therefore, investment through stimulating measures should be directed to the regions and villages so that a return flow occurs.

In this regard, if it is possible to transfer several higher education institutions to the regions, it could lead to great progress in this matter. If there are no conditions for earning income in the regions, we cannot force people to go and live there. However, if high investments are made in the regions and vocational and specialized education institutions are located there, this will mean an increase in jobs in those regions and a voluntary influx of people there.

Surveys and ratings have proven that not all higher education graduates work in jobs that match their qualifications and level of education. However, huge funds are spent on higher education, and both the state and citizens invest. If a person with higher education works in a job that is lower than their level of education and sometimes even does not require any qualifications, the investment in their education has not paid off. That investment could be used more efficiently. However, this does not mean that we are

against higher education and that investments should not be made in it. No. We really need educated higher education personnel, but they must also be in numbers and quality that meet the needs of the labor market. The important final result for the student himself is obtaining appropriate job security.

Therefore, in order for young people to take a worthy place in the labor market, it is important, first of all, to help them choose the right profession and develop their entrepreneurial skills. The realization of this goal should begin with general secondary education. If the demand in the labor market is less than the supply, in order to stimulate demand, we must prepare young people so that they become employers of the future, rather than job seekers. State support for self-employment can act as a motivating factor here. We noted above that in low- and middle-income countries, supporting entrepreneurship and employment has a better effect than professional development and subsidizing wages. It would be useful for Azerbaijan to apply each of these, depending on the field of economic activity and sector.

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