

# GRADUATES IN THE LABOR MARKET: EXPECTATIONS AND OPPORTUNITIES

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## Abstract

The main objective of this study is to provide a perception of the graduates' situation in the labor market, to get to know their possibilities and the unemployment processes. As a result of Covid-19, additional companies went out of business or laid-off employees, resulting in a sharp decline in the number of positions that could be filled. The paper covers the expectations of graduates and the opportunities offered by the labor market. The theoretical part of the paper is mainly about the demand and supply of the labor market, the reasons of the wages, wage differences, unemployment and the employment policy. At the end of our literature review, we describe today's employment policy and the problem of over-training/under-training. The practical part deals with the qualification and competitiveness of the graduates. In addition – based on the responses to the questionnaire – we present and evaluate the results of our research. The obtained data were processed with the help of Excel. To test our hypotheses, we used SPSS program, which was used to perform Pearson's Chi-square test and Fisher's exact test. Last, but not least, the final part of the study is about drawing appropriate conclusions and making proposals.

**Key words:** labor market, employment, unemployment, graduates, newly qualified

**JEL Code:** E24, J10, J16

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## Introduction

The number of participants in higher education has increased significantly in the last few years, while the number of recent graduates has increased in Hungary. There is often a debate about oversupply in the labor market, which is an aggravating factor for recent graduates. In addition, there are plenty of employer expectations, which are not easy at all to be met by employees these days – not even with experience. The situation of career starters is further aggravated by the fact that many people do not have professional experience, without which it is more difficult for them to prevail in the labor market – as they may not have the necessary knowledge and skills. In our view, all actors in the labor market and the higher education system need some

change, as these problems affect the country as a whole. Therefore, our research aims to explore and highlight the main problems of graduates and contribute to improving the situation of recent graduates with our suggestions. (Kovács, Pusztai, Sipos, 2016; Mura, Svec, 2018; Radics, 2021 a, b; Svec, Mura, 2020; Zlatarov et al., 2021)

## **1 Theoretical background**

### **1.1 The labor market, wage gap and unemployment**

A company needs manpower to generate revenue. That's why it buys workers' labor, paying them wages in return. Employees' income is the wage which they can earn by selling their labor. Where the employee (seller) meets the employer (buyer), the labor market is created. According to Matiscsákné (2012), the demand for labor depends on the demand of the product, the amount of labor and capital purchased at a given price, and the choice between the available technologies. Labor demand is a derived indicator influenced by technological development, changes in economic structure, the degree of substitutability of different economic conditions, capital and live labor, and the price of individual factors of production. According to the theory of economics, there is a perfect balance in the labor market. However, this is not how the real labor market works, as a perfect match between labor supply and demand cannot really be achieved in practice. The labor market is an "imperfect" market, its state of equilibrium is constantly changing, as the behavior of employees and employers is characterized by limited rationality. The normal state of the labor market is imbalance, which can be unnoticed or spectacular, and catastrophic. (Mura et al., 2019)

At the heart of the traditional wage system is the basic wage of the individual. From an economic point of view, there is a compensatory wage gap for higher skills, which can lead to higher productivity. The pay gap should offset the financial and intellectual investment in higher education. Equilibrium wages are at the intersection of the demand and supply curves of labor. (Mura et al., 2019; Uresha, 2020)

Krueger and Lindahl (2000) concluded that both micro- and macro-literature emphasize the role of education in income growth. Plenty of research using individual-level education and income data has provided solid evidence from the outset of a significant return on investment in education. In addition, women are disadvantaged in the labor market in several ways. There is a vital debate about gender differences regarding wages. For the most part, employers prefer the male workforce because of endurance and mobility. In the case of full-time working women, the work process is often interrupted by family problems. The problem is that employers have

no interest in employing part-time workers, whereas women would be just right because of their motherhood. Employers also often employ men as young career starters, because they assume young women are thinking about family formation. (Uresha, 2020)

There are two indisputable cases of labor market imbalances: labor shortages and job shortages. Labor shortages are associated with vacancies, and job shortages are associated with labor surpluses, i.e., unemployment. Unemployment is due to the inflexibility of the labor market, which is most prevalent among career starters, those with health problems, and the population living in villages (Žilová, 2003). Labor shortage is the responsibility of the planned economy, and unemployment is the responsibility of the market economy. Unemployment can be grouped in several ways. We distinguish between frictional and global unemployment. The measure of frictional unemployment is the lack or partial mismatch between the demand and supply of labor. Within that, we distinguish between mismatch, structural or organizational, and discriminatory unemployment. The main feature of global unemployment is the quantitative gap between labor demand and supply, which is significantly related to some form of frictional unemployment. According to Matiscsákné (2012), we also distinguish between chronic or permanent, cyclical and seasonal unemployment. (Mura et al., 2019; Korcsmáros, Machová, 2021)

## **2 Methodology**

Our goal was to assess the opportunities of graduates in the labor market, and the employers' expectations about them. On the other side, we wanted to reflect on gender differences too. To prepare our primary research, we chose the questionnaire from among the quantitative techniques. This method is one of the most common, and also the most suitable for getting as much data as possible. We definitely wanted to use an online questionnaire to reach as many people as possible, so we chose Google Docs platform. The questionnaire contained a total of 35 questions. A snowball sampling was used while collecting the data in the spring of 2021. Finally, after excluding incomplete or incorrectly completed questionnaires, 116 evaluable responses were analyzed. We formulated 3 assumptions and 2 hypotheses for our research:

- Assumption 1: Graduates don't have the opportunity to gain professional experience during their university years.
- Assumption 2: The wages of employees with higher education are directly proportional to the qualifications acquired.

- Assumption 3: Employers prefer to hire employees with professional experience than recent graduates.
- Hypothesis 1: Males get higher wage than females.
- Hypothesis 2: Men are able to enter the labor market sooner than women.

### **3 Results**

In the first half of the chapter, we describe employment and unemployment in Hungary through secondary data, and then we examine the hypotheses related to our research in the second half of the chapter.

#### **3.1 The situation of labor market in Hungary**

We can state that in a dynamic economy, unemployment – to a greater or lesser extent – is inevitable. Lower levels of unemployment are “manageable”, and do not lead to significant social tensions. In theory, the employment mechanism is working well if total employment is in balance with the economy. However, higher employment raises the price level in the economy, leading to rising loan interest rates as well as crowding out private investment.

According to Hungarian Central Statistical Office (KSH), by the second half of 2020, the employment rate of the 20-64 age group in the EU decreased globally, compared to the second half of 2019. This is mostly due to one of the consequences of the Covid-19 epidemic. Meanwhile in Hungary only a 1.1 percent decrease was observed, while in Spain it was 4.5. In general, this change affected both male and female workers, as the values were very similar (female employment rate was down 1.1 percent, compared to 0.8 percent for men). The employment rate of "the best working age group" (25-54) is 82.0%, while the employment of the younger, and aging population lags significantly behind the average. In the 25-54 age group, men have an employment rate of 88.8%, which ranks fifth in the EU, while women, with their employment rate of 74.9%, are only in the bottom third of the ranking. Nevertheless, the gender employment gap – in all age groups – is still significant, with a gap of 14.6% in Hungary, and only 1.4% in Lithuania. (KSH, 2020a, b, online)

According to the data of the KSH, in the first half of 2020 the National Employment Service registered a total of 311,000 jobseekers, which means an increase by 51,000, compared to the previous year. However, unemployment – due to the coronavirus epidemic – has led to a 41% increase in the number of jobseekers entitled to an allowance, and a 21% increase in the number of jobseekers not entitled to any annuity. However, there was no significant change for graduates. (KSH, 2020a, b, online)

The number of unemployed (who don't have a job but are actively looking for) as defined by the ILO (International Labor Organization) was 194,000 in the first half of 2020, with an unemployment rate of 4.2%. This is more by 33,300, and 0.7 percent higher than in the same period last year. Indicators deteriorated for both sexes, but the change was much more significant for women, which further widened the gender gap. Furthermore, it turned out that one-fifth of the unemployment is in the 15-24 age group, which means 40,000 people, and an unemployment rate of 13%. On the other hand, by the first half of 2020, the average duration of unemployment has decreased by 5 months, compared to a year earlier, so jobseekers find work in an average of 9.1 months. (KSH, 2020a, b, online)

Examining the year 2020, it is important to mention the significant increase in the average wage (HUF 395,000 for full-time employees), compared to the previous year. This represents an increase of 9.9% in nominal terms, which is a dynamic increase over the recent period, but has unfortunately further reduced the number of full-time employees. Several factors contributed to the wage increase (e.g., a 14% increase in the salary of healthcare workers, a 21% increase in the salaries of judges, a 21% increase in the salaries of prosecutors, an increase in the minimum wage, and 8% in the guaranteed minimum wage). In addition, the decline in the number of manual workers also contributed to the increase in average earnings. A further increase was due to the increase in non-regular earnings, which accounted for a total of 21.6% in 2020. In terms of the age distribution of earnings, the situation of young people under the age of 20 is the worst, while the average earnings of those aged 30-39 exceeded those of those aged 40-49 in the first half of the year. In the second half there was a contrary change. The average salary of the intellectuals was HUF 503,300, while HUF 285,700 for the manual workers. (KSH, 2020a, b, online)

Overall, although higher wages and benefits were introduced in certain sectors, this dynamic increase was also largely influenced by the fact that the share of the lower average earners in the labor market decreased, due to the coronavirus epidemic.

### **3.2 Evaluation of assumptions and hypotheses**

In the course of our work, we also wanted to investigate the possibilities of career starters in the labor market, as well as the possible problems and difficulties that may arise during employment. Thus, during the questionnaire survey, we examined the following problems: Our first assumption was that graduates do not have the opportunity to gain professional experience during their university years. We can confirm this assumption because, the majority of respondents (48 percent) agreed with the statement.

Our second assumption was that the wages of employees with tertiary education are directly proportional to the qualifications they acquire. We refuted this statement during the evaluation of our questionnaire, as only 10% of the respondents agreed with the statement.

Our last assumption was that employers prefer to hire employees with professional experience, than recent graduates. We have to accept this assumption, as in total only 19% of respondents stated that employers are happy to hire new entrants, and the majority (81%) believe that employers prefer employees with professional experience.

The collected data were first processed, coded using Excel, and then the statistics were performed using SPSS. Our first hypothesis was the following:

*H1: Males get higher wage than females.*

In the course of the analysis, we examine hypothesis  $H_0$  – with the help of an ordinal (monthly net income) and a nominal (gender) variable – according to which there is no relationship between the two variables. Pearson's Chi-square test was used for the study, the results of which are illustrated in the table (Tab. 1) below. As we can see, in the present case  $\chi^2 = 5.858$ . However, in order to interpret the data, it is necessary to know the value of the degree of freedom ( $df = 1$ ), and we also need to determine the value of significance. During the experiment, we worked with the generally accepted level of  $\alpha = 0.05$ . Using the already known degree of freedom and significance value, we determined the critical value of  $\chi^2$  based on a table. The critical value of the Chi-square distribution with a degree of freedom of 1, and a significance value of 0.05 is 3.84. So, based on the calculations:

$$5,858 > 3,84$$

means  
 $\chi^2 > \chi^2_{\text{krit.}}$

**Tab. 1: The relationship between gender and monthly net income**

		Monthly net income		Total
		HUF 250,000 or below	HUF 250,001 or above	
Gender?	Male	31	15	46
	Female	8	14	22
Total		39	29	68

Source: Own processing

The value of P (empirical significance) is also important – which in our case is 0.016. This value is lower than the specified level of significance, so hypothesis  $H_0$  is rejected. Based on this, we accept the alternative ( $H_1$ ) hypothesis. This means that there is a significant relationship between gender and monthly wage. Based on the results (Tab. 2.) we accept our

hypothesis H1. Since we examined an ordinal and a nominal variable, between which there is a significant relationship, it is necessary to interpret the value of Cramer's V. The value of Cramer's V in our case is 0.293, based on which there is a weak relationship between the two variables (from 0.3 we are already talking about a medium-strength relationship).

**Tab. 2: Hypothesis H1 – values calculated by SPSS program**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	<u>5.858<sup>a</sup></u>	1	<u>.016</u>
Likelihood Ratio	5.865	1	.015
Linear-by-Linear Association	5.772	1	.016
N of Valid Cases	68		

		Value	Approx. Sig.
Nominal by Nominal	Phi	.293	.016
	Cramer's V	<u>.293</u>	.016
N of Valid Cases		68	

Source: Own processing

According to our second hypothesis:

*H2: Men are able to enter the labor market sooner than women.*

In the analysis, we were searching for a relationship between a nominal (gender) and an ordinal (length of the entering period since the graduation) variable, H<sub>0</sub> hypothesis still assuming no relationship between the two variables.

**Tab. 3: Relationship between gender and length of the entering period**

		Length of the entering period since the graduation		Total
		0-6 months	6-12 months	
Gender	Female	38	8	46
	male	21	1	22
Total		59	9	68

Source: Own processing

It can be seen, that we worked with 2 \* 2 cells, in which case each cell must take a value of at least 2.91. This was not the case for one cell in our case, so it was not possible to perform Pearson's Chi-square test. Instead of that, a Fisher's exact test was performed using the SPSS program.

**Tab. 4: Hypothesis H2 - values calculated by SPSS program**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.139 <sup>a</sup>	1	.144		
Continuity Correction <sup>b</sup>	1.166	1	.280		
Likelihood Ratio	2.510	1	.113		
Fisher's Exact Test				<u>.253</u>	.139
Linear-by-Linear Association	2.107	1	.147		
N of Valid Cases	68				

Source: Own processing

To analyze our hypothesis, we used a significance level ( $\alpha$ ) of 0.05, which is lower than the value of empirical significance ( $P = 0.253$ ). This means that there is no relationship between the two variables, so we cannot reject our hypothesis  $H_0$ , but we can reject the alternative hypothesis  $H_1$ . Although, based on gender distribution, a higher proportion of men were able to find a job after the graduation within 6 months than women, based on the results of the test, this is a coincidence. Thus, based on the results (Tab. 4), we reject our hypothesis H2.

## Conclusion

The aim of our study was to assess the current situation of higher education, the employment opportunities, and difficulties of graduates in Hungary. Many people today are concerned about reversing the rising unemployment, but no solution has been found yet. As a result of Covid-19, additional companies went out of business or laid off their employees, resulting in a sharp decrease in the number of potential positions.

In the course of our research, we have come to the conclusion that the unemployment of graduates is probably not only present today, but will be present in the future too. It is the same about the gender discrimination. It turned out that the main problems at present are the inadequate professional skills of young people, the oversupply in the labor market in certain sectors, and the fact that employers are generally reluctant to hire new entrants. Still, we believe that despite the factors mentioned above, it is worthwhile to participate in higher education, as it greatly facilitates employment. It is possible that some employers are reluctant to employ fresh graduates, however, research has shown that there are many opportunities for those who want to work – there are plenty of positions and job searching platforms to choose from. Thus,



even if a longer job searching period may be expected, having a degree usually leads to a higher wage, and better working conditions.

In our view, a solution to the problems in higher education would be to limit the number of students admitted in areas where oversupply is high. This would somehow increase the capacity of universities / colleges, so they would have more opportunities to provide appropriate professional programs, and internships for students. With these two steps, it is conceivable that employers' doubts about graduates would also diminish. After all, one of the most important expectations of employers today is relevant professional experience, in the absence of which it is not surprising that it is more difficult for recent graduates to find employment.

## References

- Kovács, Sz., Pusztai, R., Sipos, N. (2021). Economics students' migrations in the Hungarian higher education system. *Management*, 21(Special issue), 83-103.
- Korcsmáros, E., Machová, R. (2021). Challenges of Burnout Prevention in Slovak SMEs-Focus on Optimal Employment. *Acta Polytechnica Hungarica*, 18(2), 87-104. <https://doi.org/10.12700/APH.18.2.2021.2.5>
- Krueger, A. B., Lindahl, M. (2020). Education for growth: why and for whom? *Journal of Economic Literature*, 39(4), 1101–1136. <https://doi.org/10.1257/jel.39.4.1101>
- KSH. (2020a). *Gyorstájékoztató: 388 000 forint volt a bruttó átlagkereset*. [online]. Retrieved from: <https://www.ksh.hu/docs/hun/xftp/gyor/ker/ker2004.html>
- KSH. (2020b). *Munkaerőpiaci folyamatok, 2020. I. félév*. [online]. Retrieved from: <http://www.ksh.hu/docs/hun/xftp/idoszaki/mpf/mpf202/index.html#amagyarorszagifoglalkoztatottsageurpaikzpzmezybenvan>
- Matiscsákné, L. M. (2012). *Emberi erőforrás gazdálkodás*. Wolters Kluwer Kft.
- Mura, L., Gontkovicova, B., Dulova Spisakova, E., Hajduova, Z. (2019). Position of Employee Benefits in Remuneration Structure. *Transformations in Business & Economics*, 18(2(47)), 156-173.
- Mura, L., Svec, M. (2018). Human resources in public and private sector: a comparative study of Slovakia. *10th International Scientific Conference on Reproduction of Human Capital - Mutual Links and Connections (RELIK)*. *RELIK 2017: Reproduction of human capital - mutual links and connections*, 327-336.
- Radics, R. (2021a). Websites for more effective digital teaching and learning in higher education. *INTED2021. 15th International Technology, Education and Development Conference*, 1508- <https://doi.org/10.21125/inted.2021.0348>

- Radics, R. (2021b). Innovációs módszerek az irodalomoktatásban. *A nemzeti összetartozás jegyében*, 151-158.
- Schulcz, P. (2021). Required Skills and Competencies on The Administrative Labor Market. *INTED2021. 15th International Technology, Education and Development Conference*, 2622-2629. <https://doi.org/10.21125/inted.2021.0559>
- Svec, M., Mura, L. (2020). Impact of Covid-19 on innovation of internal communication and information sharing among employees. *Annual International Scientific Conference on Marketing Identity: COVID-2.0 Book Series: Marketing Identity*, 592-60 .
- Uresha, K. I. (2020). Gender Differences on Organizational Commitment: Empirical Evidence from Employees in Sri Lankan Apparel Industry. *Asian Journal of Social Science and Management Technology*, 2(4), 21-33.
- Žilová, A. (2003). *Komunitná práca s komunitou s vysokou mierou nezamestnanosti*. Univerzita Mateja Bela.
- Zlatarov, P., Ivanova, E., Ivanova, G., Doncheva, J. (2021). Design and Development of a Web-based Student Screening Module as Part of a Personalized Learning System. *TEM Journal-Technology Education Management Informatics*, 10(3), 1454-1460. <https://doi.org/10.18421/TEM103-58>

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