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## Article

# The Czech labour market: Adaptation of young people to the advent of Industry 4.0

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# The Czech Labour Market: Adaptation of Young People to the Advent of Industry 4.0

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## Abstract

The focus of the paper was to conduct an analysis of the selected qualitative and quantitative aspects of the labour market and the potential ability of the young generation to adapt to the new conditions of their prospective employment. The primary data were obtained in the form of a questionnaire survey. The total of 2,817 respondents were contacted via email containing a research hyperlink. The respondents were secondary school students studying in the Czech Republic. The obtained data were collected in Excel and further processed by statistical methods, the Pearson test using  $\chi$  quadrate. The option of choosing several occupations was evaluated by means of the so-called professional specialisation index. Secondary data were used to determine the development of trends on the Czech labour market in the current conditions of the Industry 4.0 onset. The respondents most often chose occupations in the fields of technology, industry and construction out of the eleven occupational areas offered. More than a quarter of respondents chose their preferred profession in this area. This is a positive finding in terms of the focus of the economy on Industry 4.0.

## Keywords

Microeconomics, Labour Market, Industry 4.0, The Czech Republic, Job, Occupation

## JEL Classification

J21, J24, L0, E24

## Introduction

The advent of Industry 4.0 brings new trends in the knowledge demands on both, the whole society and the specific area of labour market development (Novakova, 2020), (Piatkowski, 2020). In many areas of the economic system, computerization and cybernetization have had and will continue to have a major impact on the qualifications required and on the labour market in general (Alam et al., 2020), (Sima et al., 2020). New principles of work organization will be introduced, there will be changes in the role of the employee, changes in the structure and job description of most professions, new skills will be required, and the impact on employment and unemployment will be visible (Jung & Lim, 2020). As a result, it will be necessary to redefine the policies of labour market and education, and social policies so as to help people and businesses to facilitate the necessary changes smoothly and under favourable social and economic conditions. Postponing or delaying such changes would only lead to increased tension and economic and social losses.

The impact of Industry 4.0 on the labour market will be not only very complex but also rather contradictory (Doerflinger et al., 2020). It is necessary to analyse the wide range of possible impacts, besides the immediate impacts in terms of job threats or job creation as a result of digitization.

Further evolution of these approaches can be understood as 5th industrial revolution known as Industry 5.0 and is being developed with the focus on the personal demand of customers. Javaid & Haleem (2020) claim that it is necessary for better interaction between human beings and machines in order to achieve more efficient results. Longo et al. (2020) perceive this new revolutionary wave as the "Age of Augmentation", when a human and a machine harmonize and work together in great symbiosis. Nahavandi (2019) introduces the concept of Industry 5.0, stating that robots are interconnected with human potential and cooperate together instead of being competitors. Due to the fact that manufacturing companies are currently in the phase of transition to Industry 4.0, this paper concentrates on this concept mainly.

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Preparation for the ongoing changes must also take place in the education system. The current trends of the young generation's interest to study mainly humanities will pose a problem in the future in terms of their employability. In this context, a research study was carried out among secondary school students in the Czech Republic. Its main objective was to determine their professional ambitions regarding success in the labour market.

At present, global trends in graduates' employment focus particularly on the impact of technological progress on the labour markets of all countries. The opportunities and risks connected with entering the labour market are being analysed together with the influence of use of new technologies on job vacancies or termination of job positions. Various studies have shown that students will opt for technology if they have come into contact with technology in a positive way, are confident in being good at technical things, have certain skills and experience in the area, and when a technical profession matches their self-image (Lorsch 1987).

This paper complements the studies on professional orientation of secondary school students from the Czech Republic and draws attention to the factors influencing their choice of future career.

The paper is divided into five parts. The first part includes literature review of the authors dealing with the issue of young people finding employment on the labour market in the context of new development trends. The second part concentrates on the employment and unemployment development in the Czech Republic, as well as comparison of the selected EU countries. Research methodology, research questions and statistical data processing are to be found in the third chapter. The next chapter presents the results of the primary data processing and discussion related to the findings. Finally, in the last section of this paper, conclusion is presented.

## Literature Review

In recent years, the labour market trends have been influenced by several factors, apart from the advent of Industry 4.0. The Industry 4.0 concept is based on a document presented at the 2013 Hannover fair. According to Russmann (2015), we are in the middle of the fourth wave of technological progress. It is the rise of a new digital industrial technology known as Industry 4.0. It will allow us to gather and analyse data across machines, enabling faster, more flexible and efficient processes while producing better quality goods at reduced costs. This will increase production productivity, enhance the economy, boost industrial growth and change the workforce profile (Ungermaier et al., 2018).

The impact of Industry 4.0 on the labour market will not only be very complex but also rather contradictory (Glyn et al., 2003). Under the influence of new processes, that will be more interconnected and continuous, the traditional work organization will transform from a strict division between professions and activities into a structure that is significantly broader with decentralised decision-making. In addition to routine work activities, work performance will also require independent decision-making, supported by application of automatic, monitoring and optimising systems. It will further include coordination, control and follow-up activities (Stock & Seliger, 2016). The authors also argue that this will mean a completely new arrangement of the workplace and a different work pace. For example, Green (2012) in his research claims that the extent to which employee involvement in the workplace and computer technologies promote the use of higher order cognitive and interactive skills. He finds that literacy, other communication tasks, and self-planning skills have grown especially fast. Numerical and problem-solving skills have also become more important. Similar results were obtained by the authors Pajarinen & Rouvinen, (2014) in their Finnish research.

Bonekamp & Sure (2015) indicate that Industry 4.0 would lead to a substantial decrease in standardised low-skill and an increase in high-skill activities, embracing planning, control and IT-related tasks. The majority of researchers expects a growing complexity in many job profiles, along with an increasing need for cross-functional work organisation and cross-company partner networks. They also project a growing importance of continuous learning, training and education in order for the workforce to be able to adapt to future qualification requirements derived from Industry 4.0 technologies.

Stock & Seliger also (2016) give a comprehensive understanding of this development, the micro and macro perspective of Industry 4.0. Firstly, they provide an overview of the main trends and expected development for the different value creation factors in Industry 4.0. Secondly, they list opportunities of sustainable manufacturing from the macro perspective.

In Wolter et al. (2012), the results show that Industry 4.0 will accelerate the structural change towards more services. In this process, the labour force movements between branches and occupations are much larger than the change of the number of employees in total. The turnover on the labour market is accompanied by an increasing value added which is leading not only to more economic assets but also – due to higher requirements for the labour force – to higher aggregate wages. Arntz et al. (2016) see differences in investments in automation technologies as well as differences in the education of workers across countries. In particular, the authors argue that the estimated share of "jobs at risk" must not be equated with actual or expected employment losses from technological advances for three reasons. First, the utilisation of new technologies is a slow process, due to economic, legal and societal hurdles, so that technological substitution often does not take place as expected. Second, even if new

technologies are introduced, workers can adjust to changing technological endowments by switching tasks, thus preventing technological unemployment. Third, technological change also generates additional jobs through a demand for new technologies and through higher competitiveness.

The main conclusion from Arntz et al. (2016) is that automation and digitalisation are unlikely to destroy large numbers of jobs. However, low qualified workers are likely to bear the brunt of the adjustment costs as the automatibility of their jobs is higher compared to highly qualified workers. Therefore, the likely challenge for the future lies in coping with rising inequality and ensuring sufficient (re-)training, for low qualified workers in particular.

Using Industry 4.0 as an opportunity for positive labour market developments will require taking fast and effective measures ensuring labour market flexibility; such as preparing people who are being made redundant from closed down positions for the emerging positions or professions requiring new knowledge and skills, as well as measures to stimulate creation of new jobs (Oesterreich & Teuteberg, 2016). A prerequisite is the creation of timely and reliable information through a system of monitoring and predicting labour market developments, including skills needs in terms of the speed of automation and cybernetization and their impact on employment in individual sectors, professions and regions.

New and ongoing market trends require necessary changes in the structure of education. Regarding employability in the labour market, the current trends in the orientation of those interested in the study of humanities and economics are seen as considerably risky in the long term (Destefanis & Mastromatteo, 2010). Aquilani et al. (2020) state that the technologies of Industry 4.0 can improve the life of society as a whole. This new perspective focused on social and global welfare can be called Society 5.0. Aquilani et al. (2020) study how Industry 4.0 features and technologies available can support the transition to Society 5.0.

Concentrating on the issue of the labour market and professions connected with Industry 4.0 is essential for the economies focused on automotive industry. The economy of the Czech Republic is a such type of economy focused on export and the commodity of automotive industry. This largely represented industry has great comparative advantage (Laursen, 2015) and is, therefore, crucial for future development of the Czech economy. The impact is not on the economy growth of the Czech Republic only, but also of Germany and Slovakia, having there the highest volume of foreign trade within automotive industry. For example, the active balance in the area of automotive industry is crucial for prosperity of contemporary German economy (Ili, Albers & Miller, 2010).

Over the past decade, European countries have experienced a significant economic downturn, followed by a relatively long period of economic growth that has most likely peaked this year. Naturally, the economic recession was linked to job losses and a slump in employment, with the impact of the crisis varying from country to country. However, employment has returned to its pre-crisis levels in most European Union member states, and in many cases even surpassed them (Zábojníková, 2018). The highest employment was recorded in Sweden in 2018 (77.4% in quarter 2 of 2018). Sweden reached this position in the last five years. Employment figures had been among the highest before, however, after 2013, it surpassed its pre-crisis level. Sweden has successfully remained the European leader in this respect. The country with the lowest level of employment has been Greece, since 2011. There was also a gradual increase in Greece with employment reaching 54.8% in quarter 2 of 2018. During the most difficult period of the crisis, less than a half of the population was employed in Greece (48.6% in quarters 2 and 3 of 2013). In general, southern EU countries have lower employment rates (Czech Statistical Office, 2019a).

**Table 1.** Employment rates in the selected EU countries

Country	Employment in %
Sweden, Netherlands, Germany, Denmark, Estonia	77.4 – 74.8
<b>Czech Republic</b>	<b>74.7</b>
UK, Austria, Lithuania, Finland, Latvia, Slovenia, Malta, Portugal, Hungary, Cyprus	74.6 – 68.8
EU28	68.5
Ireland, Bulgaria, Poland, Slovakia, Luxembourg, France, Romania, Belgium, Spain, Croatia, Italy, Greece	< 68.4

Source: Zábojníková, 2018

The Czech Republic has held the third place with the highest employment rate of persons aged 20 - 64 years (Czech Statistical Office, 2019a). As a result of the growth of the Czech economy in recent years, the overall positive development has had an effect on the number of jobs registered by the Labour Office. Since 2016, it has been growing more rapidly than in the previous years. In 2018, there are even more jobs available than the unemployed, and compared to 2013, the number of jobs almost doubled. This is a positive development for the unemployed, as they have more choice of employment. On the other hand, this creates a problem for employers, as their demand for work exceeds supply, so they have fewer candidates than needed. They address the lack of

workers, for example, by sourcing talent from abroad or bigger investments in new production technologies.

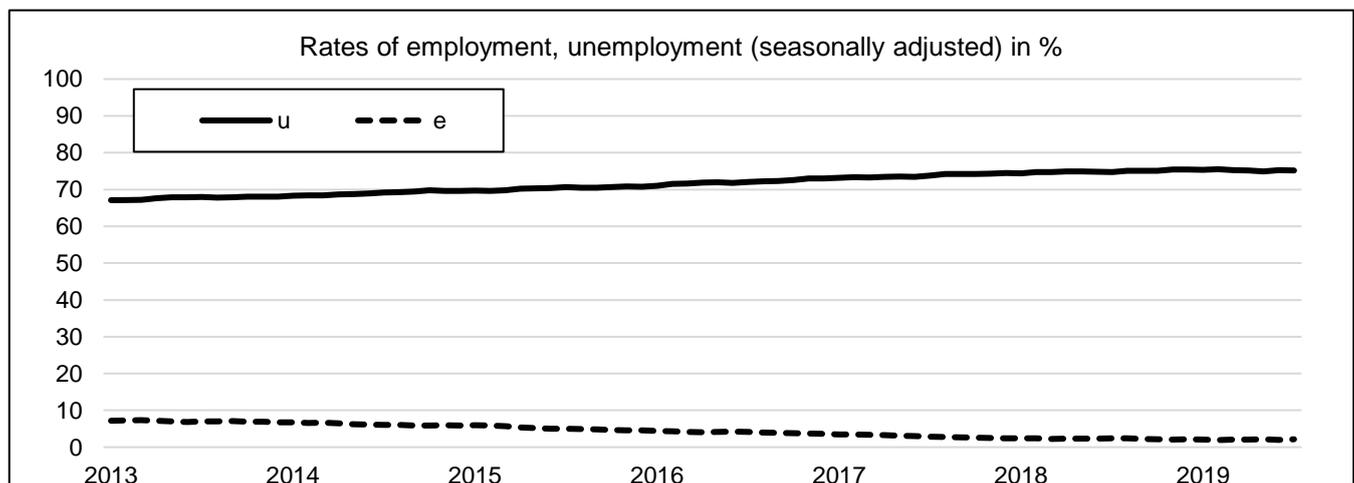
Such favourable development of employment in the Czech Republic has resulted in a decrease in job applicants registered by the Labour Office. In 2013, a total of 596,833 job seekers were registered with the Labour Office. The figure has been decreasing year by year; in 2018, there was less than a half of applicants, precisely 231,534 registered job seekers. In connection with the decline in the unemployed figures and the increase in jobs, the number of available job seekers (i.e., applicants who can immediately accept a job offer, who are registered as unemployed, and who do not have any objective obstacle to entering employment) also changes per job. In 2013, this indicator was at 16.6 candidates per vacancy. It decreased yearly by about half, and in 2017, there were only 1.2 available applicants per job.

If we were to look at the structure of applicants in terms of their highest educational attainment, we would see some interesting trends. The total number of job seekers is decreasing (231 thousand candidates in 2018) (Czech Statistical Office, 2019a). The most significant share of the unemployed in the selected years consists of applicants who completed their vocational studies by obtaining the apprenticeship certificate.

**Table 2.** Structure of applicants according to the highest education completed

Highest education completed	2013	2014	2015	2016	2017
incomplete or without education	3,006	3,206	8,065	9,604	11,323
primary	161,269	147,107	122,072	104,742	74,630
vocational training	240,949	208,646	169,411	140,501	101,876
secondary without exam	12,901	18,495	14,741	12,255	8,906
vocational with exam	20,872	24,568	19,892	16,337	11,990
completed secondary	13,039	14,642	12,328	10,419	7,543
completed secondary specialised/technical	102,827	86,406	71,517	57,940	42,167
higher	5,034	4,477	3,972	3,180	2,286
tertiary	36,936	34,367	31,120	26,395	19,899

Source: Czech Statistical Office, 2019b



**Fig. 1.** Rates of employment and unemployment in the Czech Republic

Source: Czech Statistical Office, 2019c

The Czech Republic currently shows one of the lowest results in terms of unemployment and its development compared to other European Union countries. Since 2013, the number of the unemployed in the Czech Republic has been declining in the long term (Tab. 2; Fig. 1). Note: u - unemployment; e – employment.

The employment rate of the group aged 15–64 (the share of the employed persons in the age group 15–64 years, as percentage) seasonally adjusted, reached 75.2% in July 2019 and increased by 0.4 percentage point (p.p.) compared to that in July 2018. The male employment rate was 82.0%; the female employment rate was 68.1%, both seasonally adjusted. The employment rate of persons aged 15–29 years, seasonally adjusted, was 49.0%, in the age group 30–49 years, it attained 88.1%, and in the age group 50–64 years, it was 75.6%. (Czech Statistical Office, 2019d)

The general unemployment rate of the persons aged 15–64 in percentage and seasonally adjusted reached 2.2% in July 2019 and decreased by 0.2 p.p., year-on-year. The male unemployment rate, seasonally adjusted, attained 1.9%; the female unemployment rate reached 2.5%. (Czech Statistical Office, 2019d)

## Methods

In the year 2018, there was research focused of secondary schools of all types around the Czech Republic, aiming at studying the approach to being successful in the future labour market. The primary data were obtained via online questionnaire survey. A total of 2,817 respondents were contacted via email containing a research hyperlink. The respondents were secondary school students studying in the Czech Republic. The research took place in 2018.

The main aim of the research was to determine the structure of employment that respondents prefer in their future employment in the Czech labour market. The research questions were derived from Dobeš & Virglerová (2014) and Dobeš & Jurásek (2013). For RQ2 and RQ3, the null (H0) and alternative (H1) hypotheses were formed.

RQ1: In what professions does the current secondary school generation see employment in the labour market?

RQ2: The choice of profession is independent of that of parents.

RQ3: The choice of profession is independent of the difficulty of finding work in the given field.

RQ4: What is the most frequently expected salary for the future occupation?

The respondents were to choose from the total of 307 professions, which were further classified into 40 subcategories and 11 main categories. These categories come out of the National Profession System of the Ministry of Labour and Social Affairs CZ and the main ones are as follows:

1. Technology, industry and construction
2. Services, business, transport and travel industry
3. Health service and social care
4. Education and research
5. Security, law and armed forces
6. Management and administration
7. Art and media
8. Information and communication technology
9. Agriculture, veterinary medicine and environment
10. Banking, insurance industry and other financial services
11. Public administration, authorities

Occupations were classified into main areas and subcategories on the basis of the official classification of occupations. To choose an occupation, the respondent first selected the main area in which the occupations were then grouped into subcategories. The respondents could select an unlimited number of occupations across all categories, and then identify one of them as the most preferred.

The data obtained were collected in Excel and further processed by statistical methods, the Pearson test (Boldin, 2019) using chi-square. The possibility of choosing more occupations was evaluated by professional specialisation coefficient – PSC (Confederation of Industry of the Czech Republic, 2018). The professional specialisation coefficient PSC expresses the degree of affinity between the field studied by the respondent and the occupation (group of occupations) of interest or which they wish to pursue in the future. The PSC formula:

$$\text{Professional specialisation coefficient (PSC)} = \frac{\text{total number of responses}}{\text{total number of respondents}} \quad (1)$$

The PSC was created for each respondent. The higher the level of the coefficient, the more professionally defined the respondent is - the chosen occupation or occupational group corresponds to the field of study currently being studied at secondary school, and the selected occupational group is homogeneous and balanced in terms of qualification level of individual occupations.

## Results and discussion

The most preferred occupations (RQ1) were in the category 1 - technology, industry and construction, in which 757 respondents chose their priority occupation; this represents more than a quarter of all respondents. The second most preferred area was number 2 - service, retail, transport and tourism, in which 456 respondents chose the most preferred profession. However, a significant drop in choice frequency was recorded in other area. The least preferred area was number 11 - public administration, offices, with only 34 respondents. The second least occurring area was banking, insurance and other financial services with 64 respondents.

As a priority occupation, the following jobs were chosen: 1st mechanical engineer, 2nd soldier or programmer. Four out of the ten listed occupations fall into the areas of technology, industry and construction, which ranked as the

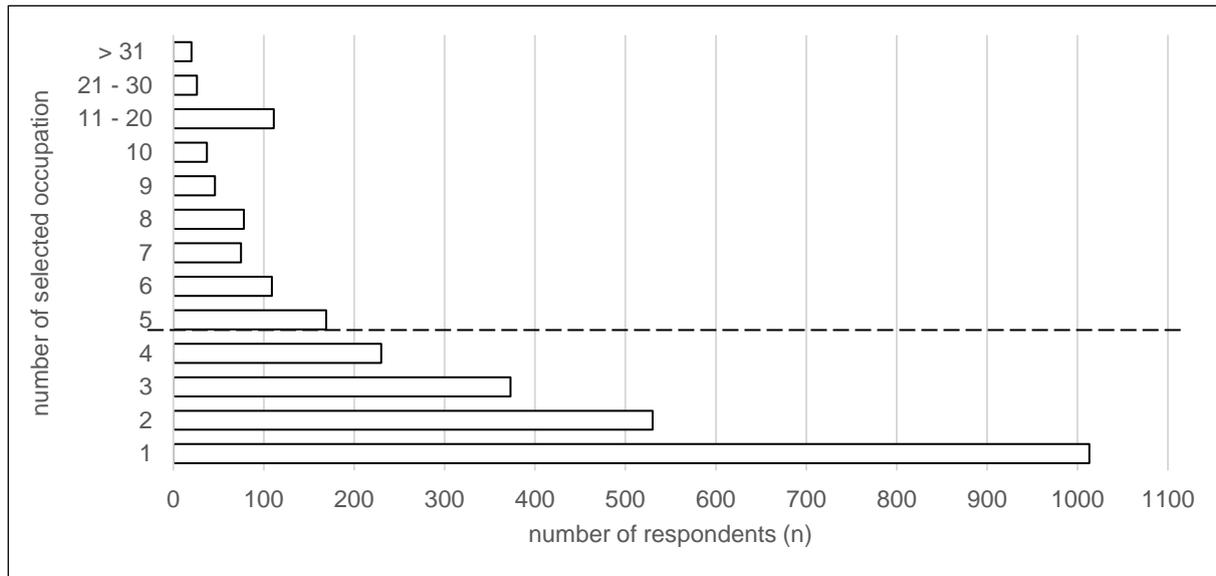
most preferred category overall. The cook and the waiter fall into the category of services which ranked second in overall ranking by preference.

Professional specialisation of respondents was determined using a coefficient calculated by the ratio of the total number of professions selected 10,737 to the total number of respondents 2,817.

$$\text{PSC}_{2018} = 10\,737 / 2\,817 = 3.81$$

The professional specialisation coefficient of respondents shows that the respondents have a relatively clear idea of their future employment in the labour market.

The frequency of respondents' selection of professions is shown in Fig. 2. 76.21% of respondents have a clear idea of their future employment in the labour market. A clearly defined specialisation consists of a maximum of four selected occupations and is shown in the graph by a dashed horizontal line.



**Fig. 2.** Frequency of choice of the number of professions

**Source:** Authors' own

This is a positive finding in terms of the focus of the economy on Industry 4.0. As shown by Gerwel Proches et al. (2018), students with such preference have a decisive importance in solving demanding tasks, teamwork, independence, development opportunities and participatory management. The attractiveness of these professions is also an important prerequisite for further development of Industry 4.0, as stated by Švarcová et al. (2019). Although the area of Security, justice and armed forces is in the fifth place, 2.91% of respondents have chosen a soldier as their preferred job, making it the second most preferred occupation. The factors of motivation for the choice of career in military are examined by Karlova (2018). These are material benefits of military service, interest in the selected military specialization, pride in service in the armed forces and sharing of norms and values of military service. Also, the area of Information and communication technologies does not hold a strong position in total, but from the point of view of individual professions, a programmer, belonging to this category, ranked as third most preferred profession. The second most preferred area among students was the area of Services, retail, transport and tourism. From this area, 2 professions ranked among the ten most preferred ones - a waiter and a cook. In the third category of Health and social care, students most often chose the profession of a general nurse. The last of the 10 most preferred occupations, a director/head of an organization, falls into the sixth category of Management and administration.

According to PSC, the results of the research showed that the majority of secondary-school students do not have a clear idea of their future success and professional orientation in the labour market. The majority of respondents chose more than three professions from different disciplines. (Dohnalová & Zimola, 2016)

To determine the reasons for choosing a certain type of future employment of respondents in the labour market, the influence of parents on the respondents was examined. It was investigated whether the respondents were inspired by their parents (RQ2) when choosing their professional specialisation. It was also examined whether the choice of a given profession by the respondents would depend on a sufficient supply of jobs in the given field and thus the possibility of easy employment in the labour market (RQ3). Also, the respondent's personal attitude to the given profession was analysed. These factors were statistically tested using hypotheses and the Pearson's chi-square test.

A total of 2,328 respondents stated that their parents do not have the same profession as the one(s) they selected.

Only 489 students reported that parents had the same occupation they had chosen. The dependence of respondents' occupational choice and parents' profession in the area was tested at a significance level of 5%. Hypothesis testing results were:  $\chi^2 = 132.48$ ,  $df = 10$ ,  $p\text{-value} < 2.2 \cdot 10^{-16}$ . The results show that there is a correlation between the choice of occupation and the profession of parents; the hypothesis H0 (the choice of occupation is independent of the profession of parents) is, therefore, rejected and we accept the hypothesis H1 (the choice of occupation depends on the profession of parents).

The results show that more than 80% of students differ from their parents in the choice of their professional career. The Pearson test proves that there is an interconnection between the choice of professional career and the job experience of parents. It means that 20% of respondents found the profession of their parents inspiring when considering future career. Nevertheless, the majority of respondents follows the steps of their parents as for their future career. The question is why it is so. It can be stated that for students, the parents' occupation can be both an inspiration and an intimidating factor. If students see that their parents enjoy their work, are fulfilled by their work and are able to make a living, it is motivating for the students. On the other hand, parents who are not happy in their job, do not get a decent pay for it, or whose work takes up all their free time, are more likely to discourage their children from choosing the same job; they then think about working in a different field.

A total of 2,026 respondents chose their future profession based on employability. 791 respondents disregarded the aspect of high employability. The dependence of the choice of profession and the difficulty of obtaining work in the chosen field was tested at the significance level of 5%. Hypothesis testing results:  $\chi^2 = 256.03$ ,  $df = 10$ ,  $p\text{-value} < 2.2 \cdot 10^{-16}$ . Based on the test results, it can be stated that the choice of profession depends on whether the student finds it easy to find a job in the selected field or not. Again, we reject the hypothesis H0 (the choice of profession is independent of the difficulty of finding a job in a given field) and accept the alternative hypothesis H1 (the choice of profession is dependent on the difficulty of finding a job in a given field).

1,848 respondents stated that the main reason for choosing their occupation was their long-term interest in the field. The second most frequent reason, chosen by a total of 439 respondents, were the working conditions of the profession. A minority of respondents stated that they chose a profession in a certain field because they believe it to be easier to find a job in. Only a very small part of the students saw a link with further education.

The dependence of the choice of occupation and the respondent's attitude to the chosen occupation were tested at the significance level of 5%. Hypothesis testing results:  $\chi^2 = 365.39$ ,  $df = NA$ ,  $p\text{-value} = 2 \cdot 10^{-05}$ . The test results show that the choice of profession depends on the student's attitude to the chosen profession. Again, we reject the null hypothesis H0 (the choice of profession is independent of the respondent's attitude to the chosen profession) and we accept the alternative hypothesis H1 (the choice of profession is dependent of the respondent's attitude to the chosen profession.)

The results show that almost 72% of students are convinced that they will easily find jobs in the chosen field. When comparing the 10 most preferred occupations with those that have been the most demanded in the Czech labour market in the last 3 years, we find that there is currently a relatively high demand on the market for graduates from economic schools to work in Finance, accounting and controlling. Yet, this area was rarely chosen by the students; only 64 students chose their preferred employment in this area. For this reason, Nemova et al. (2017) and Yakimova (2011) have made recommendations for improving youth social policy in the field of career guidance. One of the possibilities is to modify the Model career counselling (Droppa et al., 2017) for the Czech labour market conditions. Almost 72% of students are convinced that they will easily find jobs in the chosen field. When comparing the 10 most preferred occupations with those that have been the most demanded in the Czech labour market in the last 3 years, we find that there is currently a relatively high demand on the market for graduates from economic schools to work in Finance, accounting and controlling. Yet, this area was rarely chosen by the students; only 64 students chose their preferred employment in this area. For this reason, Nemova et al. (2017) and Yakimova (2011) have made recommendations for improving youth social policy in the field of career guidance. One of the possibilities is to modify the Model career counselling (Droppa et al., 2017) for the Czech labour market conditions.

Expectations regarding the salary (RQ4) as a reason for choosing a particular occupation was examined within the range of income size. The average exchange rate in 2018, 25.50CZK/EUR, was used to convert the values into EUR. 43 respondents expected earnings in the range of EUR 0 - 391, which is lower than the minimum wage set in 2017. Most respondents expected earnings of EUR 392 - 784. 1,156 respondents' expected wage was at this interval. The second most numerous group was the range of EUR 785 - 1,176; earnings expected by 1,028 respondents. Earnings in the range of EUR 1,177 - 1,568 are expected by 266 respondents, and in the range of 1,569 - 1,960 euros by 136 respondents. The average value is, therefore, 875 euros.

The average wage was roughly EUR 1,247 in 2018, and around EUR 1,334 in 2019. The upper limit of earnings, EUR 1,960, was set on the basis of the Czech Statistical Office data, which state that in 2018, salaries of 80% of employees ranged from 550 to 2,039 euros.

From the data analysis, it is clear that most respondents expected earnings of 392 - 784 euros. If we compare these figures to the average wage, which was around EUR 1,255 per month in 2018, we can say that the vast

majority of students expected a lower wage, and they probably do not think that their chosen field is paid average or better salary. This relatively low wage volatility is also confirmed by Ayllón and Ramos (2019), who also point out that wage volatility does not differ among different levels of education. Most respondents expected earnings of 392 – 784 euros. If we compare these figures to the average wage, which was around EUR 1,255 per month in 2018, we can say that the vast majority of students expected a lower wage, and they probably do not think that their chosen field is paid average or better salary. This relatively low wage volatility is also confirmed by Ayllón and Ramos (2019), who also point out that wage volatility does not differ among different levels of education.

## Conclusion

In 2019, the rates of unemployment in the Czech labour market were low due to a positive development of economy at that time. However, the current economic recession can complicate the employability of all the graduates, and not only those of secondary schools.

On the other hand, even graduates who do not choose the most desirable occupation may not necessarily encounter difficulties finding a job under the current economic conditions. As reported by Moore (2019), the labour market conditions have been set up to facilitate positive employability mechanisms that will build a stable platform for young people to build a trajectory towards sustainable employment reducing long-term youth unemployment.

It was determined that the first 6 job categories, except for Education and research, contain at least one of the offered professions ranking among the 10 most preferred occupations. In the field of Information and communication technology, a programmer was probably among the ten most frequently chosen professions due to a generally lower number of professions in this field or due to technological progress and higher demand for IT specialists, programmers or software developers. NC machine programmer and a programmer ranked among the top 10 occupations, along with other technology and IT jobs. Human resources, sales representatives and marketing specialists not scoring very high among the respondents, are also in demand. These results indicate a growing importance of career counselling in secondary schools.

This study is not free from limitations. Firstly, this study aims only at the Czech labour market. Secondly, our findings and conclusions should be further tested over a larger variety of settings. One possibility is by running similar surveys in other countries and throughout the time. Finally, respondents could have provided false or misleading answers. Therefore, the results cannot be generalized.

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