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The Employment of Ukrainians as an Opportunity to Fill the Labour Market in Poland – Selected Issues

Abstract

The labour market in Poland has undergone significant transformations over the past two decades. The observed changes have been influenced by various factors related to, among other things, the possibility of free movement of the population resulting from membership of EU structures, demographic changes, technological changes, and the automation and robotisation of production processes. Demographic change is becoming a significant challenge, highlighting the shortage of workers with different qualifications and competencies in the labour market in various sectors of the national economy. This paper aims to indicate to what extent Ukrainian citizens can fill the gaps in Poland's emerging labour market. To that end, a survey was conducted in the Qualtrics programme in May-June 2022 among Ukrainian citizens who arrived in Poland before 24th February 2022, i.e., before the outbreak of the war and who were registered in the Gremi Personal database. This particular company provides support connected to employment for Ukrainians. Due to the non-probabilistic sampling technique, the results cannot be generalised with regard to the entire population. To analyse the results, descriptive statistics were used

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to examine the population structure and determine the significance of the characteristics studied and the correlation between them. The research shows that labour shortages in Poland's labour market can be compensated to some extent by employing migrants from, for example, Ukraine. The commencement of the proper research was preceded by the preparation of a pilot study and the collection and analysis of statistical data related to the situation on the Polish labour market, taking into account the level and structure of employment and an indication of shortages in the labour market when the research was prepared, and the fact that complete statistical data ended in 2020, hence the decision to include this research period in the analyses.

Keywords: Immigration, Employment, Lack of Labour Force, Poland, Ukraine

Introduction

Europe's share of the global population is declining. In 1960, the population of the EU27 was approximately 12% of the world's population, falling to around 6% by 2020 and is projected to decline to less than 4% by 2070. The European Commission's *Report on the Impact of Demographic Change in Europe* from 2020 indicates that Europeans in the 21st century are becoming an older population each year, and life expectancy is increasing (European Commission, 2020). Health and medical systems that are among the most developed in the world contribute to this (OECD iLibrary, 2018; England, Azzopardi-Muscat, 2017). From the 1960s to the mid-1990s, the average number of births per woman in Europe went into decline and, by 2018, amounted to 1.55 children born per woman. This is below the considered level of 2.1 children per woman required to maintain a constant population size (Eurostat, 2020).

In Europe, the number of households is increasing. However, their size is decreasing. In 2019, there were 195 million households in Europe, an increase of 13 billion as compared to 2010. In that year, the average household consisted of 2.4 people whereas in 2010 it was 2.3 people. The number of one-person households increased by 19% from 2010 to 2019, and the general trend in Europe is towards that of households of couples without children, people living alone, and single parents (Rees, 2017; Olash, 2015).

Since 2012, the number of deaths in the EU27 has exceeded the number of births. Europe's population is projected to decline from



2030 onwards, from 449 million in 2019 to 424 million by 2070. The most significant population declines are projected to occur in Bulgaria, Greece, Croatia, Italy, Latvia, Lithuania, Hungary, Poland, and Romania (European Commission, 2020). The impact of demographic ageing on the labour market is becoming most evident, as the number of people of working age will decrease from 59% to 51% between 2018 and 2070 (Ritchie, Rosner, 2019; Krupowicz, Kuropka, 2022). Europe needs a highly skilled, well-trained workforce, so millions of Europeans must therefore retrain. Attracting skills and talents from abroad will also help the labour market.

Population growth in a particular region can be influenced by several factors: the environment, access to services (childcare, those for people with disabilities, high-quality education, health care, long-term care, housing, and cultural services) or the availability and quality of infrastructure (roads, rail, energy supply, transportation, and access to boarding schools). Demographic change also affects economic prospects and the ability to offer attractive jobs, which can become a reason for migration (Guzi, Kahenec, Ulceluse, 2021). Many people migrate from regions with low GDP because of job opportunities and a better quality of life in their target destinations.

Poland is one of the countries for which the European Commission has predicted a population decline. In the 1990s, there was a gradual increase in life expectancy and a decline in fertility rates which contributed to the ageing of the labour force (GUS, 2022). The population aged 50 and over is projected to increase by 2030 (GUS, 2017). Poland's accession to the European Union allowed its citizens to travel and work in Community countries, with more than 2.4 million citizens leaving Poland between 2004 and 2019 (GUS, 2021). Many of Poland's specialists and skilled workers have left the labour market. The mass migration of Poles to EU countries in search of work after 2004 increased labour shortages in the labour market, but, conversely, Poland's accession to the EU also increased interest in the Polish labour market among residents of post-Soviet countries. The document "Polish Migration Policy – the Current State and Proposed Actions" and the implementation plan of this document had a significant impact on the number of arrivals and their taking up work. It played a crucial role in changing the treatment of migration from that of an undesirable phenomenon to a necessary one due to shortages in the Polish labour market.

Migration policy is defined in documents concerning departure and stays, taking up work, integration, acquiring citizenship, and obtaining refugee status. Since Poland's accession to the EU, under the applicable



law, citizens of post-Soviet countries could take up work based on their getting a work permit (OECD, 2016). Another facilitation in taking up gainful employment was the introduction of a simplified employment system based on employers' declarations of their intention to entrust work to a foreigner. A major change in immigration policy was triggered in 2016 by the annulment of migration policy documents and the announcement of the creation of documents that would consider new socio-economic needs. The published "Strategy for Responsible Development until 2020 (with a perspective until 2030)" indicated, *inter alia*, the shortage of a qualified workforce, the increase in the importance of migration, and the need to prepare a strategy for managing human capital flows. The pro-family and targeted migration policies highlight opportunities to eliminate the threats related to the ageing of society (*Serwis Rzeczpospolitej Polskiej*, 2017). Recommendations were also prepared to guarantee easier access to the labour market for foreigners and their quick integration into society (*Serwis Rzeczpospolitej Polskiej*, 2017). In a document entitled "Socio-economic Priorities of Migration Policy", it was stated that this policy should be adapted to the labour market's requirements and focus on supplementing it with migrants from industries and professions to fill the industry-related gaps, all while ensuring employment standards and state security (*Priorytety społeczno-gospodarcze polityki migracyjnej*, 2018). The need to acquire foreign employees with appropriate competencies to supplement human resources in the labour market was emphasised by a Ministry of Interior and Administration project entitled "Migration Policy of Poland. Draft of June 10, 2019" (Łoziński, Szonert, 2023). Another document from January 2021 underlined the inevitability of Poland making use of immigrants due to significant population losses. Immigration processes can strengthen an economy and foster social integration (*Serwis Rzeczpospolitej Polskiej*, 2020). Further attempts to specify the principles of migration policy and adopt documents after 2021, however, have failed (Łoziński, Szonert, 2023).

As part of the immigration process, Ukrainians were the largest group coming to Poland to work (Duszczyk, Matuszczyk, 2018; Górny et al., 2019). In 2019, 444,738 people received work permits, of which 330,495 were Ukrainians, i.e., more than 70% of the total number of immigrants in 2019 (*Rocznik Demograficzny*, 2020). Their number showed an increasing tendency until the outbreak of the Covid 19 pandemic.

This study aimed to indicate to what extent Ukrainian citizens can fill the gaps in Poland's emerging labour market shortages. The study period covered the years 2005–2020.



The research hypothesis of the study: Immigrants from Ukraine taking up employment in Poland only partially contribute to filling the shortages in the labour market.

To verify the hypothesis, the following research questions were formulated:

- 1) In which sectors and occupations were shortages identified in the Polish labour market between 2004 and 2021?
- 2) What were the reasons for emigrating to Poland?
- 3) In which sectors did immigrants take up work?
- 4) Is there a correspondence between the education received in Ukraine and the work performed?

The following methods were used in this study: literature studies, an analysis of CSO statistical data, and an online survey by Qualtrics.

State of the Study

On the Polish labour market, it is possible to note the shortage of workers in specific professions and skills. This problem is also characteristic of foreign labour markets, including Germany, Spain, and others. However, it occurs to a lesser extent than in Poland, as Weber, Adascalitei (2021), and Kocór (2017) write about. Many labour market researchers consider the problem of labour market shortages by identifying their direct causes. Lipka (1997) identifies the economic situation, labour productivity dynamics, demographic changes, the working-age population, the socio-occupational structure of people who are looking for work, and the lack of adequate infrastructure to which urban entrepreneurs have access as causes of the aforementioned shortages. Kryńska (2007), Gawrycka, Szymczak (2015), Borowiec (2015) and Krzyżowski et al., (2014), and Okólski (2018) emphasise that by 2030 the number of people aged 50 plus will increase in Poland, which is associated with a change in the number of people of working age, changes in the demographic structure, consequently the ageing of labour force, the economic deactivation of elderly people, and the occurrence of a generation gap. Klementowska, Fraczyńska (2018) conclude that labour shortages are more common in the private sector and most often affect highly qualified workers and those performing manual work. Turek (2015), Górnica (2015) and Chojnacki (2018) prove that labour shortages in Poland are also the result of an increased tertiary education of people born during the baby boom in the 1980s along with a lack of a sufficient number of jobs for university graduates. A study by Jończy, Rokita-Poskart (2011) found that in the two decades of the 21st century, many new jobs were created that require workers with

a secondary vocational education. These are lacking in the market due to faulty education policies and a failure to attract workers. Gajdzik (2016) and Duszczyk, Matuszczyk (2018) claim that companies lacking human resources should prepare employment offers that encourage potential candidates to take up employment. Finally, a gap in the labour market appears through vanishing professions, e.g., craftsmen, whose work is only partly replaced by automated production, writes Kobosko (2021). Poland is still a country where human labour is cheaper than investment in automation. Another reason for the occurrence of shortages is, according to Długosz-Zabrocka, Stasiowski (2019), and Piotrowski, Modrzejewska, Matysiak (2020), the occurrence of Polish citizens emigrating after 2004 to EU countries in search of work and decent wages.

Kryk (2021) and Wiktorowicz (2018) claim that shortages in the Polish labour market can be alleviated by extending the employment period of people from Generation X and BB, despite their lower matching from the point of view of qualifications and competencies to the requirements of the current labour market. Olak, Olak (2017) believes that immigrants can fill shortages in the market. Rzhavkina (2022), Vedeneeva (2019), Górny, Madej, Porwit (2020), and Górny et al., (2018) believe that Ukrainians coming to Poland can at least partially fill the gap in the labour market, as the demand for simple jobs in Poland is greater than the number of people willing to do them. Czaplinski, Dzhaman (2019) point out that the decline in GDP in Ukraine, low wages and the poor protection of labour rights, along with a lack of social protection and social security are reasons for Ukrainians emigrating to Poland. The scope of work undertaken by immigrants in Poland is changing. Increasingly, in addition to simple jobs, they also work in the specialist services sector.

Shortages on the Polish Labour Market in the Years 2005–2020

The CSO has recorded labour market shortages since the early 1990s. For the present study, data from 2005 to 2020 were adopted.

During the period under study, labour shortages increased until 2019. In the year of the start of the COVID-19 pandemic, there was a decrease in job vacancies due to the introduction of lockdown. The most significant shortages persisted in the manufacturing sector. In the mining industry, mine closures were the cause of the decline in demand for workers. The level of scarcity of labour in the car trade, transport and warehouse management, and the construction sector increased dynamically. In terms of occupations, the most significant deficiencies were recorded among manufacturing



Table 1: Job Vacancies by Occupational Section in 2006–2020 (in thousands)

Sections	2005	2009	2011	2014	2016	2018	2019	2020
Mining industry	0.2	20.7	11.2	.				
Manufacturing	16.4	16.5	5.3	13.3	20.4	41.2	27.7	21.2
Electricity supply	0.2	17.1	1.4					
Construction	3.9	5.4	3.1	3.9	6.0	17.4	20.6	8.9
Car trade and repair	4.5	17.1	7.5	10.0	13.7	21.1	19.2	11.7
Hotels and restaurants	0.7	3.3	0.0	2.6	3.3	5.0	4.9	1.2
Transport, warehouse management and communications	2.0	5.4	0.1	4.7	6.3	11.7	10.9	7.6
Information and communication	.	2.4	1.3	3.9	5.8	5.5	6.3	5.3
Financial and insurance intermediation services	1.0	2.5	1.4	1.4	2.2	2.4	2.6	1.3
Real estate and business services	4.5							
Professional scientific and technical activities		3.7	2.4	4.2	3.0	7.2	6.7	5.1
Public administration, defence, compulsory social security and health insurance	3.5	6.2	1.5	2.6	3.6	5.7	5.5	5.7
Administrative and support service activities		4.0	0.1	2.4	1.4	4.7	4.1	3.1
Education	0.9	2.2	0.6	0.9	1.2	3.0	3.3	2.5
Health protection and social assistance	2.3	4.2	2.1	1.8	2.5	6.8	6.0	6.6
Service, communal, social and individual activities, and other	0.7							
Arts, entertainment and recreation		1.0	0.4	0.5	0.5	0.8	2.5	0.7
Total	40.9	93.4	45.5	54.4	78.0	139.2	125.4	85.4

Source: Author's own elaboration based on the Yearbook of Labour Statistics 2006–2020, Warsaw: CSO.

workers, craftsmen, machine and equipment operators and assemblers, drivers and vehicle operators, workers in simple jobs, service and sales workers, office and middle staff, and customer service workers. At the end of the first quarter of 2022, shortages in the Polish labour market amounted to 158,700. Their distribution is similar to that of the previous period.



Studies to date show that there are labour shortages in the Polish labour market in various sectors of the national economy. Unfavourable demographic changes also negatively impact the labour market situation in Poland. That is why an attempt was made to examine to what extent immigrants can contribute to reducing labour shortages in the Polish labour market.

Results of the Author's Own Research and Discussion

The research was conducted from May to June 2022 among Ukrainian citizens who arrived in Poland before 24th February 2022, i.e., before the outbreak of the war. It was registered in the database of Gremi Personal, a company that supports the employment of Ukrainians. This is of great importance as the reasons for the migration of Ukrainian citizens have recently changed due to the political situation.

Over the aforementioned period, 1256 Ukrainian citizens received a link to a survey, which the study's authors used the Qualtrics software to prepare. The questionnaire was completed by over 30% of the target group. However, having considered the completeness of the responses, 243 questionnaires were accepted for the study, i.e., 19.3% of the respondents. The sample was selected on a non-random basis and was non-representative. Due to the non-probabilistic sampling technique, the results cannot be generalised as regards the entire population. The chosen research method is similar to random sampling or convenience sampling. The surveyed people were included in the sample randomly rather than being selected on a random basis, which was due to the fact that they were in the right place and time to take part in the research. It should be noted that an essential feature of the selected sampling technique is the fact that only a portion of a population, which is unspecified, can participate in the study and qualify for the sample. According to Szreder, even though it does not ensure the sample's representativeness, random selection allows one to learn about the population. Assuming certain opinions are often repeated in a randomly selected sample, they are no longer random and become regular. Furthermore, a certain regularity and accuracy can be noticed regarding the survey results, which makes it possible to state that the random selection of respondents for the sample does not mean depriving it of its cognitive value (Szreder, 2004, pp. 48–50).

Based on the research, most immigrants were employed in Ukraine before coming to Poland (as indicated by more than 70% of the respondents). Fewer than 11% of Ukrainians were unemployed before their departure.

Over 7% of the respondents were looking for a new, better-paying job, and the same percentage were employed part-time. The majority of the migrants were young people under the age of 45 and who accounted for over 80% of the respondents (Górny, Madej, Porwit, 2020). It is worth adding that women were the majority among the migrants, and over 65% of them were unmarried. Among the migrants, more than 38% of the respondents had families, which meant the need for financial support for the family members. Bearing in mind that the survey included people who arrived in Poland before the beginning of the hostilities, economic factors were the main reason for migration, with more than 30% of the respondents claiming that they would earn much more in Poland than in Ukraine. Over 16% of the respondents indicated their willingness to help their families as the reason for migrating, which can also be considered an economic reason. The research was conducted during military operations, which is why over 25% of the respondents claimed that the reason for their stay in Poland was the geopolitical situation. Given that the surveyed migrants were mostly young people who are more likely to decide to migrate primarily for economic reasons, it was interesting to learn about their place of residence in Ukraine. Based on the conducted survey, before coming to Poland, almost 40% of Ukrainians had lived in cities with more than 50,000 residents, and over 20% of them had been inhabitants of rural areas. This may indicate that people in larger cities are more determined to migrate. Among those who came to Poland, almost 60% were guaranteed employment at the time of their decision to relocate. Nearly 21% of the respondents intended to start looking for a job upon their arrival in Poland. The survey showed that Ukrainians positively assessed job opportunities in Poland, which was confirmed by the fact that 20.63% of the respondents who were not offered employment in Poland before their arrival stated that they would find a job within a month. The above might indicate that people who had already migrated to Poland provided such information to their compatriots on the possibilities of finding a job in Poland. The research results confirm this, as over 40% of the respondents learned about employment opportunities in Poland by word of mouth. More than 30% of the respondents found job offers online, with 11% of those respondents finding job vacancies via social media. It is worth adding that, in this case, recruiting companies played a smaller role in sourcing employees from Ukraine; according to the research, less than 21% of the respondents obtained information from such organisations (Kindler, Szulecka, 2023).

Based on the Statistics Poland data (Table 1), there were 40 to 125 thousand job vacancies in various sectors and sections of the national

economy. It is worth analysing what kind of jobs the citizens from Ukraine took up in Poland. The research showed that most Ukrainians found employment in the service sector (almost 56% of the respondents to be precise). Also, a significant percentage found employment in manufacturing and construction (over 40%). The remaining persons were employed in agriculture and fishing (sector 1 of the national economy). The dominant private sector in the Polish economy employed almost 85% of those surveyed. Those remaining found employment in the public sector in Poland. The positive economic situation on the Polish labour market is confirmed by the low average annual unemployment rate of below 7%, in particular in the years 2015–2020 (GUS, 2023), and which had an impact on the length of the job search period. The survey showed that Ukrainians had no problems taking up employment in Poland; in their opinion, they found jobs immediately, or it was “waiting for them”. The above was the case for almost 60% of the respondents. Only 1.75% of the respondents spent more than three months looking for a job (Górny et al., 2020). Bearing in mind that there are shortages in the Polish labour market in various sectors of the economy, which is related to the search for employees with different qualifications and levels of education, it was worth analysing who the Ukrainians were who started working in Poland. Based on the study, almost 70% of the respondents found employment inconsistent with their qualifications, skills, and formal education as they did not speak Polish. Over 8% of the respondents could not take up jobs matching their education as their diplomas were not recognised in Poland. Nearly 20% of the respondents stated that in Poland there were stricter requirements for employment according to a learned profession than in Ukraine. Therefore, they did not work in positions matching their education.

The conducted research showed that the structure of migrants was dominated by young people up to 45 years of age, i.e., those in the period of the greatest mobility. It seemed interesting to analyse the duration of the stay and the plans of the immigrants to settle down in Poland. This is important, as the demographic situation in Poland is undergoing tremendous changes, and the migration policy of Poland toward Ukrainians might, at least to some small extent, contribute to the reduction of the shortages of employees in the labour market in the coming years. The research showed that more than 20% of the respondents stayed in Poland longer than a year, and more than 60% stayed for several months. The remaining persons remained for less than a month. It was therefore difficult to expect them to know their plans related to their stay in Poland. According to the respondents,



a significant group of Ukrainians considered staying in Poland for over a year (almost 60% of those surveyed). Only 8.45% of the respondents were not interested in long-term employment. The remaining persons, i.e., more than 30% of the respondents, did not specify their plans. The reason for all of the above might have been that the great majority of those surveyed were offered fixed-term employment contracts (almost 58% of the respondents). Nearly 40% of the respondents were granted contracts indefinitely. The rest – constituting less than 2% – were not legally employed. Many factors can influence long-term migration decisions, e.g., age, marital status, and income (Gawrycka, ZiętarSKI, Maier, 2018), therefore, it was essential to analyse job satisfaction. According to the survey, 46% of the respondents were satisfied with their jobs, more than 30% considered changing their workplace, and the remaining persons, who represented a group of less than a quarter of the respondents, held no opinion. Due to the state of war, the difficult situation in Ukraine after 24th February, 2022 was a reason to analyse whether, following the current situation, Ukrainians and their families wanted to settle down in Poland. 21.53% of the respondents confirmed that they had families planning to settle permanently in Poland. Just over 2% of the respondents considered migrating to another EU country. The majority of those surveyed, more than 75%, could not state whether or not they wanted to stay permanently in Poland. Additionally, the migrants were asked when they were planning to return to their homeland. Most of the respondents, over 50%, did not indicate a specific date. Interestingly, more than 13% of the respondents did not want to return to their home country. In turn, more than 5% of the respondents stated their desire to return to their country in a few years.

One of the factors determining migration is the income from performed work (Brunowska, Grotte, Lesińska, 2012; Brzozowska 2022). Based on the respective research, the economic factor was one of the most essential criteria for Ukrainian citizens. Considering the income level in Ukraine and Poland, over 60% of respondents earned up to EUR 300 per calendar month (pcm) in the former country. In comparison, only 9.82% of Ukrainians staying in Poland declared such a level of income. There were more minor discrepancies in the range of EUR 300 to EUR 600 pcm, which the higher income level could explain. Thus, in Ukraine, the percentage of respondents with an income in the above-mentioned range was 32.12%, with over 46% of Ukrainians staying in Poland. In the case of income above EUR 600 pcm, the discrepancies were much more significant, with only 7% of the surveyed Ukrainians declaring that they achieved such income in their country. In comparison, more than

EUR 600 pcm was obtained by over 40% of the respondents staying in Poland.

For more detailed research, elements of descriptive statistics were used to analyse the correlation between selected features based on the chi-square test of independence. Taking into account the factors determining a migrant's arrival in Poland, the duration of migration, and the current economic and social situation due to the war, it can be concluded that the variables are statistically significant (significance level 0.05) and, based on the calculated V-Cramer coefficients, there is a moderate correlation between the features (0.22). Among the respondents who declared that they were working in Poland mainly because of the war, as many as 75% stayed for several months in the territory of Poland. It can therefore be concluded that those were primarily war refugees who wanted to wait out the period of war in their country. Indeed, only 31% of the respondents, whose primary motivation to work in Poland was the war, declared that they intended to work in Poland for more than a year. Only 9% of those respondents stated they wanted to settle in Poland permanently, while as many as 61% were unsure. It is worth noting that the respondents who indicated that they did not intend to stay in Poland permanently, despite the war in Ukraine, were women aged 26–45.

Similarly, one can interpret the correlation between being employed in Ukraine, be it full-time or part-time, and employment opportunities in Poland over a short period. The features related to the level of remuneration in Ukraine ($p = 0.029$) and the remuneration in Poland also turned out to be statistically significant. However, in this case, according to the V-Cramer coefficient (0.1616), there is a weak correlation between the examined features. It turned out that people who received remuneration of up to EUR 300 pcm in Ukraine obtained higher remuneration in Poland (only 13% declared that they remained in the same pay group). For those who earned EUR 300–600 pcm in Ukraine, the financial situation improved for 53% of the respondents. The results were also confirmed by a statistically significant correlation between the salary achieved and the main motivation to stay in Poland, as 52% of the respondents who declared that they work in Poland because they earn more than in their home country achieved salaries above EUR 600 per month. In contrast, those who declared war as their main motivation for working in the country mostly had incomes of EUR 300–600 pcm (59% of the respondents). The analysis showed a statistically significant correlation ($p = 0.003$) between having family/friends in Poland and being informed about job opportunities. It turns out that among the respondents who declared their intention to come to Poland because of

their acquaintances, as many as 65% obtained information about possible work opportunities from their relatives. The V-Cramrer coefficient of 0.2293 demonstrated a moderate correlation between the main factor in deciding to come to Poland and sources of employment information. The importance of having a network of acquaintances was also indicated by the statistically significant correlation between the time of looking for a job and the declaration of having a job in Poland (question 4), as 30% of the respondents who declared that they had a job guaranteed in Poland obtained the job offer from their friends or family. There was also a statistically significant correlation between work compatible with education and length of stay in Poland. As many as 50% of respondents who indicated that they did not work in their learned profession due to a lack of adequate knowledge of the Polish language had stayed in Poland for less than a year ($p = 0.006$). There was also a statistically significant correlation between jobs compatible with education and the gender of the respondent, as we found that 35% of women declared that they had a job consistent with their education. In comparison, for men, it was only 23%. There was also a statistically significant correlation between the sector of employment and salary earned. 52% of the respondents working in trade or services indicated wages in the range of EUR 300–600 pcm, while in the case of employment in manufacturing/construction, 58% of respondents indicated salaries above EUR 600 pcm, and 35% indicated wages in the range of EUR 300–600 pcm. While for men, the percentage of employment trade vs manufacturing was close to 1:1, for women, there is a clear dominance of services (56% of female respondents) over manufacturing (35%).

Conclusions

Poland's labour market changed enormously between 2010 and 2020. The positive economic situation affecting high employment in the labour market and the accompanying low unemployment rate resulted in a shortage of workers with varying qualifications and competencies. The high share of the human factor in production processes contributed to searching for new workers or mobilising those hitherto economically inactive. In addition, unfavourable demographic changes depicting constraints on the resources of the working-age population require the search for new workers, possibly meaning migrants from countries with lower levels of development. The achieved research results confirm that the previous conclusions formulated by, among others, Kryńska (2002), Borowiec (2015) and Piotrowska, Modrzejewska, Matysiak (2020) regarding the observed, unfavourable demographic changes in the



labour market require the implementation of decisive measures aimed at increasing access to the labour force. Undertaking research on the employment of Ukrainians in the Polish labour market was intended to indicate whether this group of migrants can reduce labour shortages. The study conducted is consistent with the conclusions of, among others, Rzhhevkin (2022), Vedenev (2019) and Olak, Olak (2017), who consider that migrants coming to Poland, in this case, Ukrainians, can at least partially fill the gaps in the Polish labour market. Statistical data confirm that Ukrainians are among the most numerous migrants settling in Poland. The research shows that the ideal situation in the labour market in Poland favoured the employment of Ukrainians in various sectors of the national economy, i.e., in services and manufacturing, as well as in the construction sector. It is worth emphasising that an opportunity for the Polish economy may lie in appropriate solutions in the area of migration policy, which will favour the employment of migrants from Ukraine, i.e., workers from outside the EU for whom Poland is an economically attractive country (Gomółka, Gawrycka, 2020). In addition, research confirms that relatively young people up to 45 years of age, who have had no problems with employment so far, are coming to Poland to work. All this leads us to confirm the research hypothesis posed in the introduction. However, it should be emphasised that some immigrants are not fully satisfied with their work in Poland, which may result from finding employment incompatible with their formal qualifications. In this case, the provisions of Poland's migration policy adapted to the current situation in the labour market may play a significant role.

The research carried out does not fully cover the issue of bridging labour market shortages in Poland. Attention should be paid to the current situation of the Ukrainian population and the ongoing war, which may impact decisions related to staying in Poland. The issue should be approached from different perspectives, and it should be considered that demographic processes are long-term.

References

- Borowiec, A. (2015) „Analiza zmian demograficznych na rynku pracy w kontekście pokolenia 50+”, *Zeszyty Naukowe Uniwersytetu Szczecińskiego, Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania*. Vol. 39(3), pp. 11–23.
- Brunowska, Z., Grotte, M. and Lesińska, M. (2012) *Migracje obywateli Ukrainy do Polski w kontekście rozwoju społeczno-gospodarczego: stan obecny, polityka, transfery pieniężne*. CMR, Working Papers 60/118. Warszawa: Uniwersytet Warszawski. Available at: <https://depot.ceon.pl/bitstream/>



- handle/123456789/1539/WP60118.pdf?sequence=1&isAllowed=y (Access 8.11.2022).
- Brzozowska, A. (2022) “‘All is not yet lost here.’ The role of aspirations and capabilities in migration projects of Ukrainian migrants in Poland”, *Journal of Ethnic of Migration Studies*. pp. 2373–2390. DOI: <https://doi.org/10.1080/1369183X.2022.2157804>.
- Chojnacki, W. (2018) „Analiza zmian w zawodach na peryferyjnym rynku pracy”, *Zeszyty Naukowe Politechniki Śląskiej*. No. 115, pp. 5–23.
- Czapliński, P. and Dzhaman, W. (2019) “Problems of the Ukrainian Labour Market”, *Journal of Geography Politics and Society*. Vol. 9(4), pp. 12–31. DOI: <https://doi.org/10.26881/jpgs.2019.4.03>.
- Długosz-Zabrocka, E. and Stasiowski, J. (2019) *Kształcenie zawodowe w Polsce przemiany organizacja efekty* in Sztanderska, U. and Dorosz-Zabłocka, E. (eds.) *Wykształcenie zawodowych. Perspektywa systemu edukacji rynku pracy*. Warszawa: Wydawnictwo FSRD, pp. 66–102.
- Duszczyk, M. and Matuszczyk, K. (2018) “The Employment Foreigners in Poland and Labour Market Situation”, *Central and Eastern European migration Review*. Vol. 7(2), pp. 53–68.
- England, K. and Azzopardi-Muscat, N. (2017) “Demographic trends and public Health in Europe”, *European Journal of Public Health*. Vol. 27(4), pp. 9–13. DOI: <https://doi.org/10.1093/eurpub/ckx159>.
- European Commission (2020) Report on the Impact of Demographic Change. Available at: https://ec.europa.eu/info/sites/default/files/demography_report_2020_n.pdf (Access 20.11.2022).
- Eurostat (2020) Population Statistic at Regional Level. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Population_statistics_at_regional_level&oldid=574123 (Access 19.11.2022).
- Gajdzik, B. (2016) „Kierunki zamian w zarządzaniu luką pokoleniową w przedsiębiorstwie produkcyjnym”, *Organizacja i Zarządzanie: Kwartalnik Naukowy*. No. 2, pp. 31–46.
- Gawrycka, M. and Szymczak, A. (2015) „Rynek pracy wobec zmian demograficznych i społecznych w krajach UE”, *Studia Ekonomiczne, Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach*. No. 214, pp. 89–102.
- Gawrycka, M., Ziętański, J. and Maier, M. (2018) *Szablon przepływu osób w krajach Unii Europejskiej*. Warszawa: Difin.
- Gomółka, K. and Gawrycka, M. (2020) *Zatrudnienie obywateli z krajów byłego ZSRR w Polsce*. Toruń: Adam Marszałek.
- Górniak, J. (ed.) (2015) *(Nie)dobory, niewykorzystany potencjał. Szanse i bariery na polskim rynku pracy. Raport podsumowujący V edycję badań BKL z 2014 roku*. Warszawa–Kraków: Polska Agencja Rozwoju



- Przedsiębiorczości. Available at: https://ruj.uj.edu.pl/xmlui/bitstream/handle/item/20284/gorniak_nie_wykorzystany_potencjal_szanse_i_bariery.pdf?sequence=1&isAllowed=y (Access 17.11.2022).
- Górny, A. et al. (2018) *Imigranci w Polsce w kontekście uproszczonej procedury zatrudniania cudzoziemców*. Available at: <https://www.migracje.uw.edu.pl/publikacje/imigranci-w-polsce-w-kontekście-uproszczonej-procedury-zatrudniania-cudzoziemców/> (Access 19.11.2022).
- Górny, A. et al. (2019) “New dimensions in immigration from Ukraine to Poland”, *Center of Migration Research Newsletter*. No. 9(15), December 2019. Available at: <https://www.migracje.uw.edu.pl/wp-content/uploads/2019/12/Spotlight-December-2019-1.pdf> (Access 12.11.2022).
- Górny, A., Madej, K. and Porwit, K. (2020) “Ewolucja czy rewolucja? Imigracja z Ukrainy do aglomeracji warszawskiej z perspektywy lat 2015–2019”, *Centre of Migration Research, Working Papers*. 123/181. Available at: https://www.migracje.uw.edu.pl/wp-content/uploads/2020/10/WP123181_end-1.pdf (Access 25.11.2022).
- GUS (2017) *Prognoza ludności gmin na lata 2017–2030*. Available at: <https://stat.gov.pl/obszary-tematyczne/ludnosc/prognoza-ludnosc/prognoza-ludnosc-gmin-na-lata-2017-2030-opracowanie-eksperymentalne,10,1.html> (Access 19.11.2022).
- GUS (2021) *Informacja o rozmiarach i kierunkach masowej emigracji z Polski w latach 2004–2020*. Available at: <https://stat.gov.pl/obszary-tematyczne/ludnosc/migracje-zagraniczne-ludnosc/informacja-o-rozmiarach-i-kierunkach-czasowej-emigracji-z-polski-w-latach-2004-2020,2,14.html> (Access 25.11.2022).
- GUS (2022) *Polska w liczbach 2021*. Available at: <https://stat.gov.pl/obszary-tematyczne/inne-opracowania/inne-opracowania-zbiorcze/polska-w-liczbach-2021,14,14.html> (Access 18.11.2022).
- GUS (2023) *Stopa bezrobocia rejestrowanego w latach 1990–2023*. Available at: <https://stat.gov.pl/obszary-tematyczne/rynek-pracy/bezrobocie-rejestrowane/stopa-bezrobocia-rejestrowanego-w-latach-1990-2023,4,1.html> (Access 8.03.2023).
- Guzi, M., Kahenec, M. and Ulceluse, M. (2021) “Europe’s migration experience and its effects on economic inequality in Europe’s Income, Wealth, Consumption, and Inequality”, *Working Paper*. Brno: University Masaryk. DOI: 10.5817/WP_MUNI_ECON_2021-05.
- Jończy, R. and Rokita-Poskart, D. (2011) „Oczekiwania i zamiary absolwentów Uniwersytetu Opolskiego dotyczące przyszłej pracy w świetle przeprowadzonych badań. Dylematy rynku pracy”, *Studia Ekonomiczne*. No. 1, pp. 145–155. Available at: <https://bazekon.uek.krakow.pl/zawartosc/171230063> (Access 25.11.2022).



- Kindler, M. and Szulecka, M. (2022) “Messy Arrangements? A Social Networks Perspective on Migrant Labor Brokerage: The Case of Ukrainian Migration to Poland”, *Polish Sociological Review*. No. 220(4), pp. 457–484. DOI: <https://doi.org/10.26412/psr220.03>.
- Klementowska, A. and Flaszyńska, E. (2018) *Rynek pracy a zmiany pokoleniowe. Stan i prognozy*. Zielona Góra: Wydawnictwo Uniwersytetu Zielonogórskiego.
- Kobosko, M. (2021) „Ginące zawody jako konsekwencja zmian technologicznych na polskim rynku pracy”, *Studia z Polityki Publicznej*. Vol. 8(4), pp. 75–95. DOI: <https://doi.org/10.33119/KSzPP/2021.4.4>.
- Kocór, M. (2017) “Skills shortages and mismatches on the Polish labour market and public policy recommendations”, *Zarządzanie Publiczne*. No. 42, pp. 38–52. DOI: <https://doi.org/10.15678/ZP.2017.42.4.03>.
- Krupowicz, J. and Kuroпка, I. (2022) *Convergence of Population Structures of the European Union Member States. The Past and the Future*, Sustainability. Vol. 14(2), p. 1024. DOI: <https://doi.org/10.3390/su14021024>.
- Kryk, B. (2021) “Generations on the Polish labor market in the context of competences needed in the economy based on knowledge and 4.0”, *Ekonomia i Prawo*. Vol. 20(1), pp. 121–137. DOI: 10.12775/EiP.2021.008.
- Kryńska, E. (2007) „Osoby starsze na rynku pracy”, *Studia BAS. Rynek Pracy*. No. 2, pp. 139–161. Available at: http://orka.sejm.gov.pl/wydbas.nsf/0/8CA214806CD7BD30C12572D5002C3699/%24File/Rynek_pracy.pdf (Access 15.11.2022).
- Krzyżowski, L. et al. (2014) *Młodzi emeryci w Polsce. Między aktywnością i biernością*. Warszawa: Wydawnictwo Scholar.
- Lipka, A. (1997) *Rynek pracy, praca, nowoczesne technologie*. Katowice: Wydawnictwo Akademii Ekonomicznej w Katowicach.
- Łoziński, S. and Szonert, M. (2023), „Polityka migracyjna ‘Bez polityki’. Antynomie tworzenie polityki migracyjnej w Polsce w okresie 2016–2022”, *Center of Migration Research Working Paper*. 130/138. Available at: <https://www.migracje.uw.edu.pl/publikacje/polityka-migracyjna-bez-polityki-antynomie-tworzenia-polityki-migracyjnej-w-polsce-w-okresie-2016-2022/> (Access 4.05.2023).
- OECD (2016) *Recruiting immigrant workers: Europe 2016*. Available at: <https://www.oecd.org/migration/recruiting-immigrant-workers-europe-2016-9789264257290-en.htm> (Access 20.11.2022).
- OECD iLibrary (2018) *Health at a Glance: Europe 2018*. DOI: https://doi.org/10.1787/health_glance_eur-2018-en.
- Okólski, M. (ed.) (2018) *Wyzwania starzejącego się społeczeństwa. Polska dziś i jutro*. Warszawa: Wydawnictwo Uniwersytetu Warszawskiego.



- Olak, K. and Olak, A. (2017) „Migracje zarobkowe w obrębie Unii Europejskiej”, *Acta Scientifica Academiae Ostroviensis*. No. 7, pp. 216–235.
- Olash, L. (2015) *Changing families in the European Union: trends and policy implications, Families and Societies, Working Paper Series 44. A project funded by European Union’s Seventh Framework Programme under grant agreement no. 320116*. Available at: <http://www.familiesandsocieties.eu/wp-content/uploads/2015/09/WP44Olah2015.pdf> (Access 16.11.2022).
- Piotrowski, M., Modrzejewska, K. and Matysiak, M. (2020) *The labor market in Mazovia in the context of training at a technical university 2018–2019*. Warszawa: Politechnika Warszawska. Available at: <https://www.cziitt.pw.edu.pl/wp-content/uploads/2020/10/Raport-do-pobrania.pdf> (Access 17.11.2022).
- Priorytety społeczno-gospodarcze polityki migracyjnej* (2018) Available at: <https://www.gov.pl/attachment> (Access 17.11.2022).
- Rees, G. (2017) “Family structure and children’s subjective well-being: A comparative analysis in eight European countries”, *Enfance*. No. 1, pp. 13–35. DOI: <https://doi.org/10.4074/S0013754517001033>.
- Ritchie, H. and Rosner, M. (2019) *Age Structure*. Available at: <https://ourworldindata.org/age-structure> (Access 21.11.2022).
- Rocznik Demograficzny* (2020) Warszawa: GUS.
- Rzhevkina, A. (2022) *Ukrainian refugees fill gaps in Polish labour market but risk getting stuck in low-skilled jobs*. Available at: <https://notesfrompoland.com/2022/06/01/ukrainian-refugees-fill-gaps-in-polish-labour-market-but-risk-getting-stuck-in-low-skilled-jobs/> (Access 24.11.2022).
- Serwis Rzeczypospolitej Polskiej (2017) *Strategia na Rzecz Odpowiedzialnego Rozwoju do roku 2020 (z perspektywą do 2030 r.)*. Available at: <https://www.gov.pl/web/ia/strategia-na-rzecz-odpowiedzialnego-rozwoju-do-roku-2020-z-perspektywa-do-2030-r--sor> (Access 21.04.2023).
- Serwis Rzeczypospolitej Polskiej (2020) *Polityka migracyjna Polski – diagnoza stanu wyjściowego*. Available at: <https://www.gov.pl/web/mswia/polityka-migracyjna-polski--diagnoza-stanu-wyjsciowego> (Access 25.11.2022).
- Szreder, M. (2004) *Metody i techniki sondażowych badań opinii*. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- Turek, K. (2015) *Wydłużenie okresu kariery zawodowej – polityka organizacyjna wobec wyzwań związanych z procesem starzenia się ludności* in Górniak, J. (ed.) *Polski rynek pracy wyzwania i kierunki działań na podstawie badań Bilans kapitału ludzkiego 2010–2015*. Warszawa–Kraków: Polska Agencja Rozwoju Przedsiębiorczości, pp. 55–79. Available at: https://ruj.uj.edu.pl/xmlui/bitstream/handle/item/20485/PARP_policy_paper_srodek_pop7.pdf?sequence=1&isAllowed=y (Access 23.11.2022).

- Vedeneeva, V. (2019) “Ukrainian migrants – a chance for the Polish labor market?”, *Ukraine Today*. pp. 96–108. Available at: https://www.imemo.ru/files/File/magazines/rossia_i_novay/2019_04/14-Vedeneeva.pdf (Access 1.12.2022).
- Weber, T. and Adăscăliței, D. (2021) *Tackling labour shortages in EU member states. Report Research Publications*. Office of the European Union, Luxembourg. Available at: https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef21006en.pdf (Access 22.11.2022).
- Wiktorowicz, J. (2018) “The situation of generations on the labour market in Poland”, *Economics and Environmental*. Vol. 18(2), pp. 995–1015. DOI: <https://doi.org/10.25167/ees.2018.46.32>.

