
Labour Shortages and the Role of Foreigners: A case Study of the Labour Market in Poland

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Abstract:

Purpose: The aim of the study was a general characteristics of foreigners on the Polish labour market, mainly Ukrainian citizens, and an attempt to assess their role in supplementing the labour shortages in Poland.

Design/Methodology/Approach: Theoretical issues were examined on the basis of the analysis of available source literature on labour market economics. The research methods used in this paper include, critical analysis of the source literature, the method of comparative analysis and secondary data analysis. The research methods used in this paper include: analysis of the source literature, secondary data analysis and deduction and induction method. The work also includes figures.

Findings: The analysis and assessment carried out in the article showed that the labour shortage is a serious problem in many European countries, including Poland. Reducing the labour shortage requires coordinated and multi-faceted actions at various levels, but especially at governmental levels. Even such an important factor as the relatively quick and significant supply of refugees from Ukraine to the labour market in Poland as a result of Russian aggression did not completely fill the gap. There is still a shortage of employees with appropriate competences in many industries in Poland.

Practical Implications: The results obtained may be helpful in planning activities to further reduce the labour shortage gap, both at the government and regional levels. Demographic problems in Poland continue to pose a challenge for the future.

Originality/value: The article uses the most up-to-date, including unpublished data. In the presented approach, the issues discussed in the article regarding the role of foreigners in supplementing the labour shortage have not been the subject of scientific considerations in the literature on the subject.

Keywords: Labour market, demographic problems, labour shortage, labour gap, foreigners on the Polish labour market.

JEL classification: J60, J110, J000.

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1. Introduction

For years, the European Union has taken successive initiatives to ensure that the employment gap is closed. Nevertheless, there are still many challenges that Poland, like other European Union (EU) countries, will have to face in the coming years. Among the most significant are increasing women's labour force participation (Rakhmonova, 2023; Joshi, 1991; Rubery, 2024), equalizing the wage levels between men and women (Azzollini *et al.*, 2023; Iwasaki and Satogami, 2023; Lyons and Zhang, 2023), and introducing appropriate migration policies (Cantat *et al.*, 2024; Gromadzki and Lewandowski, 2023; Mazniev *et al.*, 2024) to make up the labour shortage.

According to experts from the GUS (Central Statistical Office), Poland is in another period of demographic crisis, similar to that of 1997-2007, but the current situation is likely to be a longer trend. Population projections for Poland leave no illusions - according to the CSO's estimates, demographics will not be favorable to the domestic labour market until 2050 (after that, forecasting becomes increasingly uncertain). Since 2012, our country has recorded negative population growth. At the same time, life expectancy is increasing - in 2050, men will live an average of 82.1 years, and women 87.5 years - but this does not equate to a lengthening of their time in the labour market. On the other hand, the gap in life expectancy between men and women will significantly narrow to about 5.4 years (PwC, 2019).

Poland is no exception in Europe in terms of population aging, but it is distinguished by the intensity of the process, resulting from the large decline in female fertility in the second half of the 20th century and the consolidation of this trend over the past 25 years. By 2025, the Polish labour market may lack up to 1.5 million people (PwC, 2019). This means the need to hire more than 300,000 workers additionally each year. Therefore, the concept of the employment gap was presented and an attempt was made to identify the main factors that could have an impact on the employment gap in the labour market. A labour shortage is a disparity between the demand for workers and the supply of workers. In the article we also interchangeably use "labour gap".

2. Scope and Methodology

The article carries out a deductive analysis of the situation in the Polish labour market, taking into account the labour shortage. For this purpose, a literature study and inference based on statistical data were used. The main timeframe of the research questions covers the period from 2022 to 2024. A short time period was purposely chosen due to the desire to illustrate the role of foreigners in the Polish labour market during the post-pandemic period of COVID-19 and after the start of the Russian invasion of Ukraine. These two factors have contributed to significant changes in the aspect of the analyzed problem in the last three years. Therefore, the following research question was posed: whether the migration of workers, mainly

from Ukraine, will affect the reduction of the labour shortage in Poland.

The subject of the study was the problem of foreigners in the labour market in the context of the existing labour shortage. The aim of the study was the general characteristics of foreigners in the Polish labour market, mainly Ukrainian citizens, and an attempt to assess their role in filling the labour gap in Poland. The article attempts to identify the main factors that may have influenced the gap in the labour market. Attention was focused on the inflow of foreigners into the Polish labor market. The answer to the research question and the formulated objective was achieved through the analysis of source literature and the analysis of secondary data. The study was based on quantitative labour market data available from public statistics and unpublished data made available by the Regional Labor Office (WUP) in Szczecin.

The stages of the research process included: assessing the current state of knowledge on the employment gap and labour migration to Poland. Theoretical issues were considered on the basis of an analysis of the available source literature on the employment gap, migration policy, demographic problems and related interdisciplinary concepts. The research carried out made it possible to draw conclusions using methods of deduction and induction. The short temporal scope of the study should be considered as is significant limitations of the work, which does not allow us to capture the long-term trends forming. Another limitation is the focus on the Polish labour market or analyzing in the work only selected aspects of the studied issues, which the authors are aware of.

3. Literature Review

In the context of the transformation of the labour market - observed as a result of technological advances, the impact of economic factors, as well as social factors related to demographic processes - changes are taking place that force the formation of the competencies of current and future employees adequate to current and future socio-economic needs (Zwysen, 2023; Ryan, 2023). Many experts (McKinsey Global Institute, 2021; World Economic Forum, 2023; Institute for the Future, 2011), in order to better understand the future needs of employers, analyze particular aspects and trends in the labour market. Although their areas of interest sometimes differ, they note many similarities in employers' expectations and predictions. In addition to the observed decline in demand for workers engaged in repetitive, simple activities, they predict that:

- there will be a surge in demand for employees in areas such as the green economy, artificial intelligence and data economy, engineering, product development and cloud computing; as well as for employees supporting customers in the use of modern technologies, the following will gain the strongest importance: critical thinking and analysis, problem solving, striving for self-development, stress tolerance, flexibility, as well as

- customer communication skills;
- competencies in the following areas will become increasingly desirable: data analysis, customer experience, customer journey;
- competencies in the area of business intelligence will increase in importance;
- competencies related to awareness and sensitivity in the use of pro-environmental and pro-social solutions will become increasingly important.

Since the World Health Organization declared COVID-19 a pandemic on March 11, 2020, work life around the world has changed dramatically (Baumann and Crea-Arsenio, 2023). As governments took strict measures to curb the global spread of COVID-19, many jobs closed, while others moved online or began working online (Remeikienė, 2023). Employment levels fell sharply (Lemieux *et al.*, 2020). The pandemic exacerbated already existing social inequalities, affecting women more severely (at least initially), less-educated and lower-paid workers, and other groups that were disadvantaged in the labour market (Kristal and Yaish 2020; Kochhar and Barroso 2020; Lemieux *et al.*, 2020; Qian and Fan 2020).

In addition, it has been observed in Poland for several years that the population has been steadily declining (Rudziński, 2023). In 2022, it amounted to 37,766 thousand people, 141 thousand less than in 2021. In the context of the labour market, however, more significant than the declining overall population is the decline in the number of people of working age - in 2022 it amounted to 22,169 thousand people (in 2021, 22385 thousand). The population decline is primarily the result of declining birth rates (PwC, 2019). In addition, mortality from the COVID-19 pandemic has increased in recent years.

Demographic changes are fundamental to economic processes, with their impact being marked over the long term. In the coming years, there will be an annual loss of about 100,000 people of working age (Słomski, 2023). This number is likely to decline until 2027, after which the scale of labour force attrition will accelerate again. This will result in intensified wage pressures and very difficult access to workers, as the unemployment rate is expected to remain low.

Although the labour market situation in Poland is one of the best in the European Union, according to some experts, the recent years of prosperity could have been put to better use. Areas that still need to be addressed by public institutions are identified (Theus, 2022). These relate to declining labour resources, new technologies, robotization and automation, the transition to new models of the economy (i.e., the closed loop economy and the low-carbon economy), labour shortages in some sectors, as well as the need to manage migration processes (Ministry of Internal Affairs and Administration, 2021), raise the quality of work, create conditions for reconciling work and family life, and facilitate the return of women to the labour market.

4. Foreigners on the Polish Labour Market

In 2022, as a result of the armed invasion of Ukraine by the Russian Federation (on February 24, 2022), Poland saw a significant influx of refugees from Ukraine (Mazniev et al., 2024; Gromadzki, Lewandowski, 2023). This process has had a significant impact on the Polish labour market, which has been changing in recent years, especially in terms of the increase in the share of foreigners in it. At the end of December 2022, just over 1 million foreigners were performing work in Poland (1 004 400 to be exact). At that time, the share of foreigners in the total number performing work in Poland was 6.5%. By comparison, in January 2022, i.e., before the start of the war in Ukraine, it was 5.2%. It should also be noted that the number of foreigners in this group increased by 27.3% between January and December 2022. This increase should therefore be considered significant (Gomółka *et al.*, 2023).

In total, foreigners performing work in Poland in 2022 came from more than 150 countries (GUS, 2022). The largest group already before the Russian invasion were citizens of Ukraine. Their share in the total number of foreigners performing work was 72%. Among the others, one should point out citizens of Belarus (10.1%), Georgia (2.9%), India (1.5%), Moldova (1.5%) or Russia (1.0%). The share of foreigners in the Polish labour market of citizens from other countries was less than 11% (Figure 1).

Figure 1. Foreigners performing work in Poland in 2022 & 2024 by citizenship (%)

2022*		2024**	
Citizenship	[%]	Citizenship	[%]
Ukrainian	72.0	Ukrainian	67.6
Belarusian	10.1	Belarusian	11.5
Georgian	2.9	Georgian	2.6
Indian	1.5	Indian	1.9
Moldovan	1.5	Moldovan	1.3
Russian	1.0	Filipino	1.2
Other	10.9	Other	13.9

Note: *31.12.2022 ** 30.06.2024

Source: GUS 2022; GUS 2024.

In the middle of 2024, there were 1032.6 thousand foreigners performing work in Poland. The share of foreigners in the total number of those performing work was 6.7%, up 1.5 percentage points from January 2022. Foreigners performing work in May 2024 were mainly from Ukraine (67.6%), Belarus (11.5%), Georgia (2.6%), India (1.9%), Moldova (1.3%) or the Philippines (1.2%) - see Figure 1. The analysis of the share of foreigners in the Polish labour market even over such a short period of time, (exactly 2.5 years), illustrates the changes. During this period under the share of citizens of Ukraine (by 4.4 p.p.), Georgia (by 0.3 p.p.), Moldova (by 0.2 p.p.) and Russia decreased. In contrast, the share of citizens of Belarus (by 1.4 p.p.), India (by 0.4 p.p.) and the Philippines increased.

According to public statistics, as of the end of December 2023, the relatively largest number of foreigners performing work (Figure 2).

Figure 2. *Foreigners performing work by gender and section of Polish Classification of Activities (PKD) in 2023*

Section of PKD	Total (population)	(%)
Agriculture, forestry, hunting and fishing (A)	11330	1.1
Mining and quarrying (B)	599	0.1
Industrial processing (C)	179863	17.7
Production and supply of electricity, gas, steam and hot water (D)	777	0.1
Water supply; sewage and waste management; reclamation (E)	3005	0.3
Construction (F)	118826	11.7
Trade; repair of motor vehicles (G)	82735	8.2
Transport and storage (H)	149724	14.7
Accommodation and catering (I)	61803	6.1
Information and communication (J)	53653	5.3
Financial and insurance activities (K)	8179	0.8
Real estate market services (L)	5948	0.6
Professional, scientific and technical activities (M)	43238	4.3
Administration and support activities (N)	217693	21.4
Public administration and national defense; compulsory social security (O)	1175	0.1
Education (P)	16287	1.6
Health care and social assistance (Q)	25262	2.5
Activities related to culture, entertainment and recreation (R)	5128	0.5
Other service activities (S)	29920	2.9
TOTAL	1 015 145	100.0

Source: GUS 2023.

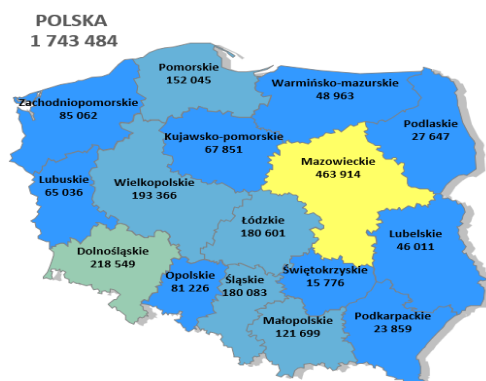
21.4% was recorded in national economy entities operating in the section Administrative and support service activities. In the Industrial processing section, the share of foreigners in the total number performing work was about 17.7% each, in the Transport and storage section 14.2%, and in the Construction section 11.7%. In the other sections, their share was much smaller.

5. Citizens of Ukraine on the Polish Labour Market

As indicated, Ukrainian citizens are the most numerous group of foreigners on the Polish labour market (Wojdat and Cywinski, 2022). After the introduction of new regulations on the employment of Ukrainian citizens, the only obligation on the employer is to inform the competent labour office within 14 days about the fact of employing such a Polish person (Institute of International Affairs, 2023). Nationwide, nearly 1,743.5 thousand Ukrainian citizens had already found employment by November 5, 2024. The largest number is employed in the Mazowieckie Voivodeship, with more than 463.9 thousand people, and the Lower

Silesian Voivodeship, with more than 218.5 thousand people. In addition, it should be noted that in the eastern border regions of Poland the number of employed Ukrainian citizens is the lowest (Figure 3).

Figure 3. Citizens of Ukraine (refugees) who have taken up employment in Poland under the special law



Source: Unpublished data from WUP in Szczecin.

As indicated, the number of Ukrainian citizens in the Polish labour market decreased in 2024, compared to 2022 (Figure 1). It is estimated that in 2023 alone, about 340,000 Ukrainians left Poland for other EU and non-EU countries. Poland is often not a destination for eastern workers, who are looking for higher wages, which translates into a better standard of living.

According to GUS data, in 2023 the largest number of Ukrainian citizens were employed in national economy entities in the following sections, in order: (1) Administrative and support service activities; (2) Construction; (3) Transportation and storage; (4) Wholesale and retail trade; repair of motor vehicles, including motorcycles; and (5) Accommodation and food service activities. The most common jobs for Ukrainian citizens, therefore, are in the service sector in simple jobs. Nevertheless, the importance of Ukrainian citizens in the Polish labour market is significant. According to the data of the Deloitte Report (2024), in 2023 Ukrainian immigrants contributed 0.7-1.1 percent to Poland's GDP. The total revenue of the state budget increased by 1.45 percent, which is up to PLN 19.9 billion, with the simultaneous cost of refugee assistance at PLN 5 billion. This is an undeniably positive impact on the Polish economy. In addition, Ukrainian citizens fill the personnel gap in many sectors that would otherwise be in a very difficult position such as construction or catering and hospitality. In conclusion, the role of Ukrainian citizens in the Polish labour market is important.

6. Discussion

The influx of foreigners into the Polish labour market is essential for economic development. In ten years, there will be a shortage of about 400,000 people to fill all

jobs. At the same time, immigration or labour activation alone will not be enough to cope with the growing demographic collapse. It has been known since 2013 that the number of people of working age in Poland is shrinking. For the past decade, the labour market has coped by activating the unemployed or economically inactive and by an influx of foreigners - first from Ukraine and later also from other directions (Personnel Service, 2022). Poland is the leader in Europe in terms of arrivals of foreigners to perform work.

This is clear not only from Eurostat data, but also from the growing number of foreigners in the Social Security system, which reached 1.16 million people at the end of June 2024 - about 32,000 more than at the beginning of the year and about 65,000 more than a year earlier. the influx of foreigners is necessary to fill the demographic gap in the labour market. At the same time, according to research by PIE (Polish Economic Institute), among others, there are about a million people in Poland who could be subject to economic activation, but according to the most optimistic scenario, it is possible to activate half of them. - At the same time, this group will shrink from year to year for demographic reasons, as most of them are women in their 50s plus (Łodziński and Szonert, 2023).

After the outbreak of war in Ukraine, there was a massive influx of refugee women with children to Poland. Since mid-2022, it has been noted that the influx of foreigners to Poland has been slowing down. This is especially true for Ukrainians (Mazniev *et al.*, 2024; Gromadzki and Lewandowski, 2023), which is largely due to the fact that men of draft age are prohibited from leaving the country (Wojdat and Cywinski, 2022). Labour migration to Poland is very low compared to what was seen in previous years of this decade.

According to PIE forecasts, by 2035 the number of people in the labour market will decrease by 2.1 million. The largest gap is expected in industry - there will be a shortage of about 400,000 people to fill all positions. The education sector will struggle with a shortage of workers - nearly 30%. The problem will also affect health care, where the average age of employees is very high and an increasing percentage of the workforce will be entering retirement age.

Poland's immigration policy should be aimed at integrating foreigners (Łodziński and Szonert, 2023). Poland has gone through two stages of immigration. First, Ukrainians came to Poland and were employed temporarily and left, so there was no need to integrate these people to also function socially (Wojdat, Cywiński, 2022). The second stage began after the COVID-19 epidemic, when some of these people decided to stay in Poland already on a medium-term basis. The number of work permits and visas issued for one to three years of stay began to increase then. War refugees with children are most likely to stay longer in Poland. Poland is doing well in the labour activation of immigrants - it ranks second among OECD countries with an activation rate exceeding 80%. What is needed now is also the social integration of these people.

There is much to be done, for example, to include Ukrainian children in the Polish education system. There should also be a focus on language learning and the nostrification of diplomas, so that, for example, people with medical training can find employment in health care. The state's immigration policy should also take measures aimed at attracting Poles from emigration, as included in the immigration strategy. Until recently, these were returns stimulated by external factors, such as Brexit and the economic collapse in the UK.

Citizens of other EU countries should also be encouraged to come to Poland. In their case, there are no barriers related to the need to legalize residence and employment. Analyzing a map of Europe with unemployment figures by region, one notices immigration potential in the southern part of Italy, much of Greece, or southern Spain, where unemployment rates are in double digits, and are particularly high in the youngest age groups. Fighting for these labour resources should be part of Poland's immigration policy.

Immigration alone, however, will not solve the problems of the Polish labour market. Demographic changes will put increasing pressure to change the entire model of the Polish economy. Partial data shows that Poland's fertility rate (the number of children per woman of childbearing age) will be 1.12 in 2024, one of the lowest in the world. The Polish economy will no longer be able to reap the benefits of the so-called demographic dividend, i.e. the relatively large human resources that drove consumption, provided large tax revenues and the availability of cheap labour. The resources on which Poland built its economic growth after 1989 will increasingly shrink. This should prompt a redefinition of the economic model and steer it toward technology and innovation, or what is called the knowledge economy. Immigration and labour activation alone will not be enough to cope with the growing demographic collapse (PAP, 2024).

7. Conclusions

It is estimated that in the coming years, many European countries, including Poland, will have problems meeting staffing needs in key industries for the region. Difficulties in obtaining suitable employees are due to a number of, often concurrent, factors that exacerbate the problem of the existence of a gap in the labour market in specific industries. It is indicated that the main reason for the deficit will remain the lack of a sufficient number of job candidates as a consequence of the development of the industry, demographic changes (decline in fertility) or the lack of adequate education in selected professions. In addition, deficits will result from inadequate qualifications of candidates that prevent them from entering the profession. It seems that the reluctance of candidates to take up employment due to low wages or difficult working conditions will be relatively least likely to be responsible for labour gaps.

The Polish economy already needs more workers. Historically low unemployment

goes hand in hand with a situation in which almost every second company wants or needs to increase employment. Already in the next 10 years, the number of workers per retiree will drop from 3.1 to 2.6. What's more, available workers often do not have the skills to meet the needs of employers in a rapidly evolving labour market (skills gap).

It is pointed out that in the current conditions foreigners, including citizens of Ukraine, will not fully fill the staffing gap present in the Polish labour market, although they are important for the functioning of the Polish economy. Reducing the labour shortage is possible, among other things, through:

- pursuing appropriate pro-family and pro-women policies that support fertility growth;
- reducing the skills gap between the employed and the unemployed;
- activating the elderly, those discouraged by their lack of success in finding work, as well as those receiving welfare assistance;
- facilitating the entry or return to the labour market of inactive persons, including caregivers of dependent persons, especially young mothers;
- Encouraging full-time students to be active in the labour market;
- encourage the return of Polish professionals from abroad;
- making greater use of the potential of workers from abroad, people with disabilities and neuroatypical (neurodiverse) people;
- encourage foreigners to take up employment in Poland.

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