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## Economic Integration and Migrant Networks: The Case of Ukrainian Migrants in the Warsaw Agglomeration

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### Abstract

In the past years, Poland has been not only a country of (mass) immigration but also a country where foreigners have begun to play a much larger role in the domestic labour market than ever before. This makes the analyses of foreigners' integration increasingly important both to understand the situation of immigrants in Poland and their impact on the national economy and social processes. In this context, this article aims to quantify one of the dimensions of the economic integration of immigrants. We look at the level of earnings as one of the indicators of their integration process. Additionally, we refer to the impact of social capital (in the form of migrant networks) on the economic situation of immigrants. We focus on immigrants from Ukraine—the most numerous group of foreigners in Poland. Based on a unique data set, we empirically identify the key dimensions that have an impact on their incomes, including gender, employment sector and legal status. We also point to the statistically significant effects of migrant networks on migrants' earnings.

### Keywords

economic integration | earnings | immigration from Ukraine

### JEL Codes

I26, J24, J61

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## 1 Introduction

The economic dimension of the presence of immigrants in highly developed countries is one of the key—and, at the same time, the most controversial—issues in the discussion on contemporary migration. In public debate, foreigners are commonly accused of insufficient (that is, lower than in the case of native workers) economic activity and abuse of social security systems (Fargues, 2014). On the other hand, their competitive position in relation to native employees is emphasised, which results in pushing current employees out of the labour market, lowering standards of work and a decline in wage rates. At the same time, however, according to most experts, it is the level and nature of the economic involvement of immigrants that largely determines their integration in other areas, that is, in the social,

political and cultural dimensions (Ager & Strang, 2008; Spencer & Charsley, 2016; Di Bartolomeo, Kalantaryan, & Bonfanti, 2015).

This article attempts to investigate—in a quantitative manner—the patterns of the economic integration of Ukrainian immigrants in Poland and the impact of access to active migrant networks on this process. Both issues have been the subject of lively scientific debate for many years, but this discussion concerns immigration to Poland to a small extent. It is fully understandable as, until recently, Poland was a typical emigration country and the experience of post-accession migrations served as a 'natural experiment' to research the patterns of Polish migrants entering Western European labour markets (White, Grabowska, Kaczmarczyk, & Slany, 2018; Kaczmarczyk, Aldaz-Carroll, & Hołda, 2020). This situation changed

drastically after 2014 when the coexistence of supply factors (military intervention in the eastern part of Ukraine and the deep war-related economic and social crisis) and demand factors (Poland's very good economic situation, one of which was the growing demand for labour) led to mass immigration to Poland. In a very short period of time, Poland has transformed from a country with an extremely low share of immigrants in the population and the labour market to a country with a record-breaking influx of foreign workers and a country in which an increasing number of economic sectors have become increasingly dependent on the immigrant labour force (Górny & Kaczmarczyk, 2018). Thus, the search for the economic dimension of the presence of immigrants in Poland goes beyond the sphere of scientific curiosity, becoming one of the key dimensions of the discussion on the present and future condition of the Polish labour market (Strzelecki, Growiec, & Wyszynski, 2020). The significance of this segment of the Polish labour market can be clearly seen during the COVID-19 epidemic crisis and in connection with restrictions in border traffic, which have questioned the functioning of selected sectors of the Polish economy (Fiałkowska & Matuszczyk, 2020).

In the analysis presented in this article, we use unique data from a survey carried out in the Warsaw agglomeration in 2018, which covered immigrants from Ukraine. With reference to the notion of migrant networks and the discussion on the integration of immigrants, we ask what factors influence the economic integration of immigrants from Ukraine, focusing on one of its dimensions, that is, the level of income earned. We verify the following research hypotheses:

H1: Immigrants from Ukraine in the Polish labour market do not receive a wage bonus for (higher) education and work experience.

H2: Women are particularly exposed to wage discrimination (which is a derivative of the sectoral structure of employment).

H3: The level of earned income is correlated with residence status and the legal basis for performing work in Poland.

H4: Networks have a significant and positive impact on the level of income of immigrants from Ukraine.

The empirical analysis conducted shows that Ukrainians do not face significant obstacles (including legal barriers) in accessing the labour

market. In several sectors of the economy, there is even a strong structural demand for immigrants' labour. Consequently, the unemployment rate of this group is (very) low. Nevertheless, the vast majority of immigrants from Ukraine work below the level of their qualifications, which is a derivative of the labour demand structure, their language competences and the recognition of their education and/or work experience. Consequently, the job position and the employment sector are among the key factors determining the level of earnings. Others are demographic (this applies especially to gender, which has proved to have the greatest impact on earnings) and related to access to social capital (migrant networks), which has a positive effect on income. Contrary to the human capital theory, education has no statistically significant impact on the level of earnings of Ukrainian immigrants in Poland, which means that the specificity of employment in 'migrant niches' does not offer a high rate of return on human capital.

The article is structured as follows. The first section summarises considerations on integration and its economic dimension and synthesises the literature—both theoretical and empirical—on the impact of migrant networks on the patterns of economic activity of immigrants. The second section presents the context of the empirical analysis, in which the latest changes in the migration situation in Poland are briefly discussed. The next section is methodological, at the level of both the data used and the analysis itself. The fourth section contains the results of the estimated models and their interpretation. The last section is a summary.

## 2 Economic Integration and Migrant Networks: A Theoretical and Empirical Analysis

Integration is the term most often used to describe and analyse the integration of immigrants into the social/economic/institutional structures of a destination country. It is sometimes treated as a certain state, but also most often in the procedural dimension. The approach to integration in the adaptive dimension, as a method of unilateral adaptation to the conditions in the country of emigration, dominates the tradition of American research. In the case of Europe, the understanding of integration is much more nuanced,

and the two-sided nature of integration is emphasised, indicating some changes on the part of both newcomers and members of the majority society. Regardless of the context, the concept itself is highly indefinite and raises a lot of controversies (Brunarska, Brzozowska, Kaczmarczyk, & Kardaszewicz, 2020).

The definition functioning in the Polish legal space is the one formulated by the European Commission (2004) in the first point of the Common Basic Principles, which reads as follows: 'Integration is a dynamic, two-way process of mutual accommodation by all immigrants and residents of Member States.' Many of the definitions formulated by researchers are similar. According to Ager and Strang<sup>1</sup> (2008), it is a two-way process and it, therefore, depends not only on the newcomers but also on the local population. Spencer and Charsley (2016) portray this process as 'not in fact "two-way" but multi-directional', highlighting the existence of more parties and factors being involved. Many researchers (Spencer & Charsley, 2016; Grzymała-Kazłowska & Phillimore, 2018; Rea & Martiniello, 2014) also notice that there is no definite end to the integration process and conclude that this cannot be considered complete in any case, implying that an 'integrated society' is impossible. The latter element refers to one of the most important controversies in contemporary discussions on the integration of immigrants. One of the classic definitions postulates that integration is the process of becoming an acceptable part (element) of society (Penninx, 2005). However, it seems more and more problematic to define this 'target society'. In the case of modern societies, there is a phenomenon known as super-diversity (Vertovec, 2007) and the liquidity of society, so it is difficult to define society even in relatively homogeneous countries. Some researchers go further, suggesting that in today's globalised world it is difficult to find an indisputable definition of such a concept as a society, and what also seems to follow from this, the concept of culture (Grzymała-Kazłowska & Phillimore, 2018; Grzymała-Kazłowska, 2013). This results in a gradual departure (particularly in sociological literature) from using the concept of integration to using terms such as inclusion, incorporation, anchoring and, finally, social cohesion, which are assumed to be less burdened with meaning.

In our opinion, the difficulties in defining the concept of integration do not have to lead to the

rejection of the term itself, and the alternative terms cited in the above paragraph bring with them other, no less important, problems of definition (cf., e.g., social inclusion). Therefore, we prefer the approach in which integration is not treated as an alignment of social groups to each other, but rather as an immigrant acquiring a higher and higher status and becoming an equal member of a given community. This is in line with many approaches that suggest looking at integration through the prism of status in different spheres of life and the inclusion of migrants in institutions and relations with society (Penninx, 2005, 2019).

In addition to the still unresolved question of definition, integration researchers focus on its analysis in various dimensions/domains. Regardless of the multitude (and sometimes inconsistencies) of concepts in the literature, most authors distinguish the dimension of immigrant participation in the institutions of the host country (labour market, education system, healthcare system) (Esser, 2001; Bosswick & Heckmann, 2006; Heckmann, 2006). Many concepts contain a key aspect of social relations described as interactive (Bosswick & Heckmann, 2006) or simply social (Spencer & Charsley, 2016). The relational dimension treats integration as a process in which active social ties with representatives of the majority groups are created and maintained. Finally, many approaches also emphasise the importance of the civic dimension (political participation) (Entzinger & Biezeveld, 2003; Scholten, Entzinger, Penninx, & Verbeek, 2015) and the identity and cultural dimension (Engbersen, 2003; Spencer & Charsley, 2016; Heckmann & Schnapper, 2003), which are, however, much less important for our further considerations. Taking these different 'dimensions' of integration into account has two important advantages. First, it helps us to clarify the definition proposed earlier and define integration as a process of including immigrants in institutions and social relations in the host country/society (referring directly to Bosswick and Heckmann, 2006). Second, it provides space to analyse the links between various dimensions of integration.

Ager and Strang (2008) made an interesting attempt of this type when analysing the refugee integration process in Great Britain. They divided the spheres through which integration can be assessed into four levels: foundations, facilitators, social connections, and markers and means. The last level is the image of a person based on which researchers want to assess the individual's integration. Issues

<sup>1</sup> They do not directly create a definition but provide integration criteria (which concern refugees in their case).

related to employment (access to the labour market, amount of remuneration), housing, possible education and access to healthcare are discussed here. This level also includes economic integration, which illustrates how important it is for foreign labour to effectively support the labour market. At another level—social bonds and connections—aspects of the relationship with the community, including one's own family and compatriots (social bonds), which make it possible to feel 'at home', have been distinguished. Moreover, relations with other communities were highlighted, including with the host (social bridges), which corresponds to the relational dimension of integration discussed earlier. The relationship of migrants with offices and other institutions (social links) is also important as it enables efficient functioning in the reality of each country. These three social areas show the important role of the two-way process because it is impossible to achieve good results in these aspects without the will of the local population. Good relations in society are possible thanks to favourable factors. These include knowledge of the local language and culture and being able to cultivate the culture of the country of origin. This possibility of choice is seen as essential freedom, making it clear that integration involves functioning equally in a given community despite differences and not becoming an indistinguishable member of a community. Moreover, to be able to build relations with the external environment, a migrant should have a sense of security and independence, which are relative, yet very important, terms in social identification. Researchers identify citizenship<sup>2</sup> as the basis for all of the above-mentioned components of the integration process, or another status that gives measurable privileges. However, immigrants may often not desire citizenship of a given country because it is impossible to have dual citizenship in specific cases. However, this does not change the fact that for most researchers these 'foundations' are a starting point to explore other dimensions of integration (Scholten et al., 2015; Entzinger & Biezeveld, 2003).

The approach of Ager and Strang (2008), however, opens primarily two key threads for this article: the issue of economic integration (as one of the key 'markers' of integration) and the role of social networks (social bonds/connections) in this process.

Paradoxically, the definition/conceptual chaos is much greater in the case of economic integration than in the case of integration in general. It is worth mentioning three exemplary approaches here. In the tradition of American research, economic integration is usually considered by catching up with a community of destination country in terms of professional activity and earning levels (Adsera & Chiswick, 2007; Borjas, 1991; Borjas, Bronars, & Trejo, 1992). Other researchers (such as Barrett & Duffy, 2008) treat the economic dimension of integration as the ability to achieve the same or a similar position in the labour market as is the case with native workers (or members of a native community when it comes to economic activity). Some researchers, such as Penninx (2005), refer to this dimension as freedom of access to the labour market and employment. Only such a cursory juxtaposition of several proposals related to the analysed category indicates numerous methodological problems. First, integration itself is a strongly normative concept, which is particularly evident in the case of economic integration (Geddes, 2001; Favell, 2005, 2019). Second, the concept of 'catching up', present in the economic research tradition (mainly due to American literature), assumes that immigrants are characterised by a wide catalogue of deficits (language, culture, family structure, social structure). Thirdly, the category of reference is highly debatable. In studies on the economic integration of immigrants, it is usually assumed that the aim is to reduce differences between immigrants and the host society (Dustmann & Frattini, 2011) or to make them occupy job positions similar to those occupied by comparable groups of native workers (Barrett & Duffy, 2008). In practice, however, it can be extremely troublesome to identify these comparable groups (particularly in diverse societies). Moreover, migrants very often operate in secondary sectors of the labour market, and thus the structural features of their employment (such as wage conditions) by definition differ from those observed in the case of native workers. Meanwhile, in many cases, economic independence could be a sufficient condition for integration (Bertossi, Duyvendak, & Scholten, 2015). Additionally, it is tacitly assumed that immigrants pursue such a goal. However, this does not have to be the case, as evidenced by the case of temporary immigrants who focus rather on maximising short-term profits from work and savings and not on 'catching up' with native workers (Dustmann & Görlach, 2016). In the context of the above considerations, in this article, we apply the

2 This is seen by many as a possible 'end result' of the integration process.



approach proposed by Bertossi et al. (2015), focusing on those aspects of economic integration that give a chance for economic independence (and for methodological reasons, we disregard the issue of comparability with the native community).

In the migration literature, for several decades, there has been a common belief that networks play a key role in migration processes (Massey, 1990, 2015; Castles & Miller, 2011). Garip and Asad (2015: 1) define migrant networks as ‘webs of social ties between individuals in origin and migrants in destination’ (and this is the most common approach in the literature (cf., *inter alia*, Fawcett, 1989; Massey et al., 1993). Faist (1997: 193) defined networks as ‘sets of interpersonal ties that connect movers, former movers, and non-movers countries of origin and destination through social ties, be they relations of kinship, friendship or weak social ties’.

The role of migration networks in migration processes seems—at first glance—obvious and unambiguous. Functioning in networks is to have a positive impact on mental health and be helpful in times of crises (Fischer, 1982). Support and functioning within such a network can be all the more useful when we take a high risk. Most migratory movements are associated with such a risk, starting from crossing the border (not always legally), through finding a place to live and work and ending with arranging affairs in local offices. On the other hand, according to the New Economics of Labor Migration, mobility is often a decision of the entire family aimed at diversifying sources of income and, thus, risk (Kaczmarczyk & Kloc-Nowak, 2018). Therefore, to actually reduce the risk, people often migrate to places where their friends, acquaintances or family stay (Haug, 2008). The greatest risk is taken by ‘pioneers’ who, in a difficult situation and need of help (Martiniello & Rea, 2014), offer support to others, thus building networks. Then, thanks to the increasing effect of scale and decreasing costs as well as increasing benefits, the snowball effect is created with each successive individual and the number of immigrants rapidly increasing until the migration potential of a given region is exhausted or other changes occur that may change migrant decisions (Haug, 2008; Massey, Alarcon, Durand, & González, 1990). The operation of migration networks often leads to the creation of an entire migration industry in which agents from the related communities operate. Their services may become significantly more expensive if any emigration destination is blocked due to a change in their status to illegal (Castles & Miller,

2011). Finally, networks do not only offer help and mental support but also involve money transfers and the transition of norms and patterns of behaviour (also concerning the labour market) (Fawcett, 1989). In the case of functioning in the labour market, access to a network may be a guarantee of survival (Martiniello & Rea, 2014), helping with integration and determining the course of a person’s career. Operating within a network may be related to employment within ethnic enclaves, the type of work (particularly when it concerns employment within an ethnic niche<sup>3</sup>) and the amount of remuneration (Garip & Asad, 2015). The spatial concentration of immigrants (ethnic enclave) is affected by the ease of functioning of a given network in one place (DiMaggio & Garip, 2012). According to Gold (2015), knowledge of the local language or possession of residency permits becomes less important in this type of environment, as another member of the network is typically an employer.

However, the less favourable aspects of networks are also increasingly emphasised. First, agents involved in smuggling and trafficking human beings can be part of a network (or, more broadly, a migration business). Second, networks perfectly explain the self-propelling migration process and the creation of the so-called migratory culture (Massey et al., 1990, 1993). This culture, however, can create strong social pressure, pushing young people to work abroad (Martiniello & Rea, 2014). Third, networks contribute to the formation of ethnic niches (Waldinger, 1994). These are of key importance in the process of integration of newly arrived immigrants—in the case of employment in an enclave or a niche, the requirements are often lower and it is easier to find a job despite the lack of such an opportunity in the rest of the labour market (Gold, 2015). On the other hand, educated people who may be forced to work below their qualifications may be employed. Fourth, functioning in an ethnic enclave may be associated with a sense of security as it minimises the risk of aggression by a local community. Staying long-term in a niche, however, defines a person in an ethnic sense, and this makes it difficult to change the perception of such a person and increase social acceptance. Finally, networks lead to a reduction in inequalities among their members (DiMaggio & Garip, 2012) but are often based on traditional/cultural gender roles. These, in turn, may be characterised by a low level of emancipation,

**3** A large number of people of a given nationality work in a given industry. It may be, for example, trade, services provided to households or gastronomy.

which in turn may lead to internal discrimination (e.g. against women) or various forms of hierarchy and preventing people from working in more prestigious positions (Garip & Asad, 2015).

In summary, networks influence the size, direction and origin of migration. Moreover, theoretically, functioning within the framework of a migration network, especially when it concerns ethnic enclaves, has a positive impact on economic activity. However, the possible negative effects, such as discrimination, limiting the available opportunities in the labour market and strong dependence on an ethnic community, should also be noted.

The available empirical literature—both scientific and expert—makes it possible to distinguish several basic variables (markers using Ager's and Strang's term) of economic integration. They are:

- the professional activity of immigrants (determining their ability and willingness to participate in the labour market);
- the unemployment rate in an immigrant community. A level higher than the unemployment rate in the entire economy indicates discrimination in the labour market or a limited propensity of immigrants to work (which may be, for example, a derivative of relatively easy access to social benefits);
- income levels or wage rates; according to the 'catching up' theory (Adsera & Chiswick, 2007), along with the progressive integration process (which is correlated with the length of stay in a given country), a person should earn more and more (and, thus, approach the levels achieved by native workers);
- self-employment (running a business); on the one hand, self-employment seems to be a positive result, but unable to find a job due to discrimination, immigrants might be forced to start their own businesses—in this scenario, only a study of individual cases will make it possible to determine whether and to what extent the entrepreneurship of immigrants should be perceived positively;
- employment below qualifications (underemployment or over-education) related to the brain waste phenomenon (Brzozowski & Kaczmarczyk, 2018); this problem is most often associated with the non-recognition of foreign diplomas (at the same time as the relatively high cost of nostrification) or experience gained abroad, but it may also be

a derivative of the structure of the demand for immigrants' work and the goals of the migrants themselves (e.g. in the case of temporary migrants).

Most of the available empirical research address these areas. In the next section, we focus on those directly related to the topic of the article, enriching the review with the results of research on the effect of migration networks.

Research on economic activity most often indicates the important role of temporariness and other characteristics of the so-called migration projects/careers (Martiniello & Rea, 2014). Moreover, attention is paid to the structural features of migrants themselves (Kaczmarczyk, 2014; Kaczmarczyk & Okólski, 2008) and the structure of labour demand in destination countries (Dustmann, Glitz, & Frattini, 2008; Dustmann & Frattini, 2014). In this context, the analyses of the OECD (OECD, 2017) seem to be extremely important as, in this organisation, they take account of a wide sample of countries. They indicate that both the economic activity and the professional position of immigrants are significantly worse than those of members of a native community. Moreover, immigrants tend to focus on specific sectors of the economy, which translates into their income position (see below). The key point, however, is that it is difficult to attribute the existence of this gap to cultural differences in a methodologically correct manner. Rather, they are a derivative of the characteristics of a given labour market and its institutions, which largely account for the effectiveness of immigrants' integration into the labour market. The experience of post-accession migration indicates that people with a 'safe' residence status and freedom of movement are much easier to integrate into the economic dimension, and this integration is associated with the labour market rather than dependence on social benefits (Kaczmarczyk et al., 2020; Dustmann & Frattini, 2014; Dustmann et al., 2008). This is evidenced by numerous studies referring, for example, to the Irish labour market, which show that, in the case of this country, immigrants do not show significant differences in the local population's unemployment rate and that there are no differences in the level of the unemployment risk due to migration status (migrants and native employees) (Barrett & Duffy, 2008; Barret & McCarthy, 2007). The Irish case is valuable as it also shows that, regardless of the relatively good status in the labour market, immigrants may be (relatively) more vulnerable to the effects of changes in the economic situation. In many European countries, the experience

of the economic crisis between 2008 and 2010 has subjected immigrants to a substantial increase in the risk of unemployment, lower wages and a greater risk of discrimination (Janicka & Kaczmarczyk, 2016; Bertoli, Brücker, & Fernández-Huertas Moraga, 2016; Zaiceva & Zimmermann, 2016).

Obviously, the income achieved/level of wages is one of the most important determinants of professional success. As mentioned earlier, this dimension of integration analysis has by far the longest history as it is associated with the American School of Research on labour market participation. Numerous studies have shown that the wage levels of immigrants appear to be equal to the wages of native workers over time (staying in a given country), (Chiswick, 1978), regardless of gender and ethnicity (Chiswick, 1980). These analyses have evolved over time, taking account of an increasing number of additional factors, such as belonging to a cohort (Borjas, 2015) and the effect of the economic situation in a destination country (Dustmann, Glitz, & Vogel 2010). Importantly, analyses carried out for European countries lead to similar conclusions. Adsera and Chiswick (2007) emphasised that on arrival, the status of immigrants in the labour market is obviously worse than that of native workers, even if their level of human capital is controlled, but the difference decreases over time, indicating a strong potential for income convergence. The latter factor seems to be conditioned by the plans and strategies of migrants (Martiniello & Rea, 2014), as well as their linguistic competences and general patterns of entering the labour market (Alba & Foner, 2014). In the case of post-accession migrations, the linguistic factor was of particular interest, as these analyses referred to people from the same/similar cultural circle and who were not at the same time subject to simple discrimination based on legal status (as European Union (EU) citizens). Research carried out for the Irish (Barrett & Duffy, 2008; Johns, 2013; Krings, Bobek, Moriarty, Salamońska, & Wickham, 2013), the British (Dustmann, Frattini, & Halls, 2010; Dustmann & Görlach, 2016; Kaczmarczyk & Tyrowicz, 2015) and the Spanish labour markets (Rodríguez-Planas, 2014) have indicated the large role of linguistic competences (in addition to the classic features such as gender, age and human capital), primarily the ability to use these in professional work (Grabowska-Lusińska & Okólski, 2009). Integration in the labour market can be also explained by the policies of a destination country, including active labour market programmes (Kogan, 2016; Bijl, Zorlu, Jennissen, & Blom, 2008).

Research on the impact of networks on economic integration generally confirms the very high importance of social capital in the processes of labour market (which, by the way, is not a typical feature only for immigrants). Migration networks can lower the risks and costs associated with looking for a job in a new place and thus allow people to find a job thanks to the availability of information (Kindler & Szulecka, 2013; Lu, Ruan, & Lai, 2013; Sanderson, 2014). First, information on vacancies is communicated, which reduces the cost of looking for a job. Second, immigrants can employ one another and create ethnic niches (Kindler & Szulecka, 2013; Lu et al., 2013). Third, Lu et al. (2013) and Sanderson (2014) noticed that employers themselves want to employ people recommended by their own employees. As a result, networked Mexican immigrants in the United States were more likely to work in the food processing sector as employers became a link in these networks and recruited employees from them.

Such phenomena seem to be common. Calvó-Armengol and Jackson (2004) indicated that in the case of Americans as many as 50–60% of jobs were occupied thanks to social contacts. Chua (2011) has noted that the percentage of people employed, thanks to functioning in a social network, depends on the nature of the economy and work. Jobs with lower prestige and lower qualifications are more often filled through migrant networks. It is a derivative of the fact that people who use such help are more often less educated and their 'value' for companies is not large enough to invest in costly recruitment procedures. Franzen and Hangartner (2006) found that many people use the network support to find a job; however, the work obtained in this way is characterised by lower remuneration. The same study has indicated, however, that finding a job through a member of a social network led to greater adequacy of the job position with respect to the qualifications held (thus reducing the risk of employment below qualifications). Similar conclusions are drawn from the analyses of Kindler and Szulecka (2013), who showed in their qualitative research cases that, thanks to acquaintance with other people, Ukrainian women living in Poland who had previously worked below their qualifications began to work in jobs that corresponded with their human capital. On the other hand, the analyses presented in the same article indicate the opposite effect for the Vietnamese community, showing that the impact of networks on the adequacy of qualifications and employment is less obvious than in the case of active participation or unemployment.



The influence of migration networks on the level of earnings has been relatively rarely analysed. Examples include the previously discussed study on the Irish labour market and the work of Lu et al. (2013), which shows an unequivocally positive impact of this social capital on the remuneration of migrants in Shanghai, while migrant networks turned out to be more effective than contacts with the indigenous residents of the metropolis. However, research on Turkish immigrants in Germany indicates a much greater complexity of the phenomenon: in the short term, access to a network significantly increased the chances of integration into the labour market (and the level of remuneration), whereas in the long term, staying within the ethnic network limited the possibility of full integration with the host society (Danzer & Ulku, 2011; Danzer & Yaman, 2013). As mentioned earlier, the operation of networks usually leads to a decrease in inequality in both homogeneous and heterogeneous networks. However, where the situation in a given group is good, that is, there is low unemployment, there may be increasing inequalities within this group (DiMaggio & Garip, 2012). This indicates that the role and importance of networks change over time: the network that is initially essential for successful integration loses its importance later and may even lead to the stratification of immigrants (cf. Gold, 2015).

The above-mentioned review shows that social (migration) networks play an important role in the process of the economic integration of immigrants. It can also be argued that the need to function within a network of migrant connections primarily concerns the initial stage of immigration when the risk and uncertainty are the highest. The following section of the article describes the case of the Warsaw agglomeration and the functioning of Ukrainian migrant networks (and their impact on economic integration). Considering the features of this community (see the next section), we should expect a statistically significant impact of social capital on the process of entering and participating in the Polish labour market.

### 3 Context: Recent Immigration from Ukraine to Poland

Before and after 2014, contextual considerations about immigration to Poland should be divided into two parts (the reasons for this division are explained later

in this article). Immigration to Poland in the first phase of the systemic transformation can be characterised by referring to several features that distinguish it from the influx to other countries (including Central and Eastern European countries) (Górny & Kaczmarczyk, 2018).

First, the scale of inflow to Poland—and therefore also the size of the immigration—was (very) low. The census data from 2011 identified approximately 55,000 people who were permanent residents of Poland, but did not have Polish (or double, that is, Polish and foreign) citizenship, which constituted only 0.1% of permanent residents of Poland (and placed our country in one of the last places in the EU in this respect). When the census was carried out in 2011, there were also 56,300 temporary immigrants in Poland, of whom over 29,000 had lived in Poland for at least a year. This was confirmed by other data (such as estimates based on the Polish version of the Labour Force Survey - BAEL) and official data: according to the data of the Office for Foreigners at the end of 2013, only slightly more than 120,000 of foreigners had valid residence cards (mostly concerning residence for a fixed period).

Second, Poland was attractive to representatives of only a few national groups, with a clear indication of citizens of the former USSR countries (Ukrainians and Belarusians) and selected Asian countries (Vietnamese and Chinese). In addition to the citizens of EU countries, who have been exercising the same freedoms as Polish citizens since Poland's accession to the EU structures, Ukrainians constituted the largest group, with large shares in terms of both residence categories and those relating to the labour market.

Third, a feature that distinguishes Poland from other European countries is the unequivocally temporary or even circular mobility of foreigners coming to the country, primarily those from the former USSR countries. This situation is not only a derivative of legal regulations (liberal with regard to the rules of entry and taking up a job and significantly more restrictive in the case of settlement plans) but is also related to the fact that the dominant group of foreigners in Poland are migrant workers (see Górny & Kindler, 2016; Górny, 2010). Górny (2017) has clearly shown that, for many years, immigration to Poland has been characterised not only by the limited scale of the settlement of foreigners but also by a very strong differentiation within the category of temporary migrants (with more than 50% share of typical 'circulators').

Fourth, until recently, immigrants in Poland were concentrated in only a few selected regions and even locations, with Warsaw and the Mazovian Province as key migration destinations: according to the census data, Mazovia had 31% of all foreigners registered in the census. It depends on the features of local and regional labour markets and the structure of the economy (e.g. the importance of the service sector, including trade) (Górny, 2010).

The literature on the subject often points to factors responsible for the fact that immigration to Poland did not happen on a mass scale for a long time. These mainly include economic conditions, such as the level of wages, quality of life, the level of social benefits and access to public services, which have reduced the economic attractiveness of Poland as a destination country. However, this catalogue should be augmented with other elements: the practical lack of integration policy, the weakness of the ethnic economy (or its highly limited nature) and the relatively low attractiveness of the Polish educational market (which, in turn, is derived from the perception of the quality of Polish universities and Polish science, a limited English-language offer and limited knowledge of the Polish language as a means of communication). Moreover, until recently, the demographic situation in Poland was exceptionally favourable compared to other EU countries, resulting in a low level of demand for foreign labour (Okólski, 2012, 2017; Górny, 2010).

However, the situation described in the above paragraphs changed radically after 2014 (and this date is not accidental because it was when the armed conflict in the eastern part of Ukraine began). This is confirmed by all the data describing the presence of foreigners in Poland. The number of people with valid documents authorising them to stay in the territory of the Republic of Poland (according to the data of the Office for Foreigners) increased from approximately 175,000 in 2015 (as of 1 January) to 212,000 in 2016, 266,000 in 2017, over 325,000 in early 2018 and 426,000 by the end of 2019. A large part of this dynamic was created by foreigners with the right to a temporary stay and economic migrants. The number of work permits increased from 44,000 in 2014 up to 66,000 in the following year (51% increase), 127,000 in 2016 (94%) and nearly 236,000 in 2017 (85%). The process of the mass inflow of workers to Poland continued in the following years, that is, in 2018 (almost 329,000 work permits) and 2019 (almost 445,000 documents issued) (data of the Ministry of Family, Labour and Social Policy). In both of the described cases, it was primarily

the citizens of Ukraine who were responsible for the exceptional dynamics of the phenomenon. As a consequence, there was a spectacular massification of immigration to Poland. The latest estimates provided by the Statistics Poland (GUS) also indicate that about 2.1 million foreigners resided in Poland at the end of 2019 (Statistics Poland, 2020).

The described changes have also led to the evolution of the meaning of immigration at the regional level. While until recently—as mentioned above—a large part of immigration was concentrated in the Mazovian Province, primarily in Warsaw, this process began to spread throughout the country after 2014, which is illustrated by the data on both work permits and documents issued in the so-called simplified procedure (Górny & Śleszyński, 2019; Górny, Kaczmarczyk, Fiałkowska, Piechowska, & Szulecka, 2016).

Several of the arguments presented above may explain why the scale of the influx of immigrants was very low over the decades. At this point, it is worth recalling those elements that have proved to be decisive in the recent period. These are undoubtedly the geographical location and cultural proximity to important countries of origin (especially Ukraine), well-developed migration networks (Ukraine, Vietnam) and finally specific solutions in the sphere of migration policy. The last issue, primarily the so-called simplified procedure, is particularly noteworthy—and worth a commentary—because it is this aspect that has made migrant researchers focus on immigration to Poland (see, *inter alia*, OECD, 2018). A peculiar breakthrough in the field of admitting foreigners to the Polish labour market was in 2007 when the simplified rules of access to the Polish labour market were introduced, later sanctioned based on the amendment to the Act on the Promotion of Employment and Labour Market Institutions (Journal of Laws of 2008, No. 69). It allowed—in the case of citizens of Belarus, Georgia, Moldova, Ukraine and Russia—a special procedure for issuing visas permitting entry to Poland and employment. These visas were issued based on a written (but not binding) declaration of a Polish employer on the intention to entrust work to a foreigner, and therefore it was not required—and this was the significant simplification introduced by the Act—for a foreigner to obtain a work permit before applying for a visa. This procedure resulted directly from the shortages of labour supply and problems with finding Polish workers willing to take up employment in the agricultural sector (specifically

in horticulture). In this context, it can be placed next to many other similar initiatives, such as the Bracero programme in the United States and numerous recruitment programmes implemented by Western European countries in the 1950s and 1960s (Górny & Kaczmarczyk, 2018; Martin, 2001). As in other cases, there were doubts about the practical implementation of the programme, which led to the modification of the original rules. This happened in 2018, but certain limitations concerning the declaration system and the introduction of a new category of work permits (seasonal work permits) did not change the scale and course of the process.

During the first five years of the simplified procedure, that is, from August 2007 to the end of 2012, over a million declarations about an intention to entrust work to a foreigner were submitted to Polish labour offices, and their number systematically increased to reach 236,000 in 2013. However, the actual breakthrough came after 2014, when the number of registered declarations increased by 64%, and by almost 102% in the following year. In 2016 and 2017, the dynamics slightly decreased (68% and 39% respectively), but the number of registered declarations reached record levels: 1.3 million in 2016, over 1.8 million in 2018 and 1.7 million documents in 2019. These figures—record-breaking on a global scale in terms of the inflow of seasonal workers (see OECD, 2018)—require some comment. First, the declarations as declarations of will did not bring about any negative consequences in the event of not taking up a job by/employing a foreigner. Therefore, it was a common practice to submit declarations for more than the necessary number of people or multiple declarations (for one person). Consequently, the number of declarations was not the same as the number of seasonal workers working in Poland. Second, when considering the effects of the inflow of foreigners in the Polish labour market, it is worth remembering that a huge part of the analysed category are temporary workers, that is, average annual employment would be about a half lower on average. Third, a registered declaration only confirms the right to perform work for the employer who has submitted this declaration and does not mean the legality of employment (as evidenced by the data of the Social Insurance Institution, according to which the number of foreigners registered in the system was 476,000 in the first quarter of 2018, increasing to nearly 700,000 in 2020).

This system is clearly dominated by employees from Ukraine, accounting for from 91% to 94% of all persons for whom declarations were issued, depending on the year. As is the case with work permits, the process of registering declarations shows the spread of immigration across the entire territory of Poland: the Mazovian Region accounted for about half of all declarations in 2013 and this share fell to around 23% in 2017. The sectoral structure is also changing. Initially, the main sector of employment of claimants was agriculture (which is understandable given the genesis of the procedure), but the importance of this sector has changed significantly over the past 10 years in favour of industry and the service sector. In the latter case, employee recruitment agencies and temporary employment agencies are of great importance, as they have recently started to increasingly affect the scale and structure of immigration to Poland.

The change in the sphere of immigration in Poland is confirmed by the estimates of the Statistics Poland. The first sample presented in 2018 (Statistics Poland, 2018) indicated that in 2015 the number of foreigners aged 18 and above residing in the country was approximately 508,000 (from 369,000 to 724,000 within a 95% confidence interval), of which only 39,000 were in the register of persons registered for permanent residence. In 2016, this number was even greater and amounted to 744,000 (601,000 to 943,000 within a 95% confidence interval). The latest, experimental estimate presented by the Statistics Poland indicates the presence of over two million immigrants in Poland (at the end of 2019). This inflow is also increasingly important for the Polish labour market. The first attempt to quantify this impact indicate the impact of immigration on Polish economic growth in recent years and that maintaining relatively stable labour resources was possible only due to the inflow of foreign labour (Strzelecki et al., 2020). In the context of this article, it is important that, so far, it has been possible in Poland to use only simple labour reserves of immigrants, but the effective use of their human capital remains a challenge.

## 4 Data and Methodology

The study described below used empirical data collected as part of a research project on the integration of selected immigrant groups in Poland. The survey was carried out between December 2016 and July 2017 (immigrants from China and Vietnam) and in the

second half of 2018 (immigrants from Ukraine), but only data on Ukrainian immigrants are used later in the article.

A feature of research on mobility and migration is the (potentially) heavy burden associated with difficulties in obtaining representative data. This is because the sampling frames are either unavailable or imperfect, and the willingness to engage in the study may be related to the migration status and economic situation of a given person (which causes a serious systematic burden). In contrast to traditional randomised approaches, the data used were obtained through a survey using the respondent-driven sampling methodology. This approach takes the classic selection method known as the ‘snowball’ as a starting point. Through the built-in system of incentives, recommending subsequent respondents and systematic tracking of the characteristics of recruited people, it makes it possible to determine a given sample saturation (that is when additional respondents do not generate an increase in the variance of specific features) and allows achieving effects similar to representativeness (cf., *inter alia*, Heckathorn, 1997; Górny & Napierała, 2016).

As a consequence, data on the sample of Ukrainian immigrants in the Warsaw agglomeration representing a relatively broad spectrum of socio-demographic characteristics could be obtained (with the obvious assumption that they reflect the general profile of contemporary migrants from this country, that is, economic migrants). Table 1 summarises the socio-demographic characteristics and selected economic parameters of the studied population.

Based on the above-mentioned characteristics of the studied sample, it can be described as relatively young and similar to the ‘baby boom’ generation. The sample and the migration are masculinised, and the sample is significantly differentiated by gender in the case of many characteristics. The surveyed people are relatively well educated, with women more often having higher education. There is a large group of married people and those living in informal relationships (more than half of the observations), while an equally large group (but less than 50% of the sample) are migrants with offspring living in the same household. It can also be seen that migrants (in particular, female migrants) spend a long time in Poland and are highly networked. The extremely low unemployment rate may also indicate the economic nature of migration and almost 100% professional activity (only women in the sample are unemployed

**Tab. 1.** Selected socio-demographic characteristics of the studied population\*

<b>Characteristics</b>	<b>Men</b>	<b>Women</b>	<b>Total</b>
Average age	31.62	34.85	33.00
<b>Education [%]</b>			
Higher	37.50	44.29	40.41
Secondary	60.36	53.33	57.35
Lower	2.14	2.38	2.24
<b>Marital status [%]</b>			
Married	42.50	37.14	40.20
Cohabiting	12.86	16.67	14.49
Unmarried	46.43	37.62	42.56
Divorced/Widowed	8.21	20.95	13.67
Percentage of people living with children	36.43	44.76	40.00
Total duration of stay in Poland (months)	19.93	26.17	22.60
The size of the network (number of people)	28.72	32.66	30.41
<b>Labour market status [%]</b>			
Employed	100.00	92.77	96.95
Unemployed	0.00	4.52	1.87
Professionally inactive	0.00	2.71	1.18
Illegal stay/work	9.29	12.86	10.81
Average monthly net income (PLN)	2,995.74	2,360.07	2,723.00
<b>Employment sector [%]**</b>			
Industry	3.93	3.33	3.67
Construction	56.79	3.33	33.88
Agriculture	0.71	0.00	0.41
Trade	11.79	30.00	19.59
Hotels and gastronomy	3.21	10.48	6.33
Home care services	0.00	16.67	7.14
<b>(N) Number of observations</b>	<b>280</b>	<b>210</b>	<b>490</b>

\*The parameters were weighed using Gile’s estimators.

\*\*Multiple responses possible (the answers do not add up to 100%).

Source: Own study based on the data of the Centre of Migration Research of the University of Warsaw.



or professionally inactive people). Finally, the data presented prove that the average net income of immigrants is lower than that of the entire Polish economy and that ethnic niches are created in the migrant labour market (Ukrainian immigrants are concentrated in several sectors).

Later in the article, we focus on one of the dimensions of the economic integration of immigrants, that is, the level of net income. In the econometric dimension, the classical salary equation was referred to and the classic linear regression model (the least squares method) was used. The model primarily uses the variables traditionally used in the Mincerian approach to income modelling, that is, the level of education and gender, age (with its square form) and place of origin (which is a variable approximating the level of social and cultural capital). Knowledge of the local language (Polish) was also taken into account in two variants relating to communication and writing. Assuming that integration is a process (Grzymała-Kazłowska & Phillimore, 2018; Rea & Martiniello, 2014; Ager & Strang, 2008), the duration of stay was taken into account in the analysis. Referring to various levels of integration analysis, the indicator of the legal situation of a given individual was also included in the model. The key aspect, in this case, of the labour market (work based on a declaration of intention to entrust work to a foreigner) was also referred to. Moreover, variables describing the employment sector were taken into account, which, together with the variable describing work declared below qualifications, create interactions that allow the impact characteristic for a given sector to be identified. Finally, in line with the hypotheses, the size of the migrant network (the number of its members) was also taken into account (also in the form of interactions).

## 5 Results

The estimation logic was as follows. The starting point was the basic Mincerian model, which assesses the impact of variables relating to human capital (education, language skills) on the level of income while controlling selected socio-demographic variables (gender, age, and class of place of origin (1)). Further models extended the set of the variables used and the aim was to check to what extent the dependencies captured in the basic model were unbiased. In model (2), the features of migration (duration of stay in Poland, the legal basis for employment) were added.

Model (3) included employment sectors, employment below qualifications and a variable indicating the size of the network. Finally, the last model (4) additionally contained selected interactions between variables (with a focus on work below skills and the size of the network). In all models, White's robust covariance matrix was used to eliminate the problem of heteroscedasticity of the random factor. Table 2 contains the results of the estimated models.

In line with the assumptions and expectations drawn from general knowledge about labour markets and the literature on the specificity of networked migrant communities (Castles & Miller, 2011; Garip & Asad, 2015), the expected income is much lower for women than for men. Despite the original bias of this parameter (model 1), this value in model (4) still remains the variable with the strongest impact. Age is also an important variable, and the results of the estimates show a classic relationship in the form of an inverted U letter. In the case of immigrants from Ukraine, the highest income is achieved at the age of 33, which indicates a greater probability of economic success for young migrants (and at the same time this observation applies presumably to the latest post-2014 wave of migration).

As mentioned above, Ukrainian immigrants in Poland cannot rely on a large return on their human capital. The variable identifying higher education turned out to be statistically insignificant, which indicates that (formal) education does not contribute to increasing the level of income in a statistically significant way. A sign next to the variables identifying knowledge of the Polish language does not fully coincide with the expected result and other studies (Barret et al., 2013; Barret & McCarthy, 2007). The rationale of using two different variables is a derivative of the fact that there is a large group of people who speak Polish but have writing and reading difficulties due to the similarity of the Ukrainian and Polish languages (which may also be associated with the use of other alphabets in both languages, that is, Latin and Cyrillic). Knowledge of the Polish language in both speech and understanding of speech, in line with the theory and previous empirical evidence, is positively correlated with income, but the impact is moderately strong. On the other hand, the ability to write or read has a negative impact on the level of obtained income. This result can be explained by the specificity of immigrants' work, in particular by the relatively high activity within the previously identified ethnic niches such as construction or trade,

**Tab. 2.** Linear regression results (standard deviations) of the log of net income

Variables	(1)	(2)	(3)	(4)
Gender (0 = man, 1 = woman)	-0.2398 (0.0292)****	-0.2358 (0.0288)****	-0.2007 (0.0364)****	-0.1938 (0.0365)****
Age	0.0418 (0.014)****	0.0417 (0.0141)****	0.0372 (0.0142)****	0.0366 (0.0145)***
Age <sup>2</sup>	-0.0006 (0.0002)****	-0.0006 (0.0002)**	-0.0006 (0.0002)****	-0.0006 (0.0002)****
Polish language – speaking and understanding	0.0836 (0.0287)****	0.0542 (0.0296)****	0.0459 (0.0294)*	0.0478 (0.0293)*
Polish language – writing	-0.0457 (0.0287)*	-0.0627 (0.0293)***	-0.053 (0.0288)**	-0.0527 (0.0292)**
Higher education (0 = no, 1 = yes)	0.0071 (0.028)	0.0071 (0.0278)	0.0159 (0.0282)	0.0121 (0.0286)
The size of the city of origin (base: village):				
City of 20,000 to 250,000 residents	0.0587 (0.0371)*	0.0607 (0.0361)**	0.0638 (0.0358)**	0.0585 (0.0361)*
City of over 251,000 residents	-0.0258 (0.0386)	-0.018 (0.0374)	-0.011 (0.0374)	-0.0102 (0.0373)
Duration of stay (months)		0.0145 (0.0068)***	0.001 (0.0006)**	0.001 (0.0006)**
Work on declaration (0 = other form, 1 = declaration)		-0.0484 (0.0303)*	-0.0449 (0.0312)	-0.044 (0.0313)
Employment sector (base: construction and industry):				
Non-specialist services			-0.0493 (0.0373)	-0.2618 (0.1129)***
Specialist and other services			-0.0995 (0.043)***	-0.2842 (0.1499)**
Working below qualifications (declared)			-0.0468 (0.0311)*	-0.0962 (0.0338)****
Network size (log)			0.0454 (0.0146)****	0.0175 (0.0163)
Non-specialist services × Working below qualifications				0.0968 (0.0661)*
Specialist services × Working below qualifications				0.075 (0.0826)
Non-specialist services × Network size (log)				0.0505 (0.0323)*
Specialist services × Network size (log)				0.0475 (0.0389)
Constant	7.5172 (0.2354)****	7.5584 (0.2358)****	7.5214 (0.2309)****	7.6359 (0.2431)****
Observations	490	490	490	490
R <sup>2</sup>	0.2047	0.2201	0.2478	0.2551
Prob > F	0.0000	0.0000	0.0000	0.0000

\*\*\*\* $p < 0.01$ ; \*\*\* $p < 0.05$ ; \*\* $p < 0.1$ ; \* $p < 0.15$ .

Source: Own study conducted using STATA software based on the data of the Centre of Migration Research of the University of Warsaw.

where the ability to communicate is more important in practical terms than the ability to read or write. This outcome further strengthens the observation on low returns to human capital.

Although it is expected to be associated with having a higher socio-cultural capital coming from the largest urban centres, the level of income is not significantly affected. However, this effect has been noted in the case of medium-sized urban centres (compared to centres from rural areas). Again, this result reflects the structure of the most recent migrations from Ukraine and indicates that rural areas and small towns are much more different than cities of different sizes (and these differences may refer to both the possessed human capital and access to social networks, which is discussed in the following paragraphs).

According to the literature, integration does indeed turn out to be a process that progresses over time. However, this factor—the duration of stay in Poland measured in months—is characterised by a relatively low impact on the amount of expected income. This may result from the fact that wage negotiations often cover longer periods. It may also mean that, in the case of immigration from Ukraine, it is only after spending a few years in Poland that one can count on a certain income bonus related to the progress of economic integration (which, in turn, is a derivative of the aforementioned process of ‘normalisation’ of temporary or circular migrations).

According to assumptions and previous research (Kindler & Szulecka, 2013), the simplified procedure (‘work based on a declaration’), mentioned earlier as one of the pillars of mass migration to Poland, is associated with lower average income than in the case of other legal forms of residence/work. The negative impact is not very large, but it clearly shows the relationship between the process of economic integration (at least in the dimension which is measured by the level of income in this article) and the legal status of a given person. The sign of this estimator also results from the already described nature of seasonal work in this type of stay, which is less prestigious and paid less. Earlier studies have clearly indicated that the simplified procedure is by far the least favourable form of employment in terms of both income and working conditions (Górny et al., 2016). There is a clear correlation between the legal basis of employment and the sector, as indicated by the decrease in the importance of the first variable when

the employment sectors are included in the model (models (3) and (4)).

According to the regression results, people employed in construction and industry achieve the highest average incomes, which—due to the strong masculinisation of these sectors—explains the result related to the gender of migrants in model (1). In turn, people employed in specialist services have the lowest income among all immigrants (regressions (3) and (4)). Model (4) also shows that work below qualifications is a factor that does not necessarily lower the level of income, particularly if the situation concerns various kinds of services. Comparing this result of model (4) with model (3) indicates that employment below qualifications has particularly detrimental effects in the case of other sectors (than services). This is not surprising given the latest migration trends from Ukraine and the fact that the ‘new wave’ of immigrants—on average, younger and better educated—are strongly ‘sacked in’ by these sectors of the Polish labour market (Górny & Śleszyński, 2019; Górny & Kaczmarczyk, 2018).

The surveyed sample was networked, as evidenced by the fact that the respondents knew about 30 Ukrainians living in Poland on average and had contact with an average of about 12 people from the network within three months before the survey. Moreover, over half of the respondents (54.69%) used the help of the network during their first contact with Poland. This impact decreases over time: in the case of their current job, the share of people declaring they were receiving assistance was still high, yet significantly lower (37.35%), and the difference is further exaggerated by the fact that for some migrants both jobs are in fact identical. This indicates that the network plays a significant role in the process of economic integration, which is consistent with the assumptions suggested by several other studies (Kindler & Szulecka, 2013; Lu et al., 2013; Sanderson, 2014). The importance of this factor (networking) is confirmed by the results of model (3), in which the number of people in the network is significant at the 1% significance level.<sup>4</sup> However, this effect is not strong, and this result is inconsistent with those studies that indicate threats related to the functioning

<sup>4</sup> It is worth noting that the significance of this variable disappears when its interaction with employment sectors is introduced, which may indicate a specific model of influence in various parts of the labour market—see below.

within a network (including Franzen and Hangart, 2006), but it is also understandable in the context of the analysed migration process. Additionally, it can be assumed that networking may have a greater impact on the probability of finding a job rather than on the wages earned. Importantly, in model (4) that includes several interactions the variable indicating the size of the network becomes insignificant. This effect is captured by two interaction terms for services and one of them—the interaction between logged size of the network and employment in non-specialist services is significant. This outcome would suggest that the effect of the network on the level of earnings is important but only in selected sectors. Apparently, non-specialist services including household services are one of them. It is also worth mentioning that during the creation of subsequent regressions, the variables identifying knowledge of the Polish language in speech and understanding lost their significance when we included variables relating to a network in the models. This is another element that indicates that network access can effectively reduce the negative effects associated with the weakness of a person's human capital.

## 6 Conclusions

Since 2014, the Polish labour market has experienced an increasing influx of migrant workers, primarily from Ukraine. In the case of Poland, the lack of a clearly defined migration policy would suggest a decisive role of the network in the migration process. It is a natural phenomenon in the case of high uncertainty and a lack of clear regulations. Under such conditions, networks make it possible not only to reduce risk but also to maximise income. According to the cited literature, the impact of migrant networks is not unequivocal when it comes to the level of income achieved by a given immigrant. In this study, this, in turn, is a marker of economic integration, understood as a process that leads to the achievement of economic independence being achieved by a given individual.

The results of the estimated models indicate that immigrants often work below their human capital, which is manifested by the lack of a wage premium for higher education and work experience (H1). Moreover, migrant women achieve a much lower average income, which is intensified by the sectoral structure of employment and the masculinisation

of the highest-paying sector (construction) (H2). The impact of the employment status specific to Poland—the declaration of intention to entrust work to a foreigner—is also negative (H3). Finally, migrant networks have a significant positive impact on income earned, which is also dependent on the employment sector (H4), although not very high. Undoubtedly, immigrants from Ukraine are strongly networked, and the survey data on which this article is based show that these links are actively used, primarily in the case of people with little migration experience.

Based on the results of the models, it is possible to defend the thesis that the key variables affecting the level of income (in the case of Poland it is one of the key markers of integration) are access to social capital (networks) and the employment sector, which may also be a derivative of participation in networks. However, the variables related to human capital do not have such an impact (and in the case of some dimensions of language proficiency, this impact may even be negative). Moreover, the high concentration of migrants in specific sectors and significant discrimination against women in the labour market provide arguments for the thesis that the labour market in Poland, largely devoid of regulations, is not a place conducive to easy integration. This is another argument that explains the important and positive role of migrant networks, which enable more effective functioning in the Polish (Warsaw) labour market.

The presented study substantially contributes to the literature on labour migration. First, it is one of a few studies dedicated to the economic integration of recent Ukrainian immigrants in Poland and quantitatively assesses this process. Second, it utilises a unique data set that includes a rich set of variables allowing for a robust estimation of determinants of earnings (including language skills and network-related variables). Third, the hypotheses under verification refer primarily to the role of social capital, that is, one of the most crucial factors in recent flows of Ukrainian citizens. This study has some limitations as well. First of all, the sample only describes the labour market of the Warsaw agglomeration and is not representative of the Polish labour market. This concerns both the structure of the migrants themselves (a certain positive selection) and sectors of the Polish labour market (e.g. the lack of agriculture, which is very important in the national dimension). Additionally, the presented analysis is only a snapshot, capturing a certain moment in the dynamic process of the recent migrations to Poland. In this context,



the possibility of using panel data would significantly enrich the presented analyses.

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