
The Impact of Economic and Non-economic Factors on the Willingness to Migrate of Young People in the COVID-19 Pandemic Time

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Abstract:

Purpose: The study aimed to determine the willingness to migrate of young people (students of selected research centers from Poland and Portugal) and to identify the reasons and directions for their departure.

Design/Methodology/Approach: Logical reasoning and a descriptive method were used to prepare this article. Additionally, the logistic regression results were the basis for verifying the research hypothesis, and multidimensional correspondence analysis helped with the graphical presentation of the results.

Findings: The analyses confirmed the hypothesis that, regardless of the country of origin, the leading cause of migration of young people are economic factors, including high earnings abroad and the intention to improve working conditions. In addition, the study results confirmed the negative impact of the COVID-19 pandemic on the willingness to migrate of young people. The disincentives were fear of falling ill and forced isolation from relatives and friends in case of a lockdown.

Practical Implications: The study allowed us to determine how the willingness to migrate of young people has changed over time, especially in the time of the global crisis related to the COVID-19 pandemic.

Originality/Value: Application of correspondence analysis to migration research to illustrate the influence of economic and social factors on the willingness of youth to migrate.

Keywords: Migration, young people, correspondence analysis, logistic regression, COVID-19.

JEL classification: F22, J61, O15, R23.

Research Type: Research article.

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1. Introduction

Migrations, especially departures of young and educated people from the country, mainly for economic purposes, have become a global problem (Brome, 2007; Feraru, 2012; Tverdostup and Masso, 2015). This phenomenon affects most countries and regions as well as age and professional groups. Usually, their emigration was associated with severe economic problems of the country, such as the high unemployment rate among young people (Cerdeira *et al.*, 2016) or the economic crisis (Cairns, 2017). The research conducted in Poland and selected EU countries shows that for young people, the main reason for deciding to migrate was higher earnings (Stanimir, 2015; Kowalewska, Nieżurawska-Zajac, and Rzeczkowski, 2018) and better living conditions in the destination country (Kowalewska, Nieżurawska-Zajac, and Duarte, 2019). The increase in migration flows impacted the European integration processes and the resulting free movement of capital, goods, people, and services within the framework of the free market of the European Union. Unfortunately, the outbreak of the COVID-19 pandemic and the fear of an unknown threat has changed the perception of one's mobility and approach to emigration.

The scale of migration results from lifting restrictions on international traffic (1989) and Poland's accession to the EU (2004). The scale of migration has become an important socio-economic problem (Jończy, 2006), as well as the subject of scientific publications (Kaczmarczyk, 2005; Anacka *et al.*, 2014). Data on temporary migrations show that migrating Poles increased from 1 million in 2004 to 2.5 million in 2016. At the end of 2019, around 2.4 million people were staying outside Poland, of which around 2.1 million in Europe (GUS, 2019). The greatest number of Polish emigrants stayed in Germany, Great Britain, the Netherlands, and Ireland (GUS, 2017). Emigrants are usually young and educated people of production age (Kowalewska, Nieżurawska-Zajac, and Rzeczkowski, 2018). In Poland, research on youth economic migration usually refer to a specific region, e.g., the Opole region (Jończy, 2006), Podkarpacie (Piecuch and Piecuch, 2014) or Lower Silesia (Centrum Monitoringu Społecznego i Kultury Obywatelskiej, 2013). Mostly, the subject of the research are the motives for making decisions about emigration by students. (Witczak-Roszkowska and Okła, 2015; Stanimir, 2015; Szyszka, 2016; Kowalewska, Nieżurawska-Zajac, and Rzeczkowski, 2018).

Also, in Portugal, a country of 10 million people, migration is a severe problem. Portugal is the EU Country with the highest emigration index. According to the World Bank (2017), the most significant number of emigrants in Portugal was in the 1980s and amounted to 1,800,000. People. Another peak in emigration was recorded in 2014 when 1,350,000 Portuguese left the country (Portada, 2015). A favorable trend has been observed since 2014 when the number of emigrants began to decline. There are 1.7 million Portuguese people in Europe, half of them are the second generation. The majority (65%) of emigrating Portuguese choose the EU and countries like the UK, France, and Germany as their destination (outside the EU – Switzerland). Although most emigrants do not have a university education, highly qualified Portuguese (one-

third of migrants) choose the Scandinavian countries (Norway, Sweden, and Denmark). Outside of Europe, the Portuguese preferred Brazil and Africa, especially the former Portuguese colonies – Angola and Mozambique. The reason for migration to former colonies is the ability to use the Portuguese language (no language barriers), the cultural closeness, and the demand for a highly qualified labor force (Rapazote, 2015).

Due to the high number of people emigrating from Poland and Portugal, examining the factors influencing the decision to migrate seems interesting. Additionally, new non-economic factors have appeared as consequences of the COVID-19 epidemic. It is because countries worldwide have been forced to take radical measures limiting travel and contact between people due to the virulence of SARS-CoV-2. According to the International Organization of Migration, since 23 March 2020, at least 174 countries have introduced movement restrictions, while in September 2020, the number of countries reached 219 (Bohdan, Maziarz, and Dornfeld-Kmak, 2021). The above, combined with a solid but uneven slump in economic growth and an increase in uncertainty about the future, has directly influenced the movement of people between countries.

The International Migration Outlook (OECD, 2020) says that the COVID-19 crisis has had unprecedented consequences on migration flows in OECD countries. In the first half of 2020, the number of new residency permits granted to migrants was down by 46% on average compared with the same period in 2019. There are vital signs that mobility will not return to previous levels for some time. This is due to weaker labor demand, persistent severe travel restrictions, and the widespread use of teleworking among high-skilled workers and remote learning by students. On the other hand, Sirkeci and Yüceşahin (2020), referring to one of the models in migration literature ('cultures of migration'), argue that over time, as migration experiences accumulate in an area and through a route between the origin and destination, mobility continues almost irrespective of changes in the drivers of migration that were in place at the beginning. Thus, they expect an increasing volume of migration over time through established migration corridors.

According to OECD experts' opinion (OECD, 2020), the current economic downturn will most likely aggravate the impact on labor migration and may set back the progress in the labor market inclusion of immigrants. Early, partial evidence shows that the pandemic has revealed and reinforced the vulnerabilities of migrants in the labor market (especially in southern European countries, Ireland, Sweden, Norway, and the USA). In the hotel and tourism industry in the EU (the sectors most affected by lockdown restrictions), a quarter of the workforce comprises third-country nationals, which is twice the average for the entire economy. In addition, they often work on temporary contracts, which means that they are usually the first to lose their job and become unemployed. OECD statistics also show that the risk of contracting the coronavirus among migrants is at least twice as high as among local citizens of the

same age. This is because they often work in sectors with high COVID-19 exposure (migrants account for an average of 24% of doctors and 16% of nurses and carers).

Undoubtedly, such conditions shape immigrants' calculus about when and where to move. Migration has become much riskier for prospective immigrants, not only in terms of the health risks associated with travel but also in terms of the uncertainty that may await many of them in destination countries, including being accepted where they settle, their ability to find employment or look for another job if they are laid off, and to bring their family members with them. Some prospective immigrants may be unwilling to assume these risks for now, especially for a temporary visa with no prospects for converting such visas into the permanent status and its associated rights (Papademetriou and Hooper, 2020).

The impact of COVID-19 related factors on migration decisions is a new element that is still being investigated. It can deepen knowledge in migration and indicate how the global crisis (pandemic) has influenced the migration processes. In this context, it is worth identifying the reasons for emigration and defining the most popular destinations young people prefer.

2. Material and Methods

The main aim of the research was to determine the willingness to migrate of young people, as well as to identify the reasons and directions of their departure. The research aim was attained by verifying the following hypotheses:

- The main cause of migration of young people (regardless of the country of origin) are economic factors, i.e., high earnings abroad and a better quality of life (H1);
- The COVID-19 pandemic negatively influenced the willingness to migrate of young people (fear of getting sick and isolation from relatives and friends are the dominant factors when deciding to emigrate) (H2).

The verification was based on primary data gathered in 2020 with a questionnaire among students at the Faculty of Management at the University of Warmia and Mazury in Olsztyn (Poland) and the Polytechnic of Porto (Portugal). Fully and correctly completed questionnaires were returned by 252 students, 96 of whom came from Poland and 156 from Portugal. The reason for choosing these two scientific centers was the experience of the European-wide Research on Generations X, Y, Z. It showed that in these two universities, the process of collecting information ran most effectively and quickly. The group of respondents at both universities was determined by the guidelines of the non-probabilistic (convenience) sampling technique (Castillo, 2009).

Additionally, the applied approach provided empirical material for a comparative analysis focusing on changes in the phenomenon of willingness to migrate and its causes, which are consequences of the global pandemic.

In the analysis of the dependence of the inclination to migrate against the encouraging and discouraging migration factors, logistic regression was used to graphically present data; correspondence analysis was used. The logistic regression model is a particular case of the generalized linear model. It is used for dichotomous variables. Usually, the values of the dependent variable indicate the occurring or absence of the examined occurrence. Logistic regression allows then to calculate the probability of occurrence of success that we forecast. For a logistic regression model, it is required that the observations be independent of each other, and the logic of probability is linearly dependent on the explanatory variables.

The second quantitative method - correspondence analysis - is a descriptive exploratory technique that provides information about relationships between columns and rows (categories) of a contingency table. This technique allows for graphical presentation in a low-dimensional space of numerical data contained in a contingency table. Correspondence analysis is not aimed at confirming or falsifying a hypothesis, but it is an experimental method that investigates relationships and presents the data structure.

To better illustrate the study results of inclination to migrate and its causes, the five-point Likert scale from the questionnaire was reduced to three items representing: low, medium, and high inclination to migrate. In the case of econometric modeling, a binomial logistic regression was used, where the dependent variable and nominal explanatory factors assume only two items, coded as an invalid factor or lack of the desired phenomenon and an essential factor, denoting the occurrence of a given phenomenon (Hosmer and Lemeshow, 2000). According to this assumption, the responses were grouped as low and high inclination to migrate.

3. Research Results

The inclination to migrate is a subjective assessment of the respondents' willingness to change their residence and/or work. The research shows that in 2020 Poles characterized a stronger inclination to leave the country than their Portuguese colleagues. Almost 31% of respondents from Poland declared high, 33% medium, and 35% low willingness to migrate. At the same time, the Portuguese were firmly reluctant to emigrate as almost 55% of them described their mobility as low, 29% as a medium, and only 17% as high.

Compared to 2017, the percentage of Polish students with high willingness to migrate decreased by five percentage points (from 36% to 31%), while in Portugal, this figure was as much as 38 percentage points (from 55% to 17%). The observed decrease in the inclination to migrate may be related not only to the personal situation of the respondents (connected with study and/or work) but, above all, to the global situation of the COVID-19 pandemic.

In 2020, the most preferred destinations of migration indicated by Polish students were: Germany, the USA, Great Britain, Norway, Spain, and the Netherlands, while three years earlier, there were Great Britain, Germany, the USA, Norway, the Netherlands, and Denmark. The observed differences (change of the UK's place from first to third) resulted from concerns connected with Brexit. People planning to migrate may have been afraid of additional restrictions when crossing the border (e.g., visas) or employment (e.g., work permits). Preferences as to the directions of emigration for Portuguese students remained unchanged in 2020 compared to 2017. The most popular emigration countries for them were France, Belgium, the Netherlands, Great Britain, Scandinavian countries (Finland, Sweden, and Norway), and Germany.

The crisis resulting from the pandemic, fear of contracting SARS-Cov-2, and likely lockdown shaped respondents' views on disincentives to departure. In 2020, 41% of Polish students assessed the lack of contacts with family and friends as equivalent to difficulties finding a job. In turn, the anxiety of the pandemic kept as many as 18% of the surveyed Poles from leaving the country.

Similarly, it was in a group of Portuguese students where the lack of family and friends (especially in case of quarantine or lockdown) was indicated by 44% of respondents. On the other hand, the possibility of being infected with SARS-Cov-2 was treated by Portuguese students much more seriously. In a 2020 study, they chose this factor as often as fear of a terrorist attack in a 2017 study (in both cases, 31% were recorded).

In 2020 for both groups of respondents, economic factors were crucial when making decisions about emigration. For Poles, the most important were higher earnings (61%), more chances to find a job (41%), and more significant opportunities for employment and promotion (32%). In the case of the Portuguese students, the most important were the number of earnings (63%), more significant opportunities for employment and promotion (41%), as well as the higher chances for finding a job (37%). These responses differ from the 2017 survey results, especially for Portuguese students. In that time, their set of the most vital economic factors embraced the possibility of achieving a higher quality of life (63%), more excellent promotion/employment opportunities (53%), higher earnings (42%), and bigger chances for finding a job (16%). They classified the most critical non-economic factors as social security (16%), family reunification (11%), the lack or low probability of terrorism in the destination country, and the willingness to change one's situation (5% each). On the other hand, among Poles, the most important economic factors determining the decision to emigrate were primarily:

- higher earnings (55%),
- the possibility of achieving a higher quality of life (43%),
- the possibility of employment/promotion (29%) and a higher probability for finding a job (26%).

In turn, the group of non-economic factors included:

- the absence or low probability of terrorism (30%),
- family reunification (22%),
- social security provided by the destination country (21%), and
- the need for a change in one's situation (11%).
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Table 1. Estimation of logistic regression models of inclination to migrate (2020)

Explanatory Factor	Estimates	Wald Test	p-Value	Odds Ratio
Constant higher earnings (F1)	-1.916 0.887	26.432 5.672	0.000 0.017	5.900
Constant finding a job (F2)	-1.539 0.601	50.012 7.59	0.000 0.010	3.304
Constant greater employment and promotion opportunities (F3)	-1.447 0.443	48.627 4.563	0.000 0.033	2.427
Constant social security (F4)	-1.210 0.158	60.853 1.055	0.000 0.304	1.374
Constant low probability of terrorism (F5)	-1.109 0.154	39.838 0.766	0.000 0.382	1.360
Constant change your situation (F6)	-1.213 0.492	58.596 9.650	0.000 0.002	2.676
Constant family reunification (F7)	-1.083 0.326	46.139 4.190	0.000 0.041	1.920
Constant ignorance of the language (F8)	-1.191 -0.115	60.654 0.566	0.000 0.452	0.794
Constant necessity to obtain a visa (F9)	-1.041 0.435	42.174 7.360	0.000 0.007	2.386
Constant necessity to get a work permit (F10)	-1.167 0.098	56.055 0.397	0.000 0.530	1.217
Constant absence of family and friends (F11)	-1.157 -0.171	55.934 1.224	0.000 0.268	0.710
Constant high probability of terrorism (F12)	-1.218 -0.168	60.499 1.154	0.000 0.283	0.714
Constant possibility of infection with the COVID-19 virus (F13)	-1.350 -0.467	59.622 7.131	0.000 0.008	0.393

Source: Own study.

In order to verify the hypotheses that the main reasons for the migration of young people are economic factors and that there is a negative impact of the pandemic (COVID-19) on the inclination to migrate these people, the binomial logistic regression of the inclination against the factors encouraging and discouraging migration was proposed. The estimates based on the surveys conducted in 2020 in Poland and Portugal are presented in Table 1. The analysis results indicate several

statistically significant economic and non-economic factors that stimulated the inclination to migrate, increasing the probability that a given person would be in the group of people with a high tendency to migrate. Among the economic factors, we can distinguish higher earnings abroad (F1), finding a job (F2), greater employment and promotion opportunities (F3). Significant non-economic factors turned out to change your situation (F6), family reunification (F7), the necessity to obtain a visa (F9), and the possibility of infection with the COVID-19 virus (P13).

The most important factor that prompted migration was the willingness to achieve higher earnings abroad (F1). This factor increases almost six times the chance of showing a high inclination to migrate than if this factor is considered invalid. Moreover, students who consider the factor of finding a job (F2) important have more than three times greater chance of having a high inclination to migrate than those who consider finding a job as an unimportant factor. Respondents who consider the factor in the form of more significant employment and promotion opportunities (F3) as necessary have almost two and a half times greater chance of having a high inclination to migrate than those who consider more significant employment and promotion opportunities as an unimportant factor.

The analysis of the results regarding non-economic factors shows that the respondents who consider the factor in the form of a change in their situation (F6) to be critical have an almost three times greater chance of having a high inclination to migrate than people who consider the change of their situation to be an unimportant factor. The coefficients of the models also turned out to be significant, where family reunification was the factor influencing the increase in inclination to migrate (F7) ($OR=1.920$) and the necessity to obtain a visa (F9) ($OR=2.386$). The assessment of the coefficient in the model with a factor indicating the possibility of infection with the COVID-19 virus (F13) is consistent with the expectations and the hypothesis. Fear of becoming infected significantly reduces the chance of being highly inclined to migrate.

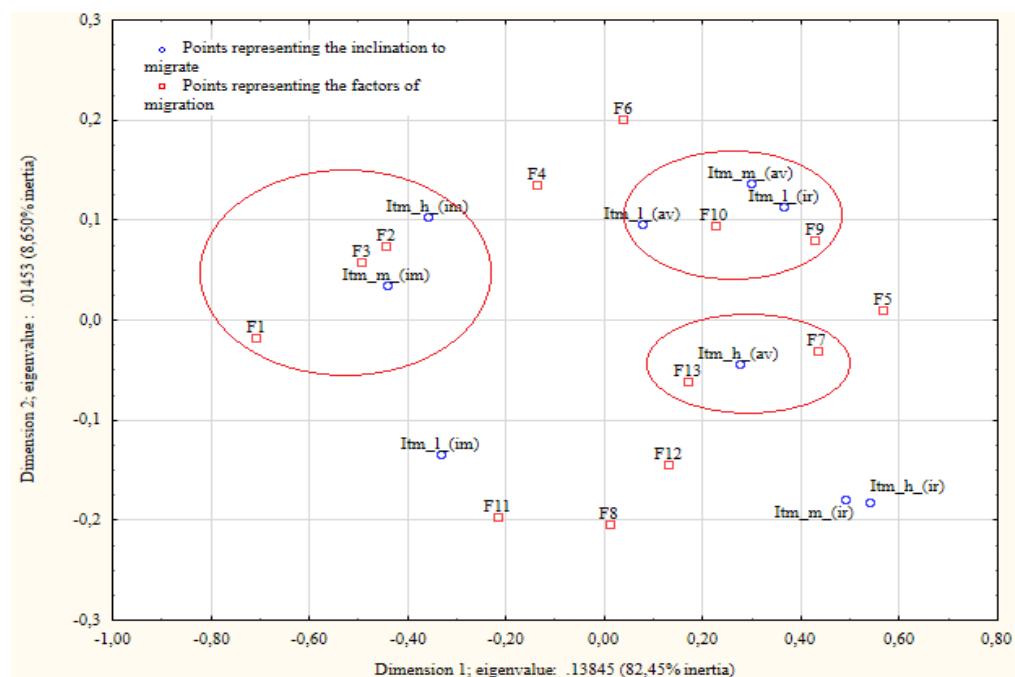
In order to graphically presentation the relationship between economic and non-economic factors of migration and the inclination to migrate declared by respondents in 2020, a multidimensional correspondence analysis was used. This analysis allows for examining the coexistence of the categories of two characteristics of inclination to migrate and factors influencing migration decisions. Taking these two dimensions into account, it was examined how well they describe the relationship. The results showed that 91.10% of the analysis presented in the chart explains the relationships between the studied variables.

The analysis of correspondence in Fig. 1 indicates that factors such as higher earnings (F1), finding a job (F2), and more significant employment and promotion opportunities (F3) attract people characterized by high and medium inclination to migrate, for whom the analyzed factor is essential. Thus, it confirms the hypothesis that economic factors are essential for people who want to emigrate.

In the case of the factors the necessity to obtain a visa (F9) and the necessity to get a work permit (F10), they were most often indicated by people with medium and low inclination to migrate, for whom this factor was moderately important, and people with low inclination to migrate and perceiving this factor as necessary. Both these factors inhibit the decision to leave the country. People with a high inclination to migrate, for whom both factors are average, focused on family reunification (F7) and the possibility of infection with COVID-19 (F13). The absence of family and friends (F11) is related to people with a low inclination to migrate, for whom it is essential. This means that it is a factor that inhibits the decision to leave the country.

The isolated points not related to the inclination to migrate are the following factors: social security (F4), improvement of one's situation (F6), ignorance of the language (F8), and a high probability of terrorism as a discouraging factor (F12). In conclusion, the correspondence analysis results for 2020 show that economic factors such as high wages, finding a job, and more significant employment and promotion opportunities are important factors for people who want to leave the country. In times of pandemic crisis, lack of contact with family is also an inhibiting factor. On the other hand, the fear of contracting COVID-19 is a medium-important factor for people willing to migrate, which requires an analysis of the economic situation (benefits from higher income) and social situation (the inability to see family due to disease or lockdown).

Figure 1. Correspondence map concerning the relation between migration factors and the inclination to migrate Polish and Portuguese students in 2020



Notes: F1, ..., F13 - factors inducing migration. F1- higher earnings, F2- finding a job, F3- greater employment and promotion opportunities, F4 - social security, F5 - low probability of terrorism, F6 - change your situation (new possibilities), F7 - family reunification, F8 - ignorance of the language, F9- necessity to obtain a visa, F10 - necessity to get a work permit, F11 - Absence of family and friends , F12 - high probability of terrorism, F13 possibility of infection with the COVID-19 virus.

Itm (Itm_h; Itm_m; Itm_l) - inclination to migrate: high, medium and low, and in parentheses the abbreviations "im", "av" and "ir" indicate whether the analyzed factor was important, average or unimportant for the respondents.

Source: Own study.

Summing up, the analyses (logistic regression model and correspondence analysis) regarding the research on the inclination to migrate young people (Polish and Portuguese students) confirm the hypothesis that economic factors are essential for people who want to emigrate. This is in line with previous research by the authors of the article (Kowalewska, Nieżurawska-Zajac, and Rzeczkowski, 2018, Kowalewska, Nieżurawska-Zajac, and Duarte, 2019), as well as other researchers (Stanimir, 2015). The analyses also illuminate the importance of factors related to COVID-19. The fear of becoming infected and being isolated from relatives (family and friends) is a factor that inhibits migration decisions.

4. Conclusion

On the basis of this study, the research hypotheses were verified and the following conclusions were drawn:

1. In the case of both Polish and Portuguese students, the most important reasons for the migration were economic factors, especially higher salary (61% of Poles and 63% of Portuguese) and better work conditions (better promotion/job opportunities) (32% of Poles and 41% of Portuguese) in the destination country.
2. New, non-economic factors of migration have appeared inter alia fear of virus infection and the vision of no contact with relatives because of lockdown. Despite novelty of this disincentives, the results of the logistic regression model confirmed that they are significant and play an important role in the decision-making process to emigrate. Contact with family and relatives has become more crucial. Polish respondents considered it as important as the need to find a job. Among the young people from Portugal, the anxiety of contracting SARS-Cov-2 virus was more than twice as high as in the case of Poles. People's mobility is negatively affected by fear, as demonstrated by the almost twofold decline in the willingness to migrate among Portuguese students. Their worries of COVID-19 were as high as the fear of a terrorist attack.
3. The most popular destination of migration were European countries (especially the EU). The preferred directions of migration for Polish and Portuguese students concerned countries with a very good economic situation (low unemployment, high standard of living, high earnings) and proximity to the

home country borders (low migration costs, easier contact with family and friends and the possibility of a quick and cheap coming back)

Until the outbreak of the COVID-19 pandemic, young people often saw migration to make their lives easier. They believed that thanks to leaving the country, they would improve their financial position and life prospects. They did not struggle with the emigration dilemma that characterized the previous generations and made their decisions on the spur of the moment. They declared readiness to immediately change both work and place of residence (Kowalewska, Nieżurawska-Zajac, and Rzeczkowski, 2018). For them, leaving the country was only a change of residence and work and not saying goodbye to family and friends (Kisiel, 2016). The outbreak of the pandemic and the fear of an unknown threat changed the perception of one's mobility and approach to emigration. It is also a factor that negatively affects migration movements.

References:

- Anacka, M., Brzozowski, J., Chałupczak, H., Fihel, A., Firlit-Fesnak, G., Garapich, M., Grabowska-Lusińska Heffner, K., Jaźwińska, E., Jończy, R., Kaczmarczyk, P., Krzyżowski, Ł., Lesińska, M., Okolski, M., Praszałowicz, D., Rauziński, R., Rokita-Poskart, D., Slany, K., Solga, B., Ślusarczyk, M., Urbańska, S. 2014. Społeczne skutki poakcesyjnych migracji ludności Polski. Komitet Badań nad Migracjami PAN, Warszawa.
- Bohdan, A., Maziarz, B., Dornfeld-Kmak, A. 2021. Impact of the COVID-19 Pandemic on the Legal Migrant in Poland, Portugal, Latvia, and Belgium. European Research Studies Journal, 24(1), 522-531.
- Brome, H. 2007. Is New England experiencing a „brain drain”? Facts about demographic change and young professionals. New England Public Policy Center Discussion Paper, 7-3.
- Cairns, D. 2017. Exploring student mobility and graduate migration: undergraduate mobility propensities in two economic crisis contexts. Social & Cultural Geography, 18(3).
- Castillo, J.J. 2009. Convenience Sampling. Retrieved from: <http://www.experiment-resources.com/convenience-sampling.html>.
- Centrum Monitoringu Społecznego i Kultury Obywatelskiej. 2013. Mobilność przestrzenna młodych ludzi na dolnośląskim rynku pracy: raport końcowy 2013. Centrum Monitoringu Społecznego i Kultury Obywatelskiej, Ośrodek Analiz Społecznych i Edukacji Kulturowej. Magap, Centrum Monitoringu Społecznego i Kultury Obywatelskiej.
- Cerdeira, L., De Lourdes Machado-Taylor, M., Cabrito, B., Patrocínio, T., Brites, R., Gomes R. 2016. Brain drain and the disenchantment of being a higher education student in Portugal. Journal of Higher Education Policy and Management, 38, 68-77.
- Feraru, P.D. 2012. The approach of an intelligent system for stopping the phenomenon of migration of young people during the economic crisis. CES Working Papers, 4(3).
- GUS. 2017 Informacje o rozmiarach i kierunkach emigracji z Polski w latach 2004-2016. Retrieved from: <https://stat.gov.pl/obszary-tematyczne/ludnosc/migracje-zagraniczne-ludnosci/informacja-o-rozmiarach-i-kierunkach-emigracji-z-polski-w-latach-20042016,2,10.html>.

- GUS. 2020. Informacja o rozmiarach i kierunkach czasowej emigracji z Polski w latach 2004-2019. Retrieved from: <https://stat.gov.pl/obszary-tematyczne/ludnosc/migracje-zagraniczne-ludnosci/informacja-o-rozmiarach-i-kierunkach-czasowej-emigracji-z-polski-w-latach-2004-2019,2,13.html>.
- Hosmer, D.W., Lemeshow S. 2000. Applied logistic regression. Wiley and Sons, New York.
- Jończy, R. 2006. Exodus zarobkowy opolskiej młodzieży. *Polityka Społeczna*, 10, 10-14.
- Kaczmarczyk, P. 2005. Migracje zarobkowe Polaków w dobie przemian. Wydawnictwo UW, Warszawa.
- Kisiel, P. 2016. Millennials – nowy uczestnik życia społecznego? *Studia Socialia Cracoviensia*, 1(14), 85-88.
- Kowalewska, G., Nieżurawska-Zajęc, J., Duarte N. 2019. Causes and directions of student migration using polish and portuguese students as an example. *Olsztyn Economic Journal*, 14(3), 271-286.
- Kowalewska, G., Nieżurawska-Zajęc, J., Rzeczkowski D. 2018. Sklonności społeczeństwa informacyjnego do migracji na przykładzie studentów reprezentujących pokolenie Y. Wyniki badań empirycznych. *Roczniki Kolegium Analiz Ekonomicznych SGH*, 49, 527-554.
- OECD. International Migration Outlook 2020. 2020. Retrieved from: https://www.oecd-ilibrary.org/sites/ec98f531-en/index.html?itemId=/content/publication/ec98f531-en&csp_=6cecd0fb3b3828a41a7f738372ed214&itemIGO=oecd&itemContentType=book.
- Papademetriou, D.G., Hooper, K. 2020. Commentary: How is COVID-19 Reshaping Labour Migration? *International Migration*, 58(4), 259-262.
- Piecuch, T., Piecuch, M. 2014. Analiza sytuacji młodych ludzi na rynku pracy – rozważania teoretyczne i badania empiryczne. *Modern Management Review*, 19(21(4)), 175-186.
- Pordata, I. 2018. Rapazote, Inês Sinais de alerta na emigração. Retrieved from: <https://visao.sapo.pt/actualidade/politica/2015-12-17-Sinais-de-alerta-na-emigracao/>.
- Rapazote, I. 2015. Sinais de alerta na emigração, Revista Visão. Retrieved from: <http://visao.sapo.pt/actualidade/portugal/2015-12-17-Sinais-de-alerta-na-emigracao>.
- Sirkeci, I., Yucesahin, M.M. 2020. Coronavirus and Migration: Analysis of Human Mobility and the Spread of COVID-19. *Migration Letters*, 17(2), 379-398.
- Stanimir, A. 2015. Sklonność do zagranicznej mobilności młodszych i starszych osób. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 385, 257-266.
- Szyszka, M. 2016. Zagraniczna migracja zarobkowa jedną ze strategii życiowych młodego pokolenia *Roczniki Nauk Społecznych Tom 8(44)*, 2-7. DOI: dx.doi.org/10.18290/rns.2016.
- Tverdostup M., Masso J. 2015. The labour market performance of young return migrants after the crisis in CEE countries: The case of Estonia. *University of Tartu Faculty of Economics & Business Administration Working Paper Series*, 98, 3-31.
- Witczak-Roszkowska, D., Okła, K. 2015. Sklonność studentów województwa świętokrzyskiego do zagranicznych emigracji zarobkowych. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 401, 555-565.
- World Bank. 2017. Bilateral Migration Matrix 2013, Bilateral Migration Matrix 2010, Bilateral Migration Database 1960-2000. Retrieved from: <https://www.worldbank.org/en/topic/migrationremittancesdiasporaissues/brief/migration-remittances-data>.