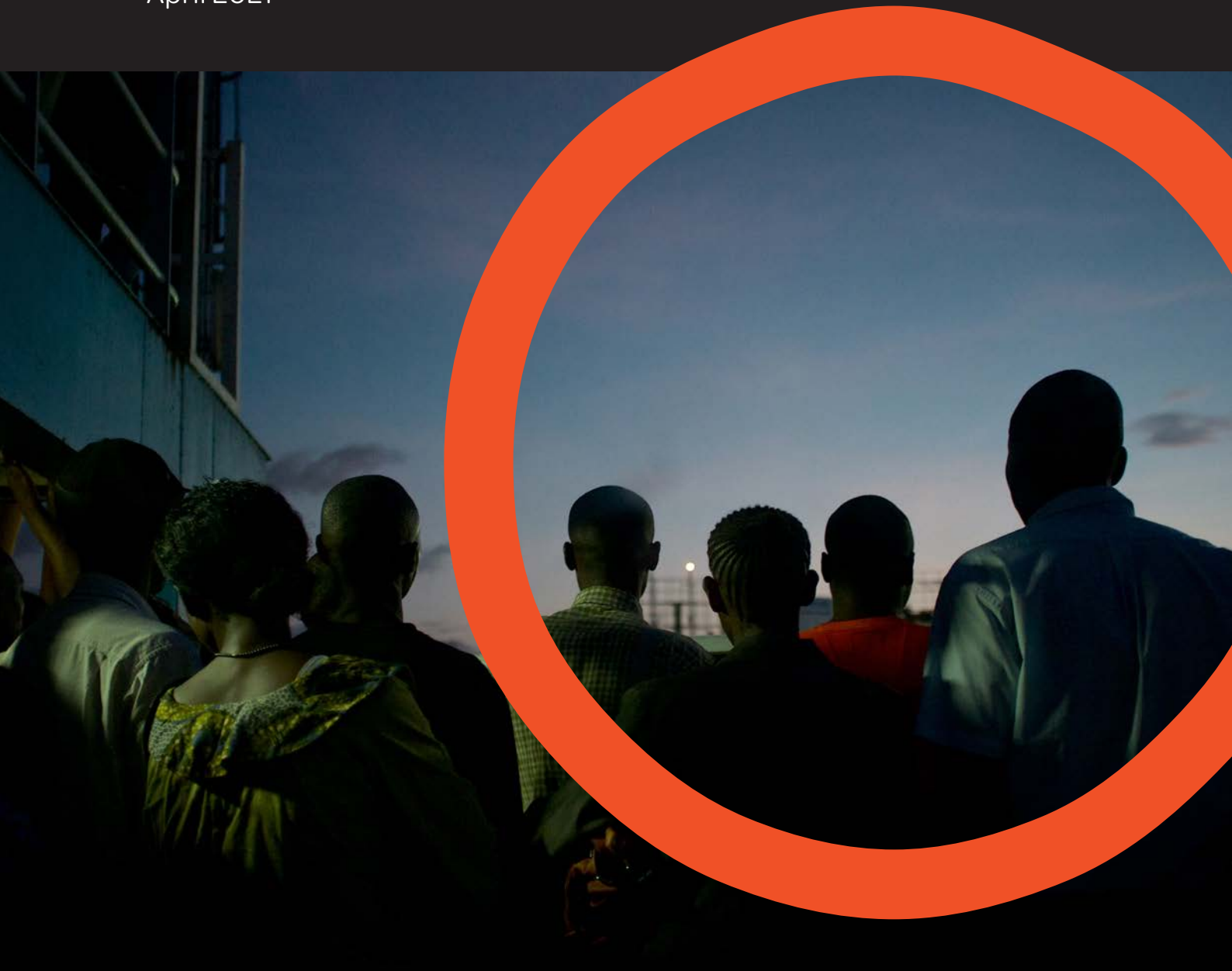


BACKGROUND PAPER

# The Phenomenon of Brain Drain and Immigration of a High-Skilled Workforce to the Slovak Republic

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# FACES OF MIGRATION

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# The Phenomenon of Brain Drain and Immigration of a High-Skilled Workforce to the Slovak Republic

Migration is a phenomenon that has accompanied humanity since time immemorial. A specific type of migration is the so-called *brain drain*, which is the migration of the educated part of the population.

The consequences of the brain drain are different for the country of origin and the country of destination. While the host country clearly benefits from educated migrants, the home country is losing human capital through the emigration of qualified people, which we consider to be one of the prerequisites for development.

## Migration of a High-Skilled Workforce

*Brain drain* doesn't have a fixed definition. It is often understood as the migration of a highly qualified workforce (*highly qualified migration*). Put simply, it is the migration of experts or human capital. By a highly skilled person, we understand a person who has completed a graduate or at least undergraduate study.

The migration of highly skilled professionals has certain specificities compared to unqualified, low skilled people. Highly skilled migrants belong among the most mobile components in the labour market. They are willing to spend extended work placements abroad and change locations more often. This is a long-term legal migration in the country of destination. The job offer is specified and agreed upon before travel.

In many cases, the person migrates based on the invitation of the host institution with which the future migrant is in contact. Migration occurs in large cities, which are the headquarters of many renowned research centers; therefore, each field of science has specific spatial migratory characteristics. The primary motivation for emigration is not income. It is rather extending of professional knowledge, and the acquisition of new experience or professional practice, the quality of the research institution also plays an important role. In the case of migration from developing countries, income in the

destination country also represents an important motivation. However, this type of migration is conditioned by several assumptions, such as professional and language skills (Gedam, 2002; Kostelecká, Bernard et al., 2007; Vavrečková, Bastýř et al., 2008).

## Missing Data on the Migration of a Skilled Workforce in the World

Current trends in the migration of a skilled workforce are difficult to estimate. This is due to the absence and unavailability of statistics dealing with this phenomenon. The latest statistics are available for 2010 and are from the Employment Institute. The flows of highly educated migrants are on the rise. While in 2000 23% of all migrants had tertiary education, in 2010 it was already 27%. In absolute terms, this amounted to more than 21 million tertiary-educated migrants in 2010. Docquier and Marfouk (2004) found that in 2000, up to 60% of educated migrants came from the so-called developing countries. In most cases, one of the OECD countries was the destination. The highest number of educated migrants in 2010 came from India, the Philippines, Mexico, China, Korea, and Vietnam, and they headed mainly to the US. The US is also appealing to highly educated migrants from European countries such as Germany, Ukraine, Poland, Italy, Romania, Bosnia, and Herzegovina. Tertiary-educated migrants from the African continent migrate mainly to the UK. The highest number of these migrants came from Kenya. Other popular destination countries for high-skilled migrants from all over the world were Canada, Australia, Spain, Germany and France (Brücker, Capuano et al., 2013; Docquier, Marfouk, 2004).

At present, a significant proportion of highly qualified migrants are women. This is the so-called feminization of migration. Between 1960 and 2015, the total number of female migrants doubled. In 2010, for example, 64% of tertiary-educated migrants from the Philippines were women. Increased emigration of women is also widespread in countries where women have a different status than men. Up to 3.5 times more qualified women emigrated from Saudi Arabia in 2010 than in 2000 (OECD, 2017).

## Immigration of a Skilled Workforce to the Slovak Republic

Slovakia has long been one of the countries with the lowest share of foreign labour. The turnaround came after the country had joined the European Union when the share of migrants in the Slovak labour market began to increase more dynamically. In 2011, several changes took place to facilitate the economic participation of migrants. In this context, Slovakia raised the issue of employing high-skilled migrants from the third countries (Philadelphia, Gyárfášová et al., 2011).

Regarding the immigration of a qualified labor workforce to the Slovak Republic, their admission is regulated and conditioned by the so-called EU Blue Card. The EU Blue Card is a type of temporary residence issued to third-country nationals for the purpose of highly qualified employment. The essential condition for obtaining the EU Blue Card is a higher professional qualification, evidenced by a certificate of higher education. This type of temporary residence is granted to suitable applicants for four years and allows them to enter, stay and work in the Slovak Republic and travel abroad and back (IOM Migration

## The Phenomenon of Brain Drain and Immigration of a High-Skilled Workforce to the Slovak Republic

information center, 2018). According to the Ministry of Interior of the Slovak Republic, applicants for this type of temporary residence are dominated by citizens of Ukraine and Russia, Vietnam, China, and Chile (Ministry of Interior of the Slovak Republic, 2019).

Research on migrants on the Slovak labour market was carried out by the Institute for Public Affairs in 2010. In the case of high-skilled migration, migrants from Russia, Ukraine and Serbia dominate. In the case of non-European countries, it is Vietnam and China. Regarding the professions performed by educated migrants in Slovakia, these are mainly: economic and managerial positions, technical engineers, doctors and healthcare professionals, teachers, artists, and professions in humanities (Philadelphia, Gyárfášová et al., 2011).

Women dominate high-skilled migration to Slovakia. However, men have the predominance among employees with a lower qualification from abroad. The presumed reason is the predominance of jobs suitable for lower qualifications aimed at men (industrial production, automotive industry). The share of foreigners with long-term residence in the Slovak Republic is low and has a relatively short-term character.

The total number of foreign nationals performing work activities in the territory of the Slovak Republic as of 31 July 2018 was 60,136 persons. Of these, 31,857 were citizens of the EU Member States and 12,617 third-country nationals working based on a work permit or a vacancy certificate issued, 15,662 third-country nationals with exemptions which do not need permits/certificates of employment. The share of working foreigners who plan to work in Slovakia for more than 12 months or have a centre of their economic interests in Slovakia, in the total number of workers in the Slovak Republic is still low – 0.3% compared to the EU-28 and other V4 countries (MLSAE SR, 2018).

According to an analysis of the Institute of Social Policy, most foreigners work in sectors where few unemployed people worked before registration and in professions with the highest number of vacancies. Foreigners complement the lack of suitable domestic labour (Petráš, 2018). Economic migrants, therefore, rarely push out local labor out of the labour market. They fill jobs that the local workforce is not interested in, occupy lower-paid jobs, or receive lower pay compared to the local workforce (Ďurana, 2018).

## Scholarships for International Students

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In several definitions of brain drain, we find the opinion that the migration of university students and female students is also considered brain drain. The migration of university students happens as long as the student is permanently studying at university outside his/her home country (these are not short-term, one-to-two semester placements). The number of students studying abroad is rising. While 800 000 people studied abroad in 1980, in 2000 it was 1.9 million. The most recent data for 2017 show that 5.3 million students studied abroad this year. We are seeing an increase in the number of people studying abroad because many countries have implemented policies and programmes that serve to attract students from abroad. Most international students come from China, India, Germany, Korea and Vietnam. The most popular destination countries are the USA, UK, Australia, Germany and France (Migration Data Portal, 2020).

In the academic year 2019/2020, 13.9 thousand students from abroad studied in Slovakia. Students from Ukraine, Serbia, Germany, Hungary, and Norway dominated. On the contrary, up to approximately

33,000 Slovaks studied abroad (Ministry of Education, Science, Research and Sport of the Slovak Republic, 2020).

Support in higher education is a part of the Official Development Cooperation (ODA) of the Slovak Republic. This form of assistance also includes providing government scholarships in the Slovak Republic. In the academic year 2020/2021, a total of 43 government scholarships were awarded in the Slovak Republic. Most of them were awarded to students from Afghanistan (5), Kenya (4), Palestine (4), followed by Syria, Lebanon, Jordan, Moldova, Iraq, Ethiopia, Albania and Bosnia and Herzegovina. A total of 5 government scholarships for Slovak doctoral studies were awarded to students from Sudan (2), Ukraine, Vietnam and Georgia (Ministry of Education, Science, Research and Sport of the Slovak republic, 2020).

## Causes of „Brain Drain“

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When looking at the causes of migration of qualified persons, it is necessary to focus on reasons in both the source and the destination country. In the country of origin, these are the reasons that push the migrant out of it and thus demotivate him/her to remain there (*push factors*). On the other hand, there are conditions in the potential destination country that attract migrants; these are the so-called *pull factors*. The differences and asymmetries between the country of origin and the destination are the causes of migration.

An essential determinant of the migration of a skilled workforce is the problem of employability. In many cases, the leading cause of migration is the asymmetry between the production of educated persons and their ability to be employed in a position equal to their qualifications in the country of origin. The unemployment rate is also closely related to the issue of employability. The high unemployment rate and the lack of employment opportunities in the country of origin act as a push factor for the population.

Most studies rank both migration and geographical distance as factors influencing migration. They show that the further away the two countries are, the lower the migration flows will be recorded between them. Historical links greatly influence the size of migratory flows. The share of migrants from the former colony state is dominant in the destination. Common historical ties also suggest that countries will have a similar cultural environment. Many destination countries require high-skilled migrants to speak the country's official language. The research even confirmed a correlation between knowledge of the official language of the destination and the migrant's salary. Knowledge of language and historical links affect migration flows to a large extent, especially in the case of migration between the countries of the global North and the South (Chiswick, Miller, 1990; Marfouk, 2007).

Political instability also belongs among the causes of brain drain. If there is a civil war or any conflict in the country, this means high migratory flows. Skilled migrants emigrate to countries that provide them with safety and a better quality of life. Brain drain is most affected by the dysfunction of institutions and the absence of research centres. Therefore, for a qualified person, employability, functioning institutions, and opportunities in science and research are more important than economic factors.

Determinants that push out an educated workforce are: lack of adequate employment opportunities, unfavorable living and working conditions, the impossibility of professional development, poor social system, political instability and, in the case of skilled migrants from low-income countries, low wages.

It should be emphasized that the causes of migration are subjective, and other aspects will influence everyone in deciding whether to migrate. These are individual decisions, but everyone tends to consider and weigh the costs and benefits of migration and migrate only if the benefits of migration outweigh its costs (Grubel, Scott, 1977).

## Consequences of Migration of an Educated Workforce

The consequences of migration of the educated workforce are various, positive, and negative, and it is not clear which ones prevail. The individual consequences must be viewed in terms of destination countries and countries of origin.

Over the 1970s, the brain drain began to be viewed as an economic loss. In the first place, it meant a shortage of educated workers in certain professions in the source country. An example is Zimbabwe, where 1,200 health professionals successfully completed their studies between 1990 and 2001. By 2006, however, only 360 remained working in the country. In order to avoid shortages of health workers in low and middle-income countries, in 2010, the WHO introduced a *Global Code of Practice on the International Recruitment of Health Personnel*, adopted by 193 states. It aims to determine the conditions for hiring health workers from low-and-middle-income countries to avoid shortages of workers in those countries and destabilize the entire health system. Excessive emigration of an educated part of the population in the country leads to the surplus of uneducated labor, which later affects the productivity of the state (IOM, 2008; Taylor, Hwenda et al., 2011).

High emigration of educated persons means lower economic growth. Studies have shown that human capital positively affects economic growth and productivity. On the other hand, it is negative when the destination country recruits too many skilled professionals. It becomes too dependent on migrants from abroad, the motivation of domestic students to study is also reduced. The arrival of educated migrants reduces the government's expenditure on education. The influx of educated migrants also means increasing demand for goods and services, increasing production in the host state. For some countries, the influx of qualified people is necessary. This is due to an ageing population in many European countries, which means that they are becoming dependent on the immigration and foreign workforce to maintain and innovate their economies (Lowell, Findlay, 2001).

## Brain Drain Impacts and Remittance Issues

Brain drain is not always negative for the country of origin. The most favorable situation for the country of origin is when the emigrants return to it. They bring back a lot of new experience, skills or innovations that can be helpful for development in their home country. Some economists agree that return migration is more effective in development than development aid.

Remittances are closely linked to the *brain drain* phenomenon, as well as to migration in general. These are any transfers of funds sent from a remittant (migrant) to his/her mother country (family members) (European Commission, 2014). Remittances have increased considerably in recent years. It is estimated that the funds sent unofficially are up to 50% higher than the official ones (Ratha, 2005).

Remittances effectively reduce poverty and promote economic growth, as long as they are invested, not consumed, in the country of origin. High-skilled migrants tend to send higher amounts of funds, some of which are subsequently invested in the country of origin (Lowell, Findlay, 2001).

In 2018, a departmental (sectoral) strategy was developed at the Ministry of Labor and Social Affairs of the Slovak Republic in areas related to the labour mobility of foreigners in the Slovak Republic regarding the creation of strategic materials and policy documents on this topic. The strategy focuses on managed (regular/legal) labour mobility of foreigners to compensate for the lack of available workforce on the labor market in the Slovak Republic. Through the proposed measures (short-term, emergency measures for 2018 – 2019 and long-term measures from 2019 with a forecast to 2030), the strategy focuses on the planned management of managed and regulated labour mobility of foreigners to the labour market in the Slovak Republic (MLSAE SR, 2018). At the same time, at the Ministry of Labor and Social Affairs of the Slovak Republic initiative, an expert team (Bakošová, Bulla et al., 2019) prepared an extensive professional analysis and identification of social challenges on the topic of labor migration from third countries. It was done within the framework of the national project, the Support of the quality of social dialogue. Therefore, the Government of the Slovak Republic and the relevant authorities have something to rely on in this issue and the management of labor migration itself.

## Conclusion

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Much research focuses on why the so-called developing regions are lagging behind. A lack of human capital is considered one of the causes since the relationship between human capital and economic growth is positive. One of the reasons why developing countries lack human capital is the lower quality of educational and research institutions, but another problem is that tertiary graduates often emigrate from these countries and seek new locations abroad.

The main factors of brain drain include insufficient employability. In particular, the shortage of research institutions and centers pushes out a qualified population from the mother country. Political *instability* in the country or ongoing civil conflicts also represent an essential push determinant. When deciding if and where to migrate, migrants are affected by the distance and location of the destination and consider the similarity of the culture and language of the source and destination countries.

When analyzing the consequences of brain drain, it is necessary to distinguish the view of the country of origin and the destination country. As long as the destination country benefits from immigration, the country of origin loses human capital. The connection of the country of origin with the destination country thanks to migrants is positive for the country of origin since it can result in international trade or foreign investment. The *brain drain* phenomenon is closely linked to return migration, a situation where a migrant returns to his or her country of origin, which then benefits from his/her new skills or knowledge.



## References:

1. Bakošová, A., Bulla, R., Bugár, Š., Kozár, E., 2019. Labour migration from third countries and its impact on the labour market in Slovakia I. [online]. Bratislava: MPSVR SR, 459 s. Access from: [https://www.ia.gov.sk/data/files/np\\_PKSD/Analyzy/Stat/Pracovna\\_migracia\\_z\\_tretich\\_krajin\\_a\\_jej\\_vplyv\\_na\\_trh\\_prace\\_v\\_SR\\_I.\\_NP\\_PKSD.pdf](https://www.ia.gov.sk/data/files/np_PKSD/Analyzy/Stat/Pracovna_migracia_z_tretich_krajin_a_jej_vplyv_na_trh_prace_v_SR_I._NP_PKSD.pdf)
2. Brücker H., Capuano, S., Marfouk, A. 2013. Education, gender and international migration: insights from a panel-dataset 1980-2010 [online]. Available from: <http://www.iab.de/en/daten/iab-brain-drain-data.aspx>
3. Ďurana, R., 2018. How difficult it is to employ a foreigner. Bratislava: INESS, p. 2
4. European Commission. 2014. Asylum and Migration Glossary 3.0 [online]. Available from: [https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/networks/european\\_migration\\_network/docs/emn-glossary-en-version.pdf](https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/networks/european_migration_network/docs/emn-glossary-en-version.pdf)
5. Philadelphia, J., Gyárfášová, O., Sekulová, M., Hlinčíková, M. 2011. Migrants on the Slovak labour market: problems and prospects. Bratislava: Institute for Public Affairs.
6. Gedamu, A. 2002. Causes and Consequences of Brain Drain – How long should Africa tolerate this? [online]. [cit. 2019-01-20]. Available from: <http://chora.virtualave.net/brain-drain7.htm>
7. Grubel, H., Scott, A. 1977. The Brain Drain: Determinants, Measurements and Welfare Effects. Waterloo: Wilfrid Laurier University Press.
8. Chiswick, B. R., Miller, P. W. 1990. Language in the Labor Market: The Immigrant Experience in Canada and the United States. Queen's Economics Department Working Paper No. 784. Kingston: Department of Economics Queen's University.
9. IOM. 2008. World Migration 2008. IOM World Migration Reports Vol 4. Geneva: IOM.
10. Kostelcká, Y., Bernard, J., Kostecký, T. 2007. Foreign migration of scientists and researchers and tools to influence it. Prague: Institute of Sociology of the CAS.
11. Lowell, B. L., Findlay, A. 2001. Migration Of Highly Skilled Persons From Developing Countries: Impact And Policy Responses. International Migration Papers 44. Geneva: International Labour Office.
12. Marfouk, A. 2007. Africa Brain Drain: Scope and Determinants. Conference of Rectors, Vice Chancellors and Presidents of African Universities, 1–36.
13. IOM Migration information center. 2018. EU Blue Card [online]. Available from: <https://www.mic.iom.sk/sk/pobyt2/prechodny-pobyt/167-modra-karta-eu.html>
14. Migration Data Portal. 2020. International students [online]. Available from: <https://migrationdataportal.org/themes/international-students>
15. Ministry of Labour, Social Affairs and Family of the Slovak Republic. 2018. Strategy of labour mobility of foreigners in the Slovak Republic. [Online]. Bratislava: MPSVR SR. 51 p. Available from: <https://www.employment.gov.sk/files/slovensky/uvod/informacie-cudzinci/strategia.pdf>

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16. Ministry of Education, Science, Research and Sport. 2020. Government scholarships of the Slovak Republic [online]. Available from: <https://www.minedu.sk/vladne-stipendia-slovenskej-republiky>
  17. Ministry of Interior of the Slovak Republic. 2019. Yearbooks [online]. Available from: <https://www.minv.sk/?rocnky>
  18. OECD. 2017. G20 Global Displacement And Migration Trends Report 2017 [online]. Available from: <https://www.oecd.org/g20/topics/employment-and-social-policy/G20-OECD-migration.pdf>
  19. Peteráš, J., 2018. Foreigners on the Slovak labour market (analytical commentary). Bratislava: Institute of Social Policy of MPSVR SR, p. 1.
  20. Ratha, D. 2005. Remittances: A Lifeline for Development [online]. Available from: <https://www.imf.org/external/pubs/ft/fandd/2005/12/basics.htm>
  21. Taylor, A. L., Hwenda, L., Larsen, B., Daulaire, N. 2011. Stemming the Brain Drain – A WHO Global Code of Practice on International Recruitment of Health Personnel [online]. Available from: <https://www.nejm.org/doi/full/10.1056/NEJMp1108658>
  22. Vavrečková, J., Bastýř, I., Michalička, L., Drbohlav, D., Musil, J. 2008. Risk of possible outflow of qualified experts from the Czech Republic abroad. Prague: VÚPSV.



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