

THE BRAIN DRAIN OF PEOPLE FROM SLOVAKIA

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ABSTRACT

The word 'migration', is used frequently at the present. Unfortunately, many people relate to this word negatively. This paper will portray the voluntary and legal migration of Slovaks, from their smaller and landlocked Central European EU member state. It borders Poland, Ukraine, Hungary, Austria, and Czechia. The mobility habits of Slovak citizens has changed since the accession of the country to the EU in 2004. This paper will explore the reasons why so many Slovaks choose to leave their home country with the vision to study and later live abroad. Despite serious economic repercussions, the Slovak government has yet to address this recurring trend, although recently some initiatives sprang out with the aim of encouraging Slovaks to return. At the same time, most recently, the Slovak diaspora became an unsuspected target for the highest Slovak government officials, who referred to them as second class citizens and questioned their right to vote in the February 2020 elections. Data collected for this study originates predominantly from Eurostat and OECD reports as well as from a case study of Slovak undergraduate students enrolled in a social science programme between 2016 – 2018 at the Comenius University in Bratislava in terms of their possible future employment abroad. Although students are rather conservative in terms of their estimates of working abroad after their graduation, one third of them actually wish to work and live abroad indefinitely. Their imagined destinations partly confirm the top ten study destinations abroad, although the scores are clearly higher for the UK, the US and Canada in comparison to the remaining seven countries on the top 10 list.

Keywords: *Slovak migration, brain drain, knowledge management, student mobility EU, Slovakia*

1. INTRODUCTION

The word migration is used commonly today. Most people associate it with illegal migration, hence the word migration gained a negative connotation. Many Slovaks associate this word with illegal crossings and misbehaving migrants or even with criminal activities. However, this article concerns voluntary migration, more precisely the migration of Slovaks, about their voluntary departure abroad. Inter EU migration mobility is not as closely monitored or as widely publicised as migration from developing countries, especially in comparison to migrants crossing the Mediterranean. There is no accurate data, which would record the number of Slovaks migrating to live abroad. Databases such as Eurostat and OECD contain only data on Slovak students studying abroad. Since this article is interested in brain drain from Slovakia, the focus was mainly on student flows, in the study destinations and types of study. The main focus was on the movement of Slovaks to the other V4 countries (Hungary, Poland and the

Czech Republic), but also to other countries. Since the European databases only offered data since 2013, data was analyzed with descriptive statistics and was sufficient to sketch a picture of Slovak migration. Many Slovaks seek academic degrees from abroad, especially from Western European countries or countries where English is the first language (The USA, Canada, Australia and New Zealand), however, the whole degree studies are seldom recorded. This study also offers an insight to Slovak students perceptions of living and working abroad after graduation.

2. THEORIES ABOUT MIGRATION

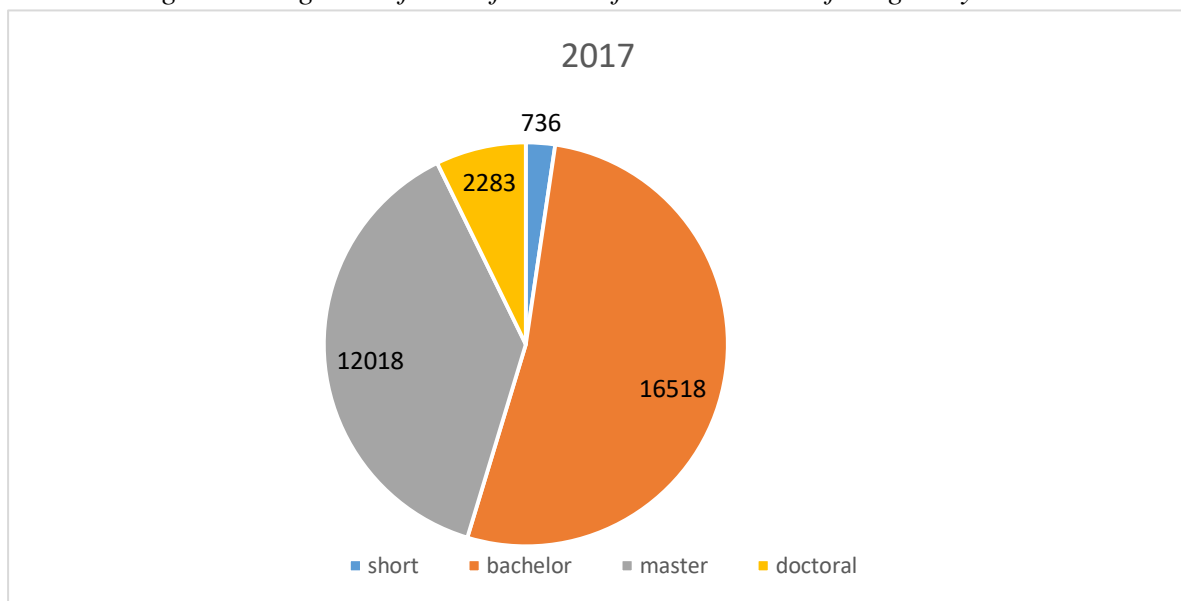
Most of the research on migration focuses on the evaluation of the migration flow, the reasons behind and the factors determining the scale of the migration. Research on international migration has increased since the mid 1990s. Russell King termed this era as the era of migration (King, 2008). The causes of increased migration are: developments in transportation and also in information technology and others. The foundations of migration theories were created by neoclassical economists, who regard the move for work as the main reason behind migration (Todaro, 1980). Massey (1993) stated, that the neoclassical theory focuses and is concerned with the income differences, especially in wages. They consider the main reason for migration is to maximize income. On the other hand, the so called neo-economists of migration offer a different view of migration as they don't consider the households, instead the individuals, when it comes to migration (Stark, 1996). Another important theory of migration is the concept of push and pull factors of mobility. It is based on the relationship and interplay between the two principles, which act simultaneously. Lee (1972), is one of the main scholars, who argues that it is especially the push factors which cause people to leave their country of origin. Some of the push factors are: dire economic situations in home countries, low living standards, ethnic unrest, violent conflicts, political discrimination, growing population density and so on. In the case of student migration it is the combination of perception of the scarcity of work opportunities after completing a degree, especially if one wants to remain in the chosen study fields, combined with the low income, scarcity of work opportunities, low living standards and dissatisfaction with the political situation in home countries (Chrančová, 2016; Weibl, 2015). These are matched and reinforced by a plethora of pull factors, such as: higher salaries, higher living conditions, better prospects in terms of new employment, positive experiences with migrants, greater sense of personal and political freedom, or the relative proximity of the migration destination from the home countries. Another concept is the world systems theory. The stronger the institutional systems, the more sought after the individual country as a migration destination. There is also a theory concerning work; the theory of dual labor market. It is based on the idea of Piore (1979), according to which the migration is not caused by push factors but by the pull factors of the receiving countries (scarcity in labor force). We agree with King (2008) and Boris Divinsky (2009) in that in reality there isn't any unifying and systemic theory, which would offer a compact view on the issue of migration, its causes, dynamics nor effects. The preference is to consider the combination of several approaches and theories with the aim of utilising to a greater extent their advantages in order to extract the most relevant and exact conclusions. In this project we will examine the flow of migration: the brain drain and brain circulation. Brain circulation concerns mostly developing countries. In terms of the brain drain, the stress is on the exchange of knowledge and technology between the country of origin and the country of destination, which is further focus of this research. There is a reason why the focus should be on theories about human capital. Currently, the definition by G.S. Becker (1967) is the most favored, which understands human capital as utilisation of one's abilities, knowledge and skills with matching motivations. The focus is on the tacit knowledge, which is un-measurable with quantitative methods. Tacit knowlege is primarily revealed through face-to-face interviews as a thorough examination of experiences, reasons and

reflections and making sense of them all. The well known idea of Polanyi in this regard is that “we know more than we are able to say” (Perraton, Tarrant, 2007: 354). Williams and Baláž (2010) offered another categorization of tacit knowledge as: embrained, embodied, encultured and embedded. This categorization served as a base for this research on the types of tacit knowledge acquired by Slovak migrants and returnees.

3. SLOVAK MIGRATION FLOWS FROM SLOVAKIA FOR EDUCATION

The most up-to-date information published on Slovak migration originates from the Institute of financial policy, which states that Slovakia is facing a significant brain drain alongside the country's demographic deficit. Based on the registrations of compulsory health insurances there was a significant decrease in number of people residing in Slovakia, 300 000 people within the last 15 years, which is approximately 5% of the population. The steepest decline of insured people occurred during the time of joining of the EU. The numbers dropped between 2004 – 2005 by more than 200 000 individuals. The situation has consolidated since then, and annually 15 000 Slovaks leave the country, which accounts for 3% of the population. During the last 15 years half of the Slovak migrants were below the age of 30 (MFSR, 2017). Since obtaining data on legal Slovak migration is unrealistic nowadays, European databases, in particular from Eurostat and OECD was used for data analysis. Between the years 2010 – 2013 according to this, every 10th university graduate left Slovakia, which represented cca. 12 – 14% of the graduates. These were mostly medical graduates and students who had completed technical degrees at Slovak universities. This is considered as a loss in terms of the country's investment in education (MFSR, 2017). According to Eurostat data in 2013, as many as 32 078 Slovak students went abroad to complete their university education. This data also includes the short time study exchanges. For comparison in 2017 it was only 523 fewer Slovak students. Data show that the short study visits have become increasingly attractive as the number of student study visits rose from 409 in 2013 to 736 students in 2017. While the Bachelor degree studies are the most attractive in terms of volume, from 2014 to 2017 the number fell by 1094 students. Both, the MA and the PhD programmes recorded an increase of 102 students in the case of MA and of 142 in the case of PhD studies between 2013 and 2017, see Table 1 for the data and Figure 1, for the visual illustration.

Figure 1: Migration flows of Slovaks for education in foreign in year 2017



Source: Eurostat, 2020

Table 1: Migration flows of Slovaks for education

Type of education	2 013	2 017
Short	409	736
Bachelor	17 612	16 518
Master	11 916	12 018
Doctoral	2 141	2 283
Sum	32 078	31 555

Source: Eurostat, 2020

The further analyzes focuses in particular on studies concerning the Bc, Master and PhD. The top 10 study destination countries of Slovak students were selected for consideration and recorded in the following tables. Trends were followed in terms of country enrolments as well as the top 10 positions of the individual 10 countries. Data for the last 5 years shows that the order of countries has not changed in the bachelor study. The most visited country for the Bc was Czechia where 11 472 students studied in the year 2017. The second most popular country was the United Kingdom, where the number of students is significantly lower at 1 295. The third most popular study destination was Hungary which attracted 1211 students, followed by Austria with 571 students and Poland with 528 students. The remaining top 10 countries are Denmark, the Netherlands, Germany, France and Italy. Interestingly, the top 5, except the UK, were all Slovak neighboring countries. Table 3 shows in detail the top 10 study destination countries for the Bachelor between 2013 -2017 followed by Table 4 which contains the MA degree seekers. Other countries in which Slovak students studied bachelor's degrees were Spain, Switzerland, Belgium, Croatia, Finland, Norway, Ireland, Greece, Sweden and Iceland.

Table 2: Slovak migration flows of students for bachelor education

No.	GEO/TIME	2013	2014	2015	2016	2017
1	Czechia	13 396	12 667	12 015	11 747	11 472
2	United Kingdom	954	976	1 056	1 101	1 295
3	Hungary	1 577	1 519	1 228	1 291	1 211
4	Austria	606	640	628	594	571
5	Poland	63	69	81	375	528
6	Denmark	103	157	273	407	499
7	Netherlands	183	207	255	271	314
8	Germany	251	251	279	274	262
9	France	118	104	102	114	97
10	Italy	:	123	102	80	72

Source: Eurostat, 2020

Similarly to the Bc students, Czechia was the most popular country for the Slovak MA students in 2017 with 9 141 enrollements. The second most popular MA study destination was Hungary, which attracted a significantly lower number of Slovak students, only 583, but the following two countries, Germany and Austria had similar numbers of MA students from Slovakia to Hungary, with 532 and 450 students. The UK was in fifth position with 267 MA students and the remaining countries, positions 6 – 10, were identical with the Bc destinations. They were: Poland, Denmark, France, the Netherlands and Italy, so the top 10 countries have not changed in this case. See Table 3 for more details.

Table 3: Slovak migration flows for master education

No.	GEO/TIME	2013	2014	2015	2016	2017
1	Czechia	9 185	9 216	9 119	8 937	9 141
2	Hungary	711	678	559	616	583
3	Germany	595	631	652	618	532
4	Austria	464	372	426	462	450
5	United Kingdom	280	285	244	212	267
6	Poland	54	57	90	130	215
7	Denmark	76	103	146	183	197
8	France	177	210	190	160	165
9	Netherlands	87	91	118	123	123
10	Italy	82	69	74	72	69

Source: Eurostat, 2020

Czechia, perhaps not surprisingly, is the number one country with 1 842 Slovak doctoral students in 2017 and the trend has been steadily increasing since 2013 with an annual increase of approximately 50 students. The UK was the second most popular study destination for the Slovak PhD students, with a considerably lower number to that of Czechia. There were only 93 enrolments in the UK, followed by 64 students in Austria, then 60 students in Hungary and 59 in Switzerland. The actual numbers are given in Table 4 below.

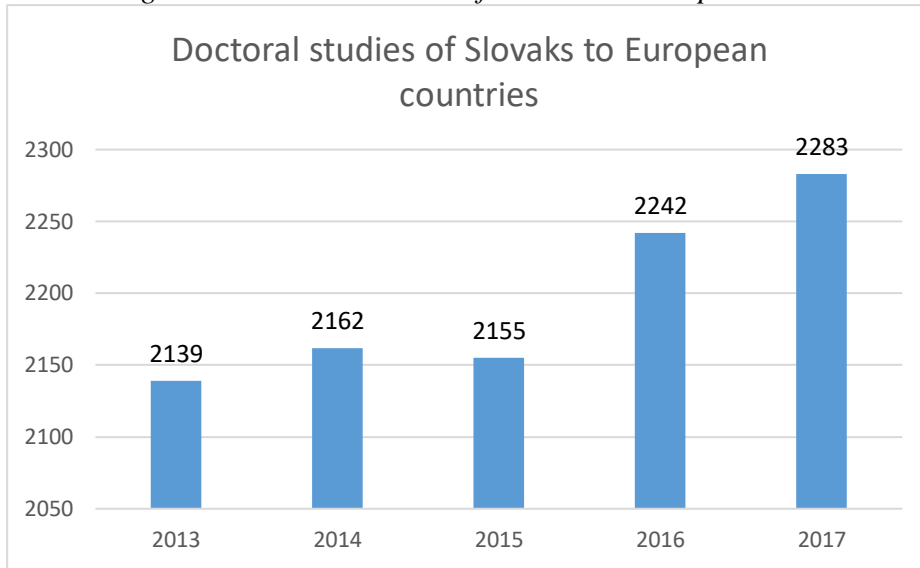
Table 4: Slovak migration flows for doctoral education

No.	GEO/TIME	2012	2013	2014	2015	2016	2017
1	Czechia	:	1 697	1 759	1 766	1 809	1 842
2	United Kingdom	:	87	72	71	82	93
3	Austria	:	95	64	66	61	64
4	Hungary	:	70	86	71	81	60
5	Switzerland	31	36	38	41	48	59
6	France	:	32	36	35	37	35
7	Netherlands	:	19	17	17	18	20
8	Spain	:	4	:	:	10	17
9	Sweden	:	13	15	13	15	15
10	Poland	:	2	10	10	11	14

Source: Eurostat, 2020

Figure 2 shows the number of doctoral studies of Slovaks to European countries. Although in 2015 there was a slight decrease in this amount to the previous year, the study of PhD degree abroad is a growing trend. While in 2013 there were only 2 139 PhD Slovak students, in 2017 it was already 2 283 students.

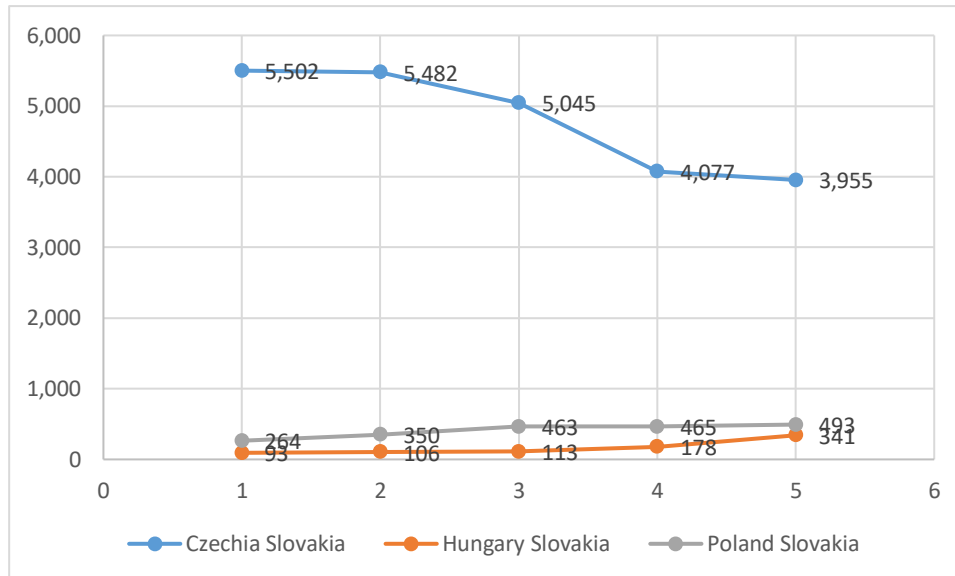
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Figure 2: Doctoral studies of Slovaks to European countries

Source: Eurostat, 2020

The goal of this article is to showcase in greater detail trends in the flow of Slovak higher education students abroad between the years 2010 - 2013, in particular to the V4 partners and the other European countries, as they attract the most Slovak youth as study destinations. The data revealed that from those Slovaks who studied in foreign countries, most of them study in Czechia which in future predisposes this country to become a favourite employment destination. Most of these foreign enrolments, 24 300 students, were in 2013 and although this number decreases every year, the rate of decline is very slow as in 2017 22 478 Slovaks still studied there. The second significant study destination within the V4 countries is the flow of students to Hungary. It peaked in 2013 when 2 436 individuals left Slovakia for Hungary and the trend since has been downward, because by 2017 it was down to 1 885 Slovak citizens who emigrated to Hungary. Finally, the third stream of migration of Slovaks within the V4 is that to Poland, While in 2013 it was only 119 emigrants by 2017 this number rose to 757. Thus, Poland is increasingly becoming more attractive to Slovak students. The annual migration data is shown in Figure 3. The attractiveness of the V4 countries as study destinations lies in the close geographical proximity of the V4 countries to Slovakia, good neighborhood relations and the ease of communication due to the language efficiency when it comes to Czechia and to some degree Hungary and Poland also.

Figure following on the next page

Figure 3: Migration flows of Slovaks to countries V4

Source: Eurostat, 2020

4. QUALITATIVE DATA

This paragraph is based on a narrow sample of Slovak undergraduate social science students in their first study semester, between the years 2016 – 2018 at the Comenius University in Bratislava. Their Bc study programme was mostly delivered in English, so their English language proficiency was at B2 average. Following the earlier mentioned statistical data, information here relates to the likelihood of future migration for work. Data originates from an online surveys and follow up face-to-face interviews. The survey was completed by first year students in 2016, 2017 and 2018 in their first semester of study and the interviews were conducted during the second semester. The topics of the online survey were: the likelihood of students working abroad after they finished their studies in Slovakia; their preferred country of employment abroad; and their preferred time spent working abroad. These questions were then further discussed in the interviews in order to gain greater clarity and understanding of students' rationale, thinking and calculations in regards to their future employment. There were in total 185 responses to the online survey during the three year data collection period and in total 96 interviews were conducted. Not all students agreed to take part in the interview part of the study. Data initially revealed, that there wasn't any clear likelihood of students working abroad (online survey), however the interviews helped to explain, that students were mostly pragmatic and rational in their responses in regards to their likelihood of being able to find work and employment abroad, so the expectations and the likelihood were medium. On the scale of 0 to 10, where 0 meant 'very small', 5 meant 'medium' and 10 equalled 'very big', the average score ended up being 5.7. Students further explained, that if it wasn't the likelihood of the employment questioned, but the wishes, aspirations or dreams in this regard, then they would be more inclined and positive towards this idea. This is because, the likelihood to work abroad would depend on many factors and the perception is, that it is difficult to secure a job in the foreign country, partly because of being foreigner and being less competitive as the degrees from Western universities are worth more. Moreover, for many students the prospect of employment after their finished their university studies seems to be an issue for the far distant future. Students' preferred future employment abroad would be subject of the interplay of a variety of push and pull factors, for example wanting to earn a fair amount of money for their work, which would most likely incline them towards Austria, Germany, Czechia or to the UK as opposed to staying in Slovakia.

Table 5 below records students' country preferences which consisted of 46 countries. The survey had predefined EU Member States as the choices as well as some other popular study and employment destinations, such as the US and Canada and the option to record other countries also. The top three ideal work destinations for respondents were the UK, albeit Brexit wasn't that much of a reality back in 2016, at the same time interviews revealed that Brexit did not raise much of a concern. The UK was followed by the USA and Canada, and by Czechia, Austria, the Netherlands, Belgium, Switzerland and Germany, to close the top 10. The home country, Slovakia scored in the top 15 as most desired working destinations. Some of the students chose only one country while others considered 5 different countries in this regard. Hence, the top work destinations do not entirely correspond with student migration trends.

Table 5: Slovak migration flows for doctoral education

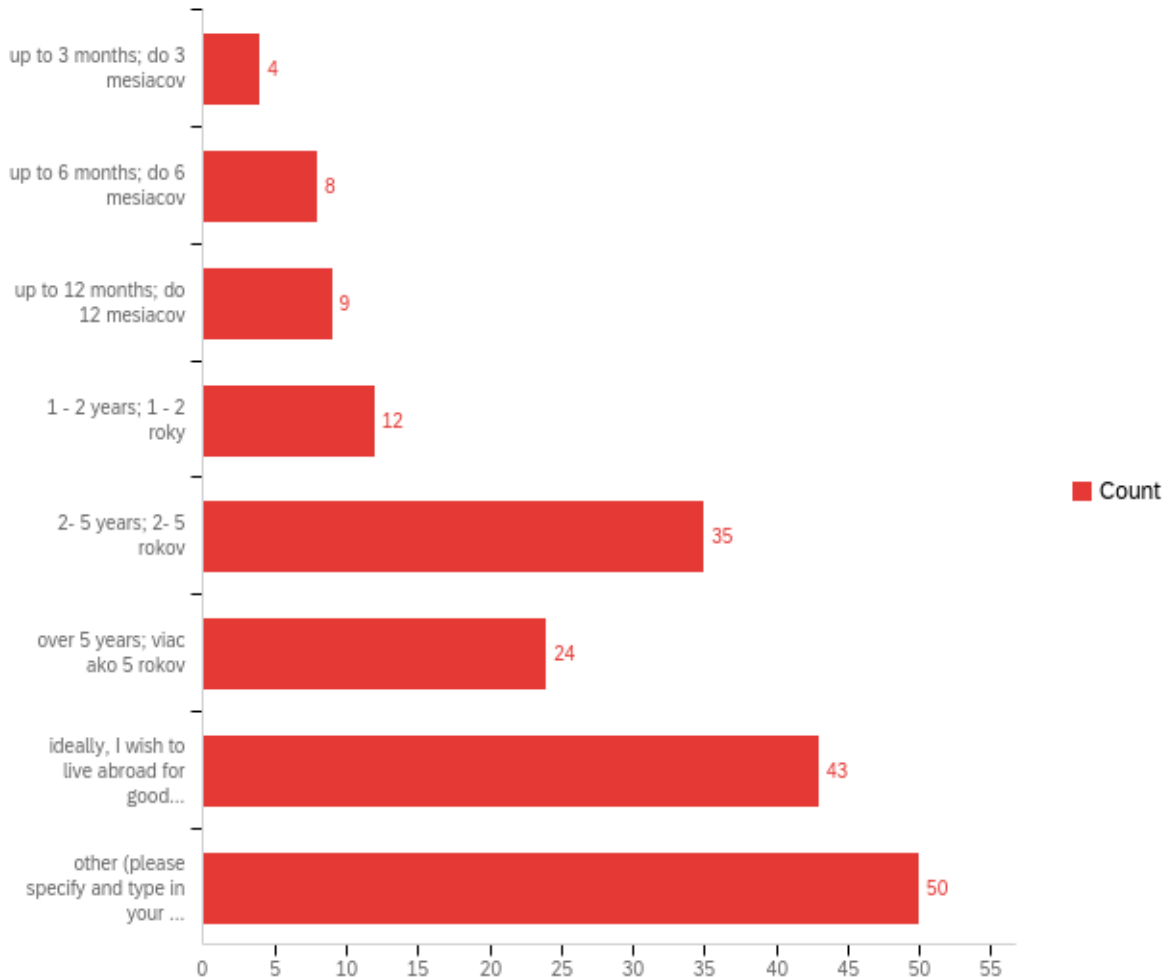
1	The UK (103)	2	The USA (92)	3	Canada (85)	4	Czechia (77)	5	Austria (71)
6	Netherlands (63)	7	Belgium (59)	8	Switzerland (59)	9	Germany (53)	10	Australia (52)
11	Denmark (50)	12	Norway (49)	13	Slovakia (49)	14	Sweden (47)	15	Spain (46)
16	France (40)	17	New Zealand (39)	18	Luxembourg (38)	19	Italy (33)	20	Finland (33)
21	Ireland (26)	22	Russia (17)	23	Iceland (16)	24	Estonia (15)	25	Portugal (15)
26	Slovenia (12)	27	Malta (9)	28	Latvia (8)	29	Lithuania (6)	30	Poland (6)
31	Greece (5)	32	Turkey (5)	33	Cyprus (4)	34	Croatia (3)	35	Romania (3)
36	Serbia (3)	37	Albania (3)	38	Moldova (3)	39	Ukraine (2)	40	Macedonia (2)
41	BosniaHerzegovina (2)	42	Bulgaria (2)	43	Belarus (1)				

Source:author

Data revealed an interesting fact, in regards to the ideal time spent abroad working. 43 out of the 185 students would prefer to work and live abroad permanently, which can be considered as a potential brain drain. 35 students would like to live abroad for the period of 2 – 5 years and 24 students wish to live abroad for more than five years. Students had only one choice in this regard. The responses under the 'other' option consisted of a variety of answers mainly gravitating around the idea that the length of the employment period abroad would depend on the type of job and the job satisfaction. Other students mentioned, that they don't want to live and work abroad for a variety of reasons, on top was the fact that students didn't want to leave their families behind. In the case of working in Austria however, many students could commute daily. Interviews then further identified students who categorically wouldn't want to live abroad, because they have such strong patriotic feelings, they explained in the interviews that they would like to help Slovakia improve politically and economically and they felt that they need to stay in this country for that. Another group of students plan to work abroad for shorter periods of time and would decide based upon that experience about their future plans in this regard and some students wanted to undertake short-term Erasmus study exchanges while studying in Slovakia and decide later. Returning to the first group of students, who firmly stated their desire to live abroad permanently, they explained in the interviews that their first job abroad after graduation does not necessarily need to be in the field of their study, meaning that they would execute any job, for example in the hospitality area or manual work and search of a 'proper' job in the mean time.

Few students mentioned that even though they would like to live abroad for good, their job position would have to be secured while still in Slovakia, they would search for the right job extensively prior to departure. Figure 4 captures students' preferred time spent living abroad after graduation.

Figure 4: Ideal time spent working abaraod



5. CONCLUSION

Based on these analyzes, we can say that the study abroad is remaining and becoming an increasingly attractive for Slovak students. The analysis showed that the most popular study destinations are the V4 countries (Czech Republic, Hungary and Poland). The most important flow of Slovak students for education is the Slovak - Czech flow. In 2017, up to 22 478 Slovak students officially left for Czechia. This flow can be considered the most important brain drain, since Czechia was the number one study destination for both, undergraduate and postgraduate students in all types of degrees (Bc., Master, PhD.), who completed their whole degree outside of Slovakia. Czechia came first and was followed by Hungary and Poland. The UK and Austria were often among the top 10 countries and some of the strongest reason for the latter two choices was the wish to improve foreign language skills, however, in the case of Czechia the language factor is different, it is the enabler or is easier integration. Many Slovak citizens speak Czech and vice versa, so study at Czech universities does not require learning an additional foreign language. On top, the joined historical legacy of Czechoslovakia, and the convenient geographical distance of Czechia to Slovakia, similarity of culture which is also to a large extent true in the cases of Poland and Hungary, the V4 student migration.

In terms of the brain drain, it is arguably important to monitor student migration together with the preferences of students in terms of their future career. This should be done for both, students who study abroad and also for those studying in Slovakia. This can offer a more comprehensive picture about the brain drain. Qualitative study on a smaller and isolated sample revealed a firm aspiration of approximately one quarter of students wishing to live abroad permanently. The Slovak government could create more favourable conditions to retain students and to mitigate the large numbers of Slovaks studying abroad as they represent a serious brain drain to Slovakia, which is ongoing and runs the danger of becoming chronic, when paired with the country's demographic deficit.

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