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Hungarian PhD students abroad: international contexts and specificities of the Carpathian Basin¹

1. Introduction

The statement that the youth participating in PhD programs assure the academic replacement of a country or a region most likely requires no further justification. At the same time, statistically speaking, with higher education transformed into mass education, an increasing number of students have appeared on the higher levels of education. That raises the question that participation in PhD programs could be not only about the foundation of an academic career, but also about prolonging the stage of youth (pre-adulthood) by an extended school path. This youth moratorium can be regarded as the antechamber of becoming an adult: although PhD students are already grown-ups with a diploma in higher education, the fulfilment of their professional career is still ahead of them. They are equally affected by the challenges of finding a workplace related to the shaping of their professional identity and establishing the conditions of their existence, which presumably have an impact on their private sphere as well (marital status, willingness to have children, etc.)

From the perspective of Hungary and Hungarians living outside the borders of Hungary, the situation of PhD students is a complicated issue. First of all, it is not easy to define the notion of Hungarians living “beyond the borders” because the participants of PhD programs enjoy a greater mobility. The bulk of them attend PhD programs in Hungary regardless of their BA level studies, and it is more and more likely that they are Hungarian citizens as well. But then, the question arises: can are they still be counted as “Hungarians abroad” or not? However, if we disregard definitional distinctions, another, perhaps more important question is how their obtained citizenship affects their professional career. As indicated above, the status of PhD students presupposes a certain mobility and a (professional, identity, private, etc.) quest, and according to this logic, the new citizenship would inevitably open up new perspectives. While the professional integration in Hungary of ethnic Hungarian researchers coming from neighboring countries can also be interpreted as a success on the individual level, the Hungarian-Hungarian braindrain may have a backlash on the community “left behind”. The more students participate in PhD programs in Hungary, the higher the risk of intellectual migration. While the dimension of the latter does not pose such a great threat for the more numerous Hungarian community in Transylvania, smaller communities are likely to be more affected by this potential migration.

¹ The working title of the research: ARANYMETSZÉS 2013 (GILT EDGE 2013). Ethnic Hungarian PhD students in the Carpathian Basin. The research was supported by the Domus Programme of the Hungarian Academy of Sciences. Besides the authors, the research group was composed of the following members: Tünde Székely, Botond Dániel, Gábor Herman (Transylvania), Ildikó Bajcsy, Tünde Morvai (Upper Hungary), Anikó Novák, Réka Ágyas, Rita Rózsa, Tímea Zsivity (Vojvodina), Viktória Ferenc, Magdolna Séra (Subcarpathia).

2. International contexts

Although targeted international comparative studies about PhD students are still lacking from the sociology of higher education, we can get a relatively detailed picture of these student groups in terms of certain indicators. Using EUROSTAT databases,² we will present the data of the participants of PhD programs of EU and other countries below regarding some important indicators. The highest number of PhD students have been registered in the U.S., with nearly half a million students. Within Europe, Germany stands out in terms of absolute numbers, followed by the United Kingdom, France and Spain. The French level is somewhat exceeded by the Japanese data with 75 thousand PhD students registered.

(Figure 1)

Figure 1: The number of persons pursuing doctoral studies – 2011 (source: EUROSTAT)³

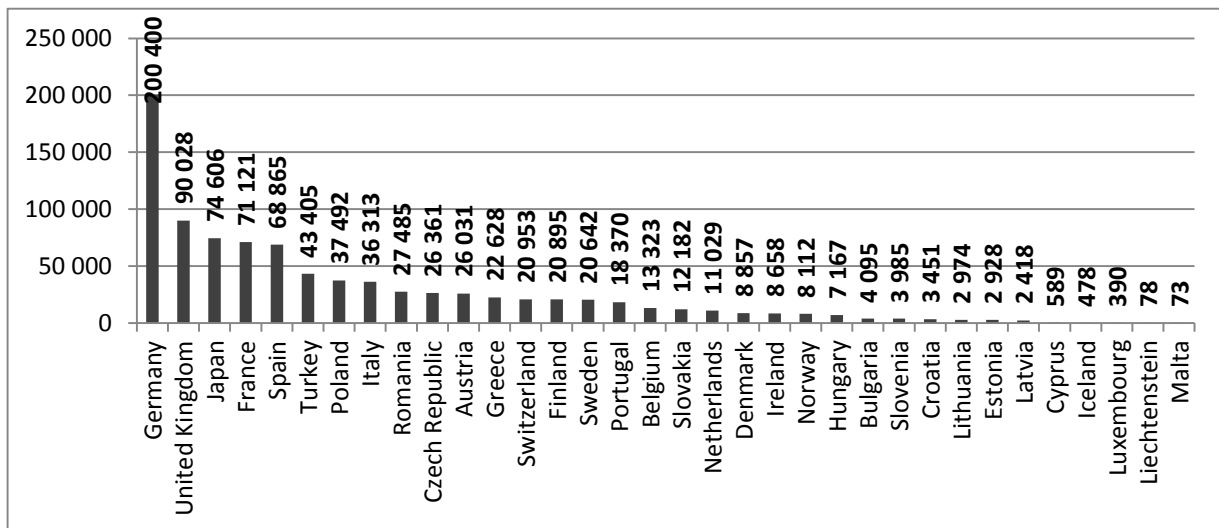
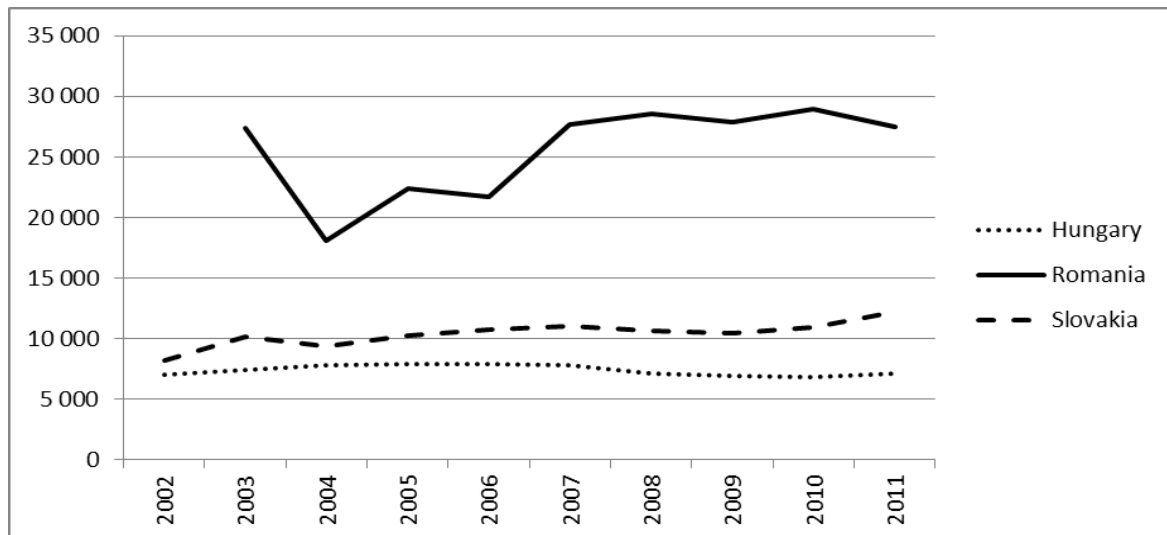


Figure 2: The number of PhD students between 2002-2011 in Hungary, Slovakia and Romania (source: EUROSTAT)

² <http://epp.eurostat.ec.europa.eu/portal/page/portal/education/data/database>

³ For the sake of clarity, we did not include the data regarding the U.S. in the figure, where there are 492 345 PhD students registered.



If we examine the time series of the number of PhD students in the countries of our region (*Figure 2*), a slow increase can be observed in Romania and Slovakia, while Hungary is more characterized by stagnation: here the number of PhD students basically did not change in the period between 2002 and 2011. It is also evident that in Slovakia, whose population is half as large as Hungary's, the number of PhD students is greater than in Hungary each year, and in 2011 it was almost twice as high as the Hungarian figure.

Besides the absolute number of the participants of PhD programmes, another important indicator is the number of those having obtained a PhD degree per 1 million inhabitants. This figure was 228 persons in the EU, and we can state that Hungary is lagging significantly behind the EU average and the result of the countries of our region. While this figure is 309 in Slovakia and 263 in Romania, Hungary, with its score of 124, is on the same level as the countries of Southern Europe and the Balkans. Although Poland and Japan can also be found in this set, it is still striking that based on the data available, Hungary is left way behind in comparison with basically all of its neighbors, perhaps with the exception of Serbia⁴ and the Ukraine.

Concerning the gender distribution of PhD students, we can say that on the EU level, men constituted the majority in 2011 (53 percent men compared to 47 percent women). This pattern varies from country to country, and we can also declare that in the countries in the scope of our research, gender proportions shifted more in favour of women compared to the EU average. Thus, gender inequalities are less noticeable here than on the EU level; for instance, in Romania, the ratio of male and female PhD students is equal. Based on further data not detailed here, it can also be concluded from the EUROSTAT databases that the gender proportion of those obtaining a degree does not differ substantially from that of students enrolled. In 2011, the above mentioned 53:47 male-female distribution was preserved among PhD graduates on the EU level. Some dropout by gender can be observed in the case of Hungary: here the figure of male students is 53 percent among PhD graduates compared to 51 percent of those enrolled.

⁴ In Serbia this number is estimated at 65-70. (See also: Ágyas – Novák – Rózsa: Pillanatfelvétel a vajdasági magyar doktoranduszokról. *Kisebbségkutatás* 2013/3. 80-100.)

Based on EURASTAT data we can conclude that in the countries examined, 6 percent of PhD students belong to the youngest category, 39 percent are 25-29 years old, about one quarter of them are 30-34 years old, 12 percent have 35-39 years of age, and 17 percent are older than 40. According to these data we can also say that the Anglo-Saxon educational systems are more likely to allow the younger generation to enter doctoral programs than the ones in continental Europe. In Germany, where the number of PhD students is the highest, the typical age brackets are 25-29 and 30-34 years, making up 86 percent of all PhD students, whereas the French system basically incorporates no members of the older generations. Hungary and Slovakia more or less follow the continental model, but their systems are open at both ends; in the international comparison, the participation rates of the youngest and the oldest generations are relatively high in the education of academic replacement. The PhD system of Romania has undoubtedly shifted towards the older generations; there the participation rate of the 30+ generation is almost 60 percent.

If we consider age and gender at the same time, we can say that in all three countries of the Carpathian Basin region, women increasingly drop behind with age, although not to the same extent. While in Slovakia and Hungary this lagging behind becomes noticeable after the age of 34, in Romania it is more visible among those above 40. This is also related to the fact that the Romanian system is a stronger filter in terms of age, for the group of 20-24-year-olds is quite small compared to the other countries. Romanian PhD students delay (or are delayed in) the beginning of their academic career, thus gender equalities are brought to the fore only in a later period of time.

In the EU countries, the overall ratio of PhD students is relatively balanced in the domains of humanities, social sciences, natural sciences and engineering (between 16-23 percent), and the proportion of those pursuing (human) health studies is also significant (11 percent). In general, Hungary follows these trends, except for perhaps the field of engineering, where the country lags behind by 8 percent. Among the neighboring countries, Romania is somewhat overrepresented in terms of engineering and medical PhD students compared to the EU, whereas a substantial fallback can be detected in the area of natural sciences.

Within the sociology of higher education, the targeted research of doctoral students has been a neglected area not only in Hungary, but elsewhere as well. The first major research offering an international comparison was conducted in 2009, the data of which were published in 2011.⁵ The research, carried out primarily with the purpose of description (and not of model creation), covered 12 countries,⁶ and sought to answer two principal questions: what are the living, social and professional conditions of PhD students like, and what differences can be shown between the doctoral programs of the European countries? According to the main results of the research, in most of the countries men are in majority, their age ranges from 26 to 35, and most of them have a partner, but no children. Two thirds of those surveyed are full-time students, and most of them hope to work as a researcher. Regarding mobility, it should be pointed out that only 10 percent of them started their PhD studies in the country where they received their master diploma. With respect to financing doctoral studies, the authors emphasize that the size of the support received was usually inferior to the needs, and as a direct consequence, it led to the postponing childbearing. The

⁵ http://www.eurodoc.net/wp-content/uploads/2012/10/Eurodoc_survey_I_report_2011.pdf

⁶ Hungary and the countries included in our survey did not participate in that research.

latter trend is also reinforced by the fact that the time available for completing one's doctoral studies is quite limited, so having children is put off to a later stage in life. According to the PhD students interviewed, the person of the supervisor is of key importance in the doctoral programs, but they also emphasized that the number of courses on research ethics or on the improvement of convertible skills is either negligible or simply non-existent within the programs.⁷

In Hungary, the first comprehensive survey was carried out in 1999.⁸ Later on the workplace chances of graduates were scrutinized,⁹ and a local research was also conducted (in Debrecen).¹⁰ A survey planned for 2007 but accomplished only in 2009 targeted PhD students in Hungary again, and answers were provided by 226 people through an online questionnaire. As indicated by the authors themselves, their survey could not be considered representative, and the results were published only for the sake of information.¹¹ Their data revealed that 37 percent of PhD students came from second generation intellectual families, and about half of them were already married. The respondents were quite satisfied with their thesis supervisors, and two thirds of them would have chosen the same person again.

The results of another major Hungarian research were published in 2010. This research analyzed the years following the acquisition of the degree, and it examined the evolution of the young researchers' career and what a PhD was worth on the job market.¹²

3. Research aims and methodological considerations

Since the establishment of the institutions of Hungarian-language higher education in the Carpathian Basin, more and more Hungarian young people obtain a diploma in their home country, and many of them decide to do PhD studies for an academic degree. The ethnic Hungarian PhD students of the Carpathian Basin partly pursue their studies at the universities of their home country and partly at Hungarian institutions with a Hungarian state scholarship or by paying a tuition fee, and there are also some who continue their studies in a third country.

We have little or partial information about the exact number of the PhD students concerned, their current place of residence, their position on the job market, the current state of their doctoral studies, and the direction and intensity of their efforts to integrate into the academic world. Although it is precisely in the framework of the present research that we managed to obtain detailed data concerning ethnic Hungarians integrated into the higher educational system in Hungary (see Section 4 of our study), we still feel that some data are lacking. The aim of our research was to make up for this gap: most importantly, we wanted

⁷ <http://www.eurodoc.net/projects/completed-projects/eurodoc-survey-i/>

⁸ For a short overview see Kucsera, Tamás Gergely – Szabó, Tímea (eds.): *A doktori képzés Magyarországon – szervezetek, szereplők, hallgatók*. Doktoranduszok Országos Szövetsége, Budapest, 2009.

⁹ Fábri, György: Kutatási jelentés a doktori fokozatot szerzettek munkaerő-piaci esélyeit feltáró kutatási programról. FTT 2002. Quoted by Kucsera – Szabó i.m.

¹⁰ Fináncz, Judit: Doktoranduszok szakmai és magánéleti tervei. EDUCATIO 2007/3. 487-518.

¹¹ Kucsera, Tamás Gergely – Szabó, Tímea (eds.): *A doktori képzés Magyarországon – szervezetek, szereplők, hallgatók*. Doktoranduszok Országos Szövetsége, Budapest, 2009.

¹² See Mosoniné Fried, Judit – Tolnai, Márton (eds.): *Fiatal kutatók. Az életpálya kezdete*. Typotext Kft, 2010.

to gather information about the doctoral studies and eventual career paths of ethnic Hungarian PhD students from the Carpathian Basin.

The central questions of the research were the following:

- (1) How many ethnic Hungarian youth from the Carpathian Basin attend the various forms of doctoral programs at present, i.e. what kind of academic recruitment basis can ethnic Hungarians expect to see in the Carpathian Basin (and what is its distribution by academic fields)?
- (2) How are the integration efforts of PhD students oriented (do they wish to join the academic network of their homeland, of their country of residence, Hungary, or perhaps a third country)?
- (3) How successful are ethnic Hungarian PhD students from the Carpathian Basin in integrating into the academic world (what are their principal difficulties)?
- (4) How are the PhD scholarships granted by the Hungarian state utilized by the ethnic Hungarian youth in the Carpathian Basin (i.e. compared to the total number of those financially supported, how many actually obtain a degree and where do they find a job)?

In terms of its methodology and conceptual framework, it is the 2009 Hungarian survey that our survey resembles the most. Our research was carried out online, and our questionnaire touched upon 6 major topics: the socio-demographic background of PhD students, their job market situation, information and opinion about doctoral schools, future plans after the programme, and the evaluation of the role of the local PhD associations.

The online questionnaires were spread in Romania, Serbia, Slovakia and Carpatho-Ukraine (Subcarpathia) as well as on Internet forums, and our objective was to get ethnic Hungarian PhD students to fill them in regardless of their place of study (Hungary, their home country or elsewhere). The questionnaires were region-specific, but in the present analysis we examine the accumulated database.¹³ The questionnaire was filled in by 485 people.

We cannot consider our data representative either, because we did not have such background information in comparison to which we could make that claim. We have reliable data only about students studying in Hungary,¹⁴ but even these pieces of information may raise some methodological concerns. In the data of the Educational Authority, PhD students are registered by citizenship and not ethnicity, however, as a result of the introduction of preferential naturalization in Hungary in 2010, this category may become malleable as well. The official data pertain to those participating in doctoral programmes, so it is possible that those who have finished their courses but have not defended their thesis, fall out from the official registry. Nonetheless, we consider these pieces of data as the most substantial and the most reliable database, thus we will take a quick glimpse at them in a separate section.

¹³ Because of that, certain data lines of the regional studies included in the report may differ from the regional data lines presented here.

¹⁴ We would like to express our gratitude to the employees of the Educational Authority for making these data available for the Minority Research Institute of the Centre for Social Sciences of the Hungarian Academy of Sciences.

As indicated above, we do not have straightforward evidence concerning the representativity of the 485 proper respondents for the PhD student society outside the borders of Hungary. However, we can make two tentative claims.

First, there are no significant differences regarding the distribution of students by academic domain, i.e. as it transpired from the official Hungarian figures, the highest number of people take part in doctoral programmes in humanities, followed by natural and social sciences in nearly equal proportions. Second, perhaps there is a slight distortion in the data among Transylvanian and Slovakian respondents studying in Hungary in favour of humanities versus technological and medical studies, but since in general we do not have an exact and reliable data as a reference point,¹⁵ we do not weight the database.

4. Ethnic Hungarian PhD students in Hungary in light of the official data

In the academic year of 2012-2013, 446 doctoral students coming from Slovakia, Romania, Ukraine and Serbia were registered in the Hungarian educational system. Even though the official data¹⁶ keep account of citizenship and not of ethnicity, so it is possible that not all the persons coming from these four countries are of Hungarian ethnicity, however, since the language of these programmes is usually Hungarian it is reasonable to suppose that these students are indeed Hungarian. Our data are also available by institution (see *Table 1*), and it is possible that among the students of the German-language Andrásy University and the English-language Central European University (CEU) there are some whose ethnicity or mother tongue is not Hungarian. In the former establishment, there are 2 students coming from these countries, while in the latter, there are 34 of them, so we can safely affirm that there are more than 400 ethnic Hungarian doctoral students in the Hungarian educational system.¹⁷

On the whole, we can observe that Eötvös Loránd University (ELTE) is the most attractive institution for ethnic Hungarian students, but strong regional forces of attraction are also at play: Vojvodinians primarily aim for Szeged and to a lesser extent, Pécs, while Subcarpathians opt for Debrecen, and more than half of Slovaks wish to continue their studies in Budapest. Since Transylvanians as a group do not have a specifically identifiable educational centre in Hungary, they are usually attracted to the Hungarian capital. Nonetheless, there is a sort of regional crossover between Partium (the westernmost part of Romania, bordering Hungary) and Debrecen. At the same time, other university centres also exert some force of attraction on Transylvanians. In other words, the place of further education within Hungary is determined mostly by the proximity of the institutions – due to

¹⁵ In theory, the representativity of the students studying in neighbouring countries could be verified with the help of exact statistics about higher education. However, based on our data, 2.2 percent of ethnic Hungarian doctoral students do not study in the Carpathian Basin. Unfortunately, we do not have any data for the verification of the reliability of this figure.

¹⁶ These data have been provided to us by the Educational Authority in Budapest. We would like to say thank you once again for granting us access to them.

¹⁷ We disregard these uncertainties in our presentation of the data. The cumulative results include all the students of the country of origin. The greatest distortion is most likely to be caused by students studying at CEU because we can assume that not all of the 26 Romanian citizens are of Hungarian ethnicity.

economic rationality –, which is indirectly related to the social situation of students (a closer doctoral programme is easier to reach, hence cheaper).

Table 1: Rate of PhD students with a Romanian, Serbian, Ukrainian or Slovakian citizenship in Hungary by higher educational institution (academic year of 2012-2013)

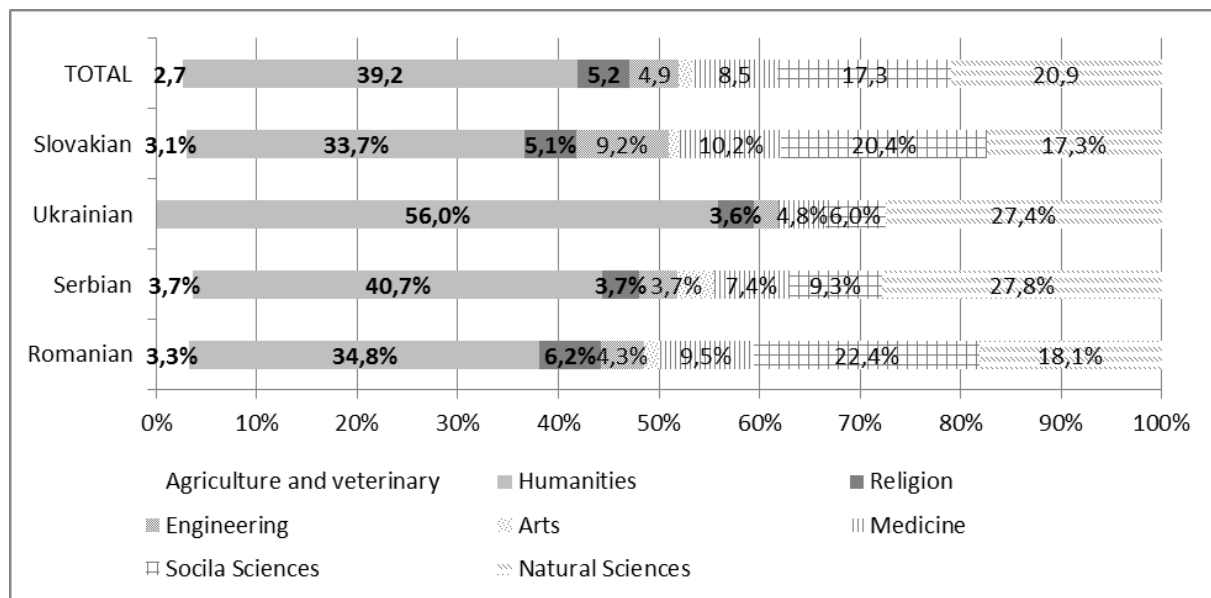
Name of institution	Ratio of citizens			
	Romanian	Serbian	Ukrainian	Slovakian
Eötvös Loránd University	23,3	18,5	28,6	38,8
University of Debrecen	15,7	1,9	33,3	10,2
Central European University	12,4	7,4	4,8	0
University of Pécs	9	16,7	2,4	4,1
University of Szeged	8,1	33,3	6	2
Szent István University	7,6	0	0	4,1
Budapest University of Technology and Economics	5,2	3,7	1,2	4,1
Debrecen University of Reformed Theology	4,8	0	1,2	0
Corvinus University of Budapest	3,8	3,7	2,4	7,1
Semmelweis University	2,9	3,7	3,6	4,1
Pázmány Péter Catholic University	2,4	5,6	14,3	11,2
University of West Hungary	1,4	0	0	2
Károli Gáspár Reformed University	1	0	2,4	0
Hungarian University of Fine Arts	1	1,9	0	1
Andrássy Gyula German Language University of Budapest	0,5	0	0	1
University of Miskolc	0,5	0	0	1
Pannon University	0,5	0	0	0
Moholy-Nagy University of Art and Design	0	0	0	0
Széchenyi István University	0	1,9	0	9,2
University of Theatre and Film Arts	0	1,9	0	0
TOTAL	100%	100%	100%	100%
Total No.	210	54	84	98

The youth of the four country examined attend doctoral programmes in Hungary mostly in humanities. The second place is taken by programmes in natural sciences and the third by various social sciences (including the domains of social science, economics, law, political science, regional science). 8.5 percent study in the field of medicine, and 5 percent participate in technological and theological programmes. The distribution by academic field depends on a number of factors, but two of them should be highlighted here: as we have seen earlier, it is influenced by the regional offer of both the emitting and the host higher educational structure.

Among Subcarpathian students, the proportion of humanities is extremely large, and the ratio of those participating in natural science programmes is also above the average. This is, of course, closely related to the fact that these are the dominant tracks in the higher educational structure of the emitting entity. Parallel to that, the ratio of social sciences is way below the average in their case, while it is relatively high among students from Transylvania and Slovakia. The ratio of the participants of medical programmes is also above the average among the latter students, whereas we can barely find any students from Subcarpathia in this form of training. On the whole, we can say that high-prestige areas (technology, arts and medicine) are the narrowest among Subcarpathian students (7.1 %) and they are the broadest among Slovaks (20.4 %), with the other two regions in-

between. While Romanians are the “strongest” in the domain of social sciences, Vojvodian students are the present in doctoral schools of natural sciences to the largest rate.

Figure 3: The ratio of PhD students with Romanian, Serbian, Ukrainian and Slovakian citizenship in Hungary by the special field of the doctoral schools (academic year of 2012-2013)



5. Socio-demographic data

About one third of our respondents were raised in Romania/Transylvania, while the others are distributed evenly among the other three regions. In the questionnaire, we also asked them about their citizenship, and about 10 percent of the respondents indicated their Hungarian citizenship as their primary one. The ratio of those who have “abandoned” their original citizenship (who have indicated a citizenship different from the country they were raised in) is the highest among Vojvodinians (18 percent), followed by Subcarpathians (12 percent) and Transylvanians (8 percent). Among our respondents from Slovakia, no one marked Hungarian citizenship as their primary one. Most likely, this can be explained by the fact that those who admit their Hungarian citizenship openly may suffer reprisals in Slovakia.¹⁸

A little more than one third of the respondents indicated a second citizenship as well, and the bulk of these answers referred to Hungarian citizenship (77 percent). A second citizenship was marked mostly by Transylvanians and Vojvodinians (to the same extent: 39 percent), while it was less apparent in the case of Subcarpathians (20 percent), and only two individuals from Slovakia marked their (Hungarian) citizenship.

¹⁸ Hungary approved an amendment to the Citizenship Law in 2010 (Law LV of 1993), which made it possible for ethnic Hungarians (living outside Hungary) to request Hungarian citizenship. Slovakia, as a response to the Hungarian law, introduced a regulation as a result of which those Slovak citizens who obtain another citizenship are automatically deprived of their Slovak citizenship.

The mean age of the respondents is 30.3. Regarding their country of origin (where they were raised), we can observe statistically significant differences: Subcarpathians and Hungarians from Slovakia are the youngest (28, resp. 29 years), while PhD students from the other two countries are older (Romania: 31,5, Serbia: 31,3 years). These differences can be partly put down to the different school structure of the emitting country: while for example in Subcarpathia, the school leaving exam is passed at the age of 17, that usually takes place at the age of 18 in the other countries.

It is worth knowing the data by age brackets as well because in this way, we can position it relative to Hungarian and international data (of 2009 and 2010). Based on the EURODOC survey mentioned above, 70-90 percent of the PhD students of the countries examined belong to the age group of 26-35-year-olds.¹⁹ In Hungary, their proportion was 83 percent in 2009.²⁰ Ethnic Hungarians from the neighbouring countries also follow this trend, but the number of those between 23-25 years of age among Subcarpathian doctoral students is extremely high even in international comparison (19.8%). As indicated above, this is due to structural reasons, but it may also have significant consequences: on the positive side, it can reinforce the flexibility of PhD students, but on the negative, there is a risk of early professional burnout.

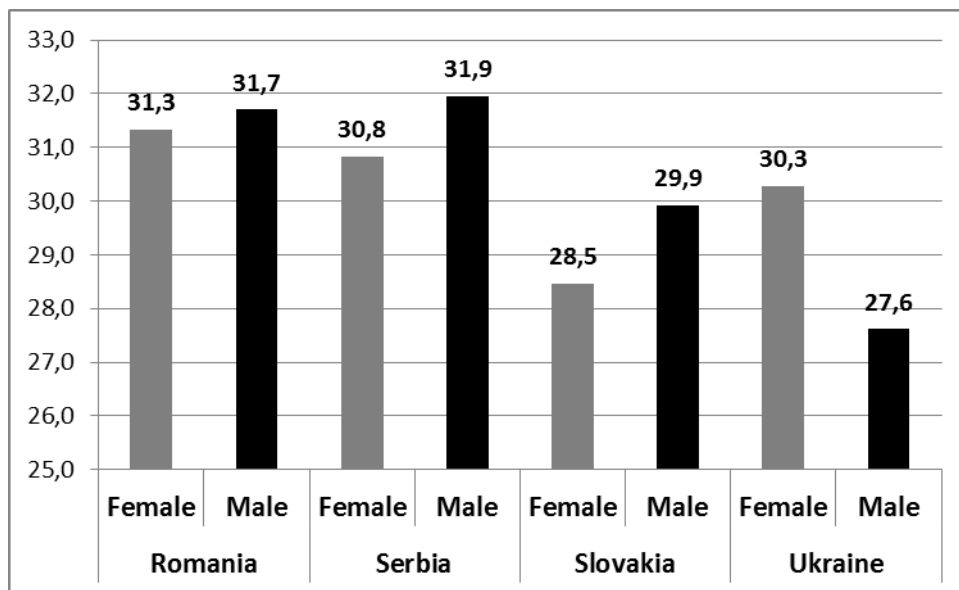
With respect to gender distribution, the ratio of Hungarian PhD students from Slovakia and Carpatho-Ukraine is well-balanced (50.5 and 51.4% of women) whereas women represent the majority among Transylvanian and Vojvodinian respondents (64,7%, resp. 60%). Even though we cannot draw far-reaching conclusions from these data lines, it should be noted that the EURODOC survey mentioned above also indicated a high female proportion in the southern countries (Croatia and Portugal), so we may suggest that besides distribution by professional field, this trend may also play a role in the high proportion of women among our Romanian and Serbian respondents. Slovakia and the Ukraine are similar to Hungary in that respect (in 2009, the ratio of men was 51.5 percent in Hungary).

If we look at the mean age by gender and by country of origin, it turns out that the mean age of men and women differs significantly only in the case of the Subcarpathian respondents: the mean age of men is about 3 years lower than that of women. This may be a sign of the fact that in Subcarpathia, boys start their doctoral studies earlier than girls after their graduation, while the latter are more likely to consider other careers in greater numbers (they try to get a job within education, they might have children), and they start later the doctoral programme. At the same time, it can also be observed that among women, Hungarian students from Slovakia are the youngest. The average age of Subcarpathian men is the lowest, and in fact, this region is the only one where women are older than men on average.

Figure 4: Mean age by gender and by country of origin

¹⁹ EURODOC i.m. 10.

²⁰ Kucséra – Szabó i.m. 26.



As for marital status, Slovakia is the only region that stands out: there the ratio of those living in marriage or in a registered partnership is very low (26.5 percent altogether), while this figure is around 40-53 percent in all the other places. However, it should be pointed out that while the proportion of those married is about the same among Vojvodinians, Transylvanians, and Subcarpathians (36-38 percent), the ratio of those living in an “informal marriage”, or a registered relationship, is insignificant among Subcarpathians compared to the other two regions (3.7 percent vs. 14.2 percent and 11.8 percent). This seems to indicate a more traditional social background structure among Subcarpathians, as a result of which the institution of registered partnerships, considered to be the antechamber of family life, is reduced. As there is no possibility of cohabitation as a form of transition, these youth have to choose: they either get married, or they stay “obviously” single.²¹

More than one fourth of PhD students already have a child, and this figure amounts to one third in Transylvania. Related to the data on marital status, it can also be seen that again it is Slovakian respondents who demonstrate a kind of individualism: here only 12 percent of the subjects said that they had children. Regional differences become even more blatant if we examine the fact of having children by gender: in the case of women from Slovakia, it is quite rare to have children already, whereas nearly half of the female PhD students from Carpatho-Ukraine (42.3 percent) have children. Again, that reinforces the claim that PhD studies and aspects of private life create different strategic patterns. In the case of students from Slovakia, these two factors are imposed upon each other, i.e. the pursuit of a career is completed by having a family later on. The other extreme is represented by Subcarpathians, for whom getting married, having children and building their career all merge together.

The educational level of the parents of PhD students is higher than the average schooling of the given countries. The proportion of those with at least a high school diploma is more than 86 percent, and more than one third (35-36 percent) of them are at least second generational intellectuals. If we consider only the schooling of fathers, the influence of the family is relatively high in Transylvania, while it is the lowest in Subcarpathia and Slovakia.

²¹ Although our survey did not inquire about that, it is likely that some of the singles live in the same household as their parents.

Our data greatly coincide with the Hungarian data of 2009,²² but internationally, the proportion of fathers with a college or university degree is apparently somewhat smaller than in other countries, which partly shows that in the Carpathian Basin, students coming from a lower social stratum have a greater chance of getting admitted into PhD programmes. However, if we look at the lowest levels of schooling, it appears that it is harder to get into doctoral programmes from these strata than in some southern countries of Europe (Portugal, Spain), but it is easier than in several western countries (e.g. France, the Netherlands, Belgium, Norway).²³ All of the above can be interpreted as a sign that in the Carpathian Basin, doctoral education is basically related to the processes of educational expansion: although the parental background is decisive, it can be observed only above a certain level, because there is only a faint chance of making an educational/academic breakthrough from the lowest social strata.

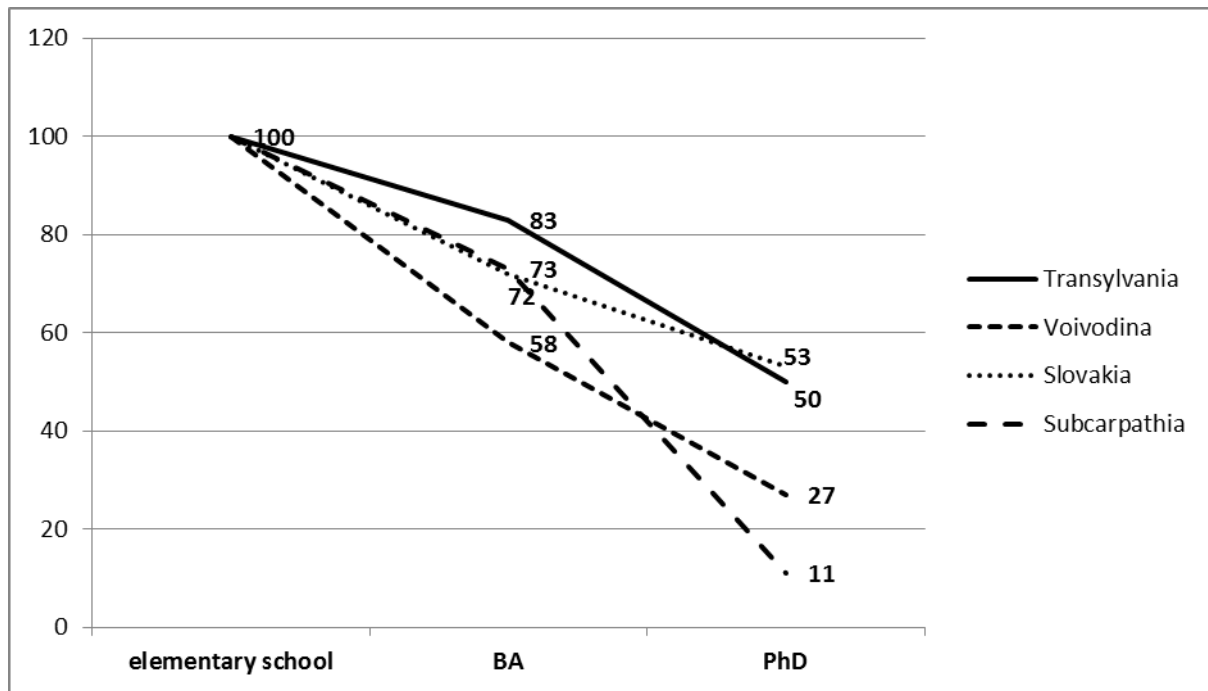
Our data allow us to sketch the earlier educational paths of PhD students as well. Since respondents were asked to state where they were brought up until the age of 14, and since we know the place of undergraduate and doctoral studies, we can estimate the ratio of educational migration and educational paths in the home country. If we take the place of education till the age of 14 as 100 percent, where our subjects most likely completed their elementary school studies (*Figure 5*), we can see that the location of undergraduate studies necessary for doctoral studies is partly shifted to another country (usually, to Hungary). The transition between secondary education and undergraduate studies also constitutes a Hungarian-Hungarian migration regarding would-be doctoral students: only little more than half of Vojvodinian PhD students completed their undergraduate studies in their country of birth, while this figure was little less than three fourths among students coming from Subcarpathia and Slovakia, and about 83 percent among Transylvanians.

As we move towards the doctoral programmes, in the second stage of the higher educational path, migration towards the mother country intensifies: compared to the homeland elementary school education, it is Subcarpathians who are the least able to pursue doctoral studies in their own region (only 11 percent). This is, of course, related to the local educational offer: while undergraduate studies can be done in Hungarian in Berehove (Beregszász) and Užhorod (Ungvár) as well, doctoral studies can only be carried out at the National University of Užhorod (Ungvár). The rate of educational migration increases among Transylvanians towards doctoral studies, too, and half of the PhD students do their studies in Hungary. About half of the students from Slovakia also study in a country other than their homeland, but in contrast to the Transylvanian data, the extent of transition from undergraduate studies to PhD studies is less intensive than the transition between elementary school education and undergraduate studies. One of the reasons for that is that it is possible to pursue doctoral studies at Selye János University, a Hungarian language institution in Komarno (Komárom) as well. Our data also show that less than a quarter of Vojvodinian doctoral students study in their homeland.

Figure 5: The educational paths of PhD students in their country of birth

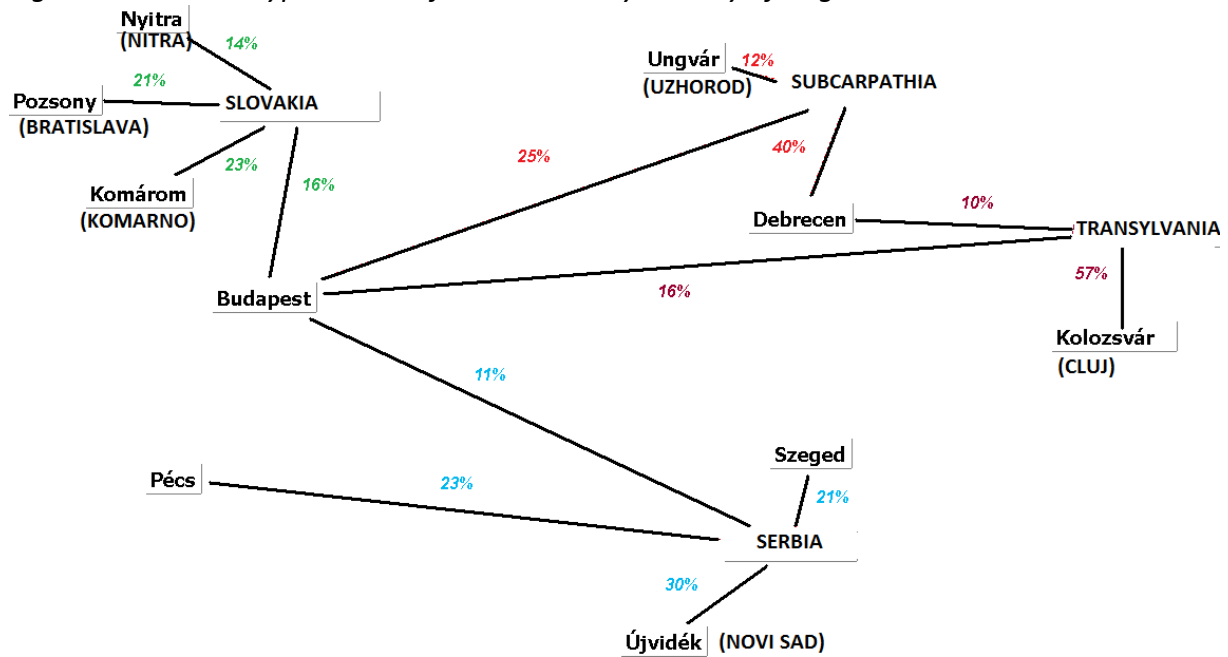
²² Kucsera – Szabó op. cit. 52.

²³ For detailed information, see EURODOC op. cit.. 16.



If we look at the educational paths by geographical mobility, we can also see which university centres students coming from particular regions are oriented towards with a view to acquiring their PhD. The educational paths indicate that besides some (relative) centres in their homeland such as Cluj-Napoca (Kolozsvár), Bratislava (Pozsony), Nitra (Nyitra), Komárno (Komárom), Novi Sad (Újvidék) and Užhorod (Ungvár), it is university centres in Hungary as well as some smaller towns in the countryside that emerge as destinations for ethnic Hungarians. However, the scrutiny of typical paths also reveals the markedly regional character: Transylvanians choose Cluj-Napoca while Subcarpathians go to Debrecen in the first place. For Hungarians from Slovakia and Voivodinian Hungarians, no town occupies a central position: their preferences are distributed among several towns. The frequency of paths also sheds light on the fact that although Budapest can be considered as a nexus, it does not play a central role for either of these regions.

Figure 6: The most typical sites of PhD studies by country of origin



The question might arise whether there is a correlation between educational migration and Hungarian citizenship. Based on our data, there is no obvious correlation between the homeland educational path and the acquisition of Hungarian citizenship. If this were the case, our hypothesis could be that those who have completed all their studies in their own country are less likely to apply for Hungarian citizenship. However, according to our data in Slovakia and Carpatho-Ukraine, those who complete all the levels of their schooling at home do not apply for Hungarian citizenship at all. While in Transylvania, studies fully completed in the home country make it less likely for ethnic Hungarians to request Hungarian citizenship, in Vojvodina, even those who have always studied at home so far apply for it in great numbers (44% in Transylvania, and 71% in Voivodina). All of the above goes to show that applying for Hungarian citizenship is somewhat independent from the site of school studies by country, and most likely, it correlates with other factors: Ukrainian and Slovakian respondents might be more determined to make a career at home, and that is why they do not apply for Hungarian citizenship (or they did not reveal that in the questionnaire) because it is forbidden by the laws of their country. Similarly, Vojvodian figures rather show that the application for citizenship can be related to a number of other factors, ranging from a latent migration potential to the legislative framework of the country.

6. Job market situation

Nearly two thirds of PhD students have a job, and most of them usually work at several workplaces. 72 percent of those who have a job at present work full-time. There are significant differences concerning the type of employment both by country and gender. Among men, the vast majority work full-time, while in the case of women, a significant proportion of them work part-time (although working full-time is still the most typical case for them as well). Looking at the data by country, it is Slovakia that stands out, where barely

half of the PhD students work full-time, whereas in the other countries examined, this ratio can represent as much as 70-80 percent.

More than half of the workplaces are related to universities or research institutes, and only 22 percent of students work in the private sector. In about 80 percent of the cases, the workplace is located in the homeland, and in 16-17 percent in Hungary. However, the correlation between the place of the PhD studies and the country the workplace is located in is much higher in the case of those doing their PhD in their home country.

29 percent of those who work and do their PhD in Hungary have a job in Hungary, and the others work in their home country. This is also an indicator of commuting done by many doctoral students: 70 percent of them do their studies while working at home (or in another country). Looking at the specific regions, it is clearly visible that more than half of the students from Slovakia doing their PhD in Hungary also work in Hungary. This also shows that in half of the cases, their professional (and existential) integration is oriented towards Hungary. In the case of Subcarpathians and Vojvodinians, it is much more typical that they do their PhD studies in Hungary while working at home.

The average net income of PhD students is around 400-500 Euros per month. We define this range because if we take out the so-called extreme values (coming from respondents who live in Western Europe or who are private entrepreneurs),²⁴ the average income is 407 Euros, whereas if we leave them in, the amount is 491 Euros. Whichever value we take into consideration, it is certain that there are significant differences in income by country: Subcarpathians have the lowest monthly income, and Hungarians from Slovakia have the highest. Since we are talking about a well-defined social stratum, neither the schooling level of parents, nor age cannot influence the level of monthly income. Regarding gender, it is not such a straightforward case: although there is no significant difference between men and women in the entire sample, regionally speaking it can be stated that Subcarpathian women earn²⁵ less than men coming from the same country.

7. Information about the doctoral schools

Although in the Bologna system, the bureaucratic obstacles of getting a PhD degree in a cotutorial system have been reduced, this opportunity does not seem to attract ethnic Hungarian PhD students. Out of the more than 400 respondents of the questionnaire, it concerned only two people.

Analyzing the doctoral programmes by academic field, we can affirm that the majority of them deal with humanities. There are significant differences between the countries examined: while, for example, more than half of the Subcarpathian PhD students go to some kind of humanities doctoral programme, this ratio is only 38 percent among Hungarians from Slovakia. On the whole, doctoral programmes in natural sciences are the second most popular, and they are also second in Subcarpathia. PhD programmes in social sciences are attractive for Vojvodinians and Transylvanians, while in the case of Slovakian Hungarians, the

²⁴ Statistically, these are figures whose omission ensures the normality of income distribution.

²⁵ ANOVA test, Sig: 0.08, i.e. the probability that the average income of men and women differ from each other is 92 percent here.

second place is taken by engineering/technological programmes. Obviously due to the portfolio of national doctoral programmes, there is a significant proportion of theological doctoral students in Slovakia, whereas such students are a real scarcity to find in Subcarpathia. Agricultural programmes are the least popular: in Slovakia, none of the respondents have chosen this specialization.

As for the place of the doctoral school, we get a much more differentiated picture. While in Transylvania and Slovakia, two thirds of the PhD students go to Romanian or Slovakian establishments, the vast majority of Vojvodinians (62%) and especially Subcarpathians (87%) attend doctoral programmes in Hungary. The differences might be put down to the fact that Hungarian doctoral programmes are more accessible for the latter, and besides the educational perspectives of the acquisition of a degree, living in Hungary might offer some comparative advantages (mobility due to EU membership, more generous scholarship, etc.). PhD students studying in other countries outside the Carpathian Basin are represented in very small numbers in our sample: their overall proportion is less than 3 percent.

There are no differences between the regions regarding the way their students pursue their studies: i.e. whether they are doing a full-time or a part-time (evening courses or distance education) programme. The bulk of the respondents (83 percent) take part in full-time education. This figure is the smallest in Vojvodina (78%), but within a sample of this size, that in itself does not reveal a significant difference.

Vojvodinians constitute a real exception regarding the fact that nearly half of them do their doctoral studies in a self-financing system, while this proportion remains below 30 percent in the other regions. This, of course, goes together with the fact that the proportion of those entitled to a scholarship is lower (55% vs. 72% typical of the entire population). At the moment of their admission, 53 percent of Transylvanian PhD students, 65 percent of Hungarians in Slovakia, 34 percent of Vojvodinians and 46 percent of Subcarpathians are granted a scholarship.

Naturally, the sum of the scholarship does not depend on one's origin, but on the quotas of the given country. Accordingly, the smallest amount is given to PhD students in Ukraine (on average 108 euros per month), while the highest in Slovakia (514 euros). (*Table 2*). The sum of the scholarship – for those who continue to receive it even today (50 percent) – generally makes up 73 percent of their full monthly income, while more than one third of them have no other source of income. Logically, the amount of the financial support is the most insufficient where it is below the minimum necessary to make a living (Romania: 58%, Serbia: 58%).

Table 2: The average monthly sum of the doctoral scholarship by country and its proportion compared to the full monthly income

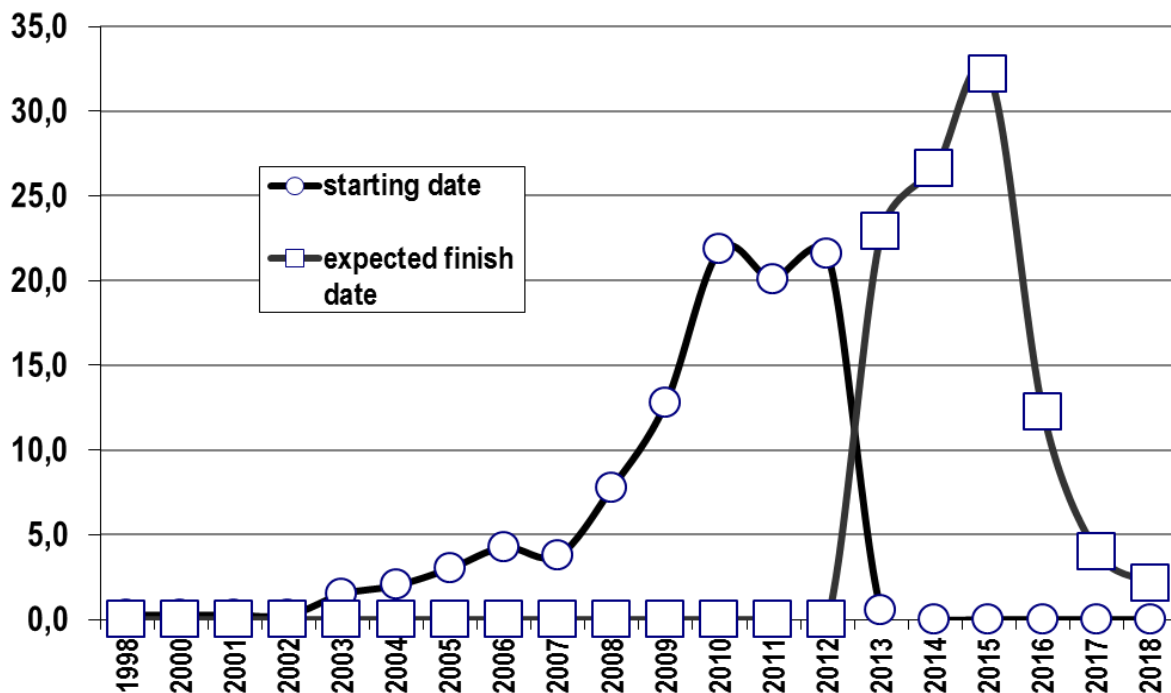
	<i>Sum (EUR)</i>	<i>Proportion (%)</i>
Hungary	320	79
Romania	276	58
Serbia	216	59

Slovakia	514	81
Ukraine	108	73
other country	939	77
average	350	73

Three fourths of the PhD students started their studies after 2008, so it is understandable that more than two thirds of them are still studying in a doctoral school. However, the ratio of those who have completed their courses, but have not launched the doctoral process is quite high (20%). Doctoral candidates (who are in the stage of having initiated the degree process) represent only 15 percent of the respondents.

The visible delaying (and the possible non-obtaining) of the doctoral degree appears in the future expectations of PhD students as well: nearly 10 percent of the respondents said that certainly or most probably, they would not be able to get a degree, and a further 20 percent are presumably unsure about it. The expected success of obtaining their degree is, of course, related to the progress they have made: the uncertain are clearly overrepresented among those who have finished their studies, but who do not have a doctoral candidate status yet. Every fourth among them said that it is uncertain or unlikely that they would be successful in getting their doctoral degree. The length of time for getting their degree is hoped to be four years and eight months on average, which seems to be an optimistic estimate especially because these students have been in the system for nearly three and a half years on average, and most of them are still studying in the doctoral schools.

Figure 7: Starting date and expected finish date of PhD



The length of time in which students are planning to obtain their PhD depends on the country in which they are attempting to do it. In this respect, PhD students in Hungary plan

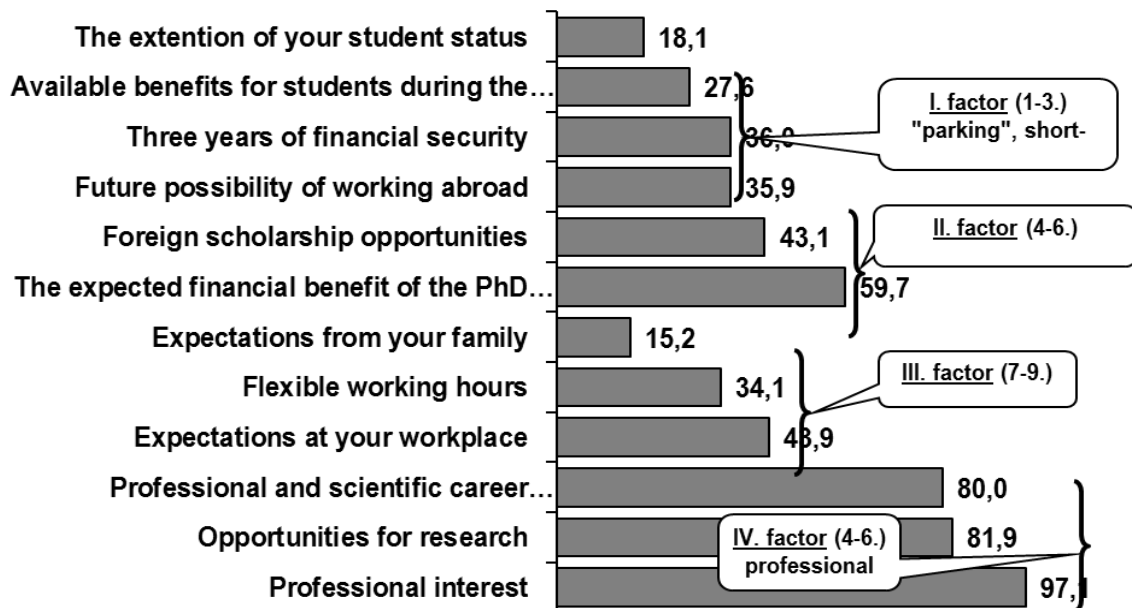
for a longer period of time (5.3 years on average), while students studying at Slovakian universities are planning to do it in the shortest time (3.7 years). Besides the fact that countries may have different practices and structural motivation factors for encouraging the acquisition of the doctoral degree, in the case of those studying in Hungary, we should take it into consideration that a migration shift and integration into the system of the target country already demand a significant amount of additional time.

8. The motivating factors for choosing a particular doctoral school and satisfaction with the programme

One of the most important objectives of our survey was to map out – besides the questions pertaining to the situation of doctoral students – the motivation factors associated with obtaining the doctoral degree as well as satisfaction with the doctoral programmes.

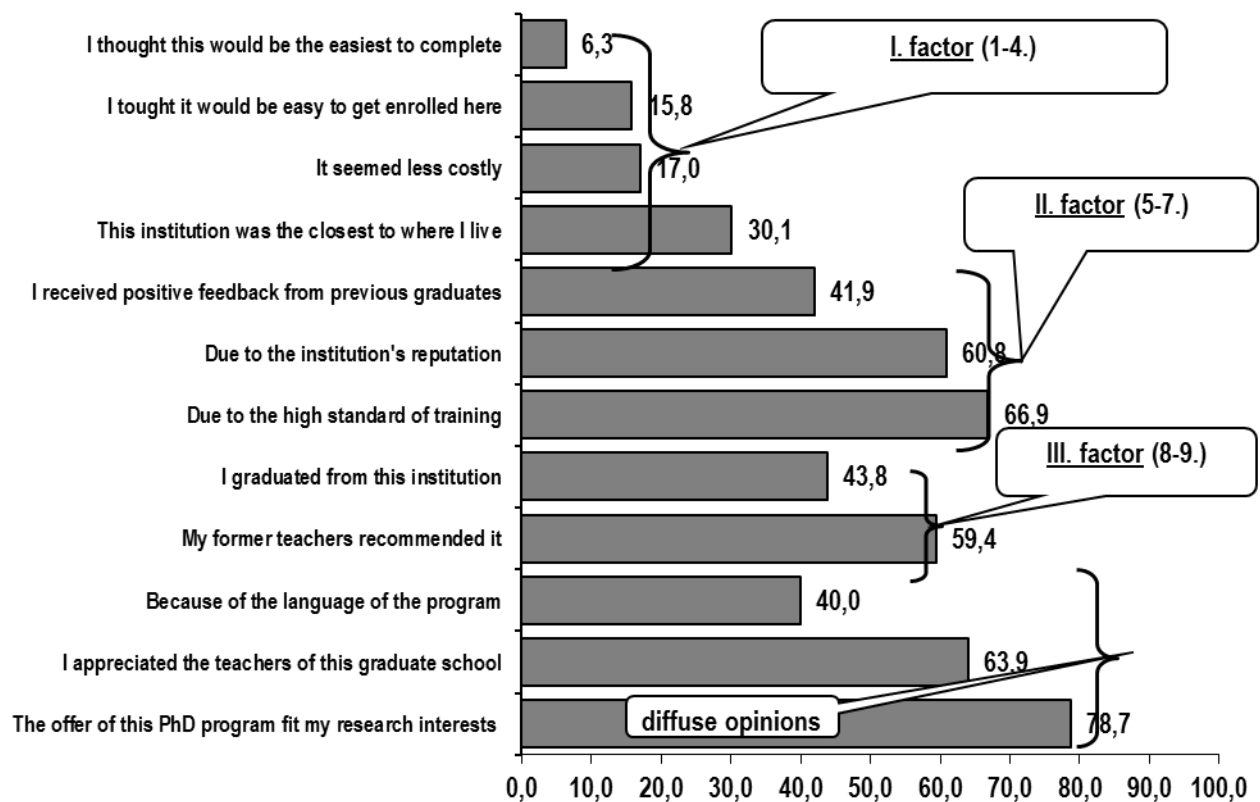
First of all, we wanted to know to what extent the factors listed in *Figure 8* constituted a motivation factor at the moment of entering the doctoral programme. The results show that the majority of the respondents decided to start the PhD programme due to certain professional considerations (Factor 4). There were virtually no respondents for whom their professional interest did not play an important role (97%), and research and academic career opportunities offered by the PhD programme were also mentioned by the bulk of the subjects (82% and 80%). In contrast, motivation patterns shaped by expected long-term, especially existential benefits are much less significant. Out of these, the highest expectations are attached to the eventual financial pay-off of the PhD degree (60%). An important factor of this cluster of opinions is the potential to obtain a scholarship abroad, and even the possibility of working abroad (Factor 2).

Figure 8: 'To what extent did you consider the following factors when you applied for the PhD program?' - cumulative percent for the answers: „rather seriously” and „very seriously” -



The motivations based on expectations to draw an advantage of the PhD programme in the short run were born out of a more modest pragmatism, not necessarily resting on professional foundations. Looking at it from this perspective, the years of the Phd programme correspond to the period of secure and passive “postpone” since student benefits allow PhD students to make a living for three years. Although these arguments were considered important by much fewer, this group of motivations is still the most delineated one (Factor 1). The intention to get a doctoral degree can also be explained (in about one third of the cases) by the fact that there is an explicit expectation at the workplace or in the family that PhD candidates are trying to meet. 43 percent of the respondents mentioned, for example, that their decision was also motivated by workplace expectations (Factor 3).

Figure 9: ‘Why did you decide to apply for this PhD program?’ (%)



In order to further differentiate between the motivation patterns of PhD students, we also asked them why they chose their present doctoral school. As it could be expected from the answers given to the previous question, most people took into consideration professional aspects (“the professional offer of the doctoral school matched my research interests” – 79%), and within that, a distinctive pattern is formed by those for whom the academic performance of the institution was especially important (“because of the high standard of the education” – 67%, “because of the reputation of the institution” – 61% – Factor 2: *professional – success oriented*). More than half of the respondents were also influenced by their professors, and 4 out of 10 PhD students opted for a particular doctoral school because they had completed their previous studies in the same institution (Factor 3: *safe-path dependency*). A less significant, but still well-noticeable factor is *opportunity-orientedness* (Factor 1), which considers financial aspects as well as an easy means of getting a degree for choosing the institution (“this school was the closest to my living place” – 30%, “I thought that it would be easy to get into this school” – 16%, “I thought this programme would be the easiest to complete” – 6.3%).

As for the evaluation of the doctoral programme, the respondents are the most satisfied with the professional competence of the thesis supervisors (84% of them are satisfied or very satisfied). The process of mentoring-tutoring is characterized by personality, so it seems that this is one of the most essential elements of the success of the doctoral schools. On the other hand, the system-level or institutional weaknesses of the programme cause disapproval in a lot more students. They consider the lack of proper information especially annoying (37%), just like the fact that as PhD students, they have to do too many administrative tasks (44%). These are followed by complaints concerning the professionalism

and the scarce funds of the programmes (the curriculum is not tailored enough, there is not enough money, the academic infrastructure of the institution is poor), concerns about the organization of teaching and research (the workload of holding classes, the limited opportunities to take part in during the research process), and finally the institutional limitations of personal professional development and the more modest added value of the programme compared to the undergraduate training.

Considering that the standard of thesis supervision is of key importance for the success of doctoral programmes, we examined these circumstances in a separate question. The results confirm the shortcomings of the system indicated above: while the professional competences of professors are rarely questioned by anyone (94% satisfied), much fewer PhD students consider them capable of efficiently helping the integration of their students into the academic system and their advancement (publication opportunities, conference participation: 55%, professional networking: 71%).

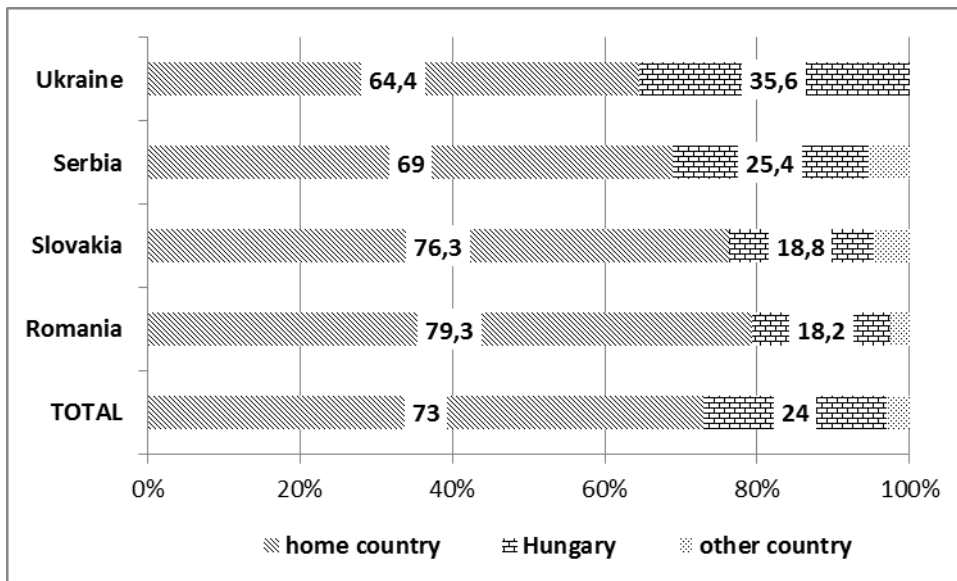
9. Future plans

In relation to the present labour market situation, we have already noted that half of the PhD students already work in higher education or in a research institute. This tendency seems to be even more manifest on the level of plans, and parallel to that, the ratio of those who would like to find a job in the private sector has been decreasing.

We also asked students in which country they would like to live when they start working after getting their PhD degree. According to our data, about 30 percent of the doctoral students are planning to live in a country different from their homeland, but this migration potential is mostly directed to Hungary, and only a fraction of it is oriented towards other countries. The greatest mobility intention is demonstrated by those coming from the two smallest ethnic Hungarian communities (and from non-EU countries): Subcarpathians and Vojvodinians. At the same time, it is also visible that emigration to Western countries is quite significant among Vojvodinians and Hungarians from Slovakia, which can be partly put down to historical reasons and geographical location.²⁶ We asked a specific question about the intention to emigrate: whether they would emigrate if they could improve their living conditions. We found that those who study in Hungary want to move to a third country only to a lesser extent, but among those who study in their homeland, the migration potential is higher (except for Vojvodinians). That indicates that in Vojvodina there is a more marked difference between the future plans of those studying in Hungary and at home.

Figure 10: The country of the workplace planned after the doctoral programme (Option 1)

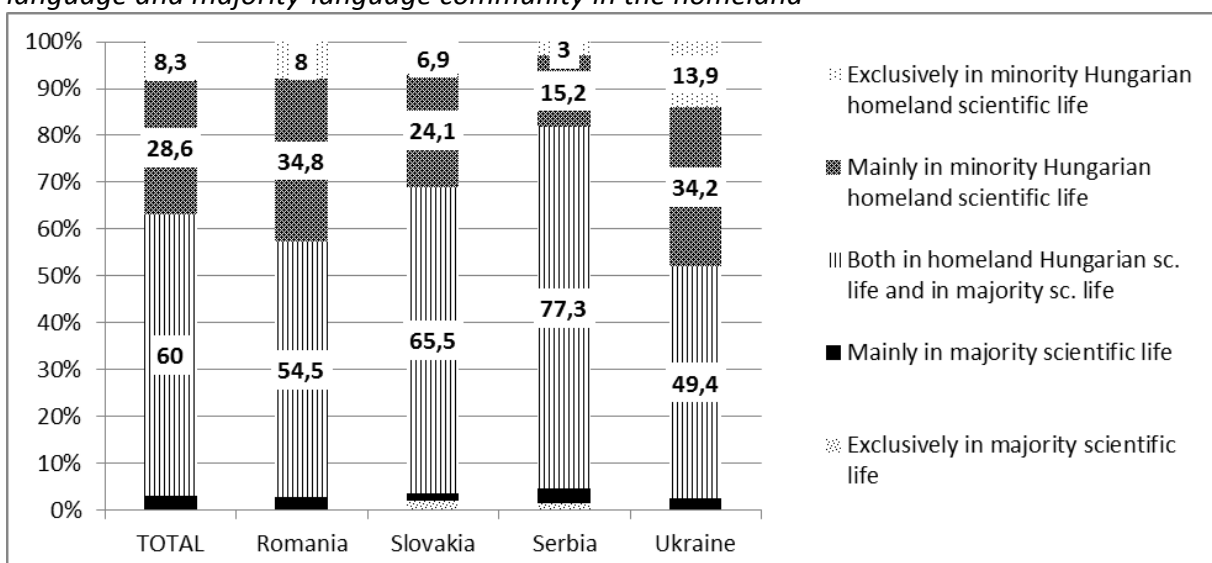
²⁶ Migrant workers' going to Western Europe has been significant in Vojvodina since the 1970s. There are many ties between Slovakia and the Czech Republic even today, and about 800 Hungarian young people are doing their studies there at present.



Based on our question pertaining to plans of professional integration, we can distinguish two trends: on the one hand, there is a desire for Hungarian or ethnic Hungarian integration in the homeland, but an increasing number of respondents would like to join both the ethnic Hungarian academic circles and the majority-language academic community in their homeland. Although there are great variations between integration strategies from country to country, two important claims can be made.

The desire for integration only into homeland Hungarian academic circles is the greatest among Subcarpathians, which is related to the distribution by domains, but it also carries the risk that Hungarian-language professionalism will become inward-looking. The highest degree of openness to the majority academic circles can be seen among Vojvodinians: 70 percent of the PhD students from this region stated their intention to enter both the Hungarian and Serbian academia. The strongest intention to build professional relationships only with the majority-language body of scholars is also the strongest in this region.

Figure 11: The subjective assessment of integration into the academic circles of Hungarian-language and majority-language community in the homeland



We also examined future plans oriented towards Hungary as well as professional integration efforts in the homeland with the help of a multi-variable model (logistic regression model). Based on that, we can declare (see *Table 3*) that the “desire” to work in Hungary is not significantly influenced by the country of origin of PhD students. However, this migration potential tightly correlates with the education of their parents, the fact of having children or not, and the field and location of the doctoral programme. The higher educational level of fathers increases migration potential while that of mothers decreases it, and the likelihood of those without children migrating to Hungary is 3 to 4 times greater than in the case of those who have children. The most striking finding is that the chance that those with a medical PhD would migrate to Hungary is 20 times greater than in the domain of natural sciences. It is also clear that those who participate in a doctoral programme in their homeland prefer staying at “home” to the greatest extent.

We investigated homeland professional integration plans by looking at whether our subjects wanted to be admitted into the exclusively or rather Hungarian academic life of their homeland, or they also indicated majority-language academic life as a potential case. In this respect, we found that the country of origin, the mother’s education, the field of the doctoral programme and age all have a significant impact (*Table 4*). The likelihood that Hungarian-language professional integration is placed first is substantially smaller among Hungarians from Slovakia and Vojvodinian students than among Subcarpathians and Transylvanians. In contrast to students of natural sciences, those pursuing humanities or theological studies believe mostly in joining the Hungarian-language scholarly world. Interestingly, with age, there is a small, but significant decrease in the likelihood that PhD students opt for mother-tongue academic life. This shows that while for older people, multilingual (mother tongue and majority-language) professional integration comes more naturally, in the case of young PhD students this trend is shifting significantly towards the exclusivity of their mother tongue.

Table 3: Factors influencing future plans oriented towards Hungary (logistic regression, Nagelkerke's R-squared: 0,46)

	B	S.E.	Wald	df	Sig.	Exp(B)
Sex (1 – Female, 2 – Male)	-0,594	0,367	2,62	1	0,106	0,552
Country of origin			1,623	3	0,654	
FATHER'S education (cat. of ref.: max. 8 grades)			8,832	3	0,032	
vocational school	0,987	1,033	0,912	1	0,34	2,683
school-leaving exam	1,901	1,02	3,473	1	0,062	6,696
college or university diploma	0,824	1,028	0,643	1	0,423	2,281
MOTHER'S education (cat. of ref.: max. 8 grades)			6,935	3	0,074	
vocational school	-2,637	1,161	5,161	1	0,023	0,072
school-leaving exam	-1,018	0,906	1,261	1	0,261	0,361
college or university diploma	-0,583	0,952	0,376	1	0,54	0,558
Children (1 – Yes. 2 – No.)	1,221	0,43	8,054	1	0,005	3,392
DOMAIN of PhD (cat. of ref.: nat. sciences)			23,288	7	0,002	
agriculture	-0,079	1,012	0,006	1	0,937	0,924
humanities	-1,296	0,454	8,139	1	0,004	0,274
theology	-18,57	8409,393	0	1	0,998	0
technology	1,154	0,834	1,915	1	0,166	3,172
art	-0,228	1,621	0,02	1	0,888	0,796
medicine	2,989	1,036	8,323	1	0,004	19,857
social sciences	-0,326	0,506	0,415	1	0,519	0,722
DOCT. PR. – COUNTRY (cat. of ref.: Hungary)			32,595	5	0,000	
Romania	-3,521	0,814	18,707	1	0,000	0,03
Serbia	-3,217	1,201	7,176	1	0,007	0,04
Slovakia	-4,247	1,276	11,086	1	0,001	0,014
Ukraine	-2,111	1,144	3,402	1	0,065	0,121
other	-0,252	0,986	0,065	1	0,798	0,777
Constant	-1,517	1,33	1,302	1	0,254	0,219

Table 4: Factors influencing future plans of homeland Hungarian-language professional integration (logistic regression, Nagelkerke R-square: 0,26)

	B	S.E.	Wald	df	Sig.	Exp(B)
Sex	-0,048	0,298	0,026	1	0,872	0,953
Country of origin (cat. of ref. Ukraine)			9,015	3	0,029	
Romania	-0,255	0,454	0,315	1	0,575	0,775
Serbia	-1,354	0,494	7,505	1	0,006	0,258
Slovakia	-1,102	0,655	2,829	1	0,093	0,332
FATHER'S education			3,233	3	0,357	
MOTHER'S education (cat. of ref.: max. 8 grades)			7,226	3	0,065	
vocational school	1,443	0,899	2,579	1	0,108	4,234
school-leaving exam	0,298	0,818	0,132	1	0,716	1,347
college or university diploma	-0,092	0,864	0,011	1	0,915	0,912
Children (1 – Yes. 2 – No.)	-0,466	0,397	1,378	1	0,24	0,628
DOMAIN of PhD (cat. of ref.: nat. sciences)			27,892	7	0,000	
agriculture	0,462	1,008	0,21	1	0,647	1,587
humanities	1,528	0,404	14,289	1	0,000	4,608
theology	2,198	0,661	11,045	1	0,001	9,005
technology	-0,318	0,741	0,184	1	0,668	0,728
art	-19,54	17039,004	0	1	0,999	0
medicine	-0,853	1,121	0,579	1	0,447	0,426
social sciences	0,553	0,505	1,199	1	0,273	1,739
DOCT. PROG. – COUNTRY (cat. of ref.: Hungary)			2,632	5	0,756	
AGE	-0,074	0,036	4,182	1	0,041	0,928
Constant	1,9	1,866	1,036	1	0,309	6,687

10. Conclusion

The research was conducted with the help of online questionnaires among PhD students from four ethnic Hungarian regions “beyond the borders” of Hungary. The main argument in favour of the online investigation was that it was easier to reach even those who have been integrated into majority-language educational structure or that of a country outside the Carpathian Basin. At the same time, we also supposed that an online research would not pose a technical problem or difficulties of other nature for this target group.

One of the challenges of the research was effectively reaching the target group and assessing its size. Therefore, before launching the online survey, each doctoral association updated the databases about doctoral students at their disposal. Also within the framework of the research, we obtained detailed data (by institution and field of study) from the Educational Authority regarding ethnic Hungarian students coming from the four countries examined and participating in doctoral programmes in Hungary. Based on all that, we can say that there are about 1000-1100 ethnic Hungarian PhD students, and nearly half of them study in the mother country, Hungary, while the others study in their homeland in Hungarian or in the majority (state) language and in other countries. If we compare our survey to the size of the target group, we can declare that we have been successful, for we managed to reach every second PhD student on average (the margin of error for the entire sample: +/- 1,67)

About one third of our respondents were raised in Romania/Transylvania, while the rest of them were distributed quite evenly between the other three regions. In the questionnaire, we also asked a question about citizenship, and about 10 percent of the respondents indicated Hungarian citizenship in the first place. The ratio of those who have “abandoned” their citizenship (i.e. those who indicated a citizenship different from the country they were raised in) is the highest among Vojvodinians (18 percent), followed by Subcarpathians and Transylvanians (12 and 8 percent, respectively). Based on the above, we can conclude that from smaller Hungarian communities, a higher percentage of people seem to migrate to the mother country.

The mean age of the respondents of the questionnaire is 30.3 years. In relation to the country of origin (upbringing), we can state that there are statistically significant differences: the youngest are the Subcarpathian and Slovakian Hungarian students, while the PhD students of the other two countries are somewhat older. These differences are partly due to the school structure of the emitting country: whereas in Subcarpathia, students usually pass their school-leaving exam at the age of 17, in other countries, this event usually takes place at the age of 18. The low mean age of Subcarpathians stands out even in international comparison, and it can result in both the flexibility of doctoral students as well as the danger of early professional burnout.

With respect to gender distribution, women are overrepresented in Transylvania and Slovakia, while regarding marital status, it is the behaviour of Slovakian Hungarians that stands out among the four regions: the ratio of those living in marriage or partnership is very low here (26.5 percent altogether), while this figure is around 40-53 percent in the other

regions. The proportions by gender and marital status may indicate the prestige of the PhD programme and the social background structure of the emitting region. The doctoral programme seems to have a lower prestige in Transylvania and Slovakia, and it is also well-detectable that Slovakian Hungarian female PhD students have a more individualistic mentality (cf. low proportion of those living in marriage or partnership, delaying the time of having children).

From the perspective of the job market, it can be affirmed that nearly two thirds of PhD students work, and the bulk of them hold several jobs at the same time. 72 percent of those who work at present have a full-time job. The type of employment varies significantly by country as well as by gender. The vast majority of male employees work full-time, while the proportion of female students (many of whom also work full-time) working part-time is also substantial. Looking at it by country, Slovakia is the one that stands out: here barely half of the PhD students work full-time, while this figure can be as high as 70-80 percent in the other countries examined.

If we analyse doctoral programmes by professional field, we can observe that humanities programmes represent the majority. This, again, varies from country to country: while more than half of the Subcarpathian doctoral students attend some kind of humanities programme, this ratio is only 38 percent in the case of Hungarians from Slovakia. All in all, natural sciences programmes come in second, and they are also second in Subcarpathia. Social sciences programmes are popular among Vojvodinians and Transylvanians, while the second place goes to technological/engineering programmes in the case of Slovakian Hungarians. Obviously in connection with the portfolio of the national doctoral education, the ratio of those pursuing theological studies is also high in Slovakia, while such persons are a real scarcity in Subcarpathia. Agricultural programmes are the least popular; in fact, we had no respondents from Slovakia who had chosen this specialization.

As for the location of the doctoral school, we get a much more differentiated picture. While in Transylvania and Slovakia, two thirds of PhD students attend a Romanian or a Slovakian institution, the vast majority of Vojvodinians and especially Subcarpathians (62 and 87 percent, respectively) participate in doctoral programmes in Hungary. The differences are most likely due to the fact that Hungarian programmes are more accessible for the latter, and besides educational and degree-related considerations in the strict sense, residing in Hungary may constitute other comparative advantages as well (mobility due to EU membership, generous scholarship, etc.). Our sample contains a very low figure of doctoral students doing their PhD in countries outside the Carpathian Basin: their ratio is less than 3 percent.

As for obtaining a degree, there is a kind of delaying (and a possible dropback) in the future expectations of PhD students: nearly 10 percent of the respondents said that they will, certainly or most likely, not be able to obtain the degree, and an additional 20 percent were uncertain about it. Naturally, the expected success of getting their degree is also related to where they are in this process at present: the uncertain are clearly overrepresented among those who have finished the programme, but who have not yet become doctoral candidates. One out of four of them thought that it is uncertain or unlikely that they would succeed in getting a degree. The expected duration of obtaining one's degree is four years and eight

months on average, which seems quite optimistic in light of the fact that these students have been in the system for nearly three and a half years on average, and most of them are still studying at the doctoral school.

Having examined the motivations of PhD students with the help of multi-variable analysis, we could distinguish four large clusters of opinion: the bulk of the respondents decided to start the doctoral programme for some professional considerations. There is also a motivation pattern, though much less marked, formed in the hope of long-term, especially existential advantages, and a moderate pragmatism – not necessarily on professional grounds– which draws on taking advantage of the short-term benefits of PhD programmes). Finally, the intention to get a degree can also be motivated by an explicit expectation at the workplace or within the family that the applicants are trying to fulfil.

Based on our question inquiring about professional integration plans, we could distinguish two trends: on the one hand, there is a dominant urge for Hungarian or homeland (minority) Hungarian integration, but the largest group would like to join both homeland Hungarian and majority-language academic circles. Integration strategies vary significantly from country to country, and we can make at least two important observations. Integration exclusively into homeland Hungarian academic life is the most typical among Subcarpathians, which is related to the distribution of academic fields, but it also carries the risk that the Hungarian academia will become inward-looking in this region. Openness towards majority-language academic life is the strongest among Vojvodinians: 70 percent of PhD students coming from this region declared their intention to integrate into both Hungarian and Serb academic circles. The desire to approach only the majority-language professional circles is also the highest in this area.