



Some Sociological Aspects of Skilled Migration from Hungary

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Abstract. The emigration of highly skilled people from Hungary happened in waves, according to the latest records shown in this article the last wave was at the millennium and the EU accession. While Western Europe is challenged by the threat of their professionals moving to the USA, if we look at Eastern Europe and in this case Hungary, apparently not only the USA seems to have this kind of pulling attractiveness but also some Western European countries, especially the Benelux states, UK and Germany. In this article we will first show the data available on the size of the Hungarian skilled migrant population. Afterwards we examine the latest wave of emigration from the view of the people who encountered it: results of two online survey-based sociological researches will be presented. Since this method is relatively new in approaching skilled migration, we address the usability and burdens of online survey in this situation.

Keywords: brain drain, skilled migration, Hungary, online survey

Introduction

In the scientific world Hungary ranks high on the list of Nobel Prize winners per capita¹. For the sake of this paper it is worth noting that the majority of these

¹ With 1 Nobel Prize per 835,000 inhabitants.

winners' awarded work was carried out outside Hungary². The emigration of highly skilled individuals from Hungary happened in waves: beginning with World War I, increasing again in the 1930s, again after World War II, again during the revolution in 1956 and followed by another smaller wave occurring at the end of the 1970s which continued into the next decade. According to the latest records shown in this article, another wave began with the millennium and the EU accession as well.

While the emigration of highly skilled and qualified people is a problem more or less all across Europe, it is worth noting that there is an important difference in Hungary. Western Europe is challenged by the threat of their professionals moving to the USA as the latter offers an almost unmatched mix of money, research personnel concentration and meritocracy. However if we look at Eastern Europe and in this case Hungary, apparently not only the USA seems to have this kind of pulling attractiveness but also some Western European countries, predominately the Benelux states, UK and Germany.

Developing the idea, we can also note a tendency among the ethnic Hungarians living in the neighbouring states since the Trianon peace treaty in 1920. The Treaty of Trianon redrew the borders of Hungary, separating 2/3 of its territory and causing the loss of 60% of its population. Consequently 1/3 of the people with Hungarian as their mother tongue found themselves outside of Hungary. Even today 3 million ethnic Hungarians live as minorities in the neighbouring states (Hungary has 10 million inhabitants). These Hungarians, most of them to the North and the East of the present borders of Hungary, tend to relocate to Hungary, making it a local centre while still being a periphery in the global way described before. In our opinion these migrations are proof and result of the step by step hierarchy of centres and peripheries in the modern world. This hierarchy is historically well described in Berend and Ranky (1982) and actualized by Janos (2000).

As it can be easily observed, the above mentioned emigration waves occurred during or immediately after large crises or changes in the society. There is only one exception: the transformation of the political system in 1989, since in the early nineties no emigration wave can be observed. This can at least partly be attributed to the euphoria of the people anticipating the hopefully upcoming freedom and social wealth. In this article we will examine the latest wave of emigration (after the millennium) from the perspective of the people who experienced it: the results of two survey-based sociological researches will be presented. Before this we will

² For example Albert Szent-Györgyi who discovered vitamin C had spent half of his life abroad, just like George Bekešy who won the Nobel Prize for his research on hearing. Dénes Gábor, world famous physicist left Hungary during his university years, while John Harsányi who worked with John Nash on game theory equilibrium left 8 years after graduating – and there were more.

briefly mention the terms and theories currently in use and the data available on the size of the Hungarian skilled migrant population.

Concepts and theories

The international phenomenon of brain drain has been disputed over more than 50 years now from the aspects of economics, sociology and cultural studies. Proper account of the evolution of terminology is given in Cohen (1997), Salt (1997), Mahroum (1998), Davenport (2004), Giannoccolo (2004) among others. In the following paragraphs we will summarize the information in these articles.

The creator of the term 'brain drain' was The Royal Society when describing the emigration of their scientists to the USA and Canada in the 1950s and 1960s. 'Brain' marks in any case the carrier of useful knowledge and 'drain' means that the extent of the emigration from a given country is large, while the extent of return or immigration of qualified people is relatively small. Among the concepts describing the phenomenon of brain drain one can find terms like 'human capital', 'human resources in science and technology' (HRST, the people valuable due to their productivity), 'highly qualified' (i.e. the elite within a profession) and 'tertiary educated'. From the 1990s the term brain drain was exchanged for the more ideologically neutral 'skilled migration'.

The definition of skilled migration – as we use the term here – comes from the brain drain definition of Salt (1997: 5): i.e. *the movement of people with special skills and qualifications from a country "where the net flow [i.e. emigrants minus immigrants] is heavily in one direction"* (our emphasis).

In the literature most of the papers deal with the positive and negative effects of skilled migration. The process in its simplest form is that a certain part of the productive knowledge elite from the sending country migrates to the receiving country, depriving the country which invested into them of the fruits of their work. In the 1980s this concept was augmented with two others; one is 'brain exchange' which is the case when a country is sending and receiving brains at the same time, the other is 'brain waste' which designates the case when qualified people have to take jobs – in many cases, blue collar jobs – in which they do not use their knowledge due to lack of opportunities in their profession.

In the 1990s changes in economic relations in the world resulted in another new term. Countries which had been low developed embarked on a rapid growth, many countries from the periphery getting closer to the wealth level of the developed countries. Primarily in the case of these countries, a significant number of the highly qualified people who had emigrated returned and the actual emigration meant no longer a lifelong move but only a relocation for a couple of years to gain international experience. In these countries 'brain circulation' supplanted brain drain.

Until the 1990s it was widely accepted that emigration of every skilled person does harm to the sending country. Then, due to some arguments, the negative effects of skilled migration became questioned or at least debated. Stark, Helmenstein and Prskawetz (1997) argued that the possibility of a successful international career is an incentive for the people to study, therefore in a country there will be more highly qualified people if brain drain exists than if not and they designated this process with the new term ‘brain gain’. Many authors underlined the advantages of a scientific diaspora and international experience (Avveduto and Brandi, 2002; Dickson, 2003b; Davenport, 2004). Some developed mathematical models – like Beine, Docquier and Rapoport (2001), Bucovetsky (2003) or Haupt and Janeba (2004) – that treat brain drain as an optimizable phenomenon and suggested methods to compute the ‘desired’, ‘beneficial’ level of skilled migration.

However, these suggestions and concepts do not disprove that detrimental effects of brain drain are significant. For, with their knowledge and continuous innovation, highly qualified people increase the quantity and quality of production, they are affecting positively the economic growth of the country they work in. Groizard and Llull (2006) examined GDP growth and skilled migration in 170 countries and they showed in a regression that 10% higher brain drain goes with 0.8% lower GDP growth at an average. Moreover, they disproved the hypothesis of ‘brain gain’: in the countries experiencing a higher brain drain, the ratio of tertiary educated people is not higher (controlled for several other variables such as working capital inflow, investments, ethnic homogeneity and population increase).

The majority of the articles dealing with brain drain describe potential solutions. We summarize what the reader can find in Barrere, Luchilo and Raffo (2004), Chu (2005), Dickson (2003a and 2003b), Faini (2003) and Giannoccolo (2004). To counteract the detrimental effects of brain drain, there are at least three methods known for decades now. First and simplest opportunity is to decrease the quantity and quality of emigration. This can be achieved by administrative constraints on migration (either at country level or using international organizations), or – assuming the willingness of the government of the sending country to spend resources on the problem – by financially motivating the people considering emigration, especially the most talented, to stay (this means well paid, secure and promising jobs in the first place).

The second opportunity is to make the emigrants pay for the loss they cause. Payment should be made either by the migrant itself (extra tax on skilled migrants, tuition grant repayment in case of emigration) or the receiving country (by aids for instance). A highly significant problem with these suggestions is that – mainly due to difficulties in computing the loss and partly due to the obvious risk for the government to lose popularity – these have never been in place anywhere. (Aid is of course continuously present but it is treated as a humanitarian act and not made proportional to skilled migration.)

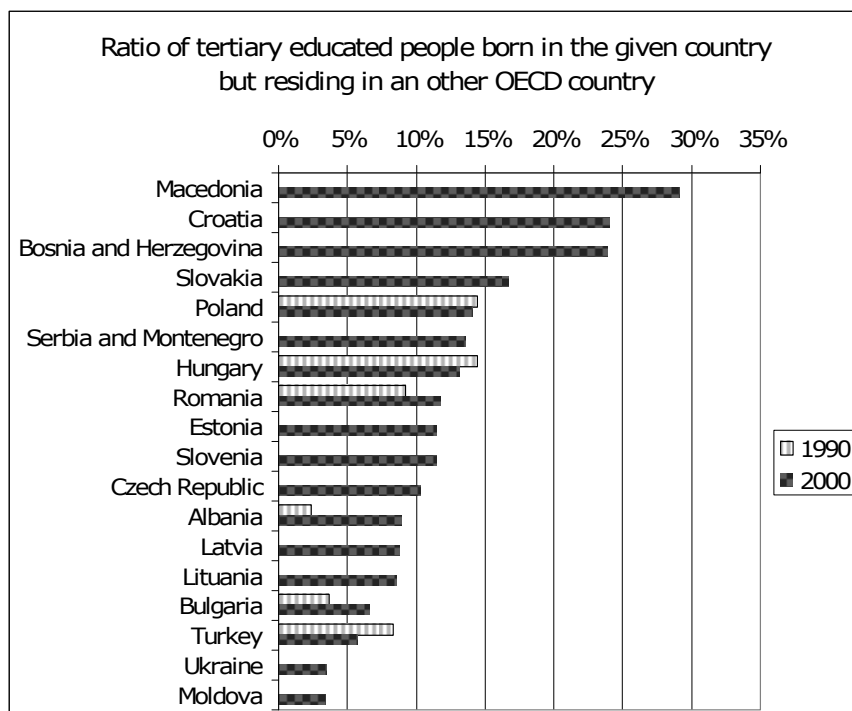
The third opportunity is the ‘diaspora option’: to maintain intensive relationships with highly qualified emigrants and incorporate their knowledge and contacts to the economic and scientific life of the sending country. Ways to achieve this include short educational trips, guest lecturer invitations, conferences, joint research programmes and websites and databases which enable actors to organize these activities. Good examples are Italy (see Becker, Ichino and Peri, 2003) and some countries in South America (especially Colombia, Argentina and Chile) as described in Barrere, Luchilo and Raffo (2004). The risk in this opportunity is that if the scientific and technological infrastructure is underdeveloped then the country cannot utilize the knowledge and contacts of the diaspora, and due to improved relations even more professionals leave.

Skilled migration from Hungary

In this paper we are not trying to present any effect of skilled migration. We concentrate on showing the motivations, circumstances and opinions of skilled emigrants from Hungary. As to the number of highly skilled emigrants from Hungary, until the early 2000s one could rely only on professional estimations. Pál Tamás, former director of the Sociological Research Institute of the Hungarian Academy of Sciences, mentions 1,000-1,500 scientists (COST, 1997) between 1985 and 1995, Tóth (1999) from the Central Statistical Office in Hungary estimates 10,000 highly qualified intellectual emigrants in the 1990s, while geneticist András Dinnyés speaks of 5,000 scientific emigrants (Burgermeister, 2004) from 1989 to 2004. Owing to the extensive data collection efforts in OECD and World Bank in the last decade, of which one of the most important outcome is Docquier and Marfouk (2005), we now have data on tertiary educated persons residing in OECD with Hungarian origin in 1990 and in 2000³. Unfortunately, this is the latest time for which there is published data available for the censuses of the individual OECD countries to be used by authors. Since the next censuses are due in the years 2010-2012 in these countries, we expect the data becoming available in 2014 at the foremost.

In 1990 there were 115,000 skilled Hungarian emigrants resident in OECD excluding Hungary (versus 32,000 skilled immigrant inhabitants in Hungary), while in 2000 it increased by 8,7% to 125,000 (versus 54,500 immigrants). Since there are 2,3 times more emigrants than immigrants, we consider this a flow heavily in one direction, in other words a brain drain. If we consider that from those who were abroad in 1990, some may have returned to Hungary and some may have died, we can estimate the net outflow of tertiary educated to 15-20,000 from 1990 to 2000.

³ This data is also available for 173 other countries in 1990 and 190 other countries in 2000.



Graph 1. Ratio of highly skilled people living outside their native country.
(Authors' computation based on Docquier and Marfouk, 2005)

If we compare the ratio of highly skilled people living outside their native country (Graph 1), we can describe the Hungarian skilled migration rate as an average one. However, if we consider the labour shortage in several positions requiring higher education which is a very troublesome problem at present in Hungary, a 13% skilled migration is a high enough rate to consider it an issue. Accordingly, the 'brain export' was and is a day-to-day issue in conversations regarding economy, science or intelligence as well as a phenomenon in which the majority of Hungarians who participated in higher education have some first-hand experience either personally or through a friend or relative.

We mention only two examples of the public debates over the 'brain drain'. An ad hoc committee has been appointed by the Hungarian Academy of Sciences to examine the predominately outwardly directed skilled migration in 1990. The outcome of the work was published for an academic debate in Hoch, Lovász, Marx, Szelényi, Tamás, Venetianer and Vizi (1991: 734) warning that Hungarian scientists' "connection to the World Science is no longer manifested only in their publications – which is the traditional way of output – but in their free international

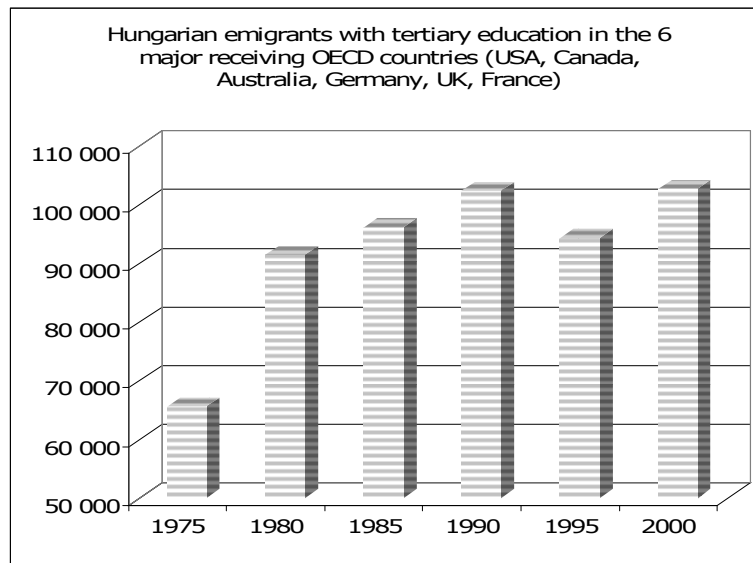
movements as well". Two successive publications (e.g. Anveiler, Tóth and Marton, 1993; Berényi, 1993) concluded that while the migrating scientists are for the most part of the best quality and the brightest mind (e.g. regarding the impact factor of their publications), one cannot do much unless the tools and financial background of research – especially in natural and medical sciences – are significantly improved. Berényi (1993) suggests that if cooperation between Hungarian research institutes and big international centres of research is improved significantly, the Hungarian researchers may feel less necessary to move abroad and only travel from one time to another.

Another example of the attention to the matter in scientific and R&D environment is related to a non-profit initiative named Project Retour. This organization has been dealing with return migrants from 2003, primarily through assisting the migrants in finding a job and re-integrating into the Hungarian scientific and skilled worker community but also by involving themselves in some social research and conference activities in the matter.

It was the first organization who asked the migrants and some homecomers in a research about their opinions and reasons behind leaving Hungary and coming back (Saphier and Simonovits, 2004). This research was not intended to be scientific and it was not published but on the website of Project Retour. Their methodology was based on a questionnaire made available on the website of the organization as a Word document to the visitors for a couple of months in 2004 and the respondent could send it filled in as an attachment to an email address. They had 120 respondents, half of them were still living outside Hungary while the other half were returnees. In short their conclusion was that the main factors were money reasons and lack of career opportunities while the majority of those still living abroad felt homesick and planned to return sometime.

Project Retour helped a number of return migrants and had a wide network all over the Hungarian scientific world. Due to the lack of sufficient fundings, Project Retour temporarily stopped its services in 2009.

Regarding the dynamics of the emigration, we can turn to Docquier and Defoort (2006). They published data on the number of highly skilled migrants by country of origin, residing in the 6 major receiving OECD countries (USA, Canada, Australia, Germany, UK, France) from 1975 to 2000 in 5-year periods. These countries had 88.5% of skilled Hungarian immigrants in OECD in 1990 and 82.5% in 2000, which is high enough as the tendency of Hungarian brain drain (Graph 2). We can observe the last two of the emigration waves mentioned in the introduction. Compared to the numbers of Docquier and Marfouk (2005) we find that while in the 6 major receiving countries the number of skilled Hungarian immigrants was stagnating, in the whole OECD their number increased by 10%. Therefore the emigration surplus had gone to other OECD countries not shown on this chart.



Graph 2. Tendency of the Hungarian brain drain
(Authors' computation based on Docquier and Defoort, 2006)

Research methodology

In order to introduce a bottom-top approach to the understanding of Hungarian skilled migration, we were the first to ask the opinions of the Hungarian skilled emigrants in 2005 using an online questionnaire with snowball sampling (Csanády and Személyi, 2006)⁴. Our research targeted those who had a Hungarian diploma, had left after the political system transformation in 1989 and had been working abroad for at least one year and were still abroad, yielding more than 250 respondents.

Using the experiences gained in our research in 2005, we conducted another research in 2008 on behalf of the Hungarian Academy of Sciences and with the help of Forsense Ltd., a market research company. When preparing the design, we also made use of published experiences gained in two other surveys on the subject, one dealing with brain drain from Africa (Ndede and Amadi, 2002) and another with brain drain from Turkey (Gungor and Tansel, 2007).

Our data collection came from an online survey. We used snowball sampling, with extensive input of primary email contact points (Hungarian email lists,

⁴ Though there was a survey one year earlier conducted by Project Retour, the non-profit organization for homecomers mentioned earlier, it was aimed at homecomers and only half of its respondents were located outside Hungary at the time the survey was conducted and most of them were planning their return.

diplomatic institutions, academic network and respondents of the research in 2005 – all of these were invited to participate in the research directly by us); the questionnaire was open to fill in on a website for more than a month⁵.

When we closed the survey, it turned out that two thirds of the over 350 respondents were informed about the survey by us and one third of them by a respondent. Snowball sampling is generally considered a non-representative method. Though we intended to use network weighing methods in order to make the results representative as described in Heckathorn 1997, the high ratio of direct contact with the respondents rendered us unable to do so since these methods need a number of levels in respondent-to-respondent recommendations.

In the following section we present the results gained from the second survey and also some comparisons to the first one where appropriate. It is necessary to restate that neither of these surveys were representative, though the data for both were collected from a vast variety of emigrants from 20 target countries in 2005 and from 27 target countries in 2008. The surveys contained respondents from all fields of science. Therefore we suggest relying less on the simple ratios but on the relationships between the variables.

Research results

Country distribution (Table 1) seems to verify the centre-periphery theory of migration: people tend to move from the peripheries to the centre while movements between peripheries are negligible; most of Hungarian skilled emigrants went to the USA and Belgium (17-17%); other major destinations were Germany (11%), Luxembourg (8%), UK and Italy (6-6%). As for the year of emigration (Graph 3) it is obvious that the EU accession accelerated skilled migration from Hungary, though at present it seems it had only a one time effect on the flow.

Survey respondents were remarkably qualified. One quarter of them had degrees in at least two science fields, 10% had educational qualification higher than PhD and 4% were member of the Hungarian Academy of Sciences. Our research results indicate that skilled emigration is very unequally distributed among science fields (Table 2). The ratio of emigration amongst graduates in the fields of law, economics and especially natural science is much higher than amongst graduates in arts, education, health and other fields.

We tried to estimate the ratio of emigration in natural sciences between 1990 and 2000. According to governmental statistics, in the Ministry of Education in 2002 there were 294,000 issued diplomas during this period, of which 4.8% (Vamos, 2000), i.e. around 14,000 were in natural sciences. As we mentioned earlier, we estimate the net outflow of skilled migrants to be 15-20,000 during this

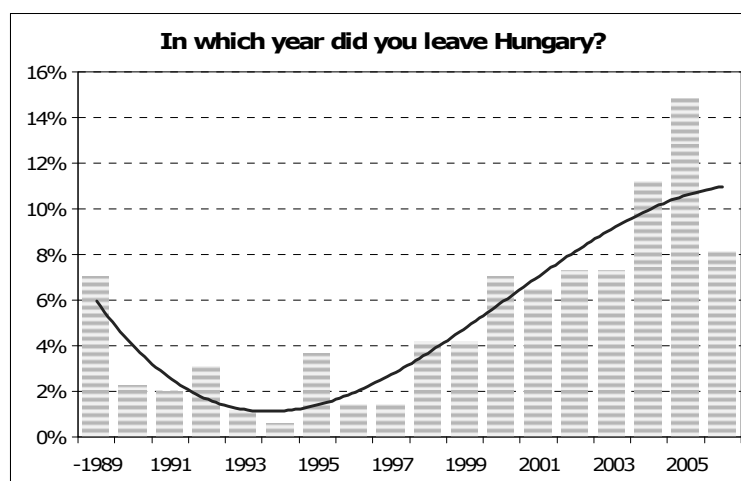
⁵ From the 22nd of February, 2008 until the 24th of March 2008.

period, of which (according to our data) approximately 20% i.e. around 3,500 had degrees in natural sciences. This means that in the case of natural sciences, the field most affected by skilled migration, for every 4 issued diploma there was an emigrant during this period.

Table 1. Distribution of the country of residence in our sample

	Frequency	Percent
USA	61	17.1%
Belgium	61	17.1%
Germany	39	11.0%
Luxembourg	33	9.3%
UK	24	6.7%
Italy	23	6.5%
Finland	19	5.3%
Canada	14	3.9%
Switzerland	13	3.7%
Norway	11	3.1%
France	9	2.5%
Austria	8	2.2%
Netherlands	7	2.0%
China	7	2.0%
Poland	6	1.7%
Ireland	4	1.1%
Sweden	3	0.8%
Spain	2	0.6%
South-Korea	2	0.6%
Israel	2	0.6%
Australia	2	0.6%
Thailand	1	0.3%
Romania	1	0.3%
Japan	1	0.3%
Czech Republic	1	0.3%
Denmark	1	0.3%
Singapore	1	0.3%

Source: authors' research



Graph 3. Distribution of the sample in regard to year of emigration
Source: authors' research

Table 2. Emigration by field of degree

	1	2	3	4	5	2/5
Field of degree	Number of diplomas	Proportion of field	Students in higher education 1990	Students in higher education 2000	Issued diplomas 1995-2000	Ratio of proportion in sample and in issued diplomas
Arts and education	127	27.55%	31.80%	29.80%	38.80%	0.71
Technical and engineering	72	15.62%	23.60%	24.30%	19.70%	0.79
Economic	88	19.09%	9.40%	15.90%	12.00%	1.59
Natural sciences	90	19.52%	6.50%	6.50%	4.80%	4.07
Health	15	3.25%	12.60%	8.30%	7.00%	0.46
Law	29	6.29%	4.70%	5.80%	5.30%	1.19
Other	40	8.68%	11.40%	8.4%	12.40%	0.70
Total	461	100.00%	100.00%	100.00%	100.00%	

Source: columns 1 and 2 from authors' research, columns 3 and 4 from Hrubos (2000), column 5 from Vamos (2000)

As to the motivation structure of emigrants, the results in 2008 were exactly the same as in 2005: the main push factor is income, but professional development/career opportunities and the overall political situation in Hungary⁶ are also significant. At the destination countries they usually find what they felt to be in need of: satisfaction in current job is higher in every respect than it was in Hungary (Graph 4).



Graph 4. Opinions about current job and last job in Hungary (if applicable)

Source: authors' research

We were curious about the typical channels of emigration. We could identify three of them: education, administration and friends/relatives living abroad. First of all, 38% of emigrants were enrolled in higher education (graduate/postgraduate) in the year they left Hungary (17% abroad) and 35% taught (8% abroad). In total, 60% of our respondents were active in higher education when emigrated. The category administration essentially refers to the EU. We only have indirect proof that

⁶ This political situation is hard to define but it is present in the motivation of a great proportion of the respondents. Among other things it surely includes corruption, political division by the two major political parties on the left and right side, moral problems with the government regarding economic transparency.

Hungarian emigrants are employed there, namely the fact that 28% of our respondents live in Benelux states where the majority of EU institutions reside. Though not everybody, an impressive 71% of these emigrants work in public administration, compared to 23% in the total sample. Regarding the influence of friends and relatives living abroad, we have to mention we had comments from the respondents on the related questions that even if an individual had friends abroad it had nothing to do with one's decision to emigrate. Keeping this in mind we still introduce the following result as the third emigration channel of tertiary educated Hungarians: 23% had relatives in their destination country and another 24% had friends.

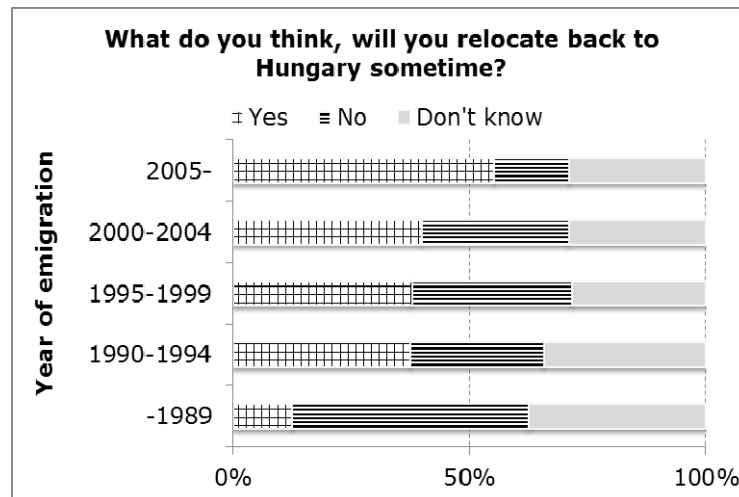
In the literature on brain drain we find an important argument in support of the hypothesis that this kind of migration can be beneficial to the source country. The argument is the following: though skilled emigrants working for another country do not generate GDP directly in the country they left (in the form of taxes, added value or shopping) they tend to send money home in the form of remittances and the amount is usually significant, which then strengthens the demand side with a positive effect on GDP.⁷ The amount of this contribution can even be higher than if they had stayed. Being aware that this argument is questioned in the literature (see Faini, 2003), in our questionnaire we tried to test it asking the respondents about the money they send home as well as the earnings at their current position and at their last job in Hungary.

We found that about 65% had already sent money to their relatives or to a nonprofit organization in Hungary, at least once. The amount is typically between 100,000 and 1,000,000 HUF per year (around \$550-5,500) to family and under 100,000 HUF to organizations. In their last job in Hungary they earned (corrected for an average yearly salary increase in Hungary since the year they left) typically between net 1.5 million and 3.5 million HUF (around \$9-20,000) per annum, while currently their salary is between 6 and 16 million HUF (around \$35-90,000). This means that while they earn an average of 4 times the money they would earn if they had stayed, they only send to Hungary a few percents of their current income (and at most, 20 percent of their Hungarian income, supposing they did not leave). The amount is even less if we calculate with those who never sent money to Hungary. Therefore we tend to reject the hypothesis that this kind of benefit of brain drain is substantial.

We also examined the emigrants' plans for the future. 40% answered yes to the question of returning to Hungary, though one third of them only after 10 years. 30% were unsure, a further 30% said no. In line with this, 75% of the participants answered affirmatively to the sentence 'I settled here for the long term.' This is a

⁷ For instance remittances can amount to 10% of GDP in Central America according to Barrere and Luchilo and Raffo (2004). In our opinion the amount of remittances might vary significantly among different sending countries.

significant increase from 2005 where this ratio was only 60%. In both researches we confirmed that the longer the emigrants stay the lower their willingness to return, though a considerable portion (around 1/3) of people emigrated 15-20 years ago still think they will return sometime (see Graph 5).

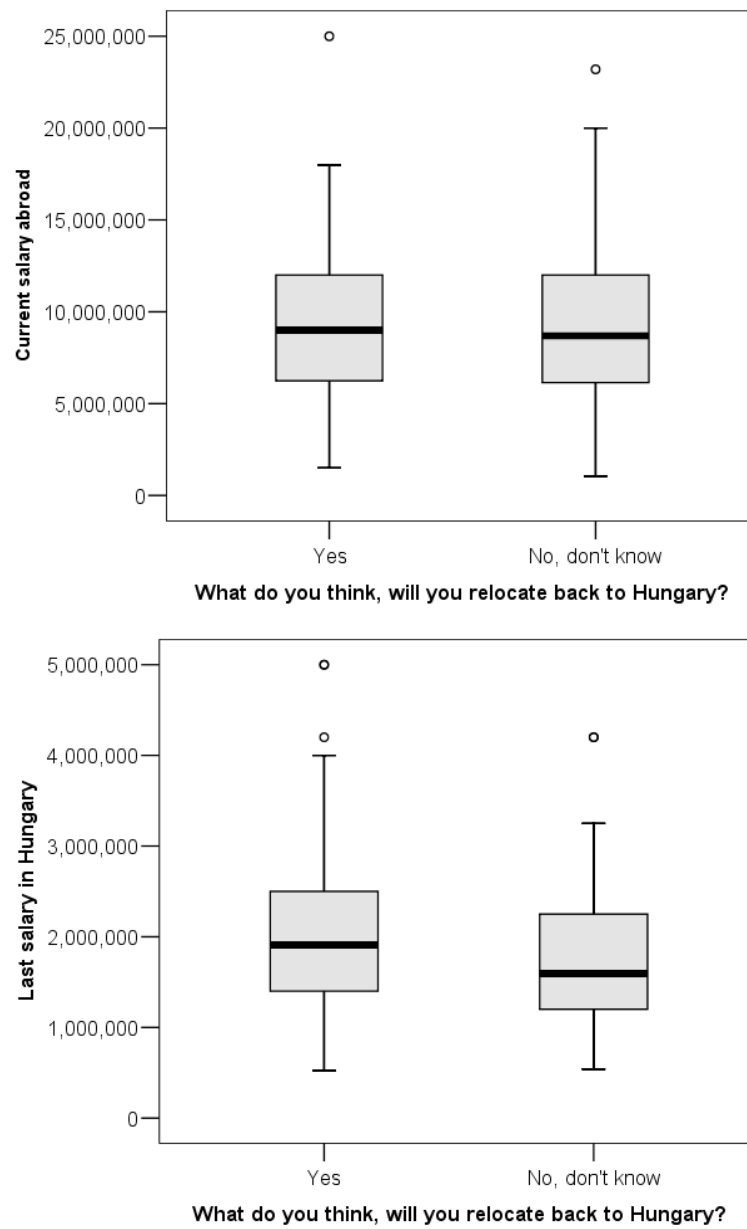


Graph 5. Year of emigration and return plans
Source: authors' research

Since from the reasoning of emigration it was absolutely clear that money related issues were the biggest motivation, we also examined the connection between willingness to return and current salaries⁸. On Graph 6 we show the boxplot for the distribution of last salary in Hungary and current salary abroad separately for those willing to return to Hungary and those who are not (or do not know). The main takeaway is not the significant difference between Hungarian and developed world salaries, which might be attributed to some extent to inflation and career advance during the average 7.9 years passed since emigration. What is interesting is that current salary levels are all the same whether the emigrant plans to return or not, while the last salary levels in Hungary are higher among those who plan to return⁹.

⁸ Unfortunately quite a few respondents did not answer the question regarding salaries: 57% missed current salary and 67% missed last salary in Hungary. But still we had 154 respondents for current and 100 for previous salary.

⁹ ANOVA F-test is significant only at 0.09, but we consider this the problem of low sample size. First we thought that this could be a result of a common reason: the less years since the emigration occurred the more likely the emigrant is to return and the more likely the last salary in Hungary was higher. But this is not the case: there was no correlation between the years spent abroad and the last salary in Hungary.



Graph 6. Salary levels and return plans (amounts are in HUF)

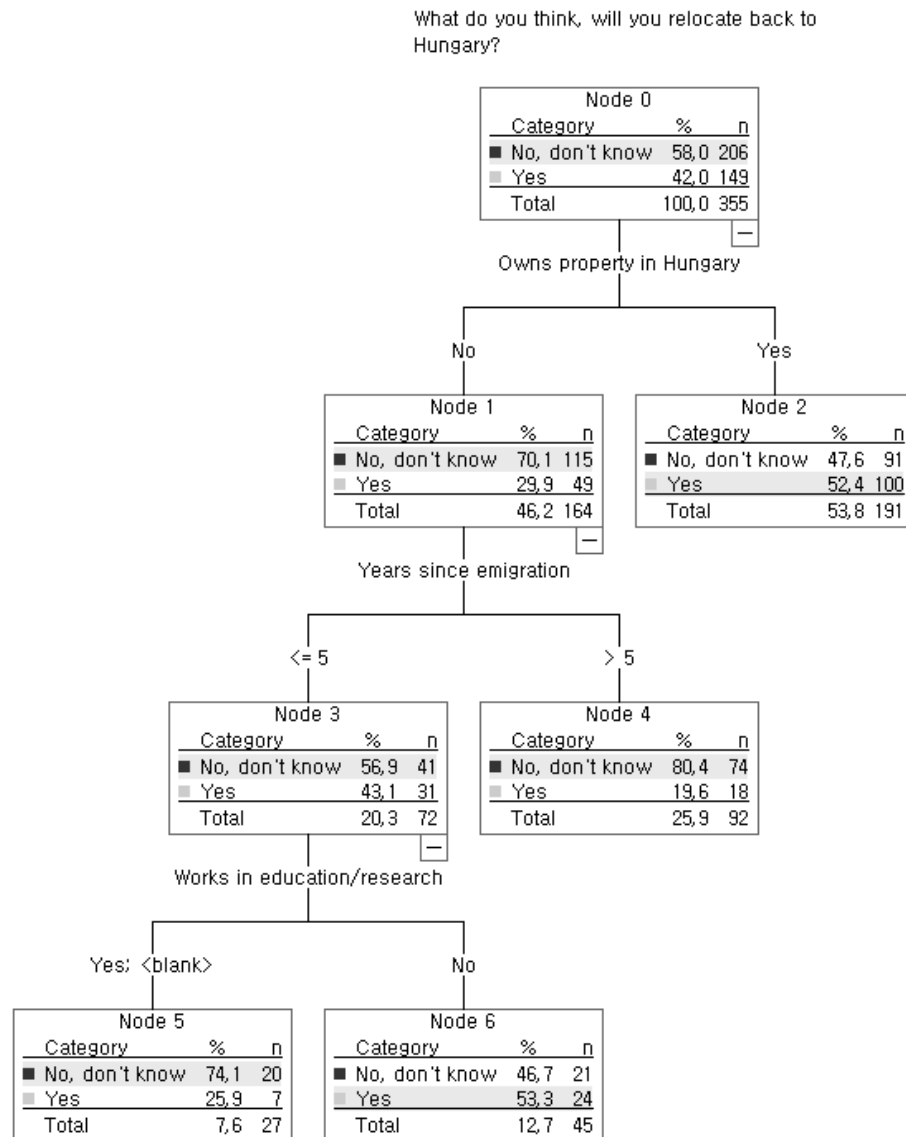
Source: authors' research

We also tried to build a model for the groups most likely to return. We applied CHAID methodology to the dataset and created a decision tree (Graph 7) split to nodes ordered in accordance with the effect size of each explanatory variable¹⁰. The figure shows that those who own property in Hungary, emigrated no sooner than 5 years before taking the survey, and do not work in the education/research sector are the most likely to relocate back to Hungary. What is at least just as interesting is that a number of other variables made not enough difference to be included in the tree. Whether the respondent is married or not, has child(ren) or not, worked in Hungary before emigrating or not, the current salary of the respondent – just some of the variables one might think about, but it seems they don't matter.

Six decades after the time when brain drain was first observed, the world is quite different in terms of communications and contact management. Talking, writing, traveling is much more affordable now and the daily practice of emigration is much more complex: people moving from a country are more able to keep in touch with their remaining contacts than ever through email, Skype, mobile phone and low-cost airlines. Consequently we thought it necessary to examine the contacts of these emigrants with their home country. In 2005 we asked questions about family and friends in Hungary, while in 2008 we focused on professional and cultural relations.

Almost everyone answered yes to the question 'Do you keep in touch with your Hungarian contacts?' Regardless of years spent abroad; most of them maintained at least 6 contacts. It is worthwhile to mention that half of them also often meet Hungarians in their current country of residence. Talking about other connections, one in six is a member of a Hungarian professional institution in Hungary, and only 5% are members of a cultural one. If we compare it to such relations in the current country we find the ratios of 15% and 50%, respectively. It seems common in this group that professional relations to Hungarian institutions in the country of residence and in the source country are equally important (or the latter is somewhat more important considering the energy surplus necessary to keep such relations in the distant home country). At the same time, nation-related cultural needs are mainly considered as being fulfilled locally.

¹⁰ The first two splits are significant at 0.01 level, the last split (by PhD) is only at 0.069 level, but we assumed that this higher significance level can be attributed to the small sample size and we kept this split.



Graph 7. Decision tree on return plans.

Source: authors' research

Summary

We have shown the extent and outlook of the skilled migration from Hungary at the turn of the millennium using OECD data and two online network surveys. According to our results, this type of movement primarily emerges from the differences in personal wealth and professional opportunities between Hungary and the developed countries. Another important thing is the new channel of emigration created by EU accession: the bureaucracy of the EU offers remarkable opportunities for interested and talented Hungarians. It seems that for at least half of the emigrants their movement is final, although there are many potential returnees. Return is more likely if the respondent owns property in Hungary, emigrated no sooner than 5 years before taking the survey and does not work in the education/research sector. Our results suggest that as long as the above mentioned differences do not decrease significantly, return migration will be moderate. So will the emigration continue while these differences prevail. Current emigrants are also pushed by the limited job market in Hungary for professionals in the natural and technical sciences, especially in R&D.

There is nothing sentimental in the focus on skilled emigrants and the wish that they should feel comfortable in Hungary. The more highly skilled inhabitants a country has, the faster the pace is at which the country grows. In addition we found insufficient evidence for the money transfer to Hungary being substantial therefore it cannot compensate for the loss of human capital. In this kind of situation it is extremely important that Hungary should not lose connection with its emigrants and thus enable itself to utilize their knowledge and professional relations in order to maintain the possibility of their homecoming as well as to gain economic momentum. Our research showed that Hungarian skilled emigrants keep in touch quite often with their family and friends, however only a small portion of them has connections to Hungarian professional institutions; therefore, professional relations with Hungary could be improved.

In an international context our research is also highly relevant because of the method used. We found that an online survey combined with snowball sampling was particularly useful for the study of skilled migration. Since there are a number of countries for which the skilled migration rates are available for 2000 (and perhaps also for 1990), we see plenty of opportunities to continue testing the method for use in understanding international skilled migration patterns.

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