

This is the accepted version of the following article:

**Bahna, M. (2018) Study choices and returns of international students: On the role of cultural and economic capital of the family, *Population, Space and Place* 24(2): e2082, which has been published in final form at <https://doi.org/10.1002/psp.2082>.**

This article may be used for non-commercial purposes in accordance with the [Wiley Self-Archiving Policy](#).

## **Study choices and returns of international students: On the role of cultural and economic capital of the family**

*Miloslav Bahna*

*Institute for Sociology, Slovak Academy of Sciences*

*Abstract: Our study analyses connections between the economic and cultural capital of the families of international students, their study choices and post-graduation returns. Thus far, research on brain drain has focused either on actual returns or on the intentions of students to return. Literature exploring the selectivity of international student mobility interpreted the middle class background of the students as a distinction strategy in a situation of expanding tertiary education in the source country. However, the connection between the cultural and economic capital of the student's family and post-graduation returns has not yet been analysed. Our results, based on a survey of parents of internationally mobile students from Slovakia, confirm the previously reported selectivity of international student mobility. Internationally mobile students come more often from families with a higher level of cultural capital. Moreover, students from families with high cultural capital have a higher probability of studying in more prestigious study destinations. The study destination is, however, not influenced by the economic capital of the family. We use structural equation modelling to describe the connection observed between cultural and economic capital and post-graduation returns. While a high level of cultural capital increases the odds of non-return, a high level of economic capital increases the chance of post-graduation return. We suggest that such a “cultural capital drain” could have positive consequences on vertical*

*labour market mobility in the source country. We discuss the connection between international student mobility and labour migration in the case of international students from low income families.*

Keywords: international student migration, cultural capital, economic capital, brain drain, Slovakia

## **Introduction**

Research interest in international student migration dates back to the 1960s and 1970s (Grubel & Scott, 1966; Bhagwati & Dellalgar, 1973; Soon, 2008). At that time, it was approached as a mechanism suspected of causing brain drain from the developing countries to the West. Despite this early interest, complaints could still be found that the international migration of students was an insufficiently studied topic decades later (Li, Findlay, Jowett, & Skeldon, 1996; King & Ruiz-Gelices, 2003; King & Raghuram, 2013). However, recent years seem to have brought what has been described as an “explosion” in the study of international student mobility (Beech, 2015). This rising interest is easily explained by the fourfold growth of international students that occurred between 1975 and 2008 (Beine, Noel, & Ragot, 2014: 40).

Many of the recent works on international student mobility still focus on the classic question of brain drain, which was behind research interest in the topic decades ago. However, they currently focus not only on developing or former USSR countries (Kritz, 2015; Chankseliani, 2016), but also on Europe (Van Bouwel, 2010; Van Bouwel & Veugelers, 2012), Norway, Iceland, Finland and Denmark (Wiers-Jenssen, 2012) or the Netherlands (Oosterbeek & Webbink, 2011). The potential for brain drain has been typically explored using surveys of the intentions of international students to stay in the destination country once their studies are completed (Alberts & Hazen, 2005; Hazen & Alberts, 2006; Soon, 2012). The stay-rates of international students have mostly been studied in the US and were found to be highly varied depending upon the source country (Tremblay, 2005). Recently, some studies have also assessed the role of

networks in the decision making of international students (Brooks & Waters, 2010; Beine et al., 2014; Beech, 2015). Alternatively, decisions to stay or return were studied within a life course approach (Findlay, King, Smith, Geddes, & Skeldon, 2012; Kõu, van Wissen, van Dijk, & Bailey, 2015; Tan & Hugo, 2016).

Besides the interest in rising numbers of international students and their post-graduation returns home, the question of who these international students are has started to receive attention only relatively recently. While some texts include rather vague hints about the affluent family background of international students or see them as belonging to an elite group of students (King & Ruiz-Gelices, 2003; Adnett, 2010; Kritz, 2015), others describe studying abroad explicitly as a strategy of middle-class families to maintain their social position (Findlay, King, Stam, & Ruiz-Gelices, 2006; Findlay et al. 2012; Wells, 2014). This seems to be a strategy typically applied in an increasingly competitive and expanding tertiary education system. Here, many examples come from the study of international students from Asia (Waters, 2007; Brooks & Waters, 2010).

On several occasions, literature analysing the socio-demographical background of international students has suggested that they come from families with high levels of cultural and economic capital. Such is the case of US college students' study aspirations (Salisbury, Umbach, Paulsen, & Pascarella, 2009; Salisbury, Paulsen, & Pascarella, 2010) as well as of British students and their international study experiences and aspirations (Waters & Brooks, 2010) or British Erasmus students (Findlay et al., 2006). Besides these studies, which use empirical material from the highly competitive and expensive US and UK university systems, a self-selection of students who tend to come from families with “higher social origin” has also been observed in Finland and Norway, i.e. in countries with generous universal support systems that encourage a large share of national students to study abroad (Wiers-Jenssen, 2012). A study of Estonian students confirms the association between cultural capital and intentions to study abroad but also finds important differences between the plans of ethnic Estonians and students from the Russian speaking minority (Pungas, Taedt, Realo, & Tammaru, 2015). This kind of self-selection also applies to German secondary school students with

international experiences (Gerhards & Hans, 2013).

There are several ways of explaining this feature of internationally mobile students. As noted, one of them uses the expansion of tertiary education. It is argued that middle-class families turn to international education as a means of distinction from lower class families, which are able to secure a place for their offspring at local universities. The Bourdiean idea of a class habitus is frequently used to conceptualize this notion (Findlay et al., 2006, 2012; Waters, 2007, 2009; Brooks & Waters, 2010; Waters & Brooks, 2010; King & Raghuram, 2013). As Findlay et al. (2006: 294) put it: *“In an era of ever-expanding higher education, international student mobility may be interpreted as class-specific habitus, allowing the middle classes to participate actively in a social process that involves distinguishing one student from another in a socially and culturally constructed fashion.”*

Studies retaining the classic perspective on international student mobility – i.e. seeing it as a potential brain drain from developing to developed countries – agree that it is predominantly children of the local political and economic elite who seek education abroad (Adnett, 2010; Kritz, 2015). In this case, however, it is not interpreted as a quest of the middle classes for advantage in a world of expanding tertiary education. It is rather a narrative about the rich, who can afford to send their offspring to receive what is perceived as a better education.

However, neither of these perspectives make a connection between the selectivity of international student mobility and brain drain – i.e. post-graduation returns to the students' home countries. Perhaps the only study linking the family background of international students with their decision to stay abroad is Soon's (2012) work on the post-graduation plans of international students in New Zealand. This research found a positive connection between the support of a student's family to remain in the destination country and the migration plan of the student, while the father's education was found to have no impact.

The purpose of our article is to connect the topic of post-graduation returns of international students with studies focusing on their family or class background. Thus far, these two topics have been dealt with in two separate strands of literature on international student migration. The principal questions in our approach are: a) how are the destination choices of international students influenced by the cultural and economic capital of their families?, and b) how is the decision to stay abroad connected to these two types of capital?

The empirical focus of our article is Slovakia where survey data were gathered in late 2014 and early 2015. The data refer to international students who graduated in 2012 or earlier.

### **The growth of international student mobility**

In 2012, there were more than 4.5 million students enrolled in tertiary education outside their country of citizenship (OECD, 2014). This represents a growth from 0.8 million in 1975 and 3.0 million in 2005.<sup>1</sup>

Slovakia has been part of this trend, but growth here has been more recent and dramatic. According to the UNESCO Institute for Statistics data, the 1998 to 2012 period saw an increase from 3.4 to 36.2 thousand Slovak citizens studying abroad. The most important factor behind this is a rapid increase in the number of Slovak students in the Czech Republic. In 2012, 69% of Slovak citizens enrolled at a foreign tertiary education institution were studying in the Czech Republic. This development had been supported by a 1999 bilateral agreement which enabled Czech and Slovak students to study in both parts of ex-Czechoslovakia under the same conditions as in their country of origin. It should be noted that, due to the similarity of Czech and Slovak, studying in the Czech Republic does not de-facto represent a study in a foreign language (see Serva & Petroni

---

<sup>1</sup> The OECD estimate for 2013 is 4.0 mil. This decrease from the previous year is explained by a change in the available data. Since 2012, many countries have started to provide data on international students only – i.e. excluding foreign citizens with residence in the country of study – which makes the 2012 and 2013 figures incomparable (OECD, 2015).

2008). Moreover, the close relation between Czech and Slovak is demonstrated by the fact that Slovak students at Czech universities are allowed to write their assignments, exams and theses in Slovak. As can be seen in figure 1, with a share of 15% of its students enrolled abroad, this development places Slovakia in the “top three” of OECD countries in 2012.

----- Figure 1 about here -----

Figure 1 also highlights the relative importance of the main destination of international students from each country. Slovakia and Ireland are shown to be similar not only by sending a relatively large share of their students for study abroad but also by the fact that both send most of their students to a neighbouring country where no language barrier exists. While 69% of international students from Slovakia study in the Czech Republic, more than 80% of Irish international students study in the United Kingdom. From the destination country's perspective, however, the importance of Slovak students is far more pronounced in the Czech Republic, where they represent 62.9% of international students. In the UK, only 3.5% of international students come from Ireland.

The flow of students from Slovakia to the Czech Republic is in the top 20 of dyadic international student flows worldwide, as identified by Perkins and Neumayer (2014). The rapid rise of “destination Czech Republic” has also been noted by King and Raghuram (2013), and the Czech Republic has even been analysed as a new destination of students from the UK by Findlay et al. (2012).

Another important milestone in the history of student migration from Slovakia was the 2004 EU accession, which brought on a dynamic rise in the number of Slovak students enrolled in the UK. Indeed, by 2012 almost all destinations of international students from Slovakia were in other EU countries where no visa or labour permits are required for Slovak citizens. This makes the task of following the post-graduation trajectories of students more difficult, as approaches based on administrative data – like changes in the

purpose of visas – are not an option (see Tremblay, 2005). Moreover, as already noted by Hazen and Alberts (2006), in a situation of free movement of people, the findings from situations with visa restrictions – as in the US or Australia – cannot be easily applied.

## **Data and methods**

Our approach, which focuses on the role of the two forms of capital in selecting study destinations and post-graduation returns, requires gathering information about the cultural and economic capital of the family of the student as well as on his/her study choices and post-study situation. Research has typically focused either on secondary school students contemplating studying abroad, on students currently studying abroad, or on graduates with a degree from a tertiary education institute outside of their home country. For our purposes, however, we needed a sample which would include both kinds of students – those who stayed abroad after finishing their study as well as those who returned to Slovakia. Therefore, we decided to interview *parents* of internationally mobile students. This decision was based on the assumption that, contrary to graduates, any parents could be included in our sample regardless of the current place of residence of their child.

Research on internationally mobile students often distinguishes between “degree mobility” which involves students earning a degree abroad and Erasmus type “credit mobility” which is short term (i.e. less than a year) and forms a part of the study programme at a home institution (see Findlay et al., 2012; King & Raghuram, 2013). Our interest here lies in the degree mobility of international students as the more “intense” version of international student mobility.

The sample of our survey Brain Drain 2014, which was carried out between December 2014 and February 2015, consists of 200 individual parents whose children graduated from a university outside of Slovakia between 1993 and 2012. The reason for avoiding “fresh” graduates from 2013 and 2014 was to survey only parents of graduates who had

already had some time to settle and adapt after their graduation. As a rule, interviews never included both parents and the interviewees were asked to talk about the child who graduated first, even if there were more children with the same experience in the family.

A professional research agency with a Slovakia-wide interviewer network designed to conduct representative surveys was used to collect the data via face to face interviews. Interviewers from the agency were instructed to identify and interview parents whose children had graduated from a university outside of Slovakia between 1993 and 2012. 110 interviews were conducted in this manner. The remaining 90 interviews were done by the interviewers using contacts from the agency which used various recruitment techniques to find suitable respondents.

Although not planned as a representative survey, a comparison of the Brain Drain 2014 survey results with the only two known characteristics of the population of Slovak graduates from foreign universities – country of study and time of graduation – shows no major deviations of our sample. The distribution of study destinations was very close to the theoretical graduate distribution based on OECD data on international students from Slovakia. With regard to the year of graduation, the sample is skewed towards “fresher” graduates – i.e. graduates from years close to 2012. Most of the interviews in the survey (80%) were done with mothers of international students. However, as the information provided by the survey is mostly of a factual nature (such as place of study, current place of residence, etc.), we believe that the prevalence of mothers should not introduce a bias to our findings.

The decision to survey parents rather than students has an obvious impact on the selection of eligible questions. While we believe that parents are able to provide information on the current country of residence of their children, the ability of parents to provide an exact picture of their children’s networks is limited. We were therefore unable to evaluate the roles of friendship networks or transnational links in the students’ decision making.



To measure the cultural capital of the students' families, we use information about the education of their parents. This is based on the fact that education represents the institutionalized form of cultural capital in the original Bourdiean framework (see Bourdieu, 1986) and has been previously used to operationalise the concept in research on international student mobility and the intergenerational transfer of cultural capital (e.g. Perna & Titus, 2005; Salisbury et al., 2009; Gerhards & Hans, 2013; Møllegaard & Jæger, 2015; Pungas et al., 2015)

Family income is used to assess the economic capital of the student's family. This straightforward operationalisation of the concept is also used in other research of international student mobility (e.g. Perna & Titus, 2005; Gerhards & Hans, 2013). Some studies focusing on the family background of international students work with the concept of socioeconomic status, which is operationalised using a combination of parental education and some measure of material need (Salisbury et al., 2009, 2010). Our approach, based on a combination of economic and cultural capital, therefore covers both dimensions of socioeconomic status.

With regard to the study choices of international students from Slovakia, we decided to distinguish between students who study in one of Slovakia's neighbouring countries – i.e. in the Czech Republic, Hungary and Austria – and those studying “further in the West”. We base this classification on the assumption that study abroad presents a form of distinction which works better if it takes place in a more prestigious country. Such a country typically lies further in “the West” than the countries neighbouring Slovakia. Moreover, due to the similarity of Czech and Slovak, study in the Czech Republic does not represent study in a foreign language. To a large extent, this is also true for Slovak students in Hungary, as most of them are members of the Hungarian minority in Slovakia (this is the case of 8 out of 9 in our sample). On the other hand, studying in Austria represents a study in a foreign language, yet in many cases it does not mean “real” mobility. The close distance between the capitals of Austria and Slovakia (60 km) leads to the circumstance that a large share of Slovak students in Austria are commuters. For the purposes of our study, we therefore decided to classify Austria primarily as a

neighbour, rather than a Western destination.

In contrast to students in neighbouring countries, study in a more distant country means studying in a foreign language as well as actually moving to the country of study. It is also compatible with the discourse in Slovakia which values education from a Western country regardless of the quality of the respective university where it has been achieved. Findlay et al. (2012) use similar arguments to explain that some international students aim for the distinction that is provided by the fact that they achieved their education outside of their country – ideally in a well-known city or destination.

An alternative to this approach would be to classify international students based on the ranking of their universities. We have two reasons for not doing this: a) The first of the international rankings of universities was published in 2003 and only gradually became influential. However, most of the students and their families in our sample made their decisions to study abroad before 2007, many of them certainly unaware of the existence of university rankings. b) Empirically, the division between the students studying at the top 150 world universities leaves us with as little as 15 students in this group. On the other hand, the classification we use identifies about a quarter of our sample as studying further West.

### **International students and students at national universities**

Table 1 compares Slovak students studying in universities at home and abroad. We see that international students attended a “gymnasium” type secondary school far more often. Moreover, almost one in five went to a bilingual gymnasium where some lessons are taught in a foreign language. Also, Slovak international students come from families with high educational attainment. While only 15% of all Slovak students (including international students) had both parents with a university education in 2010, this share was at 46% among international students. This result, suggesting that international students from Slovakia have a high level of cultural capital, is also supported in findings from a 2013 survey of Slovak students studying in the Czech Republic (Fischer &

Lipovská, 2015).

----- Table 1 about here -----

Our results confirm previous findings from the US (Salisbury et al., 2009, 2010) or Nordic countries (Wiers-Jenssen, 2012) which suggest a higher educational background for international students compared to national students.<sup>2</sup> However, the differences in educational background between international and national students in Slovakia seem to be notably higher than in the above cases. Wiers-Jenssen (2012) reports a difference between 6 and 14 p.p. in Finland, Norway or the Faroe Islands. This is particularly interesting, as studying abroad is more widespread in Slovakia than in the countries analysed by Wiers-Jenssen (2012). This would typically suggest a lower level of selectivity and less difference between national and international students.

While we use education of parents to operationalize cultural capital, we should mention some more direct interpretations of this indicator. The positive relationship between university education of parents and international study of their children can be interpreted more straightforward than being a cultural capital building strategy. Knowing their parents mastered a local university might encourage their children into trying something more “challenging”. Moreover, parental university attendance is related to more appreciation for concepts like quality of education or experiencing life in foreign countries.

----- Table 2 about here -----

The descriptive statistics in table 2 demonstrate the previously mentioned bias of the survey towards recent graduates. With an average of 4.3 years since graduation, the average graduate is closer to the 2012 end of the 1993 to 2012 interval. Interestingly, in contrast to international students from the US (Salisbury et al., 2010; Stroud, 2010) or

---

<sup>2</sup> However, according to research by Salisbury et al. (2010) in the US context, the connection between the education of parents and study intentions works only in the case of female college graduates.

the British Erasmus students (Findlay et al., 2006), the sample has an almost perfect gender balance.

### **Cultural and economic capital of the student's family**

#### *Study choices: A strategy to distinguish oneself*

The fact that our survey focuses only on international students does not allow us to go beyond a simple comparison of the cultural capital of international and national students in Slovakia as was done in table 1. As mentioned, such a comparison confirms the expectation that international students come from families with higher levels of cultural capital. However, our data allow us to test if cultural capital also plays a role in the destination choices of international students from Slovakia. To do so, we model the differences between international students from Slovakia who chose to study in neighbouring countries (Czech Republic, Austria and Hungary) and those who study further “West”. This includes 49 students studying in the following countries ordered by their importance: the UK, France, Italy, the Netherlands, Australia, the US, Canada and other Western European countries.

----- Table 3 about here -----

Table 3 presents the result of three binary logistic regression models, with the dependent variable indicating if the student studied in a country neighbouring Slovakia or in Western Europe, the US or Canada. These models provide a first answer to the central question of our paper: How are the destination choices of international students influenced by the cultural and economic capital of their families? In an attempt to compensate for the high level of missing answers to the question on family income, we also test two alternative measures of economic capital based on occupational status – the Standard International Occupational Prestige Scale (SIOPS) and the International Socio-Economic Index of occupational status (ISEI).<sup>3</sup>

---

<sup>3</sup> For more information about ISEI and SIOPS see (Ganzeboom, De Graaf, & Treiman, 1992; Ganzeboom, 1996). For the conversion of ISCO-08 codes into ISEI and SIOPS, scripts prepared by Harry Ganzeboom were used. The scripts are available at: <http://www.harryganzeboom.nl/>

These models include gender and years passed since graduation as two control variables. We include the gender of students to test if male study choices differ from female study choices. The variable “years passed since graduation” aims to control for the component of popularity of the respective destination, which is conditioned by external policy decisions (i.e. the bilateral agreement on free access to study in the Czech Republic or the EU membership of Slovakia).

The father's education is the only significant variable in the models. The odds that the student will study further West from Slovakia than in a neighbouring country are higher if his/her father attended higher education. Although the education of the mother is not significant in any of the models, it is close to significance in model 2, and the  $\exp(B)$  value of this variable in all models suggests a positive association. Interestingly, none of the three alternative measures of economic capital seem to influence the decision as to where to study. Both are important findings with regard to our research focus: There seems to be a clear link between the cultural capital of a family and the choice to study further West. On the other hand, the study choice does not seem to be determined by the economic capital of the family.

While the lack of connection between the economic capital of a family and its offspring studying in a more prestigious destination seems counter-intuitive, it is not entirely unexpected. For example, Beine et al. (2014) find no connection between the popularity of a study destination and tuition fees. It is plausible that the connection – very visible in the case of German secondary school students with a study experience abroad (see Gerhards & Hans, 2013) – is weakened in this case by various stipend opportunities and the possibility to work while studying.

#### *Post-graduation returns: What explains brain drain?*

We now take our analysis further by linking post-graduation returns with the economic

and cultural capital of the family. Previously, we were able to confirm the hypothesis about the connection between cultural capital of a family and the choice of a more prestigious – i.e. Western – study destination. Given the findings in literature which suggested that cultural capital is positively connected with the intent to study abroad, this connection could be – to some degree – expected. Now, however, we focus on the association between cultural and economic capital and post-graduation returns to the home country. Such a connection has not been previously analysed statistically in any of the reviewed studies.

The three models presented in table 4 include the same control variables as models in table 3 but add two more. The “country of study not a neighbour” variable controls for differences between the two groups analysed in previous models, and the “parent wanted return” controls for the “emotional set-up” of the parent/family with regard to the migration of their child – a connection found in the research of Soon (2012). The variables measuring cultural and economic capital are the same as in the previous models. The dependent variable of the binary logistic regression model is coded 1 if the graduate was living in Slovakia two or more years after graduation and 0 if he/she was not.

----- Table 4 about here -----

As in the previous models, we see no significant difference between male and female students. There is, however, a connection between the time that has passed since graduation and their return to Slovakia. This suggests that brain drain statistics do not represent students' definitive choice even two years after graduation – returns home sometimes occur several years after finishing studies abroad. The insignificance of the “country of study not a neighbour” variable suggests that the study destination is not a relevant predictor of the decision to return. On the other hand, the “parent wanted return” variable is significant, as was intuitively expected. Parents who declare that they wanted their child to return home are more likely to have seen this happen. An obvious problem with this variable is that we do not know if at least a part of the association is

not a product of post-hoc rationalisation on the part of the parent.

With regard to the connection between post-study return and cultural capital, a clear and significant association with the educational attainment of the father is present in all models. The higher the educational attainment of the father, the higher the odds that his child does not return to Slovakia after graduation. The  $\exp(B)$  coefficients of the educational attainment of the mother suggest a similar, yet not significant, association. The father's position also turns out to be more important with regard to the relationship between brain drain and economic capital. A higher occupational status of the father associates with higher odds of return to Slovakia. While in model 1, the connection with father's ISEI is marginally insignificant, the connection is clearly visible and statistically significant in the case of occupational prestige measured via the SIOPS index. Still, the positive connection between returns and economic capital is most pronounced in model 3, where the variable on family income is used. A higher family income is a solid indicator of increased odds of post-study return. This is a crucial finding – the two analysed forms of capital work in opposite directions. While high cultural capital means higher odds of staying abroad, high economic capital increases the odds of return.

These associations might be compromised if our survey included a large portion of students from high cultural capital backgrounds who were staying in their destination country to pursue further study. This is not the case. Only a minority of our sample (8,5%) is still studying, and all of the observed relationships remain significant even if those who still study are excluded from the analysis.

### *Bringing it together*

The structural equation model estimated by the lavaan package (Rosseel, 2012) summarizes the relationships discovered in the previous regression models (figure 2). This model is based on the assumption that the two forms of capital – cultural and economic – can be measured via educational attainment of the parents and family income. The two forms of capital are modelled as latent variables. With regard to results

from the previous logistic regression models, we expect causal relationships between economic capital and post-graduation returns (variable “return”) and no connection between economic capital and the decision to study further West (variable “study far”). Based on models in tables 3 and 4, we expect a causal relationship between cultural capital and post-graduation non-returns as well as a relationship between cultural capital and the decision to study further West. The model statistics reported in figure 2 suggest that this model fits the survey data very well.

----- Figure 2 about here -----

The model confirms and quantifies the expected relationships: The higher the economic capital of a family, the higher the odds of their offspring's post-graduation return. Higher cultural capital associates positively with a study further away and decreases the odds of post-graduation return.<sup>4</sup> The model also offers the opportunity to compare the relative importance of the causal links between our latent and outcome variables. While the strength of the relationship between economic and cultural capital and post-graduation returns is of a similar magnitude, cultural capital has a stronger influence on the decision to study further West than on a return. Overall, the model is slightly better at explaining the decision to study further West than explaining post-graduation returns.

## **Discussion**

Several of the relationships in our model are new and open up further research questions. As already mentioned, the connection between the higher cultural capital of a family and the more prestigious study destination of their child is not unexpected, given the previously reported greater propensity of children from a high cultural capital family background to study abroad. This suggests that international student mobility is well described as a mobility strategy of families with a high level of cultural capital. This notion is also supported by the lack of connection between economic capital and the

---

<sup>4</sup> The medium-sized association between economic and cultural capital in the model can be explained by the relatively modest income premium connected with education in the Slovak labour market as can be seen in the EU SILC surveys.



study destination, which suggests the primacy of motivations related to the cultural capital of the student's family.

Perhaps our most intriguing finding is the discovery of a connection between cultural and economic capital and post-graduation returns. It seems that the two forms of capital have a relevant impact on the decision to return to the source country after study. Both effects are relatively strong, but work in opposite directions. While coming from a family with high cultural capital decreases the probability of post-graduation return, the higher economic capital of a student's family increases the odds of his/her return. According to our structural equation model, both effects are of an approximately similar strength.

On the one hand, this finding further underlines the importance of the cultural capital of a graduate's family, as it influences not only the decision to study abroad, but also the post-study return. In our survey, among those who did not return from their study to Slovakia, 48% had two university-educated parents, compared to a share of 38% among the returnees.<sup>5</sup> It seems that students from families with a high cultural capital not only prefer to study abroad but also tend to favour an international career. On the other hand, in combination with the finding about the positive influence of economic capital on post-graduation returns, it also raises further questions: Can graduates from poorer families who do not return after their studies be conceptualised as labour migrants? Are children from well-off families simply less receptive to higher wages in the country of their study, or is it rather an indication, that many of them are able to settle for jobs in their family businesses?

Our findings may also have implications for social mobility in the source countries. If international students are indeed more likely to come from educated families with a high level of cultural capital, and, at the same time, those students tend to remain in the country of their studies more often, this could be good news for graduates with a labour

---

<sup>5</sup> Return might also represent a failure to find a job abroad. Due to the fact that we interviewed parents of the students, we are unable to decipher the “real” meaning of return in our survey.

class background. It would mean that they face less fierce competition not only while entering the university, but also when looking for local “first class” jobs. International student mobility could actually increase social mobility in the home country by reducing competition for top jobs at the national level. This would mean that countries with a higher share of internationally mobile students are countries where a significant share of graduates from families with a high level of cultural capital abstains from competing in the local labour market.

Even if international education does not serve as a “distinguishing identity maker” of the middle classes at the local labour market, as expected by Findlay et al. (2012: 128), it could be argued that non-returning graduates from a high cultural capital background still profit from their family background. E.g. by participating in the prestigious and well paid global labour market of multinational companies. Indeed, German analysis of the employment of foreign university graduates suggests that international student returnees are more likely to work for multinational companies (Kratz & Netz, 2016). A similar observation in Hong Kong is analysed by Waters (2007). However, the previous argument is connected with international student returnees, not those who stay. We assume that education from a Western university provides a comparatively higher premium in the Slovak labour market than in a Western labour market. Also, if international student graduates remain in their country of study (and in our survey, 78% of international students who remain abroad resided in the country of their study), they are unable to profit from the social capital connected with their family background back home. Their employment prospects, compared to their fellow non-foreign-born local graduates who can rely on their local networks, remain to be explored.

A final point worth discussing is the proportion of post-graduation returnees in our survey. At least two years after completing their studies, 39% of Slovak international students are back in Slovakia. While keeping in mind that the Brain Drain 2014 survey was not designed as representative, this number seems to be similar to data from Denmark and Finland. Here, research suggests that one in two international students settle abroad after graduation (Bjørsted, 2010; Wiers-Jenssen, 2012). This is interesting,

because Slovakia is one of the less affluent EU countries, while Denmark and Finland are among the more affluent ones. Still, the return rates of international students in those three countries seem to be of a similar magnitude. This speaks against treating international student mobility within the same conceptual framework as labour migration. As this migration flow is dominated by young people from a high cultural capital background, it is highly probable that other factors related to ambitions and self-development come into play. This could make the decision making of graduates from richer and poorer EU countries more similar than in the case of labour migration.

### **Acknowledgements**

The research was supported by Slovak Research and Development Agency (SRDA) grants no. APVV-14-0527 and APVV-0309-11. An earlier version of this paper was presented at the 3rd ISA Forum of Sociology in Vienna. The feedback and comments provided by the editor and two anonymous referees are greatly appreciated.

### **References**

- Adnett, N. (2010). The growth of international students and economic development: friends or foes? *Journal of Education Policy*, 25(5), 625–637. DOI: 10.1080/02680931003782827
- Alberts, H. C., & Hazen, H. D. (2005). ‘There are always two voices...’: International students’ intentions to stay in the United States or return to their home countries. *International Migration*, 43(3), 131–154. DOI: 10.1111/j.1468-2435.2005.00328.x
- Beech, S. E. (2015). International student mobility: the role of social networks. *Social & Cultural Geography*, 16(3), 332–350. DOI: 10.1080/14649365.2014.983961
- Beine, M., Noel, R., & Ragot, L. (2014). Determinants of the international mobility of students. *Economics of Education Review*, 41(2014), 40–54. DOI: 10.1016/j.econedurev.2014.03.003
- Bhagwati, J., & Dellarfar, W. (1973). The brain drain and income taxation. *World Development*, 1(1-2), 94–101.
- Bjørsted, A. (2010). Denmark: Danish Degree students abroad: What can register data tell us? In *Nordic Students abroad: Student Mobility Patterns, Student Support Systems and Labour Market Outcomes* (pp. 119–128). Helsinki: KELA.

- Bourdieu, P. (1986). The forms of capital. In Richardson, J. C. (Ed.) *Handbook of Theory and Research for the Sociology of Education* (pp. 241–258). New York: Greenwood Press.
- Brooks, R., & Waters, J. (2010). Social networks and educational mobility: the experiences of UK students. *Globalisation, Societies and Education*, 8(1), 143–157. DOI: 10.1080/14767720903574132
- Chankseliani, M. (2016). Escaping homelands with limited employment and tertiary education opportunities: Outbound student mobility from Post-Soviet countries. *Population, Space and Place*, 22(3), 301–316. DOI: 10.1002/psp.1932
- Findlay, A., King, R., Stam, A., & Ruiz-Gelices, E. (2006). Ever reluctant Europeans: The changing geographies of UK students studying and working abroad. *European Urban and Regional Studies*, 13(4), 291–318. DOI: 10.1177/0969776406065429
- Findlay, A. M., King, R., Smith, F. M., Geddes, A., & Skeldon, R. (2012). World class? An investigation of globalisation, difference and international student mobility. *Transactions of the Institute of British Geographers*, 37(1), 118–131. DOI: 10.1111/j.1475-5661.2011.00454.x
- Fischer, J., Lipovská, H. (2015). Brain drain - brain gain: Slovak students at Czech universities. *Journal in Efficiency and Responsibility in Education and Science*, 8(3), 54–59.
- Ganzeboom, H. B. G. (1996). Internationally comparable measures of occupational status for the 1988 international standard classification of occupations. *Social Science Research*, 25(3), 201–239.
- Ganzeboom, H. B. G., De Graaf, P.M., & Treiman, D. J. (1992). A standard international socio-economic index of occupational status. *Social Science Research*, 21(1), 1–56.
- Gerhards J., & Hans, S. (2013). Transnational human capital, education, and social inequality. Analyses of international student exchange. *Zeitschrift für Soziologie*, 42(April), 99–117.
- Grubel, H. B., & Scott, A. D. (1966). The international flow of human capital. *The American Economic Review*, 56(1/2), 268–274.
- Hazen, H. D., & Alberts, H. C. (2006). Visitors or immigrants? International students in the United States. *Population, Space and Place*, 12(3), 201–216. DOI: 10.1002/psp.409.
- King, R., & Raghuram, P. (2013). International student migration: Mapping the field and new research agendas. *Population, Space and Place*, 19(2), 127–137. DOI:

- 10.1002/psp.1746.
- King, R., & Ruiz-Gelices, E. (2003). International student migration and the European 'Year Abroad': Effects on European identity and subsequent migration behaviour. *International Journal of Population Geography*, 9(3), 229–252. DOI: 10.1002/ijpg.280
- Kõu, A., van Wissen, L., van Dijk, J., & Bailey, A. (2015). A life course approach to high-skilled migration: Lived experiences of Indians in the Netherlands. *Journal of Ethnic and Migration Studies*, 41(10), 1644–1663. DOI: 10.1080/1369183X.2015.1019843
- Kratz, F., & Netz, N. (2016). Which mechanisms explain monetary returns to international student mobility? *Studies in Higher Education*, 1–26. DOI: 10.1080/03075079.2016.1172307
- Kritz, M. M. (2015). International student mobility and tertiary education capacity in Africa. *International Migration*, 53(1): 29–49. DOI: 10.1111/imig.12053
- Li, F. L. N., Findlay, A. M., Jowett, A. J., & Skeldon, R. (1996). Migrating to learn and learning to migrate: A study of the experiences and intentions of international student migrants. *International Journal of Population Geography*, 2(1), 51–67. DOI: 10.1002/(SICI)1099-1220(199603)2:1<51::AID-IJPG17>3.0.CO;2-B
- Møllegaard, S., & Jæger, M. M. (2015). The effect of grandparents' economic, cultural, and social capital on grandchildren's educational success. *Research in Social Stratification and Mobility*, 42(December 2015), 11–19. DOI: 10.1016/j.rssm.2015.06.004
- OECD. (2014). *Education at a Glance 2014: OECD Indicators*. OECD Publishing. DOI: <http://dx.doi.org/10.1787/eag-2014-en>
- OECD. (2015). *Education at a Glance 2015: OECD Indicators*. OECD Publishing. DOI: 10.1787/eag-2015-en
- Oosterbeek, H., & Webbink, D. (2011). Does studying abroad induce a brain drain? *Economica*, 78(310), 347–366. DOI: 10.1111/j.1468-0335.2009.00818.x
- Perkins, R., & Neumayer, E. (2014). Geographies of educational mobilities: exploring the uneven flows of international students. *Geographical Journal*, 180(3), 246–259.
- Perna, L. W., & Titus, M. A. (2005). The relationship between parental involvement as social capital and college enrollment: An examination of racial/ethnic group differences. *Journal of Higher Education*, 76(5), 485–518.

- Pungas, E., Taeht, K., Realo, A., & Tammaru, T. (2015). Does ethnicity matter in intentions to study abroad? Analysis of high school students in Estonia. *Journal of Ethnic and Migration Studies*, 41(14), 2376–2395. DOI: 10.1080/1369183X.2015.1059739
- Rosseel Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2), 1–36. Available at: <http://www.jstatsoft.org/v48/i02/paper>
- Salisbury, M. H., Paulsen, M. B., & Pascarella, E. T. (2010). To see the world or stay at home: Applying an integrated student choice model to explore the gender gap in the intent to study abroad. *Research in Higher Education*, 51(7), 615–640. DOI: 10.1007/s11162-010-9171-6
- Salisbury, M. H., Umbach, P. D., Paulsen, M. B., & Pascarella, E. T. (2009). Going global: Understanding the choice process of the intent to study abroad. *Research in Higher Education*, 50(2), 119–143. DOI: 10.1007/s11162-008-9111-x
- Serva, M., & Petroni, F. (2008). Indo-European languages tree by Levenshtein distance. *Europhysics Letters*, 81(6). DOI: 10.1209/0295-5075/81/68005
- Soon, J. (2008). The determinants of international students' return intention. *Economics Discussion Papers* (806).
- Soon, J-J. (2012). Home is where the heart is? Factors determining international students' destination country upon completion of studies abroad. *Journal of Ethnic and Migration Studies*, 38(1), 147–162. DOI: 10.1080/1369183X.2012.640026
- Stroud, A. H. (2010). Who plans (not) to study abroad? An examination of U.S. student intent. *Journal of Studies in International Education*, 14(5), 491–507. DOI: 10.1177/1028315309357942
- Tan, G., & Hugo, G. (2016). The Transnational Migration Strategies of Chinese and Indian Students in Australia. *Population, Space and Place*. DOI: 10.1002/psp.2038
- Tremblay, K. (2005). Academic mobility and immigration. *Journal of Studies in International Education*, 9(3), 196–228. DOI: 10.1177/1028315305277618
- Van Bouwel, L. (2010). Return rates of European graduate students in the US: How many and who return, and when? *Belego*, (4). 395–405.
- Van Bouwel, L., & Veugelers, R. (2012). An 'Elite Brain Drain': Are foreign top PhDs more likely to stay in the U.S.? *SSRN Electronic Journal* DOI: 10.2139/ssrn.2109278
- Waters, J., & Brooks, R. (2010). Accidental achievers? International higher education,

class reproduction and privilege in the experiences of UK students overseas. *British Journal of Sociology of Education*, 31(2), 217–228. DOI: 10.1080/01425690903539164

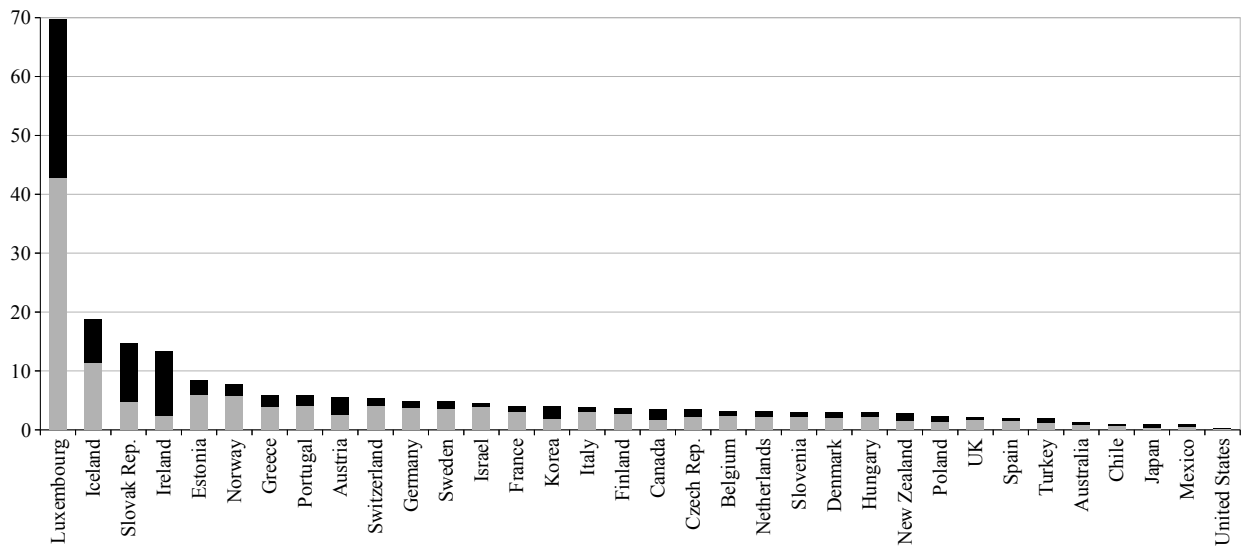
Waters, J. L. (2007). ‘Roundabout routes and sanctuary schools’: The role of situated educational practices and habitus in the creation of transnational professionals. *Global Networks*, 7(4), 477–497. DOI: 10.1111/j.1471-0374.2007.00180.x

Waters, J. L. (2009). In pursuit of scarcity: Transnational students, ‘employability’, and the MBA. *Environment and Planning A*, 41(8), 1865–1883. DOI: 10.1068/a40319

Wells, A. (2014). International student mobility: Approaches, challenges and suggestions for further research. *Procedia - Social and Behavioral Sciences*, 143: 19–24. DOI: 10.1016/j.sbspro.2014.07.350

Wiers-Jenssen, J. (2012). Degree mobility from the Nordic Countries: Background and employability. *Journal of Studies in International Education*, 17(4), 471–491. DOI: 10.1177/1028315312463824

**Figure 1**  
Share of citizens studying abroad in tertiary education, 2012, in %



Note: Darker parts of the bars represent the share of the most important destination.

Source: Education at a Glance 2014



**Table 1**  
Educational background of tertiary students, in %

	<b>All</b>	<b>International</b>
<i>Secondary school type*</i>		
“Gymnasium”	36	86
Bilingual “gymnasium”	2	19
Technical	64	14
<i>Educational background of parents</i>		
Mother with university education	24	57
Father with university education	26	64
Both parents university educated	15	46

\* data on secondary school for all students refer to secondary school graduates eligible to attend university, not to university students

Note: Data on all students refer to the years 2010 (education of parents) and 2006/2007 (type of secondary school)

Source: Brain Drain 2014, Slovak LFS, Statistical Yearbook of Education

**Table 2**  
Descriptive statistics of international students

	<b>Mean</b>	<b>Std. dev.</b>	<b>Min</b>	<b>Max</b>
Gender (1 = male, 2 = female)	1.470	0.500	1	2
Years since graduation	4.333	3.641	2	20
Country of study not a neighbour (0 = no, 1 = yes)	0.245	0.431	0	1
Education of mother (1 to 4)	3.543	0.557	2	4
Education of father (1 to 4)	3.579	0.607	2	4
Family income (1 to 11)	7.738	2.140	3	11
Parent wished for child's return (1 = stay abroad to 10=wish for return)	5.995	2.588	1	10

Source: Brain Drain 2014

**Table 3**

Who studies further away than in a neighbouring country, logistic regression

	Model 1			Model 2			Model 3		
	B	Exp(B)	Sig.	B	Exp(B)	Sig.	B	Exp(B)	Sig.
Male	-0.099	0.906	0.820	-0.104	0.901	0.811	-0.427	0.653	0.328
Years since graduation	-0.079	0.924	0.238	-0.076	0.927	0.250	-0.067	0.935	0.324
Father's education	1.461	4.309	0.035	1.497	4.470	0.026	1.084	2.957	0.034
Mother's education	0.941	2.562	0.105	1.019	2.770	0.062	0.421	1.523	0.343
Father's profession (ISEI)	0.017	1.017	0.281						
Mother's profession (ISEI)	-0.005	0.995	0.730						
Father's profession (SIOPS)				0.033	1.033	0.116			
Mother's profession (SIOPS)				-0.018	0.983	0.389			
Family income							-0.026	0.974	0.816
R <sup>2</sup> (Nagelkerke)		0.245			0.260			0.118	
N		144			144			138	

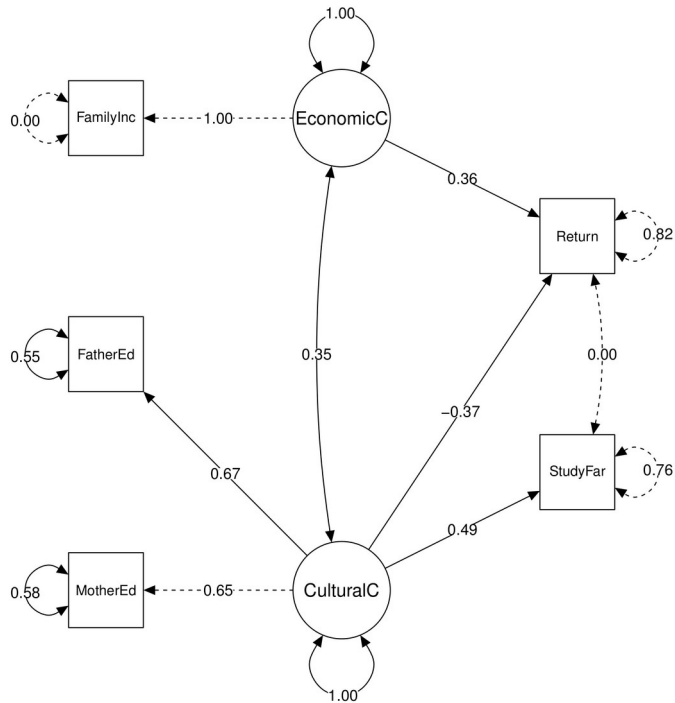
Source: Brain Drain 2014

**Table 4**  
Who returns from studies abroad, logistic regression

	Model 1			Model 2			Model 3		
	B	Exp(B)	Sig.	B	Exp(B)	Sig.	B	Exp(B)	Sig.
Male	0.183	1.201	0.634	0.239	1.270	0.532	0.083	1.087	0.830
Years since graduation	0.119	1.126	0.032	0.124	1.132	0.025	0.179	1.196	0.003
Country of study not a neighbour	-0.219	0.804	0.650	-0.252	0.777	0.605	0.141	1.151	0.770
Parent wanted return	0.237	1.267	0.003	0.237	1.268	0.002	0.207	1.229	0.007
Father's education	-0.974	0.377	0.018	-0.943	0.390	0.014	-0.919	0.399	0.016
Mother's education	-0.745	0.475	0.115	-0.690	0.502	0.117	-0.441	0.643	0.253
Father's profession (ISEI)	0.026	1.026	0.051						
Mother's profession (ISEI)	0.010	1.010	0.466						
Father's profession (SIOPS)				0.042	1.043	0.020			
Mother's profession (SIOPS)				0.009	1.009	0.618			
Family income							0.406	1.500	0.001
R <sup>2</sup> (Nagelkerke)		0.237			0.249			0.253	
N		144			144			138	

Source: Brain Drain 2014

**Figure 2**  
 Relationship between cultural and economic capital, study choices and returns,  
 structural equation model



DWLS estimation was used. Standardized coefficients are reported. Model fit indices: RMSEA 0.000 (90 Percent Confidence Interval 0.000 to 0.053). Weighted Root Mean Square Residual is 0.261. Comparative Fit Index is 1.000. Tucker-Lewis Index is 1.114.