

[DOI: 10.20472/TEC.2016.003.017](https://doi.org/10.20472/TEC.2016.003.017)

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ECONOMIC IMPACT OF INTERNATIONAL STUDENTS ON A HOST CITY: CASE OF THE UNIVERSITY OF ECONOMICS IN BRATISLAVA

Abstract:

Typical university impact studies in Slovak Republic have taken into account only economic impact of domestic students. But increased globalization processes contribute the growth the number of international students and increase their impact on the economy of a host city. Using data obtained on 2015/2016 academic year during questioning of international full-time students of the University of Economics in Bratislava (Slovak Republic) we estimate their direct economic impact on the host city – Bratislava. We compare this economic impact to those obtained for the University of Economics in Bratislava domestic students in previous researches. We estimate the direct spending by international students studied at the University of Economics in Bratislava in 2015/2016 as 375.29 thousand euros on an annualized basis.

Keywords:

economic impact, international students, domestic students, Bratislava

JEL Classification: I23, I29, R12

Introduction¹

In recent times, significantly increases the impact of educational institutions on economic and social situation in a host city. To a large extent this relates to higher education institutions (HEIs) / universities. The university's activity can be seen as the activity of an economic agent. The influence of the university on the host city can be expressed in different ways. There are some major directions of economic impact of university, which is inextricably linked with the social impact:

- university is one of the major employers in the city and the taxpayer to the local budget;
- university is one of the main sources of supply of human capital to the local economy (in this context it should be considered not only graduates, but university's students too);
- university plays a significant role in training of specialists for the city and region;
- university provides for transfer of knowledge and information exchange between education, science and science and business;
- university is a cultural centre for city's inhabitants: art groups, museums are at university, university professors share their knowledge and research results with the inhabitants of the city during the workshops, public lectures, etc.;
- university is a place of education attracts young people from other regions and countries; thereby it exports the educational services and destroys boundaries towards the diffusion of different cultures and traditions.

The impact of university on the local economy is greater than the total of the university's direct spending on payroll, goods and services, and construction. This is because money spent by the university is spent again by the recipient employees and local businesses. Employees use their salary to purchase goods and services from other businesses. Businesses make their own purchases and hire employees, who also spend their salary throughout the local economy (as well as regional, and state economies). A chain reaction of indirect and induced spending continues, with subsequent rounds of additional spending gradually diminished through savings, taxes, and expenditures made outside the state.

The economic activity generated by university expenditure is substantial. For example, in the United Kingdom the higher education sector is comparable to the printing and publishing and legal activities industries and larger than the pharmaceutical, aircraft and spacecraft and advertising industries in this country (KELLY et al. 2009). There are a lot of evidences of the importance of international students not only for the national economy, but also for the local one (BECK et al. 1995; BUTCHER 2002; MUNRO et al. 2009; KELLY et al. 2009; OXFORD Economics 2012; KOTOSZ 2013; The costs.... 2013; REHÁK et al. 2014; DŽUPKA 2014; HUDEC et al. 2015).

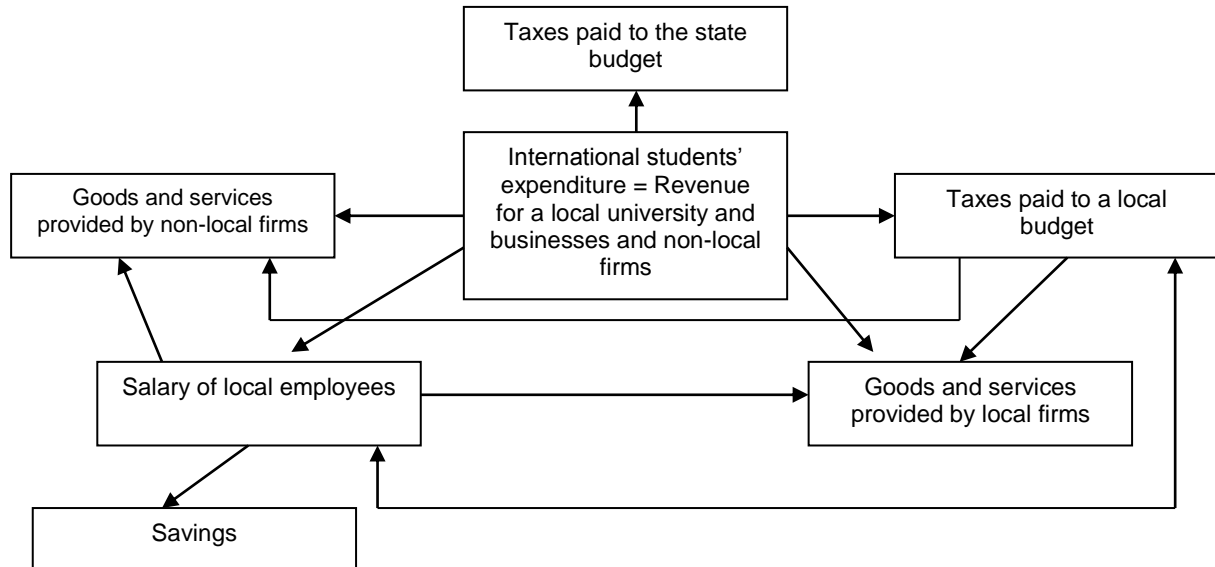
¹ This research was supported by the Visegrad Fund, grant №51501858 «Factors of formation of space: the role of the economic benefits of higher education qualification».

The estimation of the economic impact of the university on local economy is very important both for university and for other economic agents – for local community and authority. Existence of university on the territory of a city positively influence the short-term economic growth (increase in additional spending in a city), as well as the long-term economic growth (increasing productivity of local firms and attractiveness of the city). The increase in expenditure of all groups linked with the university positive effect on the local economy. So the spending of international students effects positively on the economy of a city too.

Characterization of the impact of international students on the local economy

Nowadays nearly five million students study outside their home countries. The total amount of international students have increased by more than two times compared to 2000 and more than three times compared to 1990 (ICEF Monitor 2015). This rapid growth of amount of international students is connected with intensive processes of globalization all over the world. International students are defined as students who have crossed borders for continuing their study at university in another country. The UNESCO Institute for Statistics, the OECD and Eurostat define as international students those who are not-residents of their country of study or those who received their prior education in another country (OECD Science 2011). Most of international students choose OECD countries as their destinations for their study abroad (ICEF Monitor 2015). Demographic trends, economic growth, government scholarships, and rising incomes are the major forces that determine the place of future studying of students. Students take into account various reasons for their choice of where to study (e.g., their financial means; the level of study they are pursuing; the advice they receive from friends, family, and agents; their perceptions of the image and reputation of an institution or country). Also country-level and institutional policies affect the popularity of destinations. Students are often influenced by the relative cost of living and tuition in a country (which may be affected by currency fluctuations) as well as the availability of internships and post-study work and immigration opportunities (ICEF Monitor 2015). Also the level of tolerance of local people to foreigners can effect on choice of the place of study by the international students. As mentioned above, the university acts as an economic agent. It provides educational services to international students. The economic impact of international students should be considered on the local level, as well as regional and national levels. The larger geographic area will be taken into account, the more economic impact will be. If we consider the city as a geographic area, which economy is influenced by international students, the circulation of incomes and expenditures of international students can be represented in the form of next scheme (Figure 1).

The purpose of research is to investigate the direct short-term economic impact of international students on local economy on the example of the University of Economics in Bratislava in 2015/2016 academic year.

Figure 1: Circulation of incomes and expenditures created by international students

Source: Own adjustment based on NESTORENKO, PAVLYK, 2015.

The direct economic impact is considered as the result for local economy from all types of international students' expenditures. The term "short-term economic impact" means that we'll take into account the expenditures only of international students of the EUBA. We'll not include into economic impact the expenditures of former international students of the EUBA who may potentially join the local labour market after their graduation (long-term economic impact).

International students in higher education institutions in Bratislava and in the University of Economics in Bratislava

Bratislava is the largest student's city in Slovakia. 25% of public higher education institutions are situated in Slovak capital. The University of Economics in Bratislava (the EUBA) is among them. Two of three state higher education institutions are situated on the territory of Slovak capital. And every second Slovak private higher education institution locates in Bratislava.

The University of Economics in Bratislava is one of the largest universities in Slovakia. It has established a wide and mutually beneficial network with various institutions from both private and public sectors in Slovakia and abroad. The university provides higher education in Bachelor's, Master's and Doctoral programmes for full-time and part-time students. On the one hand, the EUBA is considered nowadays as one of the most important educational and scientific-research institutions in Slovakia. In terms of student numbers the EUBA is the third university in Bratislava. On the other hand, this university is characterized by the lowest share of international students among the public higher education institutions located in Bratislava (Table 1).

The EUBA is characterized by the lowest share of international students among the public higher education institutions located in Bratislava. In 2015/2016 academic year

only 1.37% of the total amount of students were international ones. The increase of this share from 0.96% (2003/2004 academic year) to 1.37% (2015/2016 academic year) can be mainly explained by the reduction in the base comparison: for 12 years the total number of students reduced from 8629 to 7099 in this university.

Table 1: The amount of domestic and international full-time students in higher education institutions in Bratislava² (2003/2004, 2015/2016)

#	Higher education institution	2003/2004		2015/2016		Share of international students in total amount of students (%)	
		Slovak students	International students	Slovak students	International students	2003/2004	2015/2016
Public higher education institutions							
1.	Academy of Fine Arts and Design in Bratislava	550	65	507	52	10,57	9,30
2.	Academy of Performing Arts in Bratislava	761	48	843	104	5,93	10,98
3.	Comenius University in Bratislava	17559	537	19423	2111	2,97	9,80
4.	Slovak University of Technology in Bratislava	12954	148	13709	277	1,13	1,98
5.	University of Economics in Bratislava	8546	83	7002	97	0,96	1,37
	<i>Total in public higher education institutions of Bratislava</i>	<i>40370</i>	<i>881</i>	<i>41484</i>	<i>2641</i>	<i>2,14</i>	<i>5,99</i>
Private higher education institutions							
1.	Bratislava International School of Liberal Arts in Bratislava	-	-	50	0	-	0
2.	Media Academy, School of Media and Marketing Communication in Bratislava	-	-	142	0	-	0
3.	Pan-European University in Bratislava	-	-	1416	73	-	4,90
4.	School of Economics and Management in Public Administration in Bratislava	-	-	559	5	-	0,89
5.	St. Elizabeth University of Health Care and Social Work in Bratislava	-	-	1831	260	-	12,43
	<i>Total in private higher education institutions of Bratislava</i>	<i>-</i>	<i>-</i>	<i>3998</i>	<i>338</i>	<i>-</i>	<i>7,80</i>
	Total in public and private higher education institutions of Bratislava	40370	881	45482	2979	2,14	6,15

Source: Own calculation based on UIPŠ data.

In 2015/2016 academic year in the EUBA the share of international students in total amount of international students is in 4 times lower, than in public higher education institutions of Bratislava (in average), and in 5 times lower, than in private higher education institutions of Bratislava (in average too). The estimation of the international students' spending allows to determine the level of the EUBA impact on the economy of Bratislava.

² We didn't include the data number of students of School Goethe Uni Bratislava, Academy of the Police Force in Bratislava, Slovak Medical University in Bratislava, and the University College of International and Public Relations Prague in Bratislava due the their absence in Statistical Yearbook of the Slovak Republic. Also we didn't take into account the amount of students of School of Management/City University in Trenčín/Bratislava, because the statistical information was provided as a whole of this university without specifying how many students study directly in Bratislava.

Methodology

To estimate the economic impact of international students on local economy we conducted a survey of students who studied during 2015/2016 academic year or during a shorter period. At that we took into account only the answers of those students who wouldn't have come to study in Bratislava, if the EUBA hasn't existed in the city. We asked the international students of Bachelor, Master's and Doctoral degree studies at the University of Economics in Bratislava to answer the questions about their income and expenditures in Bratislava. We use a standard methodology called impact studies to quantify the additional revenue into the local economy, which bring international students. The diversity of our sample made difficult the estimating an average expenditure of international students. It wasn't easy to combine the answers of both the students who have completed their programs at the EUBA, and therefore have records of their expenditures, and those who were in Bratislava until the end of 2015/2016 academic year and whose budgets were in flux.

15 questions were included into the questionnaire. It consisted of three parts. Questions of the first part were devoted to identifying the local profile of international students. Questions of the second part were focused on definition of incomes and expenditures profile of international students. The international students were asked to take into account only their expenditures on the territory of Bratislava. Answers to the questions in the third part allowed us to form the demographic profile of international students. Our questionnaire included the same questions as questionnaire of the EUBA economic impact study (REHÁK, SEKELSKÝ 2014). It allowed us to compare the economic impact of the EUBA domestic and international students (in total and per person).

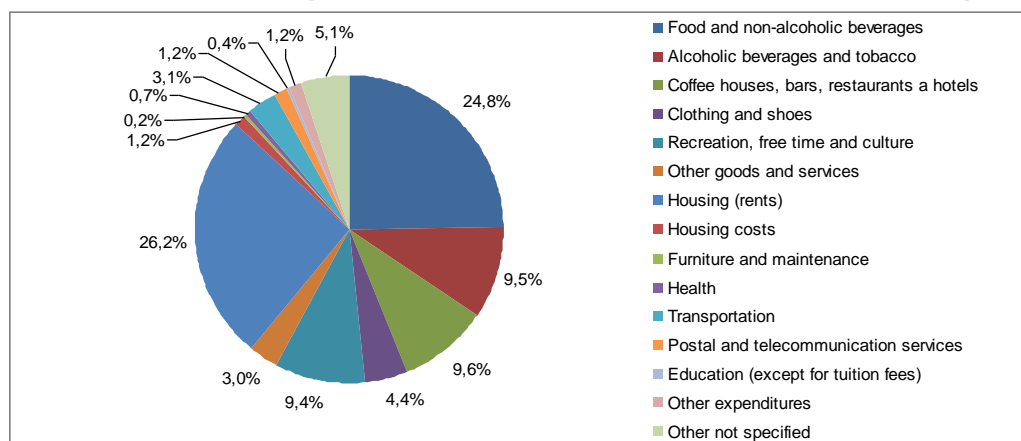
Results

In April 2016 the questionnaires have been sent to the EUBA full-time international students via e-mail. We received the replies from 33% of the total amount of international students. In May 2016 we kindly asked the EUBA international students, who didn't take part in survey, to answer the questions of questionnaire. As a result by the end of June 2016 the response rate was 49.5% of the total amount of international students. 16% of the responses were not taken into account in determining the economic impact of international students on economy of Bratislava, because if the EUBA hadn't existed, these students would have studied at another university in Bratislava. It means that for this group of international students Bratislava as a place of education is more important, then the EUBA itself. 84% of international students have especially come to Bratislava for studying at the EUBA.

66% of the total amount of respondents are from EU-countries (Croatia, Cyprus, the Czech Republic, Germany, France, Hungary, Italy, Spain), 34% international students were form non-EU countries (Belarus, Mexico, Thailand, Turkey, Ukraine, Russian Federation). There were an almost equal proportion of males and females in survey (51% of international students are males, 49% – females). The age structure of

respondents is follow: 29% of international students were 19-20 years old, over a third of international students were 21-22 years old, the age of 37% of international students were is over 23. Almost half of international students (49%) lived in the EUBA dormitories, 17% lived in dormitories of other universities in Bratislava, 22% rented flat. The rest of international students were not specified their response to this question. The biggest part of international students (83%) studied in the framework of Erasmus+ programme, 12% of international students studied in foreign language, 2% of international students studied in the framework of bilateral programs. Other international students (2%) attended the EUBA on the same conditions as domestic students (in Slovak language). The average expenditures of the EUBA international students per month during the 2015/2016 academic year were 582.29 euros. In the structure of international students' expenditures the spending on food, non-alcoholic beverages, and housing is over 50% (Figure 2).

Figure 2: The structure of expenditures of the EUBA international students (2015/2016)



Source: Own calculation based on questionnaires of the EUBA international students

Some international students pay a tuition fee (on average, 99.42 euros per month). The total local expenditures / direct economic impact of international students are 681.71 euros per months (Table 2). We compare this amount with expenditures of the EUBA domestic students (taking inflation into account).

Table 2: Local expenditures of students, per month (Euros)

Type of expenditures	Domestic students (2013)		International students
	Before taking inflation into account ³	Taking inflation into account (in 2015/2016 year's prices) ⁴	
The average expenditures on goods and services in	208.16	210.22	582.29
The average tuition fee	-	-	99.42
Total expenditures	208.16	210.22	681.71

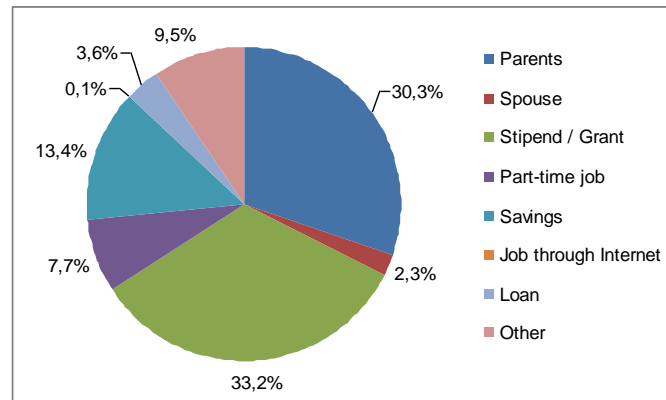
Source: Own calculation based on questionnaires of the EUBA international students and REHÁK, SEKELSKÝ, 2014.

³ REHÁK, SEKELSKÝ, 2014.

⁴ Expenditures of EUBA domestic students in 2013 (REHÁK, SEKELSKÝ, 2014) we have adjusted to the inflation rate in Slovakia in 2013-2015.

As for sources of international student's incomes, 61% received it outside of Bratislava. And only 29% have earned or have received some kind of grants from the sources on the territory of Bratislava. The most significant sources of international students' incomes is the help of parents, scholarships / grants (Figure 3).

Figure 3: The structure of incomes of the EUBA international students (2015/2016)



Source: Own calculation based on questionnaires of the EUBA international students

In 2015/2016 academic year the international students studied on the average 6.62 months at the EUBA.

Conclusion

University is considered as institution that provides a host city with growth of human capital, promote business development, contributes to business revenues growth and increases tax revenues of local public administration. By providing educational services, the university delivers the demand for higher education from domestic and international students. Training of International students should be considered as one of the ways for the service export. Increasing in amount of international students contributes to income growth and the creation of new jobs not only for the university but also for local firms that meet the demand of foreign students on other goods and services.

Higher education systems have become more internationalised over the past decades. The amount of international students studying at Slovak universities in 2015/2016 academic year has increased approximately in six times comparing with amount of international students who did so in 2003/2004 academic year.

Taking into account that typical university impact studies in Slovak Republic considered only the economic impact of domestic students on a host city we estimated the direct impact of international students on local economy (on the example of the University of Economics in Bratislava). For the EUBA the direct economic impact per student is 3.2 times more for international student than direct economic impact of domestic student. But the total direct economic impact of each student group on the economy of Bratislava depends on the amount of such groups. On the condition that

structure of the students living in Bratislava and abroad, in 2015 is the same as in the conduct of the survey (REHÁK, SEKELSKÝ, 2014), the direct economic impact of the EUBA domestic students is 677101 euros per month or 6.77 million euros per academic year. The annual total expenditures of the EUBA international students are 375294.44 euros. Certainly, this amount is much more less, than the direct economic impact of the EUBA domestic students. However, the increase of amount of international students at the EUBA will positively effect on the economy of Bratislava as a host city.

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