Pull Factors Attracting Romanian Students to Babeș-Bolyai University

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Abstract: Student recruitment and the geographic area from where a university is recruiting its students play a key part in institutional development and in the position a university holds in national and international rankings. Therefore, successful universities assign important resources to attracting students to the educational programmes they offer. The location of the university also plays an important role in student motivation when choosing an educational offer. In this article, we focus on the main pull factors that attract students to Babeș-Bolyai University of Cluj-Napoca, we analyze how the city and the university's pull factors have changed in the past years, assuming that these changes, namely the institution's and the city's increasing attractiveness, had an influence on the recruitment area of students. Our hypothesis is that the increasing attractiveness leads to more students coming from a national recruitment area, instead of local and regional areas, where the main base of students of the institution used to be in the past. In the second part of this article we present recruitment data for the past five years, focusing on the recruitment area and the county of origin of the students, in order to confirm our hypothesis.

Keywords: university, higher education, student recruitment, pull factors

Introduction

Student recruitment plays a significant role in every university's strategies and policies. In this article, we analyze the recruitment area of Babeş-Bolyai University of Cluj-Napoca, Romania during the past five years (2013-2017). To this aim, we discuss the university and the city pull factors and how these contribute to a changing recruitment area. In this respect, the university has played an increasingly important role on a national level, aiming to achieve one of its most important objectives, namely to become an internationally relevant comprehensive, yet research-intensive university.

Theoretical background

Regardless of motivation (shrinking of the demographics, increase of the competition, higher education and higher education institutions (HEI)' transformation, the dynamics of national educational policies, scarce governmental funding per student capita), universities have always paid a large amount of attention to researching students' recruitment. Surprisingly, in what concerns the spatial dimension of the recruitment area, the studies modelling the universities` recruitment areas represent just a niche of this body of literature. Starting early (during the 60s and 70s), a diversified thematic ranged from Schöfer's (1975) contribution on the implications of the C*entral Place Theory,* in assessing the level and the strategic location of the institution, to the gravity model in shaping students' preferences. However, the most rapid development in the field of studies focusing on recruiting areas of students happened during the 90s with the development of (Arc)GIS as a tool for analysis and processing the demand for education and enrolment, the spatial relationship modelling and plotting a lot of data, collating data on enrolments of the university or higher aggregate entities with existing census data on the stock of general population and its characteristics.

Of all available publications, research on the United States educational context was overwhelming (*Figure 1*) leading with almost two third more studies than the volume of studies published by the

next ranked country. Articles published by authors from the United States and the UK alone are 10 times higher in number (873 papers) compared with the third ranked country (Australia, 88), the rest of the universities ever publishing an article on the topic in the last half of the century are situated in countries with under 50 studies published during the period 1950 – 2017. Apart from the practical interest in findings, namely the research funding and the spearheaded methodology, research on the topic in the United States is stimulated by the amount of statistical data available for analysis on the volume, socio-demographic characteristics and academic performance of the recruiting pool on one hand, and the records of the recruited students by the universities, on the other. Due to the differences in the data collection process (some of it, if collected at all), few of the methodologic tools and research designs applied to the American context can be replicated in other higher education contexts (Mălăescu & Speranza, 2013). In its turn, the research in the United States put continuous pressure on the optimisation of the data collecting system. For example, Alm and Winters (2009) pointed out the need to include more relevant intra-state geographical data, because most studies focused at the time on interstate migration for education, although many of the recruited students belonged to the state in which the institution was located. Read et al. (2005) stressed the need of increasing research on data in university admission records, finding simultaneously that GIS and geodemographic data available to be active on competitive higher education markets at the respective time was also scarce.

Studies concerning the the spatial representation of data on preschool population in terms of volume and performance on final exams from pre-university cycle are still in the centre of the focus. The demographic transition from large number of cohorts (that characterize still developing or former socialist pro-natalist societies) to a more planned dimension of the family, or countries severely affected by aging and lower birth rates is still a challenge some HEIs have to overcome in Taiwan (Kao et al., 2018; Lai & Hsieh, 2017) and in Romania (Mălăescu & Speranza, 2013; Mălăescu, 2015).

Current HEIs environment has become increasingly complex and it is difficult to forecast the future of some academic programmes, as important mutations take place in university rankings and policies.

Policies relying on enhancing research funding or lowering the tuition fees in order to attract students were found recently to have no effect (Weimar & Schauberger, 2017) on students' motivation.

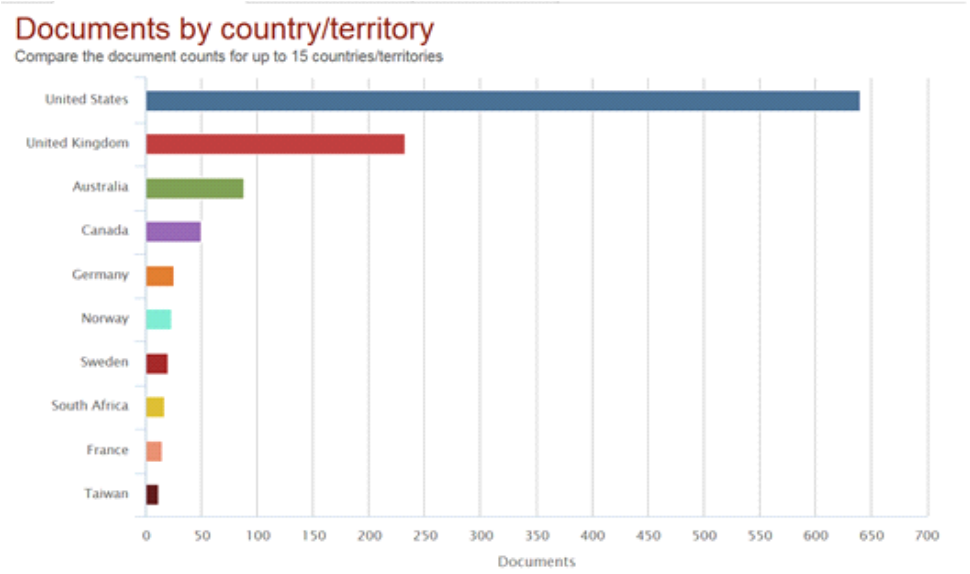

Figure 1 The geographical distribution by affiliation of the university of the articles published between 1950 and 2017 in journals indexed in Scopus.

The policy of recruiting returnees (graduates returning from study abroad) to lecturer positions is partly responsible for the further decline in students' confidence in domestic universities and the policy of admitting international students has triggered domestic tensions on the issue of educational quality and equality (Song, 2017). The struggle of negotiating managerial objectives such internationalisation and becoming a *World Class* university while remaining a massive domestic university has proven to be a challenge (Song, 2017). We may say, not just for the Chinese universities, but for UBB Cluj-Napoca as well: the university aims to become an important international research-oriented university, and at the same time to remain the most important regional university in Transylvania.

Research on student motivation and universities targeting opened to new factors like sport orientation of future students in order to enhance their employability (Griffiths, 2017) – employability rate of graduates being another university constraint highly prised in

students` prioritisation of university choice. Griffiths (2017) pointed out that employability of students can be enhanced through participation and volunteering in sport, which is shown to be a worthwhile investment because the employers praise a history of sport participation (voluntary experience included) when recruiting graduates; sport history might constitute a good indicator of candidates with desirable traits for employment. Another interesting factor mentioned was the importance of local sport teams in the urban area the university is localised, Weimar and Schauberger's (2017) study showed the importance of this issue in students' motivation for choosing a university.

The issue of equity and broadening the access to higher education of students from disadvantaged backgrounds is also present in the recent literature. In this respect, Rainford`s study case (2017) raised concerns that under the so-called enhanced equity, selection measures can, in fact, reproduce inequalities, and instead of broadening access to higher education, some programmes focus on "ensuring that students already on a path to higher education choose this institution in preference to others" (Rainford, 2017, p. 45).

Classic factors shaping policies regarding student choice and the recruitment by universities which were studied previously are still taken under consideration. Most of the studies on university recruitment areas highlighted the role of the distance between the students' residence and the university centre of the programme they were applying for (Farr, 2001; Read *et al.*, 2005) combined with other, sometimes geographically, dependent variables such as:

- socio-economic background of the recruited (and financial support policies and university tuition fees),
- status in relation to the geographical location of residence,
- the power and rank of institutions offering higher education, and relationships of proximity (Ayad, 2007),
- training preferences of prospective students and the involved changes in the specific application training, universities taking in consideration the spatial imprinted socio-economic profile of the region or area (Read et al., 2005; Mălăescu & Speranza, 2017).

However, studies show that the competitiveness and reputation of universities are key determinants of the size of the impact area in

recruiting students (Lowe & Viterito, 1989). In their review, Alm and Winters (2009) mentioned the studies on the influence of policies regarding tuition and scholarships offered to attract students. They referred to Tuckman's study (1970) showing that high tuition fees at state level influence interstate migration (emigration for studies), results supported by other studies, too, (Mixon, 1992 quoted in Alm and Winters, 2009), while large grants have a completely different effect. Hoxby (2004) reviewed the literature regarding the influence of tax policy and study support on the recruitment of students, while Martin (2003 quoted in Pogodzinsky, 2007) took a very important step forward in what concerns the operational aspect, namely building a model of optimal tax retaining.

As for the methodological instruments, while the past decade favoured massively the quantitative large data plotting in ArcGis (Read et al., 2005; Ayad, 2007; Herris & Marble, 1997) or Experian system`s MOSAIC^{TM} (Read et al., 2005), recent literature, although using large amount of data (Kao et al., 2018), oriented itself also towards the qualitative and especially mixed-methodology in order to explore the causal *"Why?"*s. Lai & Hsieh (2017) used multiple criteria decision making (MCDM) methodology to analyse a series of interview-questionnaires. Kao et al. (2018) used the Visual Basic and C# languages to write a college-student source-inquiring website in which they obtained the trend of application number and the birth population of the school year. Ahmad and Hussain (2017) used the analytic hierarchy process method in order to examine the relative importance of motivational factors in influencing the choices of the foreign students applying for a program in the United Arab Emirates universities. As early as 2005, Read et al. stressed that the results of the investigations using GIS can be a valuable starting point in carrying out further studies based on qualitative methodology that can better explain the identified patterns. They also stressed the need for profiling a particular area in terms of the students recruited, and not only of the targeted students.

Pull factors of UBB and of the city

In this study, we argue that the location, namely the city where the university is located, plays a key role in students' choice. Like Becker and Kolster (2012) argue in their study on international student mobility, push and pull factors represent an important aspect of student mobility: push factors, which initiate a student choice to leave their home town or region and migrate to a new city, and pull factors, factors that attract students to a particular city, or a higher education institution. In our case, push factors are very diverse and changing, and concern the home town and students' social and demographic background, so in this study we are focusing on the other side of the medal.

Using Becker and Kolster (2012) list of pull factors, we will present Babeș-Bolyai University (UBB) and the city where it is located, Cluj-Napoca. We hypothesise that these pull factors, i.e. the city's increasing attractiveness, and UBB's policies aimed at becoming a relevant national and international research-oriented university during the past years, should attract an increasing number of students from a national area of recruitment (UBB's key area of recruitment was, in the past, at local and regional level). We present the changes occurring in the past years in these pull factors, and we analyse the past years recruitment area of students enrolled in first year of study, to find out if there was any change, whether the share of the national recruitment area increased over time. Our data is represented on the one hand, by the university's own available databases, and on the other hand, by migration data from the National Institute of Statistics, data from 2011 National Census, and data from a migration report published by the World Bank (Cristea, et al., 2017).

The most important pull factors of a city as a study destination (Becker and Kolster, 2012) are the knowledge and awareness of the city, the quality and reputation of education, the cost of higher education and living, safety levels, levels of internalization, living, study and work environment and social and geographical linkages of the students. In our case, at a national level, Cluj-Napoca is a well know city, with a great reputation when it comes to education, especially because of Babeș-Bolyai University. In 2017, 15% of the Romanians who

planned to migrate in the following 5 years considered Cluj-Napoca as their primary destination, this mean approximately 250,000 migrants (World Bank 2017). The most important motivations behind this are the increased quality of life, the educational services and the attractive labour market. At national level, the city has one of the biggest values of the Local Human Development Index, of the Cultural Vitality Index and one of the most dynamic and higher-education oriented labour markets in Romania. 43% of Cluj-Napoca Functional Urban Area population is represented by migrants, and almost 40% of these migrants are below the age of 35: students and young professionals. The city has the second most important airport in the country, and international companies play a key part in the region's economy, alongside the IT sector, education, health services and creative industries.

The most important pull factors of a university are a wide knowledge and awareness of the institution, a high perceived quality and reputation of the institution and its education and research, recognition of degrees, the cost of higher education, the nature of governance and administrative procedures, the safety level, the level of internationalization, the living, study and work environment and social and geographical links of students.

UBB is the Romanian university which has the highest overall visibility in international rankings. A meta-analysis carried out as a national exercise in 2016 (available in Romanian here) ranked UBB first; as it cumulated the highest number of points awarded for being present in various international university rankings, which take into account the overall performance of universities. Of the nine rankings considered, UBB was included in seven, while the university placed second at national level was included in six.

Both the city and the university pull factors registered an increase in the past years, Cluj-Napoca and Babeș-Bolyai University becoming increasingly attractive from this point of view. The only pull factor which plays a negative part in students' choice is the increased cost of living, as the city has the most increased prices of apartments and rent. As we previously stated, this increasing attractiveness should be reflected in an increasing share of students from a national area of recruitment. In the following sections, we are going to analyse the UBB recruitment area for the past 5 years (2013 – 2017), by level of recruitment (local-regional-national), county of origin of the students,

focusing on the changes that we can identify. We do not claim that pull factors are the only, or the most important influence on students recruitment trends: further studies and more complex available data are necessary to find correlations between area of recruitment and pull factors. But based on previous studies presented in the literature review, we believe there is a strong connection between student recruitment and pull factors of a city and of a university.

Findings

Area of recruitment (%)	**2013**	**2014**	**2015**	**2016**	**2017**
Local	24.9	24.9	24.3	23.3	20.7
Regional	35.4	37.0	36.8	35.7	35.0
National	33.4	35.5	37.3	38.7	40.4
Other	6.3	2.6	1.6	2.3	3.9

Table 1. Share of different levels of recruitment area

The three levels of recruitment, in our case, are represented by Cluj County considered as the local area, the counties in Cluj's proximity, considered as the regional area (namely Bihor, Sălaj, Maramureş, Bistriţa-Năsăud, Mureş, and Alba), and the other Romanian counties as the national area of recruitment. The "Other" category is represented by international students and by missing data. Also, it is important to mention that most students from the national area of recruitment are from Transylvania, from counties from the intra-Carpathian area (approximately 60% of the students from the national area come from Transylvanian counties).

As we can see in *Table 1* above, in the past five years there has been an important increase in the share of the students coming from the national area of recruitment, and an important decrease in the share of students from Cluj county, the local area of recruitment.

The increased share of students recruited from other regions brings evidence of successful policies in increasing the prestige of the university as a future *world class* university. In terms of student

recruitment, this dynamics proves the continuous strengthening of the character of a "university of choice" instead of a "university of proximity" (Spinelli, 2000; Smith et al., 2002). Two main probable causes are responsible for the decrease in students recruited locally: the continuous demographic shrinking of the recruiting pool and the increase of elite high-school graduates lured by Western universities. Although we lack data in order to test this hypothesis for Cluj-Napoca, it is highly probable that we have to face this challenge of competing for the elites considering that in a short period of time, i.e. the last three years (2013 - 2017) the volume of elite high-school graduates recruited by foreign universities from Romania increased by around 20%.

The regional level did not change in any notable way. As we can see in *Table 2*., the increase of national area of recruitment comes mostly from counties from Moldavia (Suceava, Neamt, Galați, Botoșani, and Bacău). It seems that students from these counties, even though the city of Iași and its educational services are closer, started to consider Cluj-Napoca as a better alternative for a university degree.

	2013	**2014**	**2015**	**2016**	**2017**
Alba	4.7	4.5	5.2	4.6	4.5
Arad	0.9	0.9	0.8	1	0.9
Argeş	0.1	0.2	0.1	0.3	0.3
Bacău	0.5	0.8	1	1.3	1.3
Bihor	3.2	3.2	3.5	2.8	3
Bistriţa-Năsăud	8	8.3	8.1	8.1	7.7
Botoşani	0.9	0.8	1.2	1.3	1.6
Brăila	0.1	0.2	0.1	0.2	0.2
Braşov	1.4	1.8	1.7	2	1.6
Bucureşti	0.2	0.3	0.4	0.4	0.6
Buzău	0.1	0.1	0.1	0.1	0.1
Călăraşi	0	0	0	0	0
Caraş-Severin	0.2	0.1	0.2	0.3	0.3
Cluj	24.9	24.9	24.3	23.3	20.7
Constanţa	0.1	0.2	0.3	0.3	0.5

Covasna	3.1	2.8	3.1	3.3	3
Dâmboviţa	0.1	0.1	0.1	0.1	0.2
Dolj	0.2	0.2	0.2	0.2	0.3
Galaţi	0.3	0.4	0.5	0.6	0.7
Giurgiu	0	0	0	0	0
Gorj	0.3	0.2	0.4	0.4	0.6
Harghita	5.6	5.7	4.9	5.6	5.4
Hunedoara	4	4.1	4	3.7	3.6
Ialomiţa	0	0	0	0	0.1
Iaşi	0.3	0.3	0.4	0.4	0.5
Ilfov	0	0	0.1	0	0.1
Maramureş	8.5	9.1	8.6	8.3	8.7
Mehedinţi	0.1	0.1	0.1	0.1	0.1
Mureş	5.4	5.8	6.1	6.5	6
Neamţ	1.3	1.7	2.2	2.4	2.9
Olt	0.1	0.1	0.1	0.1	0.1
Prahova	0.3	0.3	0.2	0.4	0.4
Sălaj	5.6	6.1	5.3	5.4	5.1
Satu Mare	5.9	5.5	6.4	5.3	5.2
Sibiu	2.1	2.3	2.3	2.2	2.7
Suceava	3.9	4.7	4.6	4.9	5.3
Teleorman	0	0	0	0	0.1
Timiş	0.3	0.3	0.3	0.4	0.3
Tulcea	0.1	0.1	0.1	0.1	0.1
Vâlcea	0.4	0.5	0.5	0.6	0.6
Vaslui	0.1	0.2	0.2	0.5	0.3
Vrancea	0.1	0.2	0.2	0.2	0.1
Other	6.3	2.6	1.6	2.3	3.9

Table 2. Share of students by counties

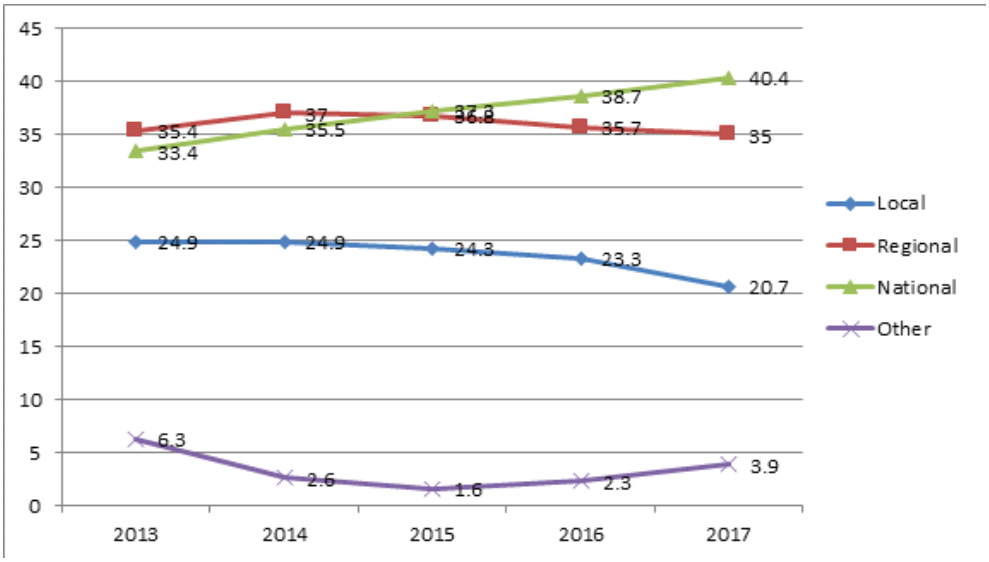

Figure 2: Share of different areas of recruitment

The dynamics illustrated in *Figure 2* shows that the national area of recruitment increased from 33.4% in 2013 to 40.4% in 2017, becoming the most important level of recruitment, more important than the regional area, which remained at 35%. However, the local area had an important decrease, from 25% in 2013 to 20.7% in 2017.

Conclusions

As a conclusion, we can confirm our hypothesis: an increasingly attractive university and city, with stronger pull factors, attract more students from the national area of recruitment. The city is becoming more and more attractive to migrants, especially for the young generation, due to its attractive education, flexible and well-paying labour market, internationalization, cultural and economic lifestyle. This attractiveness, the pull factors of Cluj-Napoca, and the UBB's aiming to become an important research-oriented university at national and international level, holding increasingly better places in international university rankings, i.e. the pull factors of the university, resulted in this increased share of students from the national level of recruitment. At this time, this level has become the most important

recruitment level for Babeş-Bolyai University. Further studies, both quantitative and qualitative, are necessary in order to explore in-depth student motivation, and to find stronger statistical connections between pull factors and recruitment area. If we can supplement the data set analysed in this article with solid information about motivation, the process of choosing an educational offer and a city, we could achieve a more detailed picture about student recruiting at Babeş-Bolyai University.

No matter how reassuring we find the results of this study at national level, the findings of this analysis bring empirical evidence for the need to secure the university's prestige as one of the most competitive universities in terms of academic training, research and career opportunity design. This imperative must compensate the increased marketing and recruitment strategies targeted by foreign universities for Cluj-Napoca in recent years in order to maintain the quality of the recruited body. As long as we no longer compete in a national arena, we need sound long term policies in order to face the challenges in the global market: demographic aging and shrinking of the recruitment pools, the continuous homogenisation process of living costs and academic taxes in the European Community, the head-hunting of elite students in order to show relevant outputs in terms of doctoral research, high labour market insertion rates and management position occupancy through alumni tracer studies.

RReferences

Ahmad, S.Z., Hussain, M. (2017), "An investigation of the factors determining student destination choice for higher education in the United Arab Emirates", *Studies in Higher Education,* 42 (7), 2017, 1324-1343.

Alm, J., Winers, J., (2009), "Distance and intrastate college student migration", *Economics of Education Review*, 28, 728-738.

Ayad, Y., (2007), *Challenges in Student Recruitment for Educational Institution:Materials and Methods,* ESRI UC.

Becker, R., Kolster, R. (2012), International student recruitment: policies and developments in selected countries, Nuffic, The Hague 2012.

Csata, Zs., (2014), Az erdélyi magyar tanulók iskolai teljesítményének meghatározói a. TIMSS vizsgálatok alapján, Kissebbségkutatás 2014, on http://real.mtak.hu/16463/1/Csata%20Zsombor%20Kisebbsegkutatas%20TIMSS.pdf on December 2017.

Griffiths, K., Bullough, S., Shibli, S., Wilson, J. (2017) "The impact of engagement in sport on graduate employability: implications for higher education policy and practice", *International Journal of Sport Policy,* 9 (3), 431-451.

Herris, J., Marble, D., (1997), *A Model for the Use of GIS Technology in College and Unniversity Admission Planning*, ESRI Proceedings 1997.

Kao, W.-H., Kao, K.-P., Ding, M.-H. , Hung, J.C., Wang, P.-C., Liou, B.-S. (2018) "Analysis modelling of college students sources", *Lecture Notes in Electrical Engineering*, 422, 519-528. 5th International Conference on Frontier Computing, FC 2016; Tokyo; Japan; 13 July 2016 through 15 July 2016; Code 199929.

Lai, J.-C., Hsieh, M.-Y. (2017), Proceedings of the 2017 IEEE International Conference on Applied System Innovation: Applied System Innovation for Modern Technology, ICASI 201721 July 2017, Article number 7988502, 622-624. IEEE International Conference on Applied System Innovation, ICASI 2017; Hotel EmisiaSapporo; Japan; 13 – 17 May 2017; Category number CFP17E74-ART; Code 129536.

Lowe, J., Viterito, A., (1989), "Differential Spatial Attraction of Private Colleges and Universities in the United states", *Economic Geography*, 65, 208-215.

Mălăescu, S., Speranza, C.M., (2013), "The challenge of keeping up: current methodologies in analysing the students recruiting area by universities", G*eographia Napocensis*, 8(2), 71-80.

Mălăescu, S., (2015), "Distance as key factor in modelling students recruitment by universities", *Studia UBB Geographia,* LX (2), 2015, 163-170, on http://studia.ubbcluj.ro/download/pdf/963.pdf on December 2017.

Read, P. Higgs, G., Taylor G., (2005), "The potential and barriers to the use of geographical information system for marketing applications in higher educational institutions", *Marketing Intelligence and Planning*, 23, 30-42.

Pogodzinski, P., (2007), "GIS Analysis of University Enrolment Using Census Data and GeoCoding", *ESRI Proceedings* available on http://proceedings.esri.com/library/userconf/educ07/educ/papers/pap_1410.pdf in October 2010.

Papp Z, A., (2012), "Az iskolaválasztás motivációi és kisebbségi perspektívái", *KISEBBSÉGKUTATÁS,* 3, 399-417.

Rainford, J. (2017), "Targeting of widening participation measures by elite institutions: widening access or simply aiding recruitment? Perspectives: Policy and Practice", *Higher Education,* 21 (2-3), 45-50.

Song, J. "Creating world-class universities in China: strategies and impacts at a renowned research university", *Higher Education,* 2017, 1-14.

SPINELLI, J. (2002), "Geographic patterns of student enrolment in Ohio's State-assisted universities" (1), *The Ohio Journal of Science,* 102, 34-39, on https://kb.osu.edu/dspace/handle/1811/23925 on December 2017.

Weimar, D., Schauberger, M. (2017), "The impact of sporting success on student enrollment", *Journal of Business Economics*, September 2017, 1-34.

World Bank: Cristea, Marius, Codruța Mare, Ciprian Moldovan, Andreea China, Thomas Farole, Adina Vințan, Jane Park, Keith Patrick Garrett, Marcel Ionescu-Heroiu. 2017. Magnet Cities: Migration

and Commuting in Romania. Washington, DC: World Bank. http://documents.worldbank.org/curated/en/327451497949480572/pdf/116400-WP-P158178-PUBLIC-MagneticCities-Jun18-v4.pdf?ECA_FB_Romania_EN_EXT=ECA_FB_Romania_EN_EXT on December 2017.