



THE INFLUENCE OF HIGHER EDUCATION ONTO THE DEMOGRAPHICAL AND ECONOMICAL INDICATORS IN SERBIA

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ABSTRACT: *One of the main roles of academic higher education is to create an educated and creative population which will fulfill the needs of a developing country based on human values that promote and contribute the strengthening of social cohesion and cultural values. The social dimension of academic education includes implicitly establishing structural assumptions in order to enlarge the chances of the young people to achieve academic education at universities in Serbia. The equal admittance, approach to higher education for each individual makes it easier to find employment and represents a powerful tool in diminishing poverty and social exclusion. All the strategies for developing education in Serbia emphasize the strong connection between education and economy which, on the one hand, determines demographical movements and growth. The concretization of the concept where demography, economy and academic education are strongly tied up was viewed by the means of questioning opinions and attitudes of students which cover their personal and professional movements after completing their academic studies.*

Key words: *demography, economy, academic education, students' opinions and attitudes*

1. INTRODUCTION

The social dimension of higher education includes implicitly establishing structural assumptions in order to enlarge the chances of young people to achieve academic education at universities in Serbia. The equal admittance, approach to higher education for each individual makes it easier to find employment and represents a powerful tool in diminishing poverty and social exclusion. In the Bologna process, the most important starter of changes in the higher education in Europe, the social dimension has been mentioned in all of the ministerial notifications since the year of 2001. On the other hand, not earlier than 2007 in London was the aim of this concept defined as “the

student population which enrolls, attends and finishes academic education at all levels reflects the diversity of our societies“. In the European Union, the conclusions of its Council, dated the 11th of May 2010, define the social dimension as: “equal possibilities for approaching the quality high-grade education as well as righteousness in procedure, including the accommodation of the academic offers to the needs of the individual”.

The number of students, who study at the academic institutions in Serbia, is always greater than the number of them, which is registered by the Republic Bureau of Statistics of Serbia (RBSS). Namely, the RBSS registers only the “active students” that is those students who attend the classes regularly on every day basis, while



academic institutions count in also the number of the so-called “passive students”, i.e. the students who did not have their names removed from the school register. Such students did not enroll the current term, they are senior students qualified to sit for their degree exams after meeting all formal requirements for a full course of studies. They have passed all the exams successfully and only need to graduate, get their diplomas. Reasonably, it is much better to use the data of the RBSS in order to achieve statistically exact results. According to its data, there are 48.508 freshmen in Serbia during the school year 2021/2022, including all the academic institution. In the total number of freshmen the majority is women, 56.3% which is 27,292 in numbers. Male students make 43.7% of the freshmen population, in numbers it is 21,216 students. If the costs of tuition are observed, 50.6% of freshmen are on the budget, while the remaining 49.4% are self-financed.

The social and economic status of the students’ families, according to the data on occupation and education of the families students come from, is observed as an extremely relevant indicator of the social dimension of higher education. The latest research from 2007 based on the sample of 1992 households, was conducted by the Institution for Social Studies at the Philosophical Faculty in Belgrade under the name of „Socio-economic Strategies of Households in Serbia”, gives valid data in this field of interest. Namely, the households were, according to the methodology of this Institute, split up into five categories of financial status: low, lower middle, middle, upper middle and high, where the task of separating households where there are youngsters aged 18 - 25 years, with or without students, was easily done. According to the data shown in Table 1, it is easy to estimate the connection between the financial situation of the family and the chances for their members to become a student at an academic institution.

Finances	A household member, aged 18 - 25 years					
	None		Present		Total	
Low	83	5,7 %	11	2,1 %	94	4,7 %
Lower middle	573	36,6 %	162	30,8 %	699	35,1 %
Middle	409	27,9 %	151	28,7 %	560	28,1 %
Upper middle	276	18,7 %	132	25,1 %	408	20,5 %
High	161	11 %	70	13,3 %	231	11,6 %
Total	1466	100 %	526	100 %	1992	100 %

Table 1. Finances of the student’s household

The data on the parents’ or guardians’ occupation of students were gathered by the means of SV20 form which was filled in by students during the process of their enrolling the winter term of the 2006/2007 school year. After multiple statistic comparisons and adding up some categories of occupation (for example: professional co-workers and technicians were all grouped as experts,

army men were associated with clerks, and so on). The most striking fact is, beside the fact that 2/5 of students do not mention the occupation of their parents, that “experts” are highly present, while the qualified workers and craftsmen, together with service clerks and workers are the least represented group of parents. Along with the growth of the degree of studies, grows the percentage of



student whose parents are classified as “experts”. For example: there are 63.5% of such students who study at college specialized vocational studies whereas that percentage is even greater when it comes to undergraduate academic master studies where it reaches 69%. At the specialized academic studies there are 84% of such students while their number at doctoral academic studies is the greatest and makes 88% of such students.

The social policy of the country, in order to enable more approachable studies for everyone, is clearly defined by *The Law on Higher Education in the Republic of Serbia* which regulates the finances, ways of earning resources for academic institutions in two ways. The first mode is to get funds by the founder, which is from the Government’s Budget of the Republic of Serbia. Those assets are used for employees’ salaries, material expenses, maintenance and equipment, library books, scientific and professional perfecting of the personnel, international co-operation, publishing activities, buying necessary equipment, etc. The second way of financing academic institutions is self-financing through: school fee, donations, foundations and legacies, revenues from financed scientific researches and other competent works, projects, compensations for commercial and other service, etc. Thus, the Government provides certain funds, but they are insufficient for academic education, leaving the discretion right to the faculties to raise salaries in many different ways (school fee, students’ registration for exams, giving out certificates, etc.). In this way, by the help of high tuition costs of public and private faculties, they contribute to further social stratification and the gap between the rich and the poor is getting even wider. It is done by the

“Government’s blessing and permission”, and it is mainly justified but in reality it helps the schools only, not the students’ welfare.

On the other hand, the indefinite state policy, that is the disproportion of the market’s needs for highly educated personal compared to the number of educated, as well as the state’s high costs for the budget students but are “not needed on the market”, intrudes the conclusion: “The state financially supports highly educated personal that will find employment out of Serbia since there is no need for them here. Thus, the state produces its own expenses for the budget loss, with no social interest at all, and for the benefits of other markets which are abroad”.

2. MIGRATION AS A DEMOGRAPHIC INDICATOR

A comprehensive survey on this matter in Serbia by the authors (Kuka, Lj. & Kuka, M., 2022) was published in their scientific paper *Demography in the Function of Resolving Geopolitical crises*, which integral part will be shown here:

“Based on the data from Table 2, we can see the decade-long trend of negative birth rate in Serbia, which annually fluctuates of about 35,000 fewer born than to the number of dead. The unofficial data for 2020 and 2021, conditioned by the current Covid pandemic, point to an even higher negative birth rate, which averaged over 70,000 fewer births per annum, than deaths (62,062 born in 2021, 135,901 dead, negative birth rate is 73,839). Therefore, only in period from 2008 to 2021, Serbia lost about 530,000 inhabitants through the negative birth rate, which is approximately 7.3 % of the total population.

Years	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Live births	69,083	70,299	68,304	65,598	67,257	65,554	66,461	65,66	64,73	64,89	63,98	64,399
Deaths	102,711	104	103,21	102,94	102,4	100,3	101,247	103,7	100,8	103,7	101,7	101,458
Birth rate	- 33,628	- 33,70	- 34,90	- 37,3	- 35,14	- 34,74	- 34,786	- 38	- 36,1	- 38,8	- 37,7	37,059

Table 2. The natural birth rate fluctuation in Serbia in period 2008 - 2019



According to the report of the International Organization for Migration¹⁷, there has been an increase in the level of the international migration in line with the contemporary trends. Thus, in 2021, the number of the international migrants in the world estimated at 280 million, which represents 3.6 % of the world's population. It is important to note that this category of persons achieves 9 % of the world's GDP¹². In addition, the Gallup¹⁹ research from 2015 to 2017 determined that there are 700 million potential migrants in the world, who are considering to a quick move abroad.

The migration balance is difficult to determine both methodologically and by comparing officially published data, so estimates that based on various statistical methods and administrative indicators most often used in the list of migrants. Thus, the 2011 Census of Population, Households and Dwellings in 2011 in Serbia² states: “When the officially registered decrease in the total population of Serbia (about 311.000) deducts the negative birth rate (about 297.000), the negative migration balance of almost 14,000 in the period 2002 - 2011 remains. It turns out that Serbia, due to the negative migration balance with the world, lost at least 56,000 inhabitants or an average of about 6,000 per annum in the period from 2002 to 2011. If the unknown number of the IDPs in the 2011 Census is somewhere between, then that loss is higher by about 55,000, which gives an average annual negative balance of about 11,000 inhabitants.”

However, according to the estimates of the Organization for Economic Cooperation and Development (OECD)¹⁶, migrations from Serbia have an incomparably more pronounced trend: “The average annual influx of migrants from Serbia to the OECD member states in period 2007-2016 was 41,000. This means that within 11 years, about 500,000 inhabitants left Serbia for the OECD countries only, with an average age of 30, i.e., from the labor force contingent.” On the other hand, in the last decade, the

number of returnees to Serbia was less than 70,000, and of this number, as much as 63 % belongs to the inactive population, i.e. retirees.

These statistics should be corrected by the fact that a significant number of emigrants do not deregister their residence in Serbia (temporary work, dual citizenship, etc.), so they are not included in this data. It assumed that this trend of “an administrative inaccuracy and the statistical manipulation” is present in the most underdeveloped countries of the world, which collectively leads to erroneous statistical indicators. The obligation to register a temporary stay abroad and return from abroad to Serbia regulated by the Law on Permanent Residence and Residence of the Citizens¹⁴, which is insufficiently respected. Based on our research, conducted in 2021 on the sample of 235 people who emigrated from Serbia for a shorter or a longer period, only 147 of them deregistered their residence, which is 62.55 %. If this figure is added approximately to the OECD estimates, the number of potential migrants would be over 65,000 annually. This data, increased by the negative birth rate in Serbia (Table 2), leads to the number of over 95,000 inhabitants that Serbia loses in one year. Therefore, only in period from 2008 to 2021, Serbia lost about 1,300,000 inhabitants through the negative birth rate and emigration, which is about 18 % of the total population.

As part of economic research, the Institute for Development and Innovations⁶ has compiled a list of costs of emigration. According to these data, the price of secondary education in Serbia is around € 20,000, or around € 36,000 for a higher education. In the West, the desired, the preferred professions such as doctors or dentists in Serbia are being educated in the amount of € 58,000 to € 71,000. Comparing these professions with education, e.g. doctor in the USA, which costs about \$ 280,000, comes to the answer as to why only one in four doctors in the USA completed their studies at a home



university. If the price of education of citizens who emigrate from Serbia is included, the annual amount is 1.1 – 1.35 billion Euros, depending on the educational profile. However, the price that Serbia pays in the coming decades is much higher because emigrants do not create GDP for Serbia, i.e. less market, consumption and tax revenue.

That the official statistics can be manipulated is also shown by the data of the Republic Bureau of Statistics of Serbia¹³, according to which the number of newborns in 1998 was 76,330, in 2002, the number of newborns was

78,101 and in 2004, the number of newborns was 78,186. Newborns in 1998 become adults (they become adults at the age of 18) with the right to vote in the 2016 elections, newborns in 2002 became adults in 2020, and newborns in 2004 became adults in 2022. It remains unclear how in the interval from 2007 to 2022 with the shown trend of negative natural increase and progressive trend of emigration from Serbia, the number of registered voters remained almost unchanged, as indicated by the data of the Republic Election Commission¹⁵ shown in Table 3.”

Elections	2007	2008	2012	2014	2016	2020	2022
Number of voters	6,653,851	6,749,688	6,770,013	6,765,998	6,739,441	6,584,376	6,739,441

Table 3. The number of registered voters by election years 2007 - 2022

3. STUDENTS' ATTITUDES AND OPINIONS ON THEIR PROFESSIONAL CARRIER AFTER FINISHING EDUCATION

This research was conducted during the first term of the 2021/2022 school year on the sample of 725 students of the Belgrade University and the Academy of Vocational Schools, seated in Belgrade, and its main goal was to examine the opinions and attitudes of students on their personal and professional movements and plans after the graduation by the means of a questionnaire. The only students we were interested in were those who come from the inner parts of Serbia, from the country, who were not born in Belgrade and had never lived in Belgrade before they enrolled their academic institutions. Beside the academic students (517), we also included those students who study at vocational colleges (208), i.e. the Academy of Vocational Studies, since it is the legal successor of former vocational schools since 2019. We tried to include students from various places and wide range of territory in order to get the clearest picture of the potential

movements of highly educated population from Serbia. Taking into account the fact that the territory of Serbia is divided into provinces, regions and administrative districts, the questioned students come from:

1. 58 students were from the Mačva region, area 3,270 km², with the average population density of 85 inhabitants/km²,
2. 61 students were from the Kolubara region, area 2,474 km², with the average population density of 66 inhabitants/km²,
3. 87 students were from the Zlatibor region, area 6,140 km², with the average population density of 43 inhabitants/km²,
4. 86 students from the region of Raška, area 3,923 km², with 78 inhabitants/km²,
5. 59 students from the Pčinja region, area 3,520 km², with the average population density of 56 inhabitants/km²,
6. 82 students were from Srem, area 3,485 km², with the average population density of 85 inhabitants/km²,
7. 63 students were from Pirot region, area 2,761 km², with the average population density of 30 inhabitants/km²,
8. 59 students were from the North Bačka region, area 1,784 km², with the average



population density of 100 inhabitants/km², **9.** 94 students were from the Western Bačka region, area 2,488 km², with the average population density of 69 inhabitants/km², **10.** 76 students were from the North Banat region, area 2,328 km², with the average population density of 58 inhabitants/km².

Out of the total number of questioned students, 512 students (70.6%) were on the budget, while 213 students (29.4%) had to pay for their studies, they were self-financed. The majority of questioned students have been living in students dormitories, 412 students (56.8%), 289 students (39.9%) were tenants in rented flats, 24 students (3.3%) found accommodation at their relatives' places. None of the students was living in his own apartment or in the place owned by his parents.

Out of the total number of students 618 of them, (95.2%) come from the families where there are 4 members, 79 students (10.9%) come from larger families with 5 or 6 members, while only 28 students (3.9%) come from families of more than 6 members. It is also very important to mention here an interesting fact, which requires further and more intensive social and psychological studies, that 448 students (61.8%) live in families where there are both of his parents, while 268 students (37%) come from single-parent families, and 9 students (1.25%) are from foster families, that means they are not living with their biological parents.

The questioned students, when it came to give their opinion on the finance of their parents, answered in this way: 112 students (15.4%) chose "low", 45 students (6.2%) circled the "lower middle" choice, 316 students (43.6%) chose "middle", 214 students (29.5%) claimed "upper middle", and only 38 of them (5.3%) chose "high". It is important to mention here that when it came to question on occupation of their parents, and for the reasons of uneven marital status (complete with both parents, single-parent, or foster), it is easy to conclude that the majority of students (67%) come from families

where fathers, step fathers or foster fathers (male figures) are "clerks in the army, health or other institutions of public service", while the greatest number (59%) of mothers or step mothers, foster mums (females) are "workers in service institutions".

In this research we were primarily and mainly interested in the attitudes and opinions of students on their plans and what they expect to do and where to find a job after their graduation. In the best sense of that question their answers are as follows: the greatest number of students 511 (70.5%) plan to "leave the country and find a job abroad", 183 students (25.2%) plan "to find a job in the country, but not in the place of birth", while only 31 students (4.3%) plan "to go back to their hometown and find a job there". The reasons which influenced their choices the students explained: "difficulties in finding a proper job in the profession they were qualified in", "existential uncertainty" and "lack of possibilities to potential promotions in professional career". These were the main factors of those students who plan "to leave the country and find a job abroad". Almost all of the students who plan "to find a job in Serbia but not in the hometown", cite the above mentioned factors. Students who plan to "go back to their hometown and find a job there" think that "there is no essential difference between the job offers here compared to that abroad", and besides that they do not want to leave their hometown and their country because they feel here "as safe as could be".

When expressing their attitudes and opinions on potential changes in the country, which could make the students change their decision of leaving the homeland and make them stay here, the students who wish to move abroad most often stated the following reasons: "greater market offer of highly paid jobs" and the "institutional social systems of foreign countries". As the most desirable countries the students chose the USA (53%), Australia (27%), and Canada (11%) and at the fairly low positions came the countries of the European Union in the



collective percentage of only (8%) and they are Germany, France, Portugal and the UK. The students stated the advantages which chosen countries have when they are compared to their homeland where they study: “expectations of finding a suitable job in their profession are much easier”, “better chances of promotion and proficiency” and “better life”. It has to be noted here that students often exchange their attitudes and opinions with each other when it comes to future plans on their life after the graduation and they all share the same ideas on this topics.

4. CONCLUSIONS

The developing strategy in any field and in such as the field of higher education, is primarily determined by the willingness of the society to accept the proposed issues and incorporate them into its institutional system. The smallest and easiest task is to sell the dates without any content and responsibility; by the year of 2020, by 2025, by 2030, and so on ... it would be advisable to realize the suggested strategic goals, actions and standards as accompanying indicators of development. The developing strategies for implementing improvements in the field of education in Serbia which have been suggested so far are merely just a wish list. They do not oblige anybody or seek responsibility for the outspoken and for the failure to fulfill the promised. The main motto of former strategies was reduced only to predictions of what should happen tomorrow, next month and next year, and then “explain based on solid arguments“ why it did not come to live up. Such a decade-long institutional approach toward the higher education and its real market need in the country, which is an essential part of the Government’s policy, shape the students` attitudes and opinions shown in this research and they are a logical outcome, i.e. they are the indicators of the situation in Serbia which will be progressively developing in the course ruining the demographic indicators in Serbia with an unclear vision

of the possible survival of the stable economic status of the country.

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QUESTIONNAIRE

on students' attitudes and opinions about their personal and professional life, movements after completed academic education

This survey is anonymous; Your data will be used for a scientific research work. Your opinion can not be right or wrong, but it will have a useful purpose in further contemplation of the influence of academic education onto the demographic and economic indicators in Serbia.

For each of the questions the answers are given, and You only have to choose just one.

You will choose Your answer by circling the number in front of Your best choice. If the question seeks Your detailed explanation, try to answer it as clearly and concretely as possible.

1. The name of the faculty you are attending:

2. What year of studies are you in:

3. Student's status (circle the right answer):

- a) on the budget
- b) self-financing

4. Your accommodation during schooling (circle the right answer):

- a) I live in a students' dormitory.
- b) I am a tenant.
- c) I live with my relatives.
- d) I live in my own (parents') flat.

5. In which town had you been living before you came to this faculty:

6. How many family members are there in your family (circle the right answer):

- a) from 1 to 4 members
- b) 5 or 6 members
- c) more than 6 members

7. What is the structure of Your family?

- a) I live with my both parents.
- b) I live in a single-parent family.
- c) I come from a foster family.

8. What are the financial funds of Your parents (circle the right answer):

- a) low
- b) lower middle



- c) middle
- d) higher middle
- e) high

9. Your parents' occupation (circle the right answer):

Father

- a) private contractor or government employee
- b) clerk in the police, army or health service
- c) state clerk in the police, army and health service or utility worker for public service
- d) worker in a service/trades company
- e) qualified worker or a craftsman
- f) farmer

Mother

- a) private contractor or government employee
- b) clerk in the police, army and health service
- c) state clerk in the police, army and health service
- d) worker in a service/trade company
- e) qualified worker or a craftswoman
- f) farmer

10. After I have completed my education, I plan to (circle the right answer):

- a) go back to my hometown and find a job there.
- b) find a job in my country but not in my hometown.
- c) leave my country and find a job abroad.

11. Write down at least three reasons which influence Your answer onto question no. 10:

12. If your choice is living abroad, write down at least three changes which could make you stay in Serbia:

13. If your choice is living abroad, write down at least three countries where you would like to live:

14. Name three advantages foreign countries have compared to your homeland which greatly contribute to your decision to live abroad:



15. After talking to Your colleagues about this topic, what are their plans after getting academic education (circle the right answer):

- a) to go back to the place of birth and find a job there,
- b) to find a job in Serbia, but not in my hometown,
- c) to go abroad.

