COSTS OF HIGHER EDUCATION IN BIH











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Table of contests

Abbreviations/Acronyms	4
1. Introduction	5
2. Higher education system in BiH	6
2.1. Types of higher education institutions	7
2.2. Organization of higher education	7
3. Financing higher education in BiH	9
3.1. Sources of higher education founding in BiH	10
3.2. Financial autonomy and control	12
3.3. Tuition fees in public higher education	14
3.4. Financial aid for students – scholarships	15
3.5 Private educational institutions	15
4. Cost efficiency of higher education in BiH	16
Concluding remarks	20
Bibliography	23

Abbreviations/Acronyms

GVA	Gross Value Added
BiH	Bosnia and Herzegovina
EAU	European Association of Universities
ECTS	European Credit and Transfer System
EKO	
(EQF)	European Qualifications Framework
ETS	European Treaty Series
ISCED	International Standard Classification of Education
VŠU	Higher Education Institution

1. Introduction

Higher education has multiple roles in society. Its basic functions are education, research, and the impact on the growth and development of the economy and society. Education, and especially higher education, has an impact on both, the individual and society as a whole. Individual benefits from education primarily through a salary that is generally positively related to the level of education. The impact of education for the individual has a direct impact on the economy of an individual country and society as a whole. Social impact primarily indicates the issue of funding and provides information on whether funding is optimal.

Higher education, both in BiH and around the world, has been accompanied by major changes in recent years. In addition to rapid scientific and technological changes, we also have changes caused by the pandemic crisis. The pandemic has significantly affected life, work, learning and teaching on a global scale. Overnight, teaching in higher education had to adapt to new conditions and the transition to an online environment.

In the study "Costs of Higher Education in BiH" we present the results of research within the "Youth Retention Program in BiH - General Mobilization", implemented by the Citizens' Association "Nešto više" in cooperation with PRONI Center for Youth Development and funded by the European Union.

There are public and private higher education institutions in Bosnia and Herzegovina. The system of public universities consists of the following eight universities: University of Sarajevo, University of Tuzla, University of Mostar, University of Banja Luka, University "Džemal Bijedić" Mostar, University of East Sarajevo, University of Bihać and University of Zenica with about 90 faculties and art academies. There are also 22 private higher education institutions that are treated equally by the law on higher education as public higher education institutions.

The main goal of this research is the analysis of the costs of studying in BiH, and the analysis of the financing system of universities and faculties in BiH.

The basic methodology in the research is the analysis of primary and secondary data, review of existing literature and documents in this field. The basis for this research were the reports of higher education institutions, the results of surveys, standard reports of statistical institutions, but also special quantitative and qualitative analyzes and reports used for the specific needs of this research.

2. Higher education system in BiH

The higher education system in BiH is based on the principles of the Bologna Declaration. According to this principle, higher education is organized according to the system of transferable credits (ECTS) and has three levels:

The first cycle is an undergraduate study that usually lasts 3 to 4 years (according to the 3 + 2 + 3 or 4 + 1 + 3 system) and carries a total of 180 to 240 ECTS credits. Upon completion of the undergraduate study, students are awarded a bachelor's degree with a title in accordance with the subject area in which the studies were conducted.

The second cycle is postgraduate study, which lasts 2 years and carries 120 ECTS credits and the title of Master of Arts or Sciences is awarded.

The third, last cycle of higher education is actually a doctoral study, which is a continuation of the master's study and lasts 3 years, and after the completion of this study, the title of doctor of arts or sciences is awarded.

In addition to these titles, the University may offer specialist studies lasting one or two years, which may lead to the title of specialist in a particular field such as medicine.

In accordance with laws and regulations, higher education institutions are funded by the RS or FBIH authorities. Higher education activities are thus governed by the laws of the RS or FBIH, while at the state level the Ministry of Civil Affairs takes on the task of coordinating the higher education activities of the two entities.

Higher education in Bosnia and Herzegovina is regulated by the Framework Law on Higher Education in Bosnia and Herzegovina ("Official Gazette of BiH", No. 59/07, 59/09). This law determines: the organization of higher education in Bosnia and Herzegovina, the responsibility of the competent authorities in this field, establishing bodies for the implementation of laws and international obligations of Bosnia and Herzegovina, and the manner of quality assurance in higher education. The Law also establishes the basic principles and standards for the acquisition of higher education in Bosnia and Herzegovina, in accordance with the relevant provisions of the European Convention for the Protection of Human Rights and Fundamental Freedoms (ETS No. 5, 1950) and its protocols, Recommendation of the Committee of Ministers of the Council of Europe on the Recognition and Assessment of the Quality of Private Higher Education Institutions [R (97) 1], Recommendation on Access to Higher Education [R (98) 3] and Recommendation on University Research Tasks [R (2000) 8] and other relevant principles of internationally recognized legal instruments whose contracting state is Bosnia and Herzegovina, and in accordance with the Council of Europe / UNESCO Convention on the Recognition of Qualifications concerning Higher Education in the European Region (ETS No. 165, 1997).

On the basis of the Framework Law on Higher Education, the Law on Higher Education in the Republika Srpska, ten cantons in the Federation of Bosnia and Herzegovina and the Brčko District of Bosnia and Herzegovina were harmonized, which made possible for Bosnia and Herzegovina to switch to the Bologna education system.

2.1. Types of higher education institutions

Higher education institutions in Bosnia and Herzegovina are universities and colleges. The term "university":

- is limited to higher education institutions engaged in both teaching and research, offering academic degrees in all three cycles, with objectives that include improving knowledge, thoughts and education in Bosnia and Herzegovina, educational, cultural, social and economic development of Bosnia and Herzegovina, promotion of democratic civil society and achieving the highest standards of teaching and research;
- refers to a higher education institution that implements at least five different study programs in at least three scientific fields natural sciences, technical sciences, biomedicine and health, biotechnical sciences, social sciences and humanities.

A university may have organizational units, such as: faculties, academies, colleges or scientific institutes, which carry out teaching, scientific research and artistic work in one or more educational and scientific fields.

The term "high school":

- It is limited to a higher education institution accredited to provide first cycle diplomas and degrees, with objectives that include preparing and training individuals for the professional, economic and cultural development of Bosnia and Herzegovina and promoting democratic civil society, and achieving high standards of teaching and learning.;
- refers to a higher education institution that implements at least one study program in one scientific field and meets other requirements in accordance with the law.

The Framework Law on Higher Education in BiH stipulates that theological faculties, theological colleges and academies may be part of universities, which is regulated by a special agreement. Before the transition to the Bologna system of education, there were also higher schools that provided two-year vocational education.

2.2. Organization of higher education

Higher education is organized in three cycles:

- the first cycle leads to the academic title of completed undergraduate study [the degree of Bachelor] or equivalent, acquired after a minimum of three and a maximum of four years of full-time study after obtaining a high school diploma, valued at a minimum of 180 and 240 ECTS credits respectively,
- the second cycle leads to the academic title of master or equivalent, acquired after completing the undergraduate study, lasts one or two years, and is valued at 60 or 120 ECTS credits, so that in total with the first cycle carries 300 ECTS credits, and
- the third cycle leads to the academic title of doctor or equivalent, lasts three years and is valued at 180 ECTS credits.

One semester of study carries 30 ECTS credits in each cycle.

The study of the medical group of sciences in the first cycle, which is valued up to 360 ECTS credits, is excluded from the provisions of paragraph 1 of this Article.

After completing the study program, graduates are awarded a diploma and an academic title in accordance with the previously approved study program.

Relation between the pre-Bologna and Bologna study programs and qualifications is defined by the Decision on the Adoption of the Basis of the Qualifications Framework in Bosnia and Herzegovina ("Official Gazette of BiH", No. 31/11). The decision provides the levels of the Basis of the Qualifications Framework in BiH.

Table 1 Basis of the qualification framework in BiH.

Relation to ISCED levels and EQF (EQF)		Basis of qualific	cations frame	ework	Former system in Bosnia and Herzegovina based on degrees			
ISCED level	EKO (EQF)	Qualification	Final education	Level	Degree of education	Final school	Qualification	
5B	6	Bachelor or Baccalaureate	The first cycle of higher education	6	VI.	College	Higher education	
5A	7	Master	Second cycle of higher	7	VII./1	Faculty of Undergraduate Studies	Higher education - university degree	
			education		VII./1	Specialization	Master specialist	
5	8	PhD	The third cycle of	8	VII./2	Master's degree	Master of Science	
6	TIID	higher education	O	VIII.	PhD	Dr sc		

The Decision notes that the relations between the existing system in Bosnia and Herzegovina, which is based on degrees and qualifications defined by the European Qualifications Framework, will be elaborated in more detail by amendments to existing laws and, if necessary, special legislation and bylaws.

The minimum requirement for accessing higher education is a four-year high school in Bosnia and Herzegovina. Higher education institutions in accordance with the Laws on Higher Education and the statutes of higher education institutions may prescribe other conditions for access to higher education.

3. Financing higher education in BiH

The European Union, in order to achieve the desired level of quality of higher education, encourages the higher education systems of the member states according to the unified system of higher education. It is in the interest of every EU member state, as well as those wishing to join such as BiH, to apply the set standards in order to unify European higher education and encourage cooperation between different universities and faculties.

Higher education funding is an important issue for every state. Funding of public higher education institutions in Europe is provided in several ways. Most of the business of higher education institutions is financed from the budget of the home country. In addition to public funds, funding is provided from private funds (eg. tuition and administrative fees) and from third sources through funding for services, projects and research, whose sources of funding can be public or private.

Given that each country has an important role to play in financing its own higher education system, the share of GDP allocated to it is one of the key indicators. There is an opinion that countries that spend more on education are more developed.

Higher education institutions in BiH can be public or private: funding at public universities / faculties is partly from the budget of the competent education authorities, and partly from student tuition fees, while private ones are financed independently.

Table 2 Number of students at public and private universities in BiH. academic 2021/21

	Students enrolled								
Type of property	Old program				I cycle		Integrated I and II cycles		
	total	male	female	total	male	female	total	male	female
In total	192	70	122	58.890	25.276	33.614	9.262	2.629	6.633
Public institutions	192	70	122	43.665	16.932	26.733	8.245	2.283	5.962
Private institutions	-	-	-	15.225	8.344	6.881	1.017	346	671

Source: Agency for Statistics of BiH

Private higher education institutions funding is completely independent of the state. The main source of income for private higher education institutions is tuition fee.

There is a total of 78,343 students in the academic 2021/21 in BiH.

90000 78343 80000 70000 60000 50000 40000 30000 19280 18559 17570 20000 10761 9999 10000 1408 766 0 I П Ш IV V VI Final Year Total Students

Chart 1. Number of students in BiH by year of study and in total, 2021

Source: Agency for Statistics of BiH

3.1. Sources of higher education founding in BiH

Funds for the performance of higher education activities in public higher education institutions are provided from the following sources:

- Budgets of the competent education authorities
- Own revenues
- Budget of the local self-government unit
- Donation and other sources

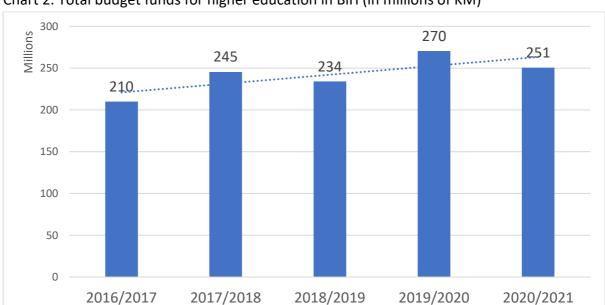


Chart 2. Total budget funds for higher education in BiH (in millions of KM)

Source: Agency for Statistics of BiH

As it can be seen in the chart above, the budget funds for financing higher education range between 210 and 270 million KM, in the observed period. The growth trend of public spending on higher education in BiH is obvious. This amount includes not only budget funds from the ministries responsible for higher education, but also funds from all public institutions, including local self-government units.

In addition to budget funds, state higher education institutions may have other sources of revenue such as:

- tuition fees:
- donations, gifts, bequests;
- funds for financing scientific research, artistic and professional work;
- projects and contracts related to the implementation of teaching, research and consulting services;
- fees for commercial and other services;
- founding rights and contracts with third parties;
- other sources in accordance with the law.

Budget financing of state higher education institutions is based on input data, which means that the distribution of funds is based on the actual costs of institutions according to the number of students who will enroll in the next academic year and based on the number of academic staff and its structure. In accordance with the legislation, state higher education institutions can receive funds from different levels of government for:

- 1. material costs, current and investment maintenance;
- 2. salaries of employees, in accordance with the law and the collective agreement;
- 3. equipment;
- 4. library fund;
- 5. performing scientific research, ie. artistic work that is in the function of raising the quality of teaching;
- 6. scientific and professional development of employees;
- 7. encouraging the development of the youth in the fields of teaching, science and art;
- 8. work with gifted students;
- 9. international cooperation;
- 10. information sources and information systems;
- 11. publishing activity;
- 12. work of student organizations and extracurricular activities of students;
- 13. funding equipment and conditions for the study of students with disabilities and
- 14. other purposes.

The largest share of higher education in BiH is represented by the costs of gross salaries and benefits, which in 2019 amounted to a high 49.7%. For example, the total cost of equipment and materials is only 1.65% in the same year.

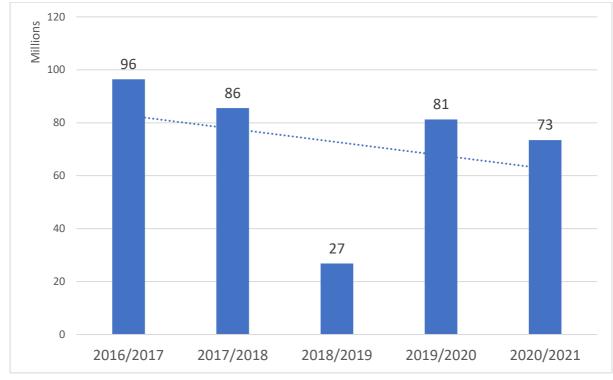


Chart 3. Total private funds for higher education in BiH (in millions of KM)

Source: Agency for Statistics of BiH

The chart above shows the total funds that the private sector in Bosnia and Herzegovina allocates for higher education. In addition to higher education at private institutions such as private universities and colleges, private expenditures at public universities are also included here, ie all private expenditures for higher education in Bosnia and Herzegovina are combined. In contrast to budget funds, where there is a growth trend of allocations for higher education, we see that private expenditures are decreasing from year to year.

3.2. Financial autonomy and control

The European University Association (EAU) determines the dimensions of autonomy of higher education institutions and sets indicators for each dimension of autonomy and determines the scale on the basis of which countries are ranked with regard to legal solutions in this area. At the same time, any dilemma regarding the European Higher Education Area that there are higher education institutions that enjoy full autonomy, ie universities that do not enjoy even the lowest degree of autonomy, must be removed immediately.

The EAU recognizes four dimensions of the autonomy of higher education institutions.

Organizational autonomy - the right of institutions to freely regulate their internal organization, to independently regulate the election, appointment and dismissal of management and determine the number and duration of mandates.

Financial autonomy - the right to financing from public funds, free regulation of internal sources of financing, autonomous disposal of realized financial resources.

Autonomy of hiring / selection of employees - freedom of hiring of academic and administrative staff, the issue of salary regulation, dismissal and promotion.

Academic autonomy - determining the total number of students for enrollment, admission procedures for all three cycles of study, introduction and abolition, and determining the content of study programs and quality assurance system.

When it comes to the autonomy of higher education institutions, it is necessary to point out that the Framework Law on Higher Education in BiH in Article 19 explicitly mentions the legal subjectivity and institutional autonomy of higher education institutions.

The law stipulates that the higher education institution has powers related to land management, disposal of revenues, then powers related to establishing legal relations with students, freedom of employment of academic and administrative staff, as well as concluding contracts for goods and services procured by higher education institutions for the purpose of carrying out its activity. This approach shows that autonomy is achieved and realized within the legal framework.

Higher education institutions in BiH have the autonomy to manage the given funds. In addition, higher education institutions can obtain funds on the basis of various national and international projects, real estate, etc.

Funds received by higher education institutions from the budgets of competent institutions are allocated for certain budget lines, while funds from other sources (own revenues from various sources: projects, consulting services, equipment, facilities, etc.) are regulated by the respective higher education institution. Expenditures on the basis of own revenues are regulated by internal acts of the institution in accordance with the strategic goals of the institution. Most often, own revenues are spent on infrastructure and salaries.

The relationship between own revenues and funds from the state budget differs greatly among higher education institutions. Institutions in which more than half of the institution's annual budget funds come from its own revenues are considered institutions with greater financial autonomy compared to institutions that are mostly financed from the state budget. Private higher education institutions are financially independent of the state and therefore enjoy full financial autonomy.

3.3. Tuition fees in public higher education

In the first cycle, there are two basic types of financial status for students: budget-funded and self-funded.

Students who are financed from the budget were selected on the basis of good results in high school and the entrance exam, and they enter a certain enrollment quota, ie the number of students planned for this category. Their tuition is paid by the competent Ministry of Education, but students have to pay administrative and other fees (enrollment and application fees, diploma fees and diploma supplements, etc.). These costs range from 94 KM to 500 KM.

Students who are ranked out of the total number of students whose studies are financed from the budget have the right to enroll in the next year of study as a student financed from the budget of the competent educational authority.

Self-funded students are full-time students at tuition-paying universities. Fees vary from college to college. These students pay administrative costs and tuition. The minimum annual fee for self-financing of students in the first cycle is 440 KM, and the maximum is 1,500 KM, plus administrative fees. The most common annual fee in the first cycle is 660 KM.

In the second cycle, the annual tuition ranges from 440 KM to 4,000 KM. All second cycle students pay tuition and administrative fees.

All part-time students pay tuition and administrative fees. In the first cycle, annual fees range from 900 to 4,500 KM; and in the second cycle from 1,000 to 3,000 KM. All foreign students pay tuition, while other costs are the same.

Using funds of the budget the competent education authorities finance the salaries and compensations of employees in accordance with the regulations governing the salaries of employees in the field of education and in accordance with the standards and norms for financing public higher education institutions. The Minister issues a rulebook on standards and norms for financing public higher education institutions.

At eight public universities and two other higher education institutions in Bosnia and Herzegovina, 50% of full-time students are financed from the budget. The selection is based on the results in high school and the entrance exam. Their tuition fees are covered by the competent Ministry of Education, considering that students must pay administrative and other costs (enrollment and application fees, issuance of diplomas and diploma supplements, etc.) in the amount of 94 KM to 500 KM.

Full-time university students - 50% of them - are self-financing and they pay tuition fees. Tuition fees vary from faculty to faculty and the maximum amount is determined by the government. In some cantons, scholarship is lower for certain categories of students. These students also pay administrative costs and tuition. The minimum annual tuition fee for self-

financing first cycle students is 440 KM, and the maximum is 1,500 KM, with additional administrative costs. The most common annual tuition fee for the first cycle is 660 KM.

Annual tuition fees for the second cycle of studies range between 440 KM and 4,000 KM. All second cycle students pay tuition and administrative costs. All part-time students (40% of all students) pay tuition and administrative costs. Annual tuition fees for the first cycle studies range from 900 KM to 4,500 KM and for the second cycle from 1,000 to 3,000 KM.

There are no short cycle programs in higher education institutions in Bosnia and Herzegovina. Foreign students, ie. students who are not citizens of Bosnia and Herzegovina can pay higher tuition fees, while other costs are the same. Tuition fees are in the range of tuition fees for part-time students.

3.4. Financial aid for students – scholarships

Competent education authorities, as well as local self-government units, award scholarships to students in need, from socially disadvantaged families, families belonging to one of the minority groups, in accordance with the prescribed criteria.

The competent ministries of education at the entity and cantonal levels award scholarships based on success to full-time students of state universities who are citizens of Bosnia and Herzegovina. Financial situation and success are also considered - the minimum grade, which must be 8/10, success (1st to 3rd place) in a national or international competition, parental income and employment status.

The monthly scholarship ranges from 100 KM to 800 KM and it is paid for the period of 10 months each year until graduation. Local authorities provide students with additional scholarships. In 2019/20. year, about 10% of full-time students received a state scholarship based on success. Part-time students are not entitled to state scholarships. There are no loans, tax reliefs for parents of students or family allowances.

3.5 Private educational institutions

The first private universities in BiH were established during the process of post-socialist transformation. Their work is legally defined by the adoption of relevant legislation on higher education. In accordance with the legislation on higher education, each institution must pass the accreditation procedure. During the accreditation procedure higher education institution must provide the appropriate content and quality of study programs, the appropriate number of members of teaching and non-teaching staff with the necessary qualifications and the appropriate premises with equipment.

Funds for the performance of higher education activities in private higher education institutions are provided from the following sources:

- own revenues and
- donations and other sources.

The decision on the amount of tuition at a private university is made by the university. Before announcing the competition for the enrollment of new students, it is obliged to announce the amount of tuition fees for all study programs in a manner accessible to the public.

At private universities / colleges, students pay administrative costs and tuition in full. It can be the same or different for different study programs. At most private colleges, another family member pays a reduced school fee of 10%.

4. Cost efficiency of higher education in BiH

In the analysis of the cost efficiency of higher education in BiH, we will start from the total funds for higher education. So, we will take into account all the funds that are spent for the needs of higher education, including budget, but also private funds. The chart below shows the total funding for higher education in the last five years.

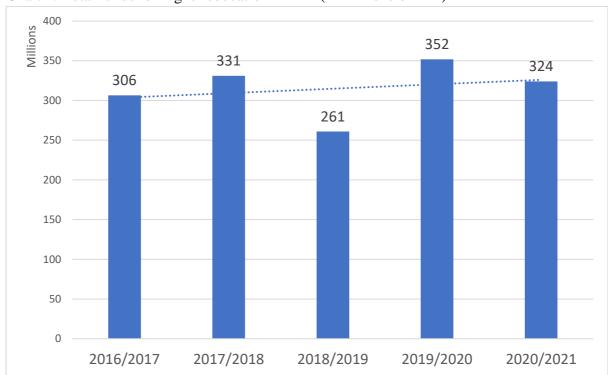


Chart 4. Total funds for higher education in BiH (in millions of KM)

Source: Agency for Statistics of BiH

It is obvious that the total investment in higher education in Bosnia and Herzegovina is somewhere between 300 and 350 million KM, with a slight growth trend in the observed period. As we have seen in the previous data we have considered, this growth relates exclusively to public funding for higher education, while private funding declined over the same period.

We must observe this growth of budget spending for higher education in the context of the movement of the number of students in BiH. The chart below shows a significant reduction in the number of students, we see that the number of students decreased from 102,232 to about 78,343 in the observed period, which is a very high 41%.

120.000 102.232 95.142 100.000 89.016 82.909 78.343 80.000 60.000 40.000 20.000 0 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021

Chart 5. Number of students in BiH

Source: Agency for Statistics of BiH

When we take the data on the total expenditure on higher education and the data on the total number of students in Bosnia and Herzegovina, we get the average annual costs of higher education in BiH per student.

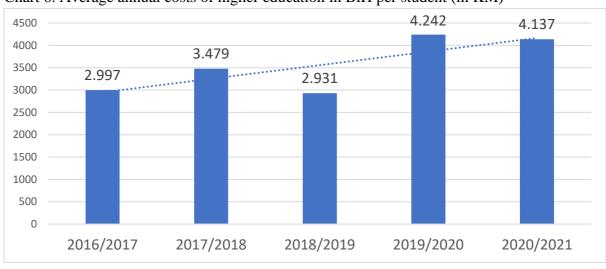


Chart 6. Average annual costs of higher education in BiH per student (in KM)

Source: Agency for Statistics of BiH

The chart above shows that the average annual costs of higher education per student in BiH increased from 2,997 to 4,137 KM, which is an increase of 38% in the observed five-year period.

What does this mean?

Looking at this as a level of investment in higher education, this growth would be positive. This would mean that society invests more in higher education. However, having in mind the way of financing higher education institutions in Bosnia and Herzegovina, where the state or competent state institutions directly allocate funds to higher education institutions and also the fact that most of the budget funds are focused on salaries and benefits, we can, in fact, to conclude here that higher education institutions financed from public funds in Bosnia and Herzegovina continue to maintain the level of costs and even increase them, and at the same time have a decline in the number of students.

Millions 61,4 60 50 37,7 40 30 20 10,2 10 RECLIEBENT OF EQUIPMENT, CAPITATE OF THE PROCLIEBENT O It she are accommodation expenses and the purchase of tacilities and the purchase of tacilities and the purchase of the purcha Penses of the Duringsee and Rumber and Andrian in the Party of the Par Aberbee tot employee salay contributions end investigat, nent of materials and small threshood diffilities Julianu nentre de culte en trainte de de le constitue de la co Apriliania Sada de Sand Contributions 0 Heres to book and book and the state of the Aperiate July vices for a geometric services uniter tradite trade expenses (8055 Contributions and others Employed scheibtlight tubone shoeve

Graph 7. The first 20 budget items of expenditures of universities in BiH (in millions of KM), 2017

Source: Public Interest Advocacy Center, Public Finance Database, https://javnefinansije.cpi.ba/cofog/index.php

The chart above shows the various budget items recorded in the public finance database created by the Public Interest Advocacy Center. The chart lists all the items that universities show and it is obvious that they use different economic classification accounts to show some of their costs. However, it is obvious that expenditures for gross salaries and contributions are the most dominant part of these costs. We see that the procurement of equipment and materials for the teaching and research process is very small. We cannot use this data as consolidated information for all universities in the observed year, because in the budget data in the specified database of public finances, funds for individual universities are presented in total, and for other universities by items. However, this is also an obvious empirical illustration that public

universities invest very little in improving the teaching or research process through new equipment or materials, with the main emphasis on salaries and employee benefits.

This raises the question of the results of higher education and the motivation to improve and change it. According to what we saw in this research, in Bosnia and Herzegovina, the financing of higher education is mostly based on the financing of salaries and benefits of employees in higher education, regardless of the results they achieve. In this way, the higher education system becomes only a burden of one society, and not a key force in increasing human capital, increasing productivity and increasing the overall well-being of society.

TRANSPORT AND FACULTY OF SPORT **FACULTY OF** ADMINISTRATION FACULTY OF FORESTRY COMMUNICATIONS 1.2% 1.7% FACULTIES OF RELIGIOUS $\stackrel{2.1\%}{-}$ **STUDIES 2.3% FACULTIES OF MEDICINE** ACADEMY OF ARTS _ 14.0% 3.4% **FACULTIES OF** CRIMINALISTICS. **CRIMONOLOGY AND** SECURITY STUDIES. **FACULTIES OF FACULTIES OF** PHILOSOPHYI AGRICULTURE 13.5% AND FOOD SCIENCE 4.4% FACULTIES O MECHANIC ENGIN.4.5 **FACULTIES** OF LAW 4.8% **FACULTIES OF POLITICAL FACULTIES OF** SCIENCE PEDAGOGY 4.9% 9.3% **FACULTIES OF NATURAL FACULTIES OF** ARCHITECTURE AND AND MATHEMATICAL **CIVIL ENGINEERING 5.1%** SCIENCE 8.7% FACULTIES OF ELECTRICAL **FACULTIES OF ENGINEERING 5.8% ECONOMICS** 8.6%

Graph 8. Enrolled students in BiH, school year 2021/2022

Source: Agency for Statistics of BiH

The structure of newly enrolled students observed in the sample of public universities also speaks in favor of the fact that our higher education system does not adapt to the changes that are taking place.

In the chart above, we see that most students enroll at medical faculties and faculties in the field of health. The second and third in a row are the faculties of philosophy and the faculties of political science. We do not intend to dispute the need for occupations in these two areas, because they are certainly important and necessary.

However, in a situation where the key direction of progress for the country is the continuation of industry development and further digitalization in all spheres of life, the big question is how much such a structure of knowledge that highly educated people who graduate from these faculties can bring such a change.

Concluding remarks

First of all, we must emphasize the importance of the fact that this research on the financing of higher education in BiH began at a time when the paradigm of higher education itself began to change globally. At a time when every university could be defined as "an institution that teaches and evaluates students in many areas of advanced learning, awards diplomas and provides conditions for academic research", there seemed to be a clear responsibility of society in providing these activities.

However, changes in the socio-economic environment, especially those caused by the pandemic, have also encouraged significant changes in the design of the entire education process. It is necessary to notice that knowledge is changing rapidly and that the learning process takes place not only in institutions but also outside them, formally or informally with increased usage of digital tools. In other words, the whole educational process is focused on skills, understanding and abilities, which, with the help of educators, young people need to develop, in one way or another.

Given these changes, before drawing conclusions about the funding itself, it is necessary to answer a fundamental question about the type or types of higher education institutions we own. So far, it seems that possible outcomes point to institutions that could be roughly defined as teaching (mostly vocational) universities. Teaching activities that remain, without a doubt, one of the connecting elements of all different models, continue to be recognized as predominantly public responsibility.

Based on these facts, the presented research is mainly related to the financing of teaching. This was inevitable, as all universities in BiH consider themselves research universities, or, more precisely, fall under the classical definition of a university. And that, most often, they are not, or they are but only formally. It remains to be seen whether they can all evolve to fit the model of a research university, whose outlines are emerging today.

In this sense, this research can contribute to directing the attention of the whole society to these facts. Until society recognizes the change of paradigm and the need to define new outcomes, no funding or any mandatory model will fulfill its purpose. It is said that the paradigm is also the mainstay, so changing it can be disastrous. However, it seems that it is far more disastrous if it is not recognized in time that the support has ceased to exist.

Bearing in mind the growing inefficiency of higher education in BiH, which we have seen in the data, it is necessary to consider channels for the allocation of budget funds for higher education. There are two basic possibilities for directing funds: directly to higher education institutions and directly to students.

Most systems are essentially mixed when it comes to allocation mechanisms because, even when institutions receive funding directly from the state, students and their families can receive some additional funding. Regardless, the two extremes in terms of allocation channels are:

- direct financing of higher education institutions, under special conditions and on the basis of special criteria
- vouchers, which are given to students (all or a certain part of students, selected on the basis of previously determined and transparent characteristics), and which they can give to the institution of their choice, after which the institution will redeem them

In the case of direct financing of higher education institutions, the state allocates total funds (lump sum funding) or to decide (more or less in detail) which part of the funds should be used for which activity. This can be broadly defined as "one part of the money for research and the other for teaching" or very specifically, like an order: "you will use this amount of money to pay the electricity bill".

Financing by allocating the total amount is generally considered to contribute to increasing the autonomy of institutions in relation to the state, increasing the possibilities of strategic development planning, internal structure and external positioning. However, this requires that decision-makers within the institutions have sufficient capacity and legitimacy to make decisions, implement them and have a consensus within the institution on development strategies.

However, this raises the question of the results of higher education and the motivation to improve and change it, because if such criteria are not set strongly enough, this can turn into funding for salaries and benefits of employees in higher education regardless of the results it achieves. According to what we saw in this research, this is exactly what happened in Bosnia and Herzegovina. In this way, the higher education system becomes only a burden of one society, and not a key force in increasing human capital, increasing productivity and increasing the overall well-being of society.

The second allocation channel, the voucher system, essentially gives students the opportunity to choose between institutions. This means that the amount of public funding received by one institution is highly dependent on its ability to attract students and compete with others. Similarly, certain programs within individual institutions may not attract as many "voucher holders" as some other programs of the same institution, which may trigger competition between programs. Furthermore, this essentially puts students in a position very similar to the "buyer" position (although he / she does not buy higher education services with his / her own money, but with state-provided money collected through taxes) and implies significant "marketing" of the higher education sector.

This can give institutions more freedom than the state, especially because funding (as a key mechanism and instrument of governance) is no longer under the direct control of the state. However, we need to be aware that the higher education sector can become vulnerable to market failures, especially in systems that are not strong in ensuring the quality of higher education and the transparency and reliability of information. Some institutions may be more successful in advertising higher education than in providing it, especially given the problems in reaching consensus on what the quality of higher education is and whether (and how) we can measure it.

In addition, not all higher education programs cost the same, both in terms of actual material costs (eg medicine is more expensive than political science) and in the value and prestige of individual higher education institutions. To avoid such problems, the voucher system should be sufficiently sensitive to such differences, although this may make it unnecessarily complicated. Also, not all programs are equally popular among students. This can lead to excessive demand for some and very little interest in other programs, which can potentially lead to their disappearance, even if they are necessary (for both the system and institutions) and of good quality.

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