# UPGRADING THE MECHANISM FOR STATE FINANCING OF HIGHER EDUCATION

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#### SUMMARY

Since 2010, students' tuition fees in our country have been covered in 2 forms: paid and publicly-funded. For the latter, the payment is made by the state from the tariffs set for each speciality. For the former, the price is set by universities and is even higher (sometimes several times higher). As a result, universities are more interested in attracting the former. However, if we set ADA University aside, in the rest the choice is made not by the university but by the student, and the higher the quality of university education, the more its limited admission plan is filled by publicly-funded students who get higher points at admission (i.e. unwanted student groups for the university). There is a dilemma here: although high quality education increases university costs, it reduces its revenues! Thus, the central problem of the policy paper follows from here: "The existing mechanism of financing higher education institutions from the state budget stimulates the decline in the quality of education."

The complications of the problem are:

- Creation of a new undesirable competition element among universities such as "easy study"; failure of universities to gear up for quality;
- Transformation of publicly-funded students into an undesirable group;
- Failure of highly qualified personnel to engage in administrative and scientificpedagogical positions in higher education institutions; Loss of staff involved in this or that form:
- Failure to acquire the competences meant for graduates and loss of competitiveness;
- Failure to involve highly qualified personnel in administrative and scientificpedagogical positions in higher education institutions;
- Loss of staff involved in this or that form;
- Failure to acquire the competences meant for graduates and loss of competitiveness; Recommended solutions:
- 1) Increasing the amount paid by the state to universities for publicly-funded students on condition that financial transparency is provided;
- 2) The ability of the student who receives public funding to transfer this amount to the university of his choosing (coupon);
- 3) Identifying separate quotas for each score group. For example, over 600, 500-600, 400-500 points, and so on. Thus, one quota will not affect another, and each will be treated as a different source of income.

#### 1. PROBLEM DESCRIPTION

Changes have been made to the mechanism for financing the higher education system in our country since 2010. As an example of the most fundamental changes is the document "On the application of a new financing mechanism for higher education institutions" approved by decision No 120 of the Cabinet of Ministers of the Republic of Azerbaijan dated 25 June 2010. Under this document, two forms of payment were introduced: fee-based and based on state order.

Since the decision became effective, the Cabinet of Ministers has annually determined the number of students enrolled on a bachelor's or master's programs for each specialty and those receiving the highest scores in admission exams annually conducted by State Examination Center have obtained the right to receive education on the basis of a state order.

The said decision No 120 of the Cabinet of Ministers also establishes "Tuition fee amounts for those receiving state-funded education on certain specialties under bachelor's and master's programs". It should be noted that the approved expenditure defines maximum amounts payable from the state budget to a higher education institution for each individual studying on a state order. Figures show that the tuition fee paid for each student, except for specific specialties such as "Solo Performer", "Conductor", etc. averages around AZN 1,620. Master level costs are relatively higher – AZN 1.680.

If we compare the tuition fee a higher education institution defines for each specialty (the amount paid by each student) to the costs incurred by the state for each student<sup>1</sup>, it will be possible to understand why those studying on a paid basis are preferred to those studying at the expense of the state. For a more accurate comparison, the table below summarizes the tuition fees defined by higher education institutions for bachelor's level education and the "Tuition fee amounts for those receiving state-funded education on certain specialties under bachelor's and master's programs" approved by Cabinet decision No 120<sup>2</sup>:

Table 1.

Azerbaijan University of Languages Amount paid by the state Tuition fee (for those (on state order) **Specialties** receiving payable education) Regional studies **AZN 2500 AZN 1620 AZN 2500 AZN 1620** International relations Teaching of English **AZN 2500 AZN 1320** 

<sup>&</sup>lt;sup>1</sup> http://edu.gov.az/upload/file/NK-elave/2010/nk-qerar-25\_06\_10-nomre120.pdf

<sup>&</sup>lt;sup>2</sup> https://news.day.az/gallery/794151/5410201.html http://modern.az/az/news/138910#gsc.tab=0 http://modern.az/az/news/138910#gsc.tab=0

Philology of the English language	AZN 2500	AZN 1620								
English translation	AZN 2500	AZN 1620								
Public Administration Academy										
	Tuition fee (for those	Amount paid by the state								
Specialties	receiving payable education)	(on state order)								
Political science	AZN 2500	AZN 1620								
International relations	AZN 2500	AZN 1620								
Law	AZN 2500	AZN 1620								
Management	AZN 2500	AZN 1320								
State and municipal administration	AZN 2500	AZN 1320								
Economics	AZN 2500	AZN 1320								
Tourisn	Tourism and Management University									
	Tuition fee (for those	Amount paid by the state								
Specialties	receiving payable education)	(on state order)								
Tourism and hotels	AZN 3000	AZN 1620								
Marketing	AZN 3000	AZN 1620								
Finance	AZN 3000	AZN 1320								
Management	AZN 3000	AZN 1320								
Business management	AZN 3000	AZN 1320								
Social work	AZN 2500	AZN 1320								
	Khazar University									
Specialties	<b>Tuition fee</b> (for those receiving payable education)	Amount paid by the state (on state order)								
Economics specialties	AZN 4000 AZN 1320									
Educational and teaching specialties	AZN 3500	AZN 1320								
Engineering specialties	AZN 3500	AZN 1620								

It is necessary to set up small groups of students and offer a higher salary to teachers capable of providing quality education. This will enable universities to attract more money and ensure its transparent spending. Other elements of quality education, including its structure, administrative staff and extra-curricular activities, require additional costs.

To illustrate the problem more clearly, let's examine the following example:

For example, a university offers 10 seats in the "Management" specialization, and since this university is noted for a high quality of education, those receiving the highest score in admission exams of the State Examination Center obtain the right to study "Management" at the expense of the state and all 10 seats are occupied by students financed by the state. If the state pays AZN 1,800 per student, the university receives a total of AZN 18,000 for the "Management" specialization. If the tuition fee of this university is AZN 3,000 and if it rejects the state order, the university will earn AZN 30,000 for the 10 seats, i.e. AZN 12,000 more. In this case, the university does not attract the most successful applicants and earns AZN 12,000 more. This leads to the dilemma: quality education increases the university's costs and reduces its income!

There is a dilemma here: although high-quality education increases the expenses of a university, it reduces its revenues! In response to this dilemma, universities may be interested in filling the quota allocated to them with students from the State Examination Centre who gained low points and pay more money. That is to say not only (1) does it help to eliminate competition over quality among universities, it (2) may also cause universities to send a message of "easy education" to the applicants' market in order to attract groups that gained low points.

In order to support these arguments, one can pay attention to two different nuances on the higher education market:

ADA University, an institution with high-quality higher education, totally refuses state-subsidized scholarships that are lower than the tuition fee it has established for itself. Although this situation has a positive effect on the university's revenues and financial sustainability, it also leaves publicly-funded students face-to-face with a dilemma. For example, when a publicly-funded student chooses high-quality education (such as ADA University), he cannot obtain the financial benefits offered by other universities and faces a dilemma while selecting the university.

Some of the universities have begun to allow students to memorize the answers to the exam tests on subjects covered throughout the semester and gain high points by placing them on the university's web page. Also, during open-type exams, 25 questions prepared by the teacher are envisaged for students at least 10 days before the exam, which sends an "easy study" signal to the applicants.

Thus, the main problem arises: "The existing state financing mechanism of higher education institutions causes a worsening in the quality of education."

In order to cover their costs, higher education institutions are not interested in admitting students receiving high scores in exams and falling under the state funding program but those paying for their education. In order to prevent more state-funded students from selecting them, higher education institutions directly or indirectly pursue the policy of reducing the quality of education and attracting students paying for their education. Thus, since the mechanism of state financing of higher education is not viable, it leads to a decrease in the quality of higher education in the country.

#### 2. CONSEQUENCES OF THE PROBLEM

As noted above, high-quality education, along with increasing the costs of higher education institutions, results in a decrease in revenues due to the existing state funding

mechanism. There are two choices facing the institution: quality or financial sustainability. That is to say the existing policy causes these two priorities to exclude each other. Although each higher education institution is trying to be competitive, the most important factor of this sustainability is financial capabilities. Material limitations result in certain complications that are:

- A new undesirable competition element among universities such as "easy study";
- Failure of universities to improve their quality;
- Transformation of publicly-funded students into an undesirable group;
- For a student wishing to be admitted to a high-quality university like ADA University, there is no incentive to gain high points from the tests of the State Examination Centre and strengthen the secondary school education base;
- Failure to involve highly-qualified personnel in administrative and scientificpedagogical positions in higher education institutions;
- Loss of personnel involved in this or that form;
- Failure to obtain the competences meant for graduates and loss of competitiveness.

## 2.1. Failure of higher education institutions to recruit qualified personnel to administrative and scientific-pedagogical positions

A higher education institution with sufficient material infrastructure can be transformed into a center of excellence in terms teaching, research and management by recruiting the best educators, professors and teachers, as well as an administrative personnel. As competition in the labor market intensified, the attraction of highly-qualified personnel, including professors, to the educational process becomes one of the greatest challenges facing universities. Although the main factors causing this challenge are quite diverse, the most important of them is the wages universities offer to such personnel. This is an indicator of how competitive a university can be as an employer.

### 2.2. Loss of personnel

It should be noted that while some higher education institutions can hire such personnel on an hourly basis, the contribution this makes to the overall level of education is not at the desired level. One of the main reasons for this is the fact that teachers working on an hourly basis face administrative problems caused by gaps in education management (e.g. questions prepared for colloquiums in advance, preparation of student versions of questions, additional course papers, their balance and accurate verification). Also, evening school teachers for whom a particular university is not the main place of work get too tired physically to be able to provide high quality of education. Although some positive trends have been observed in recent years, they have yet to become widespread to improve the quality of education.

## 2.3. Failure to provide graduate with required competences and loss of competitiveness

Finally, every higher education institution is less competitive compared to world universities because it cannot provide graduates with the required competencies and

keep up with labor market requirements. It should be noted that the bachelor's and master's degree programs approved by relevant orders of the Ministry of Education of the Republic of Azerbaijan envisage provision of graduating students with general and professional competences.<sup>3</sup>

The absence of a transport system capable of meeting the required standards reduces mobility. Therefore, improving the quality of education is still a matter requiring a lasting solution for higher education institutions located in the regions.

## 2.4. Affected parties

The worst affected party is those receiving education, and hence the country's economy.

One of the key indicators of competitiveness for universities is the degree to which graduates move on to get a well-paid job. Due to the mentioned problems, graduates end up being unable to fully meet the labor market requirements. As a result, the market for alternative education institutions, such as courses on different subjects, develop fast. Otherwise, students seek to receive education outside the country, which, in turn, leads to currency out-flow and other economic losses.

To compare the benefits of quality education globally and nationally, suffice it to look at the direct benefits and added value developed countries such as the US and the UK receive from a high quality of education. The revenues these countries receive from students coming to study in these countries, from scientific research in educational institutions, from copyright, from student startups, etc. are key drivers of these countries' economic development.

### 3. PROPOSED SOLUTION ALTERNATIVES:

There are various ways to solve the problem. However, the present policy document proposes four main outcomes:

- 1) Increasing the amount paid by the state to universities for publicly-funded students on condition that financial transparency is provided;
- 2) Giving universities independence in establishing admission plans;
- 3) The ability of a publicly-funded student to move the amount of money to the university he wants;
- 4) Identifying separate quotas for each score group. For example, over 600, 500-600, 400-500 points, and so on. Thus, one quota will not affect another, and each will be treated as a different source of income.

## 3.1. Increase the amount paid by the state to universities for state-ordered students on the condition of financial transparency

<sup>3</sup> http://unec.edu.az/application/uploads/2015/06/dovlet t13052014.pdf

The first mechanism proposed for the solution of this problem is to increase the amount paid by the state for state-ordered students. This increase can be realized in three forms:

- By keeping the number of state-ordered seats unchanged;
- By reducing the number of state-ordered seats;
- By applying a differential payment scheme for state-ordered students.

### 3.1.1. By keeping the number of state-ordered seats unchanged;

State-ordered seats mainly cover bachelor and master levels. Taking into account the fact that the number of state-ordered seats for each bachelor level specialty group is 2,000<sup>4</sup>, thus making up a total of 8,000, the total number of state-ordered master level seats is 2,500, and the average plan for residency and doctoral level seats<sup>5</sup> is 500, the grand total number of state-ordered seats each year is 11,000.

Based on the cited figures, if the amount paid by the state under the first proposed scenario was increased to an average of AZN 4,000, this would mean the allocation from the state budget of an additional AZN 17.6 million for bachelor programs and AZN 6 million for master programs, or a total of AZN 24 million on average. This increase in expenditure on education would account for 0.03 percent of the GDP (AZN 70 billion) and for 0.1 percent in proportion to state budget expenditure (AZN 24 billion).

## 3.1.2. By reducing the number of state-ordered seats

If the allocation of these funds causes difficulties for the state budget, the second scenario of reducing the number of state-ordered seats and increasing the amount of allocations per student can be considered. If so, universities will be interested in the young people who have been granted the right to study on state order selecting them. As the number of state-ordered seats goes down, the requirements for entrants and competition naturally increase, which means that students with better academic performance will win this right. The long-awaited competition to become the "Best" will begin among higher education institutions for the most successful applicants. This competition among universities would mean that they would strive to provide the desired level of education in line with the requirements of education policymakers, labor markets and students. Being the best means having effective management and education governance, and being able to transform human capital into a center of excellence.

#### 3.1.3. By applying a differential payment scheme for state-ordered students

The third scenario, which is an average version of the first two, envisages differentiation of financing. Differentiation means provision of higher education institutions with the right to charge tuition fees in addition to the funds allocated on state order. Such differentiation of the funds allocated by the state can encourage both the higher education institution to maintain a high quality of education and applicants to keep up their academic performance at all times.

<sup>4</sup> http://www.1news.az/az/news/ii-v-iii-gruplar-zr-q-bul-plan-v-d-vl-t-sifari-li-yerl-rin-say-m-lum-olub

https://az.trend.az/azerbaijan/society/2945320.html https://edu.gov.az/az/page/412?page=6&fag\_filter=4

For example, a university's tuition fee is AZN 8,000, and although this amount is quite high for the country, the university, being a high-quality educational institution, is not interested in accepting state-ordered students on the existing mechanism because it loses money in this case. Also, since the university is interested in attracting applicants receiving good scores in admission exams, it is prepared to make certain concessions for such applicants. For example, those scoring 650 and above get a one-semester tuition fee exemption and are encouraged to keep up their performance in the next semester to continue benefiting from the discount. In addition, those scoring 600 or more get a 50 percent discount (Table 2).

Table 2.

Group	Specialty	Discount rate	0%	10%	15%	25%	50%	100%
		Point difference	≤ 299	300- 399	400- 499	500- 599	600- 674	≥ 675
	Computer engineering		4800	4320	4080	3600	2400	0
1	Computer engineering		5200	4680	4420	3900	2600	0
	İnşaat mühəndisliyi		5200	4680	4420	3900	2600	0
	Information technology and system engineering		5000	4500	4250	3750	2500	0
	Mechanical engineering		5200	4680	4420	3900	2600	0
	Chemical engineering		5200	4680	4420	3900	2600	0

The differentiated financing scenario is a win-win situation for both the applicant and the higher education institution. In particular, if a high-scoring applicant receives the right to study on state order, then a part of the tuition fee is paid by the state and the student receives a scholarship from the state. For example, let's review two situations - two students scoring 670 points and 605 points respectively and become eligible to study on state order. If the student scoring 670 points is exempt from the tuition fee and the student scoring 605 gets a 50-percent discount, this means a loss of AZN 12,000 for the university. However, if a differential mechanism is applied and the state pays AZN 2.000 (provisionally) for each student, then the university will save an additional AZN 4,000. This will also encourage those eligible to study on state order to keep up their academic performance. In other words, if students fail to live up to academic requirements set by the university, they will have to cover a certain part of the tuition fee even if they study on state order. If we continue the above example, the first student will receive a scholarship from the state in addition to the tuition fee exemption and the second student will pay 50 percent of the tuition fee and be provided with a scholarship by the state. If the students fail to meet the academic requirements of the university, they will lose their entitlement to concessions from the university. In this case, students will have to pay the remaining amount of AZN 8,000 paid by the state, i.e. AZN 6,000.

## 3.1.4. Financial transparency

However, it should be taken into account that if the funds to be paid for state-ordered students (in each of the three scenarios) are to be increased, this may cause an artificial increase of the tuition fee. One of the main reasons for this is the lack of financial transparency in educational institutions. Each higher education institution must declare its capital expenditure (CAPEX) and operational expenditure costs (OPEX) transparently. In many cases, managers of higher education institutions are not interested in publicly disclosing their financial statements or attracting an independent auditor. This creates additional obstacles for budget surveillance agencies to monitor higher education institutions.

In the absence of transparency, higher education institutions wishing to receive more income will want the amount paid by the state to be increased due to an alleged increase of costs per student, thus causing artificial inflation of tuition fees and. This can lead to increased costs for students' parents by an average of 700 AZN°. Some applicants may even refuse to receive education. For competition to be fully transparent and sustainable and in order to prevent negative phenomena, including artificial inflation of tuition fees, the state should increase funding for each student and ensure financial transparency in the higher education institution. Each higher education institution should disclose its operational expenditure and, most importantly, the costs incurred for each student through independently audited financial statements. Financial transparency will facilitate the work of budget surveillance agencies, prevent artificial increases of tuition fees, build mutual trust and public oversight, lead to more flexible and effective governance, and pave the way for additional funding. These, in turn, will accelerate the transformation of universities into **Centers of Excellence**.

#### 3.2. Provision of universities with freedom to develop their admission plans

The second alternative is to provide higher education institutions with freedom in determining their admission plan. At present, a relevant department of the Ministry of Education oversees the process of admission to higher education institutions. The admission plan is based on the requirements of the Cabinet of Ministers Resolution No 171 on "Approval of uniform standards for construction, logistical supply, general sanitary and hygienic requirements, and places for pupils" dated on 3 August 2012. Chapter 5 of the said resolution sets out minimum technical standards for higher education institutions. Although university admission plans are determined based on these norms, they need to be revised.

Thus, each university with 500 students is required to have two 100-people lecture halls each with a total area of 130 square meters, ten 50-people lecture halls each with a total area of 75 square meters, and eight 15-25-people lecture halls each with a total area of 38-55 square meters. When universities fail to meet these requirements, the number of allocated admission seats is also reduced, which also affects the attraction of additional students. Although leading alternative education institutions and courses better address the needs of students and the labor market, not all of them comply with technical norms. This calls the effectiveness of such norms into question.

As a result, the norms result in increased bureaucratic red tape and deprive educational institutions of access to additional funding. Provision of universities with freedom in determining their admission plans will result not only in the attraction of additional financial resources, but will also enhance their competitiveness, expand their

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<sup>6</sup> https://www.stat.gov.az/source/labour/

development prospects and provide greater maneuverability in implementing educational policies.

#### 3.2.1. Side effects

While providing higher education institutions with the liberty to determine their admissions plans may provide them with additional financial sustainability, it can also lead to certain negative situations if not administered properly. Let's imagine that higher education institutions are given this freedom and the number of seats increases by 20-30 percent. As a result, access to higher education for applicants will become even simpler and the already low threshold for admission (150 points at present) will become even lower. This can lead to a number of problems in the future:

- Students entering universities with a very low score cannot fully master the higher education curriculum and a fairly large group of backward students appears;
- To prevent this from happening, universities have to adapt the curriculum to such students, which leads either to prolongation of the education process or compromises the quality of education;
- The number of educated young people not fully meeting the requirements of the labor market may emerge, which can lead to artificial increases in unemployment in the future;
- Ease of access to higher education can hamper the development of vocational education.

## 3.2.2. Demand-based admission plan

For such freedom not to produce side effects, the principle of demand-based admission could be applied. This means provision of universities with greater freedom in admitting the most successful applicants. For example, let's look at the scenario of 100 applicants entering a university this year. According to existing regulations, A, B and C universities have 10, 10 and 50 seats respectively according to plan. University A requests 10, University B requests 10 and University C requests 30 additional seats. If the demand-based mechanism is applied, attention is paid to which higher education institutions the most successful applicants have marked as their priority. Let's say that applicants first choose university A, then university B and then university C. In this case, university A fully benefits from the additional admission plan and admits 10 additional students. University B is also fully eligible for the additional admission plan and admits 10 additional students, while university C receives a third of the additional admission plan and admits not 30 but 10 additional students.

## 3.3. A student who has been awarded public funding can move that amount of money to the university he wants

Granting a student who has gained the right to publicly-funded education to move his public funding to another university if the level of education at the university did not meet his expectations will not only encourage universities to develop their own education level. Thus, the transfer of more publicly-funded students to another higher education institution will pose risks to the university's financial sustainability and

reputation. The tendency of publicly-funded students to change their preferences will also send a signal to potential applicants wishing to choose the university, and the university will lose these students with its poor quality education. Also, losing a publicly-funded student will cost the university the money paid for him and lead to financial losses. Thus, universities will try to provide high-quality education that meets the expectations of publicly-funded students in order to maintain their existing financial stability.

#### 3.3.1. The opposite results

When universities lose a publicly-funded student, they will attempt to transfer a paid student to a vacant place and thus, earn more money. To do this, they will make education "easier" and begin undesirable competition for paid students from other universities. This can create a wave effect and in general, adversely affect the level of higher education. To prevent this, it is important to prohibit the transfer of a paid student to the vacant place of a publicly-funded student.

## 3.3.2. Identifying separate quotas for each score group

For example, separate quotas can be defined for groups that have more than 600, 500-600, 400-500, 300-400 points and so on. Thus, one quota will not affect another, and each will be treated as a different source of income. This policy will encourage universities to provide high-quality education to students of every category. For example, if a university plans 100 admissions, they can be divided into quotas, i.e. 20 places for 600-700 points, 20 for 500-600, 20 for 400-500, 20 for 300-400 and 20 for 150-300 points. If a higher education institution is not able to provide high-quality education, it will not be able to attract high-scoring students and this plan will remain idle, which will result in the loss of financial sustainability and competition. Higher education institutions that lose their financial sustainability and provide poor-quality education will soon be out of the market.

This mechanism, which will be enforced, will result in tougher competition between universities, because higher education institutions will be more interested in being selected by more applicants who have achieved higher results. This is primarily possible with the improvement of the quality of education.

## 4. CONCLUSION AND RECOMMENDATIONS

The four key strategies proposed for improving the quality of education, along with positive results, may also lead to certain adverse tendencies that are described in detail above. At the end, the proposals addressed to institutions that determine the educational policy based on the alternative solutions listed above are as follows:

1) State funding of higher education institutions can be implemented on the basis of three basic scenarios:

- (a) Increasing the funds paid by the state while keeping the number of planned places;
- (b) Increasing the funds paid by the state while reducing the number of planned places;
- (c) Application of a differential payment system.
- 2) Granting of freedom to higher education institutions in determining admission plans. Implementation of a demand-driven retirement plan to ensure that this freedom does not lead to certain negative outcomes.
- 3) Granting a student who has been given the right to study with public funding the right to transfer the public funding to another university. In such a case, if the higher education institution does not meet the expectations of the publicly-funded student, he will be able to continue his education at another higher education institution. A university that provides poor-quality education will lose its current students, financial sustainability, and potential students. In order to avoid the abovementioned negative scenarios, it is necessary to prohibit the transfer of a paid student to the place of a publicly-funded student who leaves the university.
- 4) Establishing a separate admission quota for each score group. For example, quotas can be defined for groups that score more than 600, 500-600, 400-500, 300-400 points and so on. If a higher education institution fails to provide high-quality education, it will not be able to attract students who scored high points, and this planned places will remain empty, which will result in the loss of financial sustainability and competition. Higher educational institutions that lose their financial sustainability and provide poorquality education will soon be out of the market.

As you can see, each scenario has been put forward with certain complementary terms. The implementation of these proposals without securing these terms entails potential problems in the future, and some of them are reflected in this policy document. Also, the proposals in this policy document have been prepared taking into account that the existing higher education mechanism will be implemented without changes.