# HUNGARIAN HIGHER EDUCATION:

# How did the introduction of the "student contract" affect the number of applications to Hungarian universities?

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**“The function of education is to teach one to think intensively and to think critically. Intelligence plus character – that is the goal of true education.”**

*(Martin Luther King, 1947)*

# I. Abstract

In 2012 the Hungarian government introduced the policy measure of the "student contract". It had to be signed by every student who wanted to pursue his/her studies in the Hungarian universities (on a fully-funded or partially state-funded status). The reason behind the introduction of the policy action was that the government wanted to decrease the number of those people who leave the country after finishing their state-financed studies. The main point of the contract was if one attends a university in Hungary in a not self-funded form, he/she has to work in Hungary after the studies for a certain period and if one refuses this condition and wants to work abroad he/she has to pay back the cost of studies. Meanwhile, the government implemented another action at the same time. It cut down the number of state-financed programs which was an incomprehensive action not only for the future university students and for universities as institutions either. The paper examines the period between 2006-2016.

In my paper, I examined the effect of the two abovementioned policy measures. I looked for the answer to my hypothetical questions:

1. Was there any effect on the number of applications when the Hungarian government introduced the student contract and reduced the number of fully-funded places at the university?
2. Were there different effects on the different programs?
3. Was there any difference in the number of applications among students with a different background?

For the analysis, I used the database of "Felvi" which I received from the Hungarian Academy of Sciences. I found that the two measures affected on the applications. The number of applications

to the state-financed places was decreased from 2011 to 2012 and this declining trend could be also observed in the number of applicants.

Based on my analysis I formulated 3 recommendations. The first, Hungary should invest more in its higher education system. My second finding is that students should apply where they would like to. The system should not restrict them in their choice. My last finding is, there has to be done some modification to the language exam system because this source of extra admission points increases the differences among applicants with a different socio-economic background.

## II. Acknowledgements

Hereby, I would like to thank **Professor Bokros** for being my supervisor. His thoughtful comments, constructive criticism and ideas showed me new perspectives about the topic and strongly contributed to my paper.

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# 1. INTRODUCTION

The main reason for choosing this topic is personal interest. I have chosen this theme because during my secondary school and university studies many changes happened. I lived the experience of the introduction of the Bologna System, later when I took the secondary school leaving exam, my admission points to the university were calculated by a new, different method and during my undergraduate studies, I faced a brand-new phenomenon, the so-called student contract. At the same time, I am Roma who is the first in my family with a university degree, my parents are blue-collar workers. And I have been a volunteer in an extracurricular program. With this experience, in my thesis, I wish to introduce the Hungarian higher education and how accessible is it for the students.

The Hungarian government introduced two policy measures in 2012. One of them was the student contract and the other was the reduced number of the fully-funded places at the universities. Implementation of these two policy decisions had an impact on the whole Hungarian higher education. Students experienced a new situation, they felt uncertainty about their future. In my paper, I would like to examine the effect of these policy implementations on the number of applications.

Education itself has an effect both on the individual and on society. The extent of these benefits is almost infinite. Starting with the monetary point of view, based on statistics more years spent in education means higher wages in the long run (see the figure below).

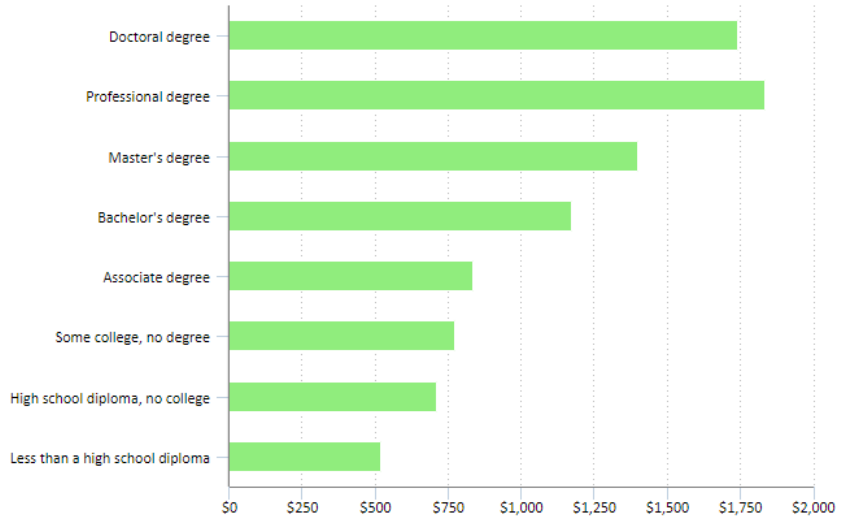


*Figure 1: Median weekly earnings by educational attainment in the US in 2017, source: bls.gov*[1]

In the case of employment, having a university degree means a higher chance of being employed compared to lower-level education.

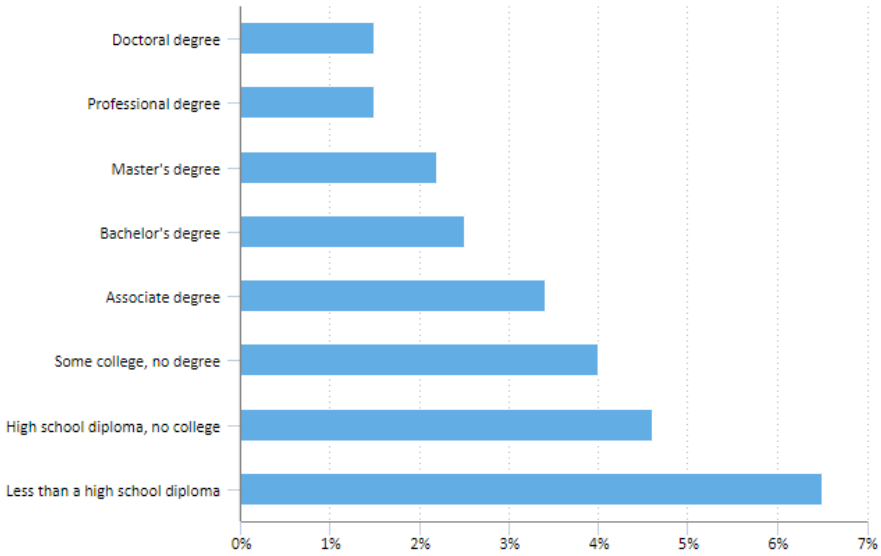


*Figure 2: Unemployment rate by educational attainment in the US in 2017, source: bls.gov*[2]

[1] Torpey, Elka. "Measuring the Value of Education." Data on display Measuring the value of education. Bureau of Labor Statistics, April 2018. https://www.bls.gov/careeroutlook/2018/data-on-display/education-pays.htm.

[2] Torpey, Elka. "Measuring the Value of Education." Data on display Measuring the value of education. Bureau of Labor Statistics, April 2018. https://www.bls.gov/careeroutlook/2018/data-on-display/education-pays.htm.

We can also assume that there are also health-related benefits of being higher educated.

Thus from the viewpoint of society, possessing a university degree has many advantages. If we assume that people with a higher level of education contribute more to the state budget, pay more taxes (e.g. personal income tax) and do not work in an illegal status and get less transfer from it, assuming that they are healthy and they are not unemployed. We can assume that in a micro segment of a society, people with higher educational attainment have an effect on other members of the society with lower-level of education (e.g. there can be a positive stimulating, inspirational effect on disadvantaged, handicapped people if there is a person with a university degree in their environment). Talking about non-monetary advantages on average, if a society attains a higher level of education, this could mean a higher level of democracy, more secure human rights and stronger political stability.

I assume the above mentioned two policy measures had an effect on the number of applications as a whole and had a different effect on different programs. And I also assume that students with worse socio-economics status were affected more critically than students who were not disadvantaged at the time of the application. So, this paper is aimed to address the following questions:

1. **Was there any effect on the number of applications when the Hungarian government introduced the student contract and reduced the number of fully-funded places at the university?**
2. **Were there different effects on the different programs?**
3. **Was there any difference in the number of applications among students with a different background?**

My paper consists of four parts. In the first part, I am introducing the Hungarian tertiary education system and I am explaining how the admission points were calculated between 2006 and 2016. This period will be the time I examine (there will be differences in the examined time periods because of the different available types of data). The second part of my paper deals with the explanation of the student contract, how it is built-up, what its function is and what the aim of its implementation was. I would like to highlight some legal problems with it as well. Furthermore, the third part of the paper will examine how the number of frame numbers was decreased. I will try to explain what could be the reason for the government behind the reduction. In the fourth part of the paper, I do the analysis. For this, I use the official database of *Felvi*, which I received from the Hungarian Academy of Sciences. In closing, I am going to propose policy advice on the implementation of this education policy.

# 2. INTRODUCTION OF THE HUNGARIAN HIGHER EDUCATION SYSTEM

In the following chapter, I introduce the structure of the Hungarian higher education system. I explain how it works, at every certain level. Then, I give a picture of the application process to the tertiary education between 2006 and 2016. And I describe how the admission points are calculated, which are the methods that are available for applicants and what are the components of the calculation.

After 2006 the Hungarian higher education system became part of the Bologna Process. This opened the gates to abroad. Students were able to pursue their studies at European universities that were part of the European higher education system. The traditional college and university programs were replaced by a three-tier system. The parts of this are the undergraduate (BA/BSc studies), graduate (master programs, MA/MSc) and on the top of these are the doctoral programs (Ph.D.) In the following table, I show how many semesters have to be accomplished and how many credits have to be gained in order to complete a certain education level.

| **Educational level** | **Number of semesters** | **Number of credits** |
|---|---:|---:|
| Higher level vocational training | 2-4 | 120 |
| Undergraduate degree | 6-8 | 180 + 30 |
| Graduate degree | 4 | 120 |
| Single-cycle long program | 10-12 | 300 |
| Ph.D. | 10- | |

*Table 1: The system of programs in the Hungarian higher education*[3]

[3]"A Képzési Szerkezet És a Képzési Szintek." A képzési szerkezet és a képzési szintek. Eduline. Accessed September 24, 2019. https://www.felvi.hu/felveteli/jelentkezes/a_magyar_felsooktatas/Kepzesi_szintek.

### *2.1 The calculation of the admission points to the higher education*

In Hungary today, the admission process of higher education is organized centrally by the Hungarian Government and Educational Authority. The procedure is regulated by the Government Decree 423/2012. (XII.29) on the admission to higher education institutions. Students can apply to the higher education twice a year, once for programs which start in the autumn and once for programs which start in the spring. Both have a different application deadline. Nowadays, applications have to be submitted electronically. One of the key elements of the applications is the ranking of the universities and faculties, programs prepared by the students (but it can be modified once after taking the secondary school leaving exam). By default, every student can apply for three programs (funding form does not matter, so basically it means 6 applications) for free (any extra application costs extra fee which has to be paid by the applicants). The calculation of the admission points is twofold. On the one hand, the grades of certain subjects matter from the last two secondary school year and on the other hand, the result of the secondary school leaving exam is relevant. For these, extra points can be added if one is entitled to them or he/she has gained them from extra, extracurricular sources. There are three types of program funding. One is a "fully-funded program by the state" which means that a student does not have to pay any tuition fee. The second type is the "partially-funded program by the state" where the tuition fee is shared between the student and the state and the last type is the self-funded program, where a student has to pay tuition fee for the training. In general, at state-financed programs, the minimum points are higher. If one does not have the required number of points he/she automatically is not accepted to the program. If one has enough admission point he/she is accepted to the first program at where he/she has enough points (Let me show it through an example. If one has 80 points and he/she applied to the 3 different programs with three different admission points. To program "X" with a published point of 81 points at the 1st place, to program "Y" with published 76 points with the 2nd place ranked and to program

"Z" published 55 points with 3rd place ranked, he/she will successfully be accepted to the" Y" program on the second place. For the "X" the student cannot be accepted because he/she does not have enough point, for the program "Z" there is also no acceptance because of program "Y" was in the higher-ranked place on his/her application).

Since my thesis examines the period between 2006-2016 in the Hungarian higher education, I am clarifying how the admission points are calculated in each particular academic year in this period. It has to be started with the AY 2006/07 because after that in 2008 there was a huge and vital change in the calculation method. The whole system changed from a 144-point to 480-point system which was introduced in January of 2008. The new calculation method affected every student who applied to the tertiary education in that year.

In the following, I demonstrate how admission points can be calculated.

There are two methods of this.

1. Points from the GPA and from the result of the secondary school leaving exam
    a. Points from the GPA: The results of five subjects final grade from the two last secondary school academic year. Then these figures are doubled. The maximum attainable points from this source are 100.
    b. Points from the result of the secondary school leaving exam: There are five subjects in the exam whose results are matter. Since results are in percentage points, these have to be converted into points. One percentage point is one point. The average of these points is taken and added to the result of the GPA. These two sources give 200 points in the admission process.

c. Points from the result of the compulsory secondary school leaving exam subject: Different university departments requires different subjects which have to be taken in the secondary school leaving exam. The exam result of those two subjects can give 200 admission points.

So, the admission points in this method come from adding up the points from the source a,b, and c., which can be a maximum of 400 points.

2. Doubled points from the result of the compulsory secondary school leaving exam subjects.
    a. In this method, the points from the two compulsory taken exam results are simply doubled. It can give 400 points for the admission process.

| Source of the points | Maximum obtainable admission points |
|---|---|
| Points from the result of the last two secondary school year (**a**) | (25+25)*=**100** |
| Points from the average result of the secondary school leaving exam (**b**) | (5*100)/5=**100** |
| Points from the results of the obligatory taken secondary school leaving exam subjects (**c**) | 100+100=**200** |

*Table 2: The system admission points*

- First method: a+b+c
- Second method: 2*c

The admission process at the system level always takes into consideration the higher admission points in the calculation. The system calculates and decides which method gives the higher admission point to the applicants and the student who applied gets this at the application automatically. (In different years' maximum attainable admission process and points might change.)

For these two basic methods, a student can get extra points if he/she is entitled to them. The bar chart illustrates how the admission points are distributed in 2008.

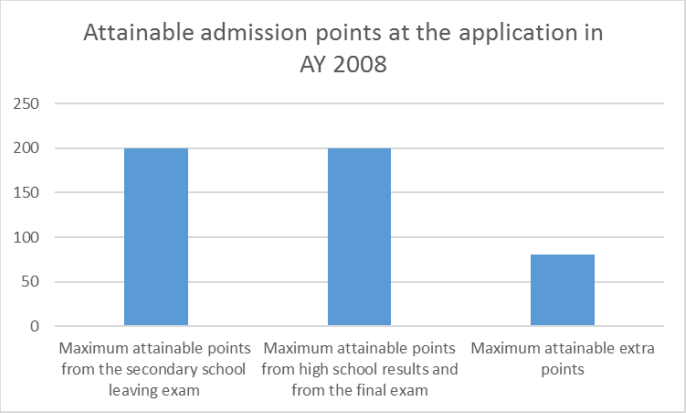


*Figure 3: Attainable admission points in AY 2008, own calculation*

**In 2007**

The system in the academic year of 2006/2007 was a 144-point system and it turned to a 480-point system for 2008. In 2007 admission points could come from the following resources, 60 points from the secondary school leaving exam and it could be doubled, or 60 points from the secondary school final grade results and the average result of the high school final exam. The maximum number of extra points was 24. The maximum obtainable admissions points in 2007 were 144. [4]

**In 2008**

*Points from the secondary school leaving exam*

In this way of calculation of the maximum number of points which can be obtained by a student who takes the exam is 200 points. These consist of the results of the two obligatory subjects which have to be taken by the student if he/she applies at a certain field of education and would like to

[4] Garam, Ágnes. "Tájékoztató a 2007. Évi Érettségiről És a Felvételi Rendszerről." Tájékoztató a 2007. évi érettségiről és a felvételi rendszerről. MERIDIÁN, February 8, 2016. http://meridian.apaczai.elte.hu/?tipus=c&rovat=n&alrovat=ketszintu_erettsegi&cikk=n58.

continue his/her higher studies there. Always the best output is calculated by the system. This result of the exam is shown in percentage which is converted into rounded points. One of the best ideal examples is when a student applies to a department in business and economics and his/her two obligatory subjects in which he/she has to take high school leaving exams are Mathematics and History. And if he/she gets 100% from both of subject, his/her points are 200, which has to be doubled and then he/she can get the maximum 400 points. The level of taking the high school finishing exam does not matter. Both the medium level and advanced level are calculated in this method.

A very special case if somebody had taken his/her high school finishing exam earlier than 2008. That point calculation methodology did not work based on a percentage basis, it worked on a grade basis.

| **Grade** | **Converted percentage of the grade** |
|---|---|
| 5 | 100% |
| 4 | 79% |
| 3 | 59% |
| 2 | 39% |

*Table 3: Grades before AY 2006/07 and its conversion to the new system, own source*

In this case if the applicant received e.g. "5" for his/her exam, he/she automatically got 100 percent for it which meant in the calculation he/she had automatically 100 points, since someone's results for the exam was 81% in 2008, it was sill grade 5, but only 81 points.

Points from GPA + average secondary school leaving exam results

In this method, points are calculated from the GPA. The last two year grades are summed up. Subjects are the following: Literature and Grammar, Mathematics, History, one foreign language which was studied at least during the last two years, and one subject for free of choice. In the Hungarian school grading system, the worst grade is 1 and the best is 5. At the end of the school year, the grade has to be an integer, so if it is not, it has to be rounded to that. This maximum can be 100 points. One best ideal example is, Literature and Grammar ((5+5)/2)*2, Mathematics (5+5), History (5+5), German (5+5), Sport (5+5), if these are sum up it Is 50 and this 50 still has to be doubled. So, the maximum attainable number of points is 100. For these, the average result of the secondary school leaving exam is added. If a student took the final exam in the same subject he/she took to the GPA calculation and he/she got 100% of all the five exams and if these are converted to points and average is taken from them, he/she gets 100 points again. Now the applicant has 200 points altogether. For this the 200 points which come from the previous points are added, now he/she has 400 points.

Extra points

Students are entitled extra points through the admission process if they have some extra, not regular activity connected to their studies. The maximum attainable extra points are 80. If one would have more than 80 for some reason he/she is entitled only for 80 points.

Sources of extra points can be:

- By taking an advanced level of school leaving exam. If one's points are calculated based on an advanced level exam and he/she has more than 30% result, he/she is entitled to get 40 extra points by subjects (maximum two subjects).

- Extra points for having a language exam. If one has a language exam at intermediate he/she gets 35 points and if one has a language exam at an advanced level, he/she gets 50 extra points. For language exams a maximum of only 50 points can be given. Students cannot get extra points for those language exams which they got from "language schools" if they take secondary school leaving exam in a foreign language in advanced level and if their result is better than 60% which is 5 in grading they get automatically a language exam from that particular language. But if someone has a language exam both on the intermediate level and on an advanced level, he/she is entitled to only 50 extra points. And if one got one certificate from language school and another one by taking advanced high school finishing exam, he/she is entitled on for 35 extra points.
- Extra points for study competitions. There are different types of study contests at which a student reaches an outstanding result, he/she is entitled to extra study points. They can get extra points if they take a successful competition in culture and art, this results in 20 extra points. If a student has a prominent place at the country secondary school study competition they can get extra points as well. Obtainable points differ through the place they win. From the first to the tenth they get 80 points, from eleventh place to twentieth place they get 50 extra and from the twenty-first position to thirtieth they get 25 extra study points.
- There are other high school study competitions that give extra points for the winners.
- If students obtained some vocational degree, they are able to get extra points. In Hungary, the National Training Registry can give vocational training over the general school education and there is the higher-level vocational training. These give extra points if they are on the same field that the student would like to apply to.

- There are opportunities for extra points if students have outstanding results in different sport competitions, such as the Olympics.
- Extra points for discrimination: Those students are eligible for these extra points who are matched for the criteria. The disadvantaged status gives 25 extra points for students in each case. Further extra points are given if a student has a very poor and bad family situation. If somebody is disabled, he/she gets 50 extra points.
- Those students who are on maternity leave (or paternity) get 50 extra points.

Every year a minimum point of a valid process of admission can take place. In 2008, students had to have altogether minimum of 140 points without any extra points for being eligible for participating in the admission process of higher education. (Both the number of extra points and minimum points can change from year to year. [5]

**In 2009**

In this year the maximum attainable points in the admission process are 480 (400+80) as they were in 2008. [6]

**In 2010**

In this year the method of admission point calculation is the same as it was in 2009. [7]

[5] Érsek, Dóra. "Mágikus Pontok - Hogyan Számítják Ki a Felvételi Pontszámot?" Mágikus pontok - Hogyan számítják ki a felvételi pontszámot? Sulinet, November 29, 2007. https://hirmagazin.sulinet.hu/hu/pedagogia/magikus-pontok-hogyan-szamitjak-ki-a-felveteli-pontszamot.

[6] "Felvételi Pontszámítás 2009: Így Számold Ki a Pontjaidat." Felvételi pontszámítás 2009: így számold ki a pontjaidat. Eduline, June 24, 2009. https://eduline.hu/felsooktatas/20090623_pontszamitas_2009_erettsegi_felveteli.

[7] "Hogyan Változik a Felvételi Pontszámítás 2011-Től?" ÉRETTSÉGI-FELVÉTELI. Eduline, December 15, 2010. https://eduline.hu/erettsegi_felveteli/20101214_pontszamitas_2011_felveteli.

**In 2011**

In this year the calculation system was modified. From this year the language exam was worth less than before. Still in 2010 for the intermediate language exam entitled to 35 extra points and the advanced one entitled to 50, from 2011 these were only 28 and 40 extra points, and the maximum attainable extra points were limited in 40 instead of 50. There were fewer points given for the participation of student competition. For extra vocational training, there were 24 points given instead of 30. Disadvantaged and disabled students were also affected, they also got fewer points. The calculation of the basic 400 points did not change. [8]

**In 2012**

There was a change in the calculation of extra points. Having advanced level secondary school leaving exam in one subject meant not 40 but 50 extra points. It meant that the maximum obtainable points which students could get in the admission process were 500. And from this year not only from Literature and Grammar, Mathematics, History, one foreign language and one freely chosen subject had to be taken secondary school leaving exam but one subject had to be done in a natural science, which could be Geography, Chemistry, Physics, Biology and the GPA from these subjects (one is obligatory) had to be taken into consideration. The minimum points that students had to have 240 points. [9]

[8] "Hogyan Változik a Felvételi Pontszámítás 2011-Től?" ÉRETTSÉGI-FELVÉTELI. Eduline, December 15, 2010. https://eduline.hu/erettsegi_felveteli/20101214_pontszamitas_2011_felveteli.

[9] "Felsőoktatási Felvételi Tájékoztató – 2012. Szeptemberben Induló Képzések Érettségizetteknek." Felsőoktatási Felvételi Tájékoztató. Felvi.hu. Accessed September 24, 2019. http://www.felvi.hu/pub_bin/dload/FFT2012A_AOF/tajekoztato_2012_szeptember_aof_kepzesek.pdf.

**In 2013**

In this year 500 is the maximum number of attainable points in the admission process. 400 points are the basic and 100 extra points. The minimum level of points is 240. In this year the advanced level high school finishing exam is worth 50 extra points, but a student had to have at least 45% result in the subject for getting this, not the 30% which was in the year before. The student competition participation rewarded more than it did a year before, the extra points increased from 80 to 100. The language exam worked in the same way, the maximum extra points for them were 40. For disadvantaged and disabled status 40 extra points were given. For vocational training 24 extra were given, and for sports results, if someone won, or finished at the second or at third place got all the 500 points. [10]

**In 2014**

The system was still a 500-point system, with the regular 400-100 point distribution. But the minimum required points for the eligible admission were 260. [11]

**In 2015**

In this year the minimum admission points were increased from 260 to 280, at the same time there were no further modifications were compared to the previous year. [12]

[10] "Felsőoktatási Felvételi Tájékoztató ARCHÍV: 2013. Szeptemberben Induló Képzések Érettségizetteknek." Felsőoktatási felvételi tájékoztató. Felvi.hu, December 31, 2012. https://www.felvi.hu/felveteli/jelentkezes/korabbi_elj_archivum/felveteli_tajekoztatok/FFT_2013A_AOF/2_felveteli_eljarasrol/25_pontszamitasi_modszerek.

[11] "Felsőoktatási Felvételi Tájékoztató ARCHÍV: 2014. Szeptemberben Induló Képzések." Felsőoktatási Felvételi Tájékoztató. Felvi.hu, December 21, 2013. https://www.felvi.hu/felveteli/jelentkezes/korabbi_elj_archivum/felveteli_tajekoztatok/FFT_2014A/2_menetrend_es_szabalyok/24_pontszamitasi_modszerek

[12] "Pontszámítás Egyetemi Felvételihez." Pontszámítás egyetemi felvételihez. Újpest Károlyi István Általános Iskola és Gimnázium, n.d. http://kig.hu/images/article/12784/Pontszmtsegyetemifelvtelihez.pdf.

**In 2016**

The same method of calculation in admission points was applied as it was in 2015. [13](The official explanation of the admission process is always the abovementioned Government Decree.)

In the following table, I would like to show how the ratio changed between the must minimum admission points and the maximum attainable ones. The higher ratio shows a higher threshold of the accessibility of the system. From year to year applicants had to get higher points for reaching the minimum eligibility of the admission process.

| Year | Maximum attainable admission points | Minimum admission point for the eligibility of the admission | Ratio |
|---|---|---|---|
| 2008 | 480 | 160 | 33% |
| 2009 | 480 | 160 | 33% |
| 2010 | 480 | 200 | 42% |
| 2011 | 480 | 200 | 42% |
| 2012 | 500 | 240 | 48% |
| 2013 | 500 | 240 | 48% |
| 2014 | 500 | 260 | 52% |
| 2015 | 500 | 280 | 56% |
| 2016 | 500 | 280 | 56% |

*Table 4: The ratio between the maximum and the obligatory minimum points during the admission process between 2008 and 2016, own calculation*

[13] "Felsőoktatási Felvételi Tájékoztató ARCHÍV: 2016. Szeptemberben Induló Képzések." Felsőoktatási Felvételi Tájékoztató. Felvi.hu, December 12, 2015. https://www.felvi.hu/felveteli/jelentkezes/korabbi_elj_archivum/felveteli_tajekoztatok/FFT_2016A/2_pontszamitas.

## *2.2* The student contract[14]

According to the Act CCIV of 2011 on National Higher Education, those students who would like to begin their studies in the Hungarian higher education in a partly or a fully-funded form have to sign a special contract, the so-called "student contract". This contract must be signed at the time of enrolment. No official status of being a student comes into existence without signing the student contract. The regulation specifies that there are three types of funding forms in higher education.

- fully-financed form (the whole tuition fee is paid by the Hungarian state, so the student does not have to pay anything,
- partly-funded form, the student and the state split the cost of the tuition fee
- self-funded form, the student finances his/her tuition by himself/herself.

These changes explained above may question the right to education and I think the student contract is a tool, which may harm this basic right. Every student has the right to free education, but this can be questionable when the phenomenon of student contract and the limitation of accessibility of certain programs appear. According to the contract, if one would like to pursue his/her studies at the university for free (fully-funded), he/she cannot do that unless this legal document signed, or if she/she starts to studies bearing its costs (e.g. taking out a one type of the student loan). By signing the contract, students make declarations regarding the acceptance of two special commitments. The first is that the student will finish his/her studies at least 1,5 times the program period of he/she continues the studies (e.g. if the program is 6 semesters long, the student has to finish it within 4,5 years). Another engagement is, a fresh graduate has to work in Hungary in the next twenty-year period after finishing for two times more as the program lasted (in twenty years he/she can work

[14] "Tájékoztatás a Hallgatói Szerződés Egyes Elemeiről." Oktatás.hu. Oktatási Hivatal, February 24, 2012. https://www.oktatas.hu/felsooktatas/felveteli/aktualitasok_hataridok_eljarasok/hallgatoi_szerzodes.

in Hungary whenever he/she wants. However, working in Hungary does not mean territory of country, the company he/she works for a company that has Hungarian tax number).

Regarding the student contract, I answer the following common unambiguous situations, which may emerge:

- Only the period after finishing studies matters in the 20 years, if someone worked parallel with his/her studies it does not count in,
- Not necessary to work the twice of the training period in one block, but this condition has to be fulfilled in twenty years[15],
- Although working in Hungary is a must, the Hungarian state does not provide a job opportunity automatically for the freshly graduated students[16].
- Only the official work status takes into consideration[17].
- There are exceptions for those
    - who serve at the military voluntarily one year counts two,
    - one has finished Hungarian university abroad, he/she can work in that country's territory,
    - for those who finished a study program in religious studies,
    - for social issues, if one has disadvantages,
    - for women who have at least 3 children.[18]

[15] "Tájékoztatás a Hallgatói Szerződés Egyes Elemeiről." Oktatás.hu. Oktatási Hivatal, February 24, 2012. https://www.oktatas.hu/felsooktatas/felveteli/aktualitasok_hataridok_eljarasok/hallgatoi_szerzodes.
[16] Szabó, Fruzsina. "17 Húsba Vágó Kérdés a Hallgatói Szerződésekről." Eduline.hu Felsőoktatás. Eduline.hu, July 17, 2012. https://eduline.hu/felsooktatas/Hallgatoi_szerzodes_kerdesek_es_valaszok_PK1Q7M.
[17] Szabó, "Tájékoztatás a Hallgatói Szerződés Egyes Elemeiről"
[18] Szabó, "Tájékoztatás a Hallgatói Szerződés Egyes Elemeiről"

In the case of violation of the contract, there is a possibility to pay back the tuition fee in installments with interests. The supervisor of the process which is responsible for monitoring and collection is the Hungarian Tax Authority. [19](Official details about the student contract is written in the abovementioned Act.)

According to Czervan (2012), the introduction of the student contract was a singular case in the history of Hungarian higher education. This type of legal initiative in no country of the European Union can be found. Only one country, Belarus, has a similar regulation. There the student contract was introduced to slow down the brain drain. Students finish their higher studies for free and later they leave the home country for better job conditions abroad. In Belarus, the contract is softer than it is in Hungary. Fresh graduates have to work in the country for two years and the university works as a job agent as well. It tries to find a job, so it provides a kind of guarantee of a job. Students with a better GPA can get better jobs, still, students with weaker results get less and worse job offers. If a student is not satisfied with the opportunity, he/she has to pay the tuition fee back.[20]

[19] "Hallgatói Szerződések: Akkor Is Fizetni Kell, Ha Csúszik a Diploma." Érettségi-Felvételi. Eduline, January 26, 2019. http://eduline.hu/erettsegi_felveteli/Hallgatoi_szerzodes_fizetni_kell_ha_nem_veg_XK6OQ3?fbclid=IwAR0RmCSgaXhLoHPKdCGoJttQCIY7TbSSG9WmpvTMg7wHsJwgrVzGtP6ciUQ.

[20] Cvervan, Andrea. "Jön a 'Feketeleves' Szeptembertől: Ez Lesz Európa Legszigorúbb Hallgatói Szerződése." Felsőoktatás. Eduline, March 19, 2012. http://eduline.hu/felsooktatas/Hallgatoi_szerzodes__csak_Feheroroszorszagb_GTTZHX?fbclid=IwAR0RmCSgaXhLoHPKdCGoJttQCIY7TbSSG9WmpvTMg7wHsJwgrVzGtP6ciUQ

### *2.3 The reduced number of state-financed places*

In this chapter, I would like to introduce another policy decision which was made by the Hungarian government and explain possible reasons behind its implementation. Furthermore, I demonstrate how the number of quotas changed.

In every year before the starting of the admission process to the tertiary education the Hungarian state announces how many students can study in higher education in a state-financed form, these are called frame numbers (quota). These places are filled up from top to bottom. For example, if there are 50 state-funded places in that certain academic year, the students who are applied for that faculty where the fifty places are ranked in descending order by their admission process and the 50$^{th}$ best student is accepted to that place. That is the minimum point that an applicant has to get to be accepted to that faculty.

After the introduction of the decreased number of the quota in certain faculties and programs, the most important question was where students were accepted, to one of the state-financed programs or to one of the self-funded programs. It is an important question because there was a big difference in the tuition fees of different faculties. Just for illustration, the tuition fee at pedagogical programs felt between 230,000-400,000 Hungarian Forints, since if someone wanted to be a medical doctor he/she had to pay 1,020,000 HUF per semester. (In 2012 the average gross earnings per month amounted to HUF was 223,060.)[21]

[21] "A Teljes Munkaidőben Alkalmazásban Állók Havi Bruttó Átlagkeresete a Nemzetgazdaságban (2000–)." Központi Statisztikai Hivatal. Accessed October 21, 2019. https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_qli012b.html.

| **Undergraduate** | | | | |
|---|---|---|---|---|
| **Field of Studies** | **2011** | **2012** | **Change in number of students** | **Change in percent** |
| Agricultural Studies | 1850 | 2100 | 250 | 14% |
| Faculty of Humanities | 4100 | 2700 | -1400 | -34% |
| Faculty of Economics | 4900 | 250 | -4650 | -95% |
| Informatics | 6400 | 6050 | -350 | -5% |
| Public Administration, Law Enforcement Administration | | 1017 | 1017 | There was no quota |
| Law Studies | | 200 | 200 | |
| Engineering | 9850 | 12910 | 3060 | 31% |
| Medical Studies | 3100 | 3300 | 200 | 6% |
| Master of Education | 2000 | 1600 | -400 | -20% |
| Sport Studies | 500 | 600 | 100 | 20% |
| Social Sciences | 2100 | 1000 | -1100 | -52% |
| Natural Sciences | 5200 | 5500 | 300 | 6% |
| Art | 960 | 1090 | | 14% |
| **Single cycle long programs** | | | | |
| **Field of Studies** | **2011** | **2012** | | |
| Agricultural Studies | 160 | 160 | 0 | 0% |
| Legal Studies | 800 | 100 | -700 | -88% |
| Engineering | 200 | 200 | 0 | 0% |
| Art | 1500 | 1800 | 300 | 20% |

*Table 5: How the number of quotas changed from 2011 to 2012.*[22] [23]

[22] "Itt Vannak a 2012-Es Keretszámok: Kinyírta a Kormány a Jogi És a Gazdasági Szakokat." Érettségi-Felvételi. Eduline, January 5, 2012. http://eduline.hu/erettsegi_felveteli/Itt_vannak_a_2012es_keretszamok__kepzesi_te_WTPIUQ.

[23] "Íme, a Korrigált Keretszámok: Az Összes Ösztöndíjas És Részösztöndíjas Hely." Érettségi-Felvételi. Eduline, June 27, 2012. http://eduline.hu/erettsegi_felveteli/Korrigalt_felveteli_keretszamok_2012_65SPZU.

The table shows how the number of state-financed places has been changed from 2011-2012. The most hit faculties were Economics and Legal studies.

Right to higher education is a decisive part of the right to education. The right to education means the right to public education. Notably, this is not only a right but an obligation until one does not reach the school-leaving age. This is in Hungary today age 16. Since it is obligatory, the state provides it for free. Higher education is an exemption. It is not compulsory, so that is not provided for free, but access to it should be equal for everyone. The concept of equity and equality has to be emphasized.

After the introduction of the minimum point system (240 points) had an effect on the application. Raising the minimum requirement tightened the input condition of the application and excluding students from higher education. There had to be a minimum "level" which had to get from the former education which authorizes the applicant to be a member of tertiary education. However, someone had at least the 240 minimum points it did not mean that the education was free. Only if the student contract was signed by the student (and having enough admission points). The reason behind the decreasing number of state-funded places in the Hungarian higher education was that the government spent less on education and could not want to finance it more.

| Year | Spendings on higher education (in million HUF) |
|---|---|
| **2001** | 161 871 |
| **2002** | 183 934 |
| **2003** | 216 422 |
| **2004** | 214 129 |
| **2005** | 226 772 |
| **2006** | 234 968 |
| **2007** | 253 174 |
| **2008** | 266 745 |
| **2009** | 261 763 |
| **2010** | 259 156 |
| **2011** | 270 646 |
| **2012** | 247 517 |
| **2013** | 243 645 |
| **2014** | 257 908 |
| **2015** | 264 484 |
| **2016** | 300 297 |
| **2017** | 324 778 |

*Table 6: Spending on higher education from 2001 to 2017 (in million HUF, current price)*[24]

From the data, it can be seen that the Hungarian government every year has spent more on higher education in the current price. This is a growing trend.

[24] "A Költségvetés Oktatási Kiadásai (2001–)." A költségvetés oktatási kiadásai (2001–). Központi Statisztikai Hivatal. Accessed October 21, 2019. https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_zoi014.html.

| Year | Spending on higher education as a percentage of GDP |
|---|---|
| 2003 | 1,1 |
| 2004 | 0,99 |
| 2005 | 0,99 |
| 2006 | 0,95 |
| 2007 | 0,96 |
| 2008 | 0,96 |
| 2009 | 0,99 |
| 2010 | 0,97 |
| 2011 | 0,97 |
| 2012 | 0,88 |
| 2013 | 0,84 |
| 2014 | 0,79 |
| 2015 | 0,77 |
| 2016 | 0,85 |
| 2017 | 0,85 |

*Table 7: Spending on higher education as a percentage of GDP between 2003 and 2017*[25]

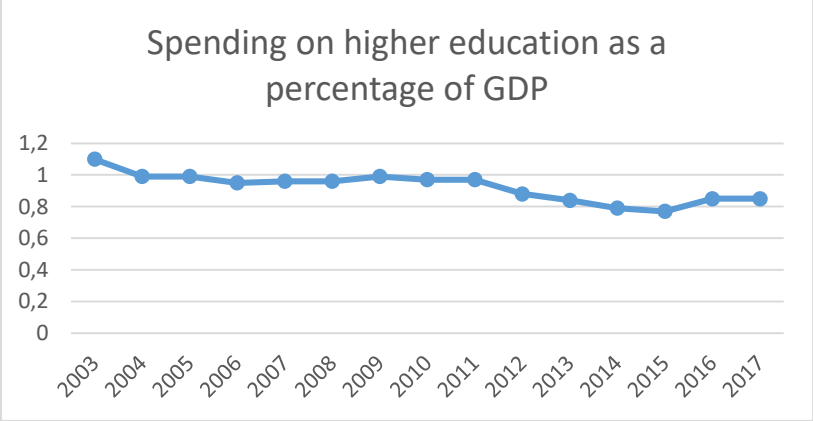


*Figure 4: Spending on higher education as a percentage of GDP between 2003 and 2017*[26]

However, the spending on the percentage point of the Hungarian Gross Domestic Product has been decreasing. If the Government would have held the same ratio as it did in 2009 in the current price more money would have transferred to higher education.

[25] "Oktatási Befektetések (2003–2017)." Központi Statisztika Hivatal. Accessed October 22, 2019. https://www.ksh.hu/thm/2/indi2_2_2.html.

[26] "Oktatási Befektetések (2003–2017)." Központi Statisztika Hivatal. Accessed October 22, 2019. https://www.ksh.hu/thm/2/indi2_2_2.html.

# 3. THE ANALYSIS OF THE HUNGARIAN HIGHER EDUCATION SYSTEM BETWEEN 2006 – 2016

In this part of my paper I would like to analyze the Hungarian higher education system and try to find answer for my hypothetical questions, which are the followings:

1. **Was there any effect on the number of applications when the Hungarian government introduced the institution of student contract and reduced the number of fully-funded (state-financed) places at the Hungarian universities?**
2. **Was there any difference in the number of applications among people with different backgrounds?**
3. **Were there different effects on the different programs?**

To find the answers to my questions I use and analyze the data of the Hungarian Academy of Sciences. The institution provided me its datasets on the application to the Hungarian higher education. The datasets consist of three different types of data collections and the subject of them is the period between 2006-2016.

### *3.1 Analysis of the applications*

For the analysis of the applications, I examine the numbers of the applications from different perspectives, such as different levels of the program and different financing forms of the programs. My main scope is the undergraduate level but I show results for all levels between 2006 and 2016 as well.

In the following table, I would like to show the applications to higher education between 2007-2016. (In 2006, it was not feasible to show the number of the applications in each different level of programs).This is an aggregate table which shows all the level of programs (undergraduate, graduate, single cycle long programs and higher-level vocational trainings) by financing form for between 2007-2016. The Lowest number of applications was 349,174 in 2013 the highest was 483,656 in 2011. The mean of the applications is 399,548.

| | state-financed form | | | | self-financed form (tuition fee) | | | |
|---|---|---|---|---|---|---|---|---|
| Year | Undergraduate | Graduate | Single cycle long program | Higher-level vocational training | Undergraduate | Graduate | Single cycle long program | Higher-level vocational training |
| 2006 | | | | | | | | |
| 2007 | 228 682 | 556 | 21 213 | 19 928 | 96 546 | 1 198 | 5 569 | 3 311 |
| 2008 | 198 383 | 7 640 | 18 132 | 23 493 | 98 449 | 9 814 | 7 479 | 5 175 |
| 2009 | 240 822 | 30 418 | 20 602 | 26 356 | 86 144 | 16 750 | 7 757 | 3 940 |
| 2010 | 254 896 | 51 115 | 21 777 | 34 182 | 76 522 | 16 716 | 7 550 | 3 741 |
| 2011 | 246 429 | 56 257 | 20 181 | 37 888 | 91 375 | 17 357 | 8 583 | 5 586 |
| 2012 | 165 188 | 53 158 | 15 499 | 25 809 | 106 216 | 17 662 | 9 160 | 8 567 |
| 2013 | 155 087 | 45 764 | 17 938 | 12 557 | 88 074 | 15 402 | 7 921 | 6 431 |
| 2014 | 168 860 | 51 360 | 21 093 | 17 361 | 81 432 | 15 098 | 8 354 | 7 767 |
| 2015 | 167 056 | 51 471 | 22 651 | 19 185 | 78 002 | 15 452 | 8 582 | 7 763 |
| 2016 | 172 021 | 49 848 | 24 428 | 21 410 | 81 432 | 15 061 | 9 307 | 7 696 |

*Table 8: Number of applications by different level of programs and different financing form (2007-2016)*

The graph shows that the number of applications between 2006 and 2008 stood constant but from 2008 there is a significant rise in the line. From 2007 to 2008 the calculation system of the application points changed from the 144-point system to a 480-point system and nobody knew what would be its effect, there was a big uncertainty in the applicants. (in the new system the application points had greater spread than in the previous one, which meant for each point the new system gave a bigger range. Explaining this an almost similar example from the grading system, if a student receives 90 points for the test, whilst another receives 95 points both are “A” but the

second grade is ranked better). The line reached its peak in 2011 and from then there is a dramatic drop which remains steady until 2016. So, from 2011 to 2012 (when the institution of student contract and frame numbers were introduced) there is a significant decreasing change in the number of applications.

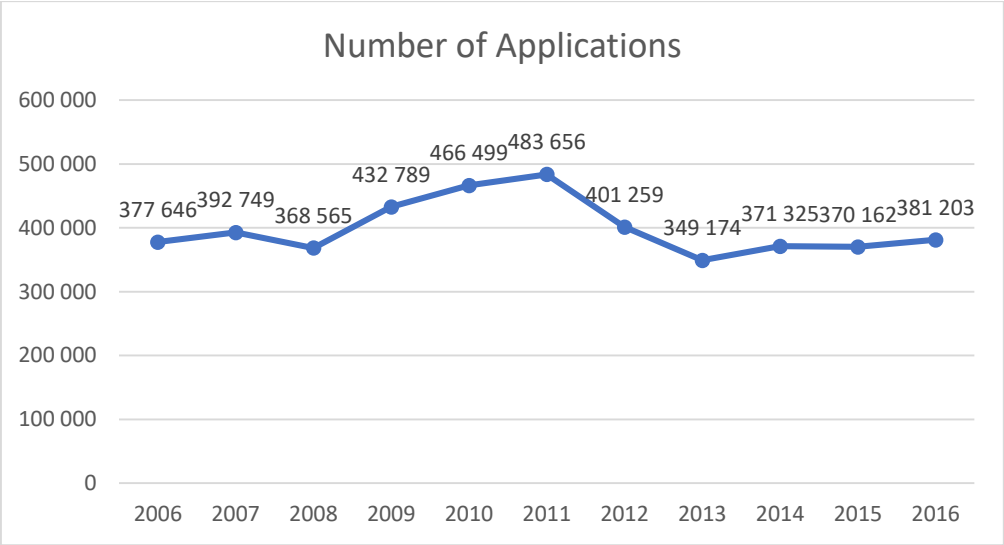


*Figure 5: Number of applications between 2006 and 2016*

In the next table, there can be seen the percentage changes in the number of the application by different levels of higher education. Then, there is a graph, which shows that the higher-level vocational training was the most volatile between the examined period (Only the period between 2009 – 2016 was examined because this was the period where the different levels of the training were unified).

| Year | ▲ % (Undergraduate) | ▲ % (Graduate) | ▲ % (Single cycle long program) | ▲ % (Higher-level vocational training) |
|---|---|---|---|---|
| **2009** | 0 | 0 | 0 | 0 |
| **2010** | 1,36% | 43,81% | 3,41% | 25,17% |
| **2011** | 1,93% | 8,53% | -1,92% | 14,64% |
| **2012** | -19,66% | -3,80% | -14,27% | -20,93% |
| **2013** | -10,41% | -13,63% | 4,87% | -44,76% |
| **2014** | 2,93% | 8,65% | 13,88% | 32,34% |
| **2015** | -2,09% | 0,70% | 6,07% | 7,24% |
| **2016** | 3,43% | -3,01% | 8,01% | 8,01% |

*Table 9: Percentage changes in the applications in different level of programs between 2009 and 2016*

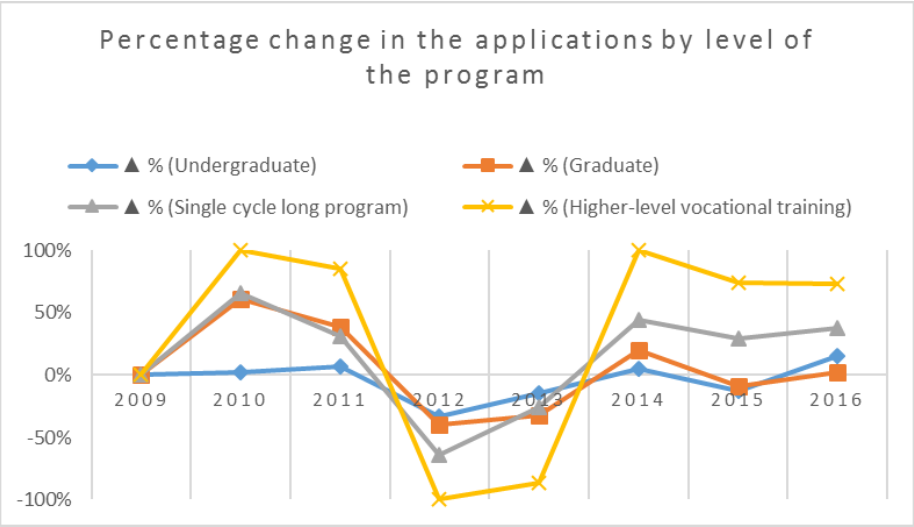


*Figure 6: The graph of percentage changes in the applications in different level of programs (2009-2016)*

The next table shows the numbers and the percentage changes of applications by the financing form of the studies. The biggest reduction in applications was from 2011 to 2012 and the bottommost point in the number of applications was in 2013 in the state-financed form.

| Year | state-financed programs | ▲ % in state-financed programs | self-financed programs | ▲ percentage in self-financed programs |
|---|---|---|---|---|
| **2006** | 281 464 | 0 | 96 182 | 0 |
| **2007** | 270 379 | -3,94% | 106 624 | 10,86% |
| **2008** | 247 648 | -8,41% | 120 917 | 13,41% |
| **2009** | 318 198 | 28,49% | 114 591 | -5,23% |
| **2010** | 361 970 | 13,76% | 104 529 | -8,78% |
| **2011** | 360 755 | -0,34% | 122 901 | 17,58% |
| **2012** | 259 654 | -28,02% | 141 605 | 15,22% |
| **2013** | 231 346 | -10,90% | 117 828 | -16,79% |
| **2014** | 258 674 | 11,81% | 112 651 | -4,39% |
| **2015** | 260 363 | 0,65% | 109 799 | -2,53% |
| **2016** | 267 707 | 2,82% | 113 496 | 3,37% |

*Table 10: Percentage changes in the applications in different financing form between 2006 and 2016*

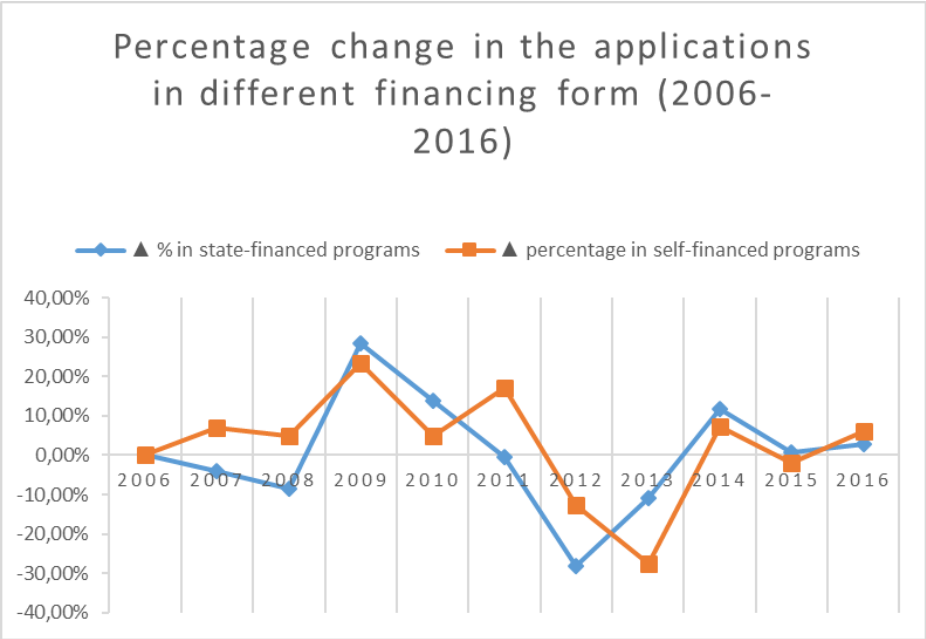


*Figure 7: The graph of percentage changes in the applications in different financing form between 2006 and 2016*

The biggest negative change at state-financed programs was from 2011 to 2012 and 2012 to 2013 at self-financed programs, while the most significant increase at state-financed from 2008 to 2009 and from 2009 to 2010 at self-financed applications.

The next table shows the number and the percentage change in the undergraduate applications, since the main scope of my thesis is to examine applications and applicants who applied to higher education at the undergraduate level. From the table and from the graph below this table, there can be seen the same trend which was recognizable at all applications. There are two big breakpoints in the process for state-financed programs. The first from 2007 to 2008 (introduction of the new point calculation system) and the second is between 2011 and 2012 when student contract was introduced. On the contrary, the number of self-financed program applications was increased from 2010 to 2012.

| Year | state-financed form | ▲percentage in state-funded form | self-financed form | ▲percentage in self-financed form |
|---|---|---|---|---|
| **2007** | 228 682 | 0 | 96 546 | 0 |
| **2008** | 198 383 | -13,25% | 98 449 | 1,97% |
| **2009** | 240 822 | 21,39% | 86 144 | -12,50% |
| **2010** | 254 896 | 5,84% | 76 522 | -11,17% |
| **2011** | 246 429 | -3,32% | 91 375 | 19,41% |
| **2012** | 165 188 | -32,97% | 106 216 | 16,24% |
| **2013** | 155 087 | -6,11% | 88 074 | -17,08% |
| **2014** | 168 860 | 8,88% | 81 432 | -7,54% |
| **2015** | 167 056 | -1,07% | 78 002 | -4,21% |
| **2016** | 172 021 | 2,97% | 81 432 | 4,40% |

*Table 11: Percentage changes in the applications in different financing forms between 2006 and 2016 (at undergraduate level)*

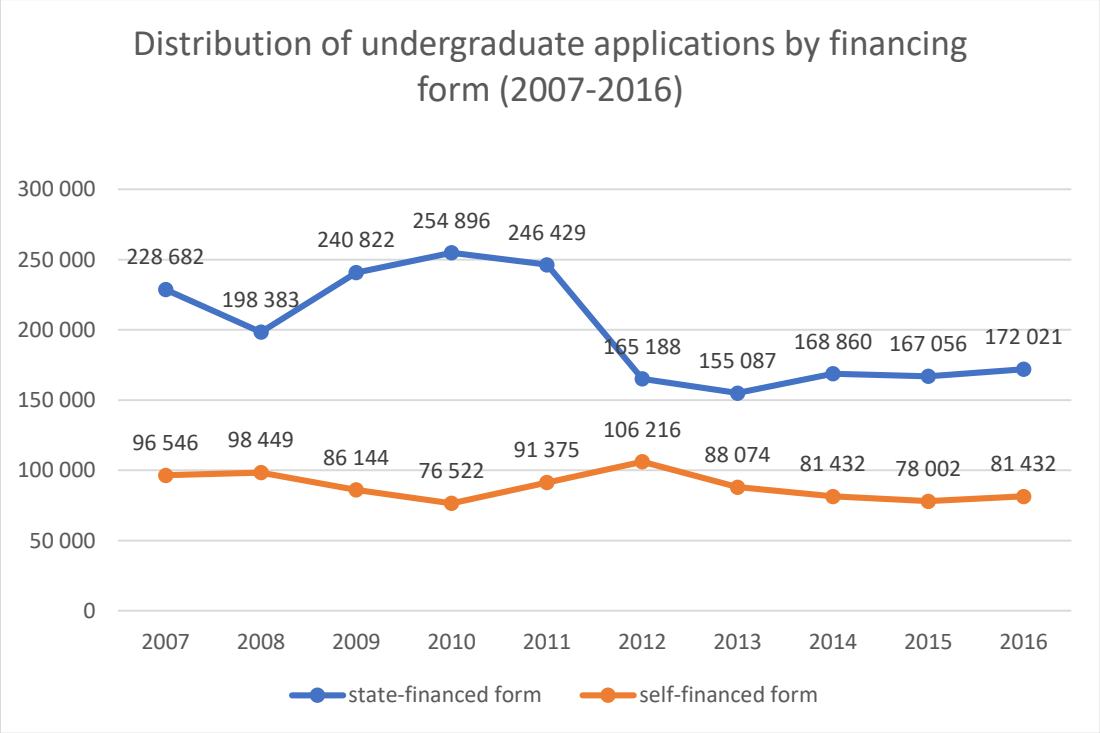


*Figure 8: Number of the applications in different financing forms between 2006 and 2016 (at undergraduate level)*

### *3.2 Analysis of the applicants*

For the analysis of the applicants, I also examine different attributes of the people. I use the dataset of the individuals for it. In this part, I use tables, graphs and pie charts to represent my findings.

Table 11. shows the aggregate numbers of applicants by their different attributes (namely, gender, region of the application and the year when the applicants took the secondary school leaving exam*)*. The first row shows the applications' figures, the next two rows the gender distribution of applicants year by year.

I thought applicants should be represented not only from the gender point of view but by the place/region from which they applied. Because, every year one of the Hungarian journals prepares a comparison among secondary schools based on different factors (results in study contests, results of the secondary school leaving exam, how many language exams taken by the students of the school, etc.). Every year in the top 10 secondary schools there are more schools from the capital than from other regions. I wanted to analyze if there was any significant effect on these variables in the examined period (To examine this later I am comparing the language knowledge and the status of being disadvantaged).

Finally, in the last two rows of the table, I demonstrate the applicants by the date of taking the secondary school leaving exam. I split them into two groups, if a student took the exam in the year of the application, or did not take in that year, so obviously had taken that before.



| Year | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of applicants | 147 823 | 123 876 | 113 896 | 143 906 | 146 244 | 161 731 | 127 072 | 109 722 | 121 926 | 120 081 | 125 174 |
| Men | 60 756 | 53 250 | 49 223 | 62 033 | 62 872 | 70 654 | 56 907 | 49 883 | 54 814 | 54 539 | 55 270 |
| Women | 87 068 | 70 626 | 64 673 | 81 873 | 83 373 | 91 077 | 70 165 | 59 839 | 67 112 | 65 542 | 69 903 |
| From Budapest | 29 259 | 24 911 | 23 015 | 27 513 | 28 114 | 30 955 | 24 773 | 21 833 | 25 625 | 22 608 | 20 380 |
| Not from Budapest | 118 564 | 98 965 | 90 881 | 116 393 | 118 131 | 130 776 | 102 299 | 87 889 | 96 301 | 97 473 | 104 793 |
| Taking SSLC in that year | 56 407 | 55 047 | 45 745 | 57 025 | 53 592 | 55 215 | 47 816 | 42 267 | 44 688 | 43 643 | 43 495 |
| Taking SSLC not in that year | 91 416 | 68 829 | 68 151 | 86 881 | 92 653 | 106 516 | 79 256 | 67 455 | 77 238 | 76 438 | 81 678 |

*Table 12: Attributes of the applicants*

Again, the figures of the table and the line graph shows that most people applied to the Hungarian higher education system in 2011 and the biggest fall in the number of applicants was between 2011 and 2012.

| Year | Number of applicants | ▲ % in the number of applications |
|---|---|---|
| **2006** | 147 823 | 0 |
| **2007** | 123 877 | -16,20% |
| **2008** | 113 896 | -8,06% |
| **2009** | 143 906 | 26,35% |
| **2010** | 146 244 | 1,62% |
| **2011** | 161 731 | 10,59% |
| **2012** | 127 072 | -21,43% |
| **2013** | 109 722 | -13,65% |
| **2014** | 121 926 | 11,12% |
| **2015** | 120 081 | -1,51% |
| **2016** | 125 174 | 4,24% |

*Table 13: Number of the applicants and the change in their numbers*

The graph represents the table with its peak and with a great decrease from 2011.

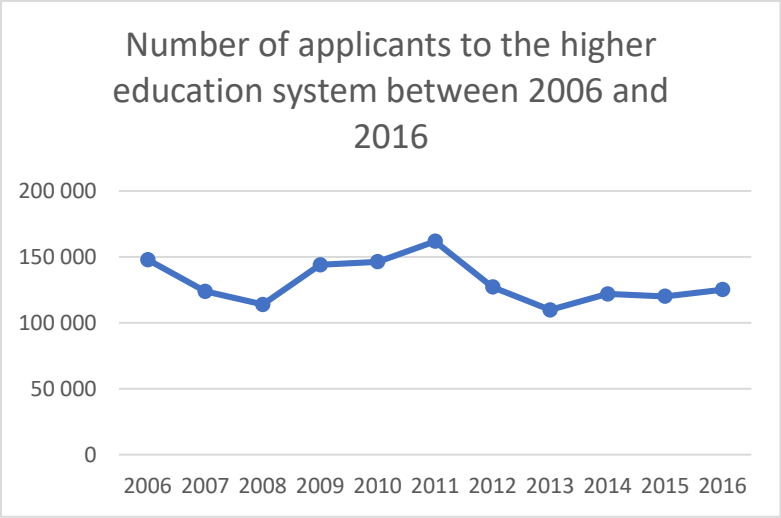


*Figure 9: Graph of the number of applicants*

The percentage change of the applicants is highly volatile and underpins the previous findings.

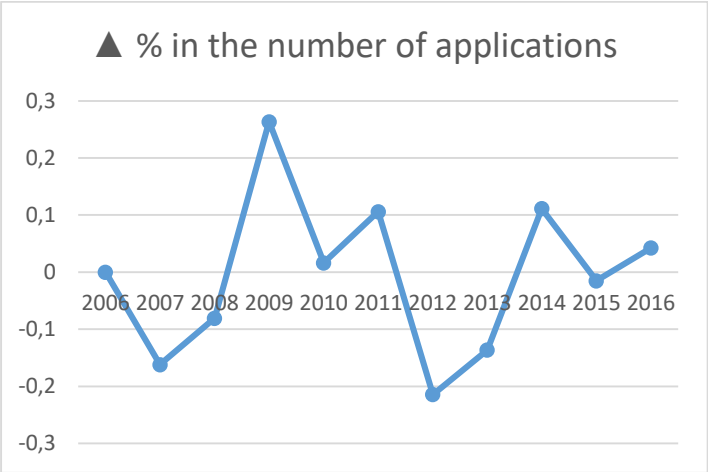


*Figure 10: Graph of the change in the number of the applicants*

The pie chart shows the distribution of applicants by gender for the whole examined period. The number of female applicants is 811,251 and the males are 630,201 and the ratio of it 56,28% and 43,72%.

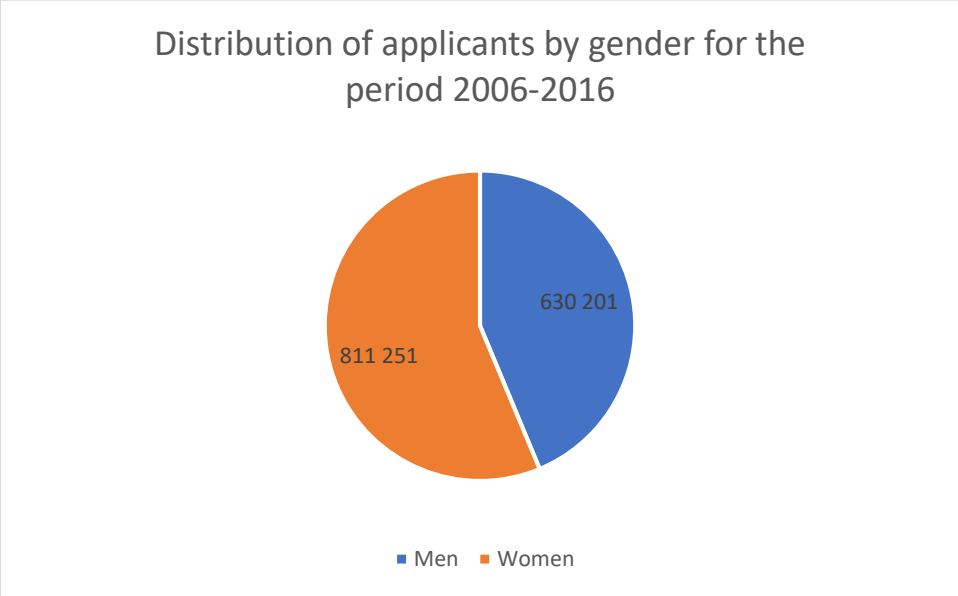


*Figure 11: Distribution of applicants by gender between 2006 and 2016*

The distribution of the applicants by the region can be seen in the next table below and on the line graph. Interestingly, the connection between the percentage changes in the number of applicants from the capital and from other regions is very strong (r=0.8580). So, proportionally almost the

same number of students applied in every year to higher education from the different regions. And the most critical drop in the number of applicants was between 2011 and 2012 at which is around -20% change.

| Year | From Budapest | Not from Budapest |
|---|---|---|
| **2006** | 29 259 | 118 564 |
| **2007** | 24 911 | 98 965 |
| **2008** | 23 015 | 90 881 |
| **2009** | 27 513 | 116 393 |
| **2010** | 28 114 | 118 131 |
| **2011** | 30 955 | 130 776 |
| **2012** | 24 773 | 102 299 |
| **2013** | 21 833 | 87 889 |
| **2014** | 25 625 | 96 301 |
| **2015** | 22 608 | 97 473 |
| **2016** | 20 380 | 104 793 |

*Table 14: Distribution of applicants by region*

The volatility is greater in the capital but the trend is almost the same comparing it with the countryside.

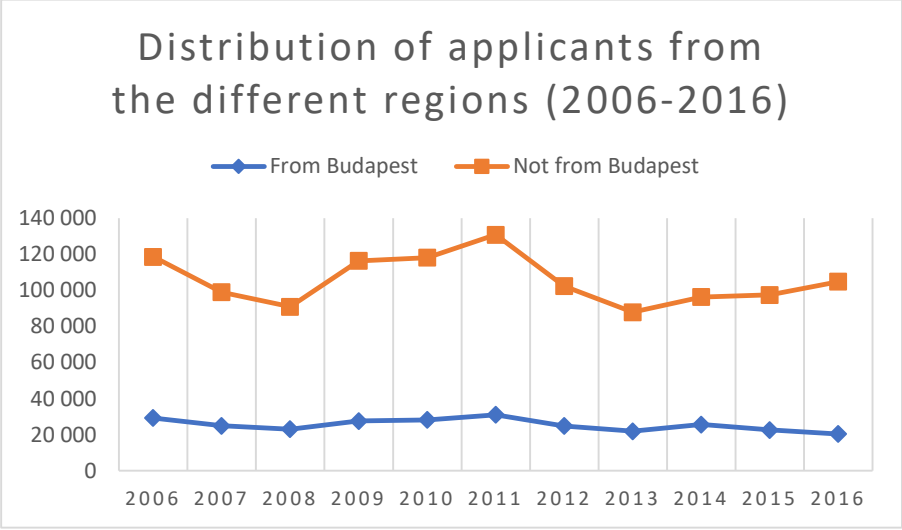


*Figure 12: The graph of the distribution of applicants by region*

### *3.3 Analysis of extra points*

In the followings, I am checking whether the system of extra points is balanced. The aim of the extra points is to give applicants an opportunity to get some plus "chance" to being accepted to their chosen universities and programs. These extra points could come from different sources. It can be given for study contest results, previously obtained profession, sports results, for taking secondary school leaving exam in an upper level, but plus points could be given for language knowledge and the system gives extra points for those applicants who are disabled/disadvantaged in different ways, as well. The system with these extras tries to balance the inequality between applicants.

In this part of the analysis, I try to get an answer if the system really balances the inequality. For this, I have chosen two options. The first is the extra points for language knowledge (if applicants have at least one intermediate language exam) and the second is when the system prefers an applicant (if the applicant is disadvantaged, disabled or his/her social-economical background is below a certain limit).

For a language exam, the system gives a different number of extra points based on the level of the exam. For the intermediate language exam, it gives 28 and for the advanced level, it gives 40 points. It might change during the academic years. And there is always an upper limit on the obtainable points for language knowledge.

For applicants who are preferred, the system gives different points according to different types of preferences. The Act on Hungarian Higher Education regulates and controls the process as it does on the other type of extra points. According to the Act being disadvantaged means if the applicant at most 24 years old and his/her social situation was very weak (for example, he/she was in foster care, the state transferred to him/her an allocation of child protection, etc.). Extra points for being

disabled means if an applicant, for example, has ectromelia or the applicant is autist or it has dyslexia but there are no extra points for having a long-lasting disease (e.g. diabetes, etc.).

Moreover, the system provides extra points if the applicant raises his/her child and in a certain time period, he/she got a transfer from the state in supporting the bringing up.

I have chosen two types of "extra points" to analyze. The first is when extra points are given for language knowledge and the other when an applicant is entitled to extra points because of the status being disadvantaged or being disabled. The question is, if different students with different socio-economic backgrounds apply to higher education, how the system helps them to make their chance of being accepted equal or does it raise the gap between them.

I assume there is a socio-economic difference between applicants from the capital and applicants from the countryside. Getting a language exam does not only mean taking and passing the exam. It needs a very long and hard preparation for getting it. Since Hungary, the level of the foreign language education is very low beginning with the elementary school involving the university studies (I am not mentioning here those programs where the language of the education is not Hungarian, or a class is a special language class – these cost a lot). If an applicant like to get extra points at the application process and later he/she would like to get his/her degree, at least one intermediate language exam is needed (every program has different requirements on it). For having successful exam students many times have to pay a private teacher or have to go to a language school which is very expensive. And if a student cannot involve any other financial resource to pay the school or the private teacher, there is a little chance of getting the exam. (There are many "lost" degrees in Hungary because the student who has a successful defense at the university but does not have a language exam was not able to get the degree because he/she failed the requirements of it.

In spite of the fact that, the Hungarian government introduced a special program with the aim of helping these people).[27]

In the next table, I collected the attainable extra points from having a language exam and from being preferred by year from 2010 and 2016, (I could work with the data for only this period).

[27] "Diplomamentő Programot Indít a Kormány." 2010-2014.kormany.hu. Magyar Távirati Iroda, January 22, 2014. https://2010-2014.kormany.hu/hu/nemzetgazdasagi-miniszterium/foglalkoztataspolitikaert-elelos-allamtitkarsag/hirek/diplomamento-programot-indit-a-kormany.

| Year | Extra points from language exam | Extra points from equal opportunity |
|---|---|---|
| 2010[28] | • Obtainable points for having an intermediate language exam:**35**<br>• Obtainable points for having an advanced language exam:**50**<br>• Maximum attainable extra point for having a language exam **50** | • Obtainable points for being disadvantaged: **25**<br>• Attainable points for being disabled: **50**<br>• Other reason: **50**<br>• Maximum obtainable points from being disadvantaged/disabled: **50** |
| 2011[29] | • Obtainable points for having an intermediate language exam:**28**<br>• Obtainable points for having an advanced language exam:**40**<br>• Maximum attainable extra point for having a language exam: **40** | • Obtainable points for being disadvantaged: **20**<br>• Attainable points for being disabled: **40**<br>• Other reason: **40**<br>• Maximum obtainable points from being disadvantaged/disabled: **40** |
| 2012[30] | • Obtainable points for having an intermediate language exam:**28**<br>• Obtainable points for having an advanced language exam:**40**<br>• Maximum attainable extra point for having a language exam: **40** | • Obtainable points for being disadvantaged: **20/40**<br>• Attainable points for being disabled: **40**<br>• Other reason: **40**<br>• Maximum obtainable points from being disadvantaged/disabled: **40** |
| **2013**[31] | • Obtainable points for having an intermediate language exam: **28**<br>• Obtainable points for having an advanced language exam: **40**<br>• Maximum attainable extra point for having a language exam: **40** | • Obtainable points for being disadvantaged: **40**<br>• Attainable points for being disabled: **40**<br>• Other reason: **40**<br>• Maximum obtainable points from being disadvantaged/disabled: **40** |
| **2014**[32] | • Obtainable points for having an intermediate language exam: **28**<br>• Obtainable points for having an advanced language exam: **40**<br>• Maximum attainable extra point for having a language exam: **40** | • Obtainable points for being disadvantaged: **40**<br>• Attainable points for being disabled: **40**<br>• Other reason: **40**<br>• Maximum obtainable points from being disadvantaged/disabled: **40** |
| **2015**[33] | • Obtainable points for having an intermediate language exam: **28**<br>• Obtainable points for having an advanced language exam: **40**<br>• Maximum attainable extra point for having a language exam: **40** | • Obtainable points for being disadvantaged: **40**<br>• Attainable points for being disabled: **40**<br>• Maximum obtainable points from being disadvantaged/disabled: **40** |
| **2016**[34] | • Obtainable points for having an intermediate language exam: **28**<br>• Obtainable points for having an advanced language exam: **40**<br>• Maximum attainable extra point for having a language exam: **40** | • Obtainable points for being disadvantaged: **40**<br>• Attainable points for being disabled: **40**<br>• Other reason: **40**<br>• Maximum obtainable points from being disadvantaged/disabled: **40** |

*Table 15: The description of extra points can be obtainable during the application process*



[28] Eduline, "Hogyan Változik a Felvételi Pontszámítás 2011-Től?"

[29] Eduline, "Hogyan Változik a Felvételi Pontszámítás 2011-Től?"

[30] Felvi.hu, "Felsőoktatási Felvételi Tájékoztató – 2012. Szeptemberben Induló Képzések Érettségizetteknek."

[31] Felvi.hu, "Felsőoktatási Felvételi Tájékoztató ARCHÍV: 2013. Szeptemberben Induló Képzések Érettségizetteknek."

[32] Felvi.hu,"Felsőoktatási Felvételi Tájékoztató ARCHÍV: 2014. Szeptemberben Induló Képzések."

[33] Újpest Károlyi István Általános Iskola és Gimnázium, "Pontszámítás Egyetemi Felvételihez."

[34] Felvi.hu, "Felsőoktatási Felvételi Tájékoztató ARCHÍV: 2016. Szeptemberben Induló Képzések."

The following table shows the average points which applicants got during their application. From 2013 the only attainable point for being preferred was 40, while in the previous years, applicants could get 20 or 40 extra points. That is why until 2013 having a language exam on average provided more extra points for applicants than being disadvantaged. After balancing the system, the ratio turned around and became more "rightful" morally.

| Year | Language exams | Being Disadvantaged | Ratio |
|---|---|---|---|
| **2010** | 40,1 | 27,64 | **1,451** |
| **2011** | 38,66 | 22,483 | **1,720** |
| **2012** | 32,03 | 22,46 | **1,426** |
| **2013** | 38,69 | 40 | **0,967** |
| **2014** | 38,47 | 40 | **0,962** |
| **2015** | 38,54 | 40 | **0,964** |
| **2016** | 38,43 | 40 | **0,961** |

*Table 16: The ratio between average extra points from having language exams or being disadvantaged*

Previously, I assumed the region from where the application has been made matters. From the table, it can be seen there is an alternate ratio between Budapest and the countryside of the applicants per number of language exams. (At the calculation I took into consideration only the maximum obtainable number of points, so if someone had 3 advanced level language exams I counted him/her as having one exam for 40 (or 50 in 2010) points because the system recognizes only the upper threshold of the points.) The result shows that there is almost the same ratio between the number of applicants and the number of language exams in both places.

| Year | Applicants from Budapest | Number of the Langugae exam of the applicants | Ratio | Applicants from the countryside | Number of the Langugae exam of the applicants | Ratio |
|---|---|---|---|---|---|---|
| **2 010** | 8 686 | 3 414 | **2,54** | 44 906 | 15 705 | **2,86** |
| **2 011** | 9 146 | 4 698 | **1,95** | 46 069 | 19 562 | **2,36** |
| **2 012** | 7 869 | 3 622 | **2,17** | 39 947 | 19 818 | **2,02** |
| **2 013** | 7 164 | 3 092 | **2,32** | 35 103 | 14 647 | **2,40** |
| **2 014** | 7 408 | 2 810 | **2,64** | 37 280 | 14 761 | **2,53** |
| **2 015** | 7 162 | 2 944 | **2,43** | 43 643 | 17 853 | **2,44** |
| **2 016** | 7 323 | 3 336 | **2,20** | 36 172 | 15 637 | **2,31** |

*Table 17: The average number of language exams by different regions*

In the next table, I show numbers of language exams (regardless of the maximum obtainable extra points from language exam, I took into consideration all the language exams) and the number of disadvantaged status from 2010 to 2016. Then I checked how many applicants had at least one language exam and were in a disadvantaged status. The ratio shows how many percentages of disadvantaged applicants had at least one language exam at the point of application.

| Year | Number of language exams | Number of being disadvantaged | Having both | Ratio of number having both and number of disadvantaged status |
|---|---|---|---|---|
| **2010** | 41 654 | 7 476 | 1 935 | **25,9%** |
| **2011** | 49 526 | 8 943 | 2 611 | **29,2%** |
| **2012** | 37 976 | 6 931 | 2 097 | **30,3%** |
| **2013** | 33 301 | 5 480 | 1 586 | **28,9%** |
| **2014** | 35 970 | 4 069 | 1 072 | **26,3%** |
| **2015** | 36 987 | 2 435 | 628 | **25,8%** |
| **2016** | 41 029 | 1 331 | 381 | **28,6%** |

*Table 18: The number of language exams of disadvantaged applicants*

Data shows around only one-fourth of people who were disadvantaged had at least one language during the application process.

### *3.4 Analysis of different programs*

In 2012 the Hungarian government dramatically reduced the number of state-financed places in certain departments. There were two fields that were affected the most disadvantageously, the Economics and the Law (Juris Doctor). Then again there were three fields that were beneficiary. It meant, at two mentioned areas the government reduced the number of state-financed form places in higher education and in Informatics, Nature Sciences and Engineering, it raised them. These fields are composed of different departments. [35] The reason behind the action was, according to the governance, there were too many students in those faculties and few on the others and it had a harmful effect on the job market. It was an effort to control the higher education and the job market (and also more questions were raised then: capable of being employed, the financial return on the degree, salary prospects). For the comparison, I have examined only the undergraduate level of these fields.

This table consists of the number of the applications year by year in a different financing form.

| state-financed form | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Economics BA | 57 939 | 55 393 | 52 252 | 59 579 | 58 919 | 51 377 | 6 229 | 20 570 | 21 456 | 20 480 | 24 671 |
| Law (Juris Doctor) | 8 277 | 5 929 | 5 650 | 7 612 | 7 741 | 6 757 | 2 225 | 3 188 | 3 572 | 3 647 | 4 044 |
| **Total** | **66 216** | **61 322** | **57 902** | **67 191** | **66 660** | **58 134** | **8 454** | **23 758** | **25 028** | **24 127** | **28 715** |
| | | | | | | | | | | | |
| **self-financed form** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** |
| Economics BA | 20 452 | 31 761 | 32 090 | 27 479 | 22 991 | 27 881 | 36 509 | 31 997 | 29 955 | 29 198 | 32 113 |
| Law (Juris Doctor) | 5 971 | 6 410 | 6 570 | 6 790 | 6 598 | 7 471 | 7 394 | 5 561 | 6 145 | 6 155 | 6 758 |
| **Total** | **26 423** | **38 171** | **38 660** | **34 269** | **29 589** | **35 352** | **43 903** | **37 558** | **36 100** | **35 353** | **38 871** |

*Table 19: Number of applications in Economics BA and Law (Juris Doctor) by different financing form*

[35] "Szakleírások." Felvi.hu. Accessed October 24, 2019. https://www.felvi.hu/felveteli/szakok_kepzesek/szakleirasok/.

| Year | state-financed form | self-financed form |
|---|---|---|
| **2006** | 66 216 | 26 423 |
| **2007** | 61 322 | 38 171 |
| **2008** | 57 902 | 38 660 |
| **2009** | 67 191 | 34 269 |
| **2010** | 66 660 | 29 589 |
| **2011** | 58 134 | 35 352 |
| **2012** | 8 454 | 43 903 |
| **2013** | 23 758 | 37 558 |
| **2014** | 25 028 | 36 100 |
| **2015** | 24 127 | 35 353 |
| **2016** | 28 715 | 38 871 |

*Table 20: Aggregate number of applications in Economics BA and Law (Juris Doctor) by different financing form between 2006 and 2016*

The next line graph presents the percentage change in the applications. A massive decrease can be found in the state-financed applications from 2011 to 2012. So, when the government reduced the state-financed places, fewer students applied to the state-financed form. Later the institution of the frame numbers was erased by the government.

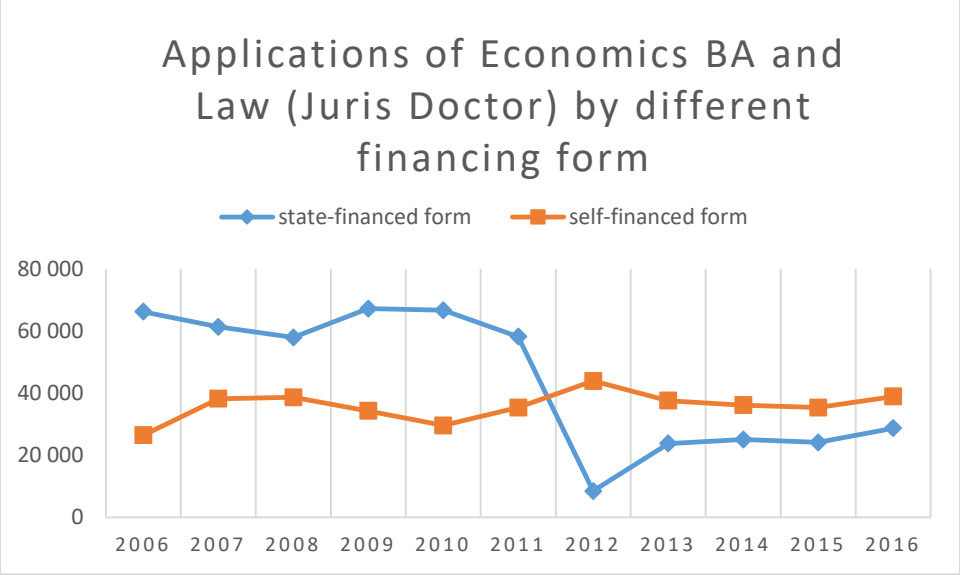


*Figure 13: The graph of the aggregate number of applications in Economics BA and Law (Juris Doctor) by different financing form between 2006 and 2016*

For Informatics, Nature Sciences and Engineering I collected those programs based on Felvi.hu which belongs to these fields at an undergraduate level and I created the following table.

| Year | Nature Sciences | Informatics | Engineering | Total |
|---|---|---|---|---|
| **2006** | 14 356 | 17 805 | 22 984 | **55 145** |
| **2007** | 15 276 | 20 601 | 29 046 | **64 923** |
| **2008** | 11 590 | 17 343 | 27 124 | **56 057** |
| **2009** | 12 688 | 19 918 | 30 010 | **62 616** |
| **2010** | 14 536 | 18 812 | 30 825 | **64 173** |
| **2011** | 16 458 | 20 685 | 31 070 | **68 213** |
| **2012** | 15 596 | 20 302 | 31 724 | **67 622** |
| **2013** | 12 111 | 17 294 | 27 694 | **57 099** |
| **2014** | 10 301 | 18 662 | 27 268 | **56 231** |
| **2015** | 9 464 | 19 758 | 26 952 | **56 174** |
| **2016** | 9 423 | 20 552 | 25 915 | **55 890** |

*Table 21: Number of application in Informatics, Nature Sciences and Engineering between 2006-2016 (undergraduate level)*

From the graph below can be seen that there was a drop in the total applications in the three field. So, this is a similar trend as it was at Economics BA and Law (Juris doctor) studies.

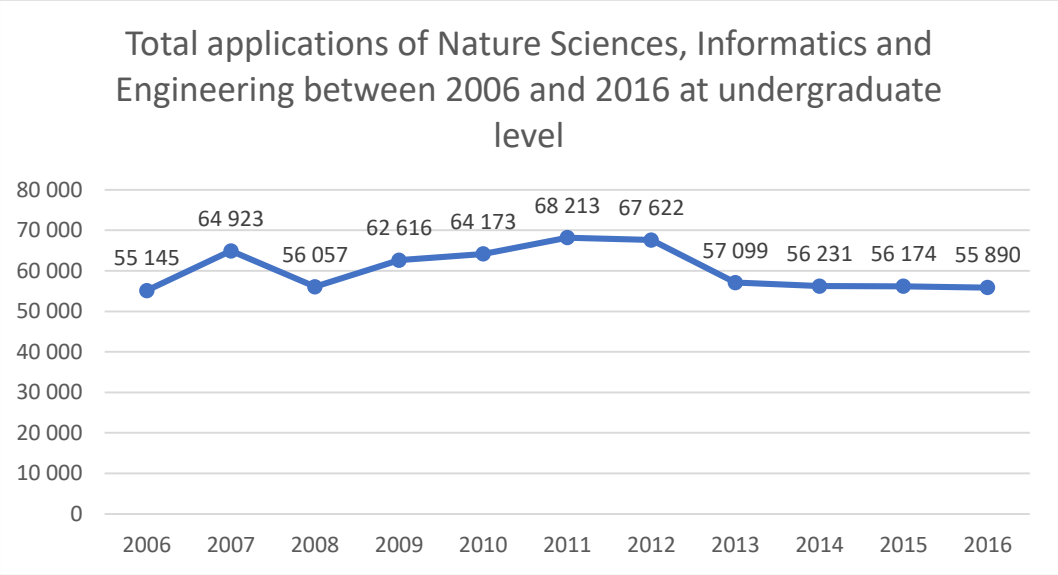


*Figure 14: Number of application in Informatics, Nature Sciences and Engineering between 2006-2016 (undergraduate level)*

The following table shows the total number of applications by financing form for Informatics, Nature Sciences, and Engineering.

| Year | state-financed form | self-financed form |
|---|---|---|
| **2006** | 46 299 | 8 846 |
| **2007** | 50 747 | 14 176 |
| **2008** | 41 858 | 14 199 |
| **2009** | 51 678 | 10 938 |
| **2010** | 54 668 | 9 505 |
| **2011** | 57 228 | 10 985 |
| **2012** | 51 538 | 16 084 |
| **2013** | 43 922 | 13 177 |
| **2014** | 44 060 | 12 171 |
| **2015** | 44 003 | 12 171 |
| **2016** | 43 392 | 12 498 |

*Table 22: Total number of applications of Informatics, Nature Sciences, Engineering by financing form between 2006-2016 at the undergraduate level*

The line graph shows that in all the three fields the applications were decreased in both state-financed and self-financed types of programs.

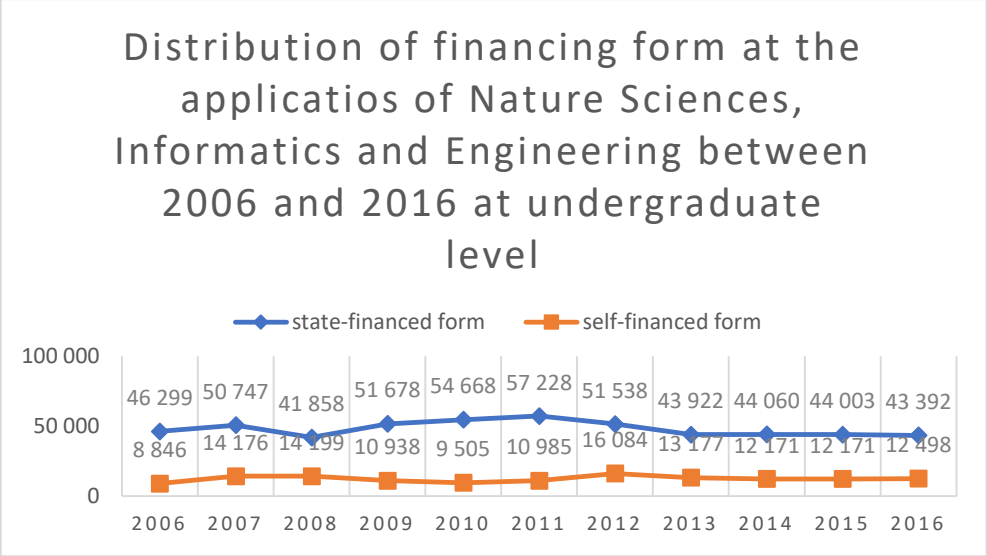


*Figure 15: Total number of applications of Informatics, Engineering, Nature Sciences by financing form between 2006-2016 at the undergraduate level*

# 4. SUMMARY, CONCLUSION AND RECOMMENDATION

In my analysis I have been looking for answers to the following three hypothetical questions:

1. Was there any effect on the number of applications when the Hungarian government introduced the institution of student contract and reduced the number of fully-funded (state-financed) places at the Hungarian universities?
2. Was there any difference in the number of applications among students with a different background?
3. Were there different effects on the different programs?

First, I checked whether the introduction of the student contract had an effect on applications or not. My results show that the introduction had a significant effect on the application numbers. From 2011 the numbers started to decrease as a whole. Moreover, the numbers showed the same trend in the different financing forms and in the different levels of the programs as well.

Next, I analyzed the number of applicants in their different aspects, their number, their gender, their place from where they applied and the date when they took the secondary school leaving examination. In 2011 there was the highest number of applicants and from then until 2013 this number decreased dramatically. The distribution of the applicants by gender showed that more women applied to higher education than men. Looking at the different regions, always fewer people applied to from Budapest than from the other regions, but the changes in their numbers were strongly connected.

Then I examined the "fairness" of extra points. For this I analyzed two types of extra points which applicants can get, the first is extra points for language knowledge and the second is extra points

for being preferred. I found that the system became more rightful morally in 2013 when the ratio of extra points from language exam and extra points from being disadvantaged turned around and the status of being disadvantaged provided more points than having a language exam. And surprisingly there were no significant differences between Budapest and other regions in the term of fairness. Almost the same number of language exams have applicants on average in the admission process independently from the place of application. Moreover, not surprisingly approximately one-fourth of disadvantaged applicants had at least a language exam, so this source of extra points expands the differences among students.

In the last part of my analysis, I examined how the decrease and increase in the state-financed places at certain programs affected the number of applications. I found that the number of applications for Economics BA and Law (Juris Doctor) in a state-financed form decreased, but the number of applications of the field of Nature Sciences, Informatics and Engineering was also reduced.

As part of my conclusion, I would like to write about my personal experience. I have been a tutor at one of the extracurricular programs. This type of program in Hungary is called “tanoda”. It deals mainly with disadvantaged and/or Roma students. The aim of the program is to decrease the difference between disadvantaged/Roma students and the not disadvantaged ones. These differences usually come from a different socio-economic and family background of students. (And what is more, it would be worth to compare the qualification of the parents of these children who go to tanoda and the others.). In this institution, I have helped in their daily school tasks. If they have a question regarding the material which they study, I try to answer, if they are going to write

a test I try to help them to prepare for it and I helped them to prepare for their secondary school leaving exam. (I must make it clear that I do not have qualification in teaching, that is why I help them and do not teach them). The range of their age is between 7 years up to 18. This means there are children from the beginning of the elementary school and there are students who take their secondary school leaving exam. When they take their final exam of the secondary school always a question of higher education emerges, whether should they apply to it or not.

At this point, I try to convince them about the application and I list many pros next to it. Being Roma and being intellectual simultaneously is not a very common phenomenon in Hungary. (At my place, Piliscsaba, I know about only four Roma people who have at least undergraduate degree from the registered 152 people, so that means only 3% of the local Roma population finished higher education). And I always tell them about their future prospects on the job market. Having a job, speaking one or more foreign languages, having a higher average salary, having financial security is better than being unqualified, working hard and being in uncertainty. And unfortunately, I always drift against a wall. These children have never experienced any points from my list.

Their family background suggests them to do something else. They come from a family where the parents are blue-collar workers and they finished maximum a vocational school. So, having a secondary school leaving exam or having a language exam is very inconceivable, this is not because of their intellectual capability, it is because there were no needs to have those attainments. The saying always among them is having a profession and go to work is enough for living life. Not any expectation is there. And if a student today comes from this kind of background it is hard to convince her/him that going to higher education and getting a degree is a very outstanding position for a Roma today in Hungary. These students always talk about their fears and doubts. They think that they are not good enough to go the university. They come from very weak secondary schools

where the level of education is not so satisfactory. They do not have a chance to learn any foreign languages, not only because of the weak level of secondary school but they cannot afford it. Having a language exam is not only about to pay the fee for the exam and go and take it. The way of the preparation is very long and very expensive. If a student does not come from a family, in which knowing a foreign language is general, he/she has to go to a language school or has to pay a private teacher. These are very expensive and if a family is not well to do, the preparation is very luxurious or even an impossible good for a student.

Moreover, for these children of a being student in some of an elite secondary school is almost an impossible thing. I think they have rightful doubts about their studies in secondary school.

Another thing I have to mention is the support of their family. They are almost never supported by their families in the question of higher education. The family is always questioning the reason for higher education. They think it is not necessary for future prosperity, having a profession and having a job is a must and enough. And if children would apply to the higher education, because of their handicap they do not have a chance to being accepted to a program which is state-financed (generally higher entry points), so they could apply to self-financed programs, which would mean they have to pay the tuition fee by themselves. The student loan is the only possibility get into the higher education but they are afraid of the risk of being indebted. So, this one more obstacle in the application process. With my experience, I wanted to express that there are members of the society who never faced higher education and they hardly want to open for it because they do not find it accessible and worth to attend it.

Education is one of the key factors in the future of a country. It contributes to its sustainable economy and for its social development. It is one of the cornerstones of a country's economic growth, prosperity and also its competitiveness in many fields.

**My recommendations are the followings**:

**A.** The government should spend more on higher education.

Education is one of the most important keys if Hungary would like to become a leader country of Central-Eastern Europe and if it would like to open in other destinations of the continent. Education leads knowledge which further leads development. Development in technologies, innovations and in the society. From the viewpoint of economy, if Hungary would like to be independent of the countries that are currently leaders and it does not want to be a country of assembly plants and shared service centers in the long run, it should invest more in education.

Education is an investment from the state and from the student as well. There is no free lunch, so there has to be a return on this business. The return from the side of the state would be if the graduate would stay in Hungary, he/she would work here and would pay taxes to the central budget. But for staying here, wages should be competitive with other countries' salaries. People emigrate because abroad they are able to earn more even with a job which they have never done in Hungary working in their profession. They live in a financially more secure situation and they are appreciated members of that society. The return for people would be the safety comes from their salary and from their independency. They could stay in Hungary, they would not go abroad to work and they could contribute not only financially but other aspects to the community.

**B.** Let students decide about their studies.

I think to restrict applicants in which program should they apply to is not so effective (as numbers have shown). Everybody should apply to a program according to the interest. The point of the university is to help people to learn how to think, how to study and show them every discipline. Generalist or specialist? Later the market will tell it. Graduates affect the market and the market

affects them vice versa. There are initiatives that recognized this problem. The Audi in Győr, The Mercedes-Benz in Kecskemét, the Telekom in Eötvös Lóránd University and T-Systems at Budapest University Engineering and Informatics are among those companies which cooperate with higher education institutions and answer to the challenges of the job market. What is more, there are companies that recruit students during their university studies and shape them by the market expectation. This kind of cooperation also can help the phenomenon when a fresh graduate firstly faces the job market after finishing tertiary studies. It can provide a solution for the problem of proper salary expectation, proper language and professional knowledge and the experience which is a must for today's graduates.

**C.** Make some modifications to the language exam system.

I think there should be some changes with the language exams as well. It should not be obligatory for getting the diploma. I think not the language exam should be the decision point in language knowledge, knowing the language should be. If one would like to pursue the studies in a program where the language of the teaching is a foreign language it is acceptable, but if at the entry of a Hungarian program, the language exam is obligatory with this many people are excluded from the higher education. And referring back to my experience, there are people who are excluded from the system even before the admission process. The application might be decided in kindergarten. So, investment in education should start there or before. A Student Loan can ease the differences, all the three types of it (the first type is a personal loan, it can be used for everything freely. The second type aims to provide a fund for the self-financing study form. The amount is automatically and directly transferred to the bank account of the university. The third type of the Student Loan

aims to finance the costs of the language exam which is needed for the degree)[36] but if one applies to the higher education from a very low social-economic background at if he/she faces loan on a daily basis because it is needed for the daily life. The loan, as an institution, raises fear and doubt and he/she will probably hardly consider to take up it.

In my opinion and as my findings show, we would need a more predictable and more transparent tertiary education.

[36] A Diákhitelről egyszerűen. Diákhitel Központ. Accessed October 24, 2019. https://www.diakhitel.hu/erdeklodom/a-diakhitelrol-egyszeruen.html.

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