

FINANCING TERTIARY EDUCATION: INTERNATIONAL AND HUNGARIAN EXAMPLES OF TUITION FEES

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Abstract

Tertiary education plays a very important role in the competitiveness of youth employment. The accumulation of human capital is not only beneficial to the individual, but to the sustainable knowledge economy. Parallel with the expansion of higher education, the average level of education has risen over the past decades across the OECD. However, governments in various part of the world have various approaches in financing tertiary education. Basically, there are four types of models which exist concerning the amount of tuition fees and the development of student support systems. In Hungary, the financing of higher education follows partly market modeling and partly cost modeling. Thus, this modeling was according to per capita funding formula on the grounds of the previous year's per capita basis and agreements. Considering tuition fees, the offered fee-paying programmes of the term 2014/2015 were analyzed according to 15 fields of study and three degree levels of education. Consequently, the amount of fees can be explained more by the resource-intensiveness and popularity of these programmes, but less by the labour-market opportunities.

Keywords: Youth employment, financing tertiary education, tuition fees, Hungary

Introduction

The connection between education, employment and earnings is inevitable. Higher level of education, which is a measurement of human capital⁵⁶, is in a cause-and-effect relationship with higher employment rates. Thus, this can mean better labour opportunities and earnings premiums. In parallel with the possible benefits for individuals through education, governments intend to maintain sustainable growth for the knowledge

⁵⁶ “the individual’s skills, in other words, a measure of the skills available in the population and the labour force” (OECD, 2013)

economy. These positive consequences of education have been recognized and realized because the average level of education has risen over the past decades across the OECD. “Among 30-34 year-olds, more than 40% of women have a tertiary education – surpassing the rate of men with that level of education by about 8 percentage points.” Besides the expansion of tertiary education, upper secondary attainment (ISCED 3) has become the most frequent qualification among young people in most OECD countries (OECD, 2013). According to the OECD (2013) between 2008 and 2011, young people especially were affected by un-employment and underemployment as a result of the global recession. In 2011, 20% of the 25-29 year-olds were neither in employment nor in education or training (NEET) across the OECD. Furthermore, educational attainment has a greater impact on unemployment for younger people. In 2011, an average of 18.1% of 25-34 year-olds without secondary education, and an average of 6.8% with a tertiary qualification were unemployed. The unemployment rates were lower for the age groups 55-64, with an average of 8.8% and 4% respectively. Besides employability, educational attainment affects the income level as well. Due to the crisis, there was a widening wage gap between the low-educated and the highly educated. On average, the relative earnings of the tertiary-educated are over 1.5 times more than adults with upper secondary education. Therefore, these adults earn 25% more than adults with no upper secondary education. The OECD Youth Action Plan, which was adopted at the OECD Ministerial Meeting in May 2013, focuses on how the problems of youth unemployment could be solved. Therefore, based on previous experiences, the following policies were considered effective:

- Young people need a good level of foundation skills and teamwork, together with communication and negotiation skills to learn further and to be successful in the world of work
- Giving chances to young people who did not complete at least upper secondary education to reduce the rates of school dropout
- Harmonizing secondary education with labour market needs
- Developing vocational education and training (VET), as well as work-based learning (dual programmes)
- Ensuring the transition into tertiary education (modular programmes, credit transfer)
- The need for responsible experts in study and career guidance

Financing Tertiary Education

The transition from secondary to tertiary education could entail the dissuasive effects of tuition fees and related loans. Also, this can be viewed since further studies would delay entry into the labour market and earnings.

Tuition fees and support systems for students are interrelated with entry rates to tertiary education. However, maintaining the balance in financing higher education is always a crucial point in the educational policy. Higher entry rates could be explained not only by the absence of tuition fees, but also by highly developed financial support systems for students. In addition, access and equity could be promoted by support systems of student loans and means-tested grants (OECD, 2013). Systems of education are generally judged by the adequacy of the provision of educational services, and the efficiency and equitability of the distribution of educational resources. Hence, the free market is based on the decisions of students with regards to the cost of education. Among the challenges of financing education are the rising costs, and the allocation of funds properly while maintaining or increasing the quality and handling inequalities of the society (Carnoy, 1995). Tertiary education is considered a quasi-public good; thus, the exclusion principle could be applied by barring students from participation (Benson, 1995). The means of exclusion could be “student fees which are made to cover all or part of the costs of tuition in schools, colleges, universities or other educational institutions”. Consequently, private and public institutions, however exist, and both could be charge fees or be subsidized by governments. Fee differences could reflect the cost differences of fields and level of education. As such, they can be calculated based on the place of residence of the student. Also, tuition fees or living expenses is supported in the form of scholarships, grants, bursaries or fellowships. Other forms of student support are loans, which must be repaid fully. Subsidies may be given directly to students or higher education institutions. Therefore, the various types of financial aid in tertiary education are listed in Table 1. (Woodhall, 1995)

Table 1. The various types of financial aid in tertiary education

1.	Payment to institutions to cover direct costs of tuition, and therefore reduce or eliminate fees to students.
2.	Unconditional payment to all students in the form of grant.
3.	Payments to selected students in the form of a scholarship, grant or bursary awarded on the basis of academic performance.
4.	Payments to selected students in the form of a means-tested grants or scholarships, which is awarded on grounds of financial need.
5.	Repayable loans provided to students from public funds at interest rates below the market rate, or at zero interest rate.
6.	Government guarantees for loans provided by banks or other private institutions, and interest subsidies to enable loans to be offered less than market rates of interest.
7.	Payments to students for part-time work provided under special employment schemes for students.
8.	Provision of meals, accommodation or travel at prices below market rates.
9.	Tax concessions to students or graduates
10.	Tax concessions to students' parents

Source: Woodhall, 1995

Tuition Fee Policies around the World

There are three main categories of tuition fees which exist. They includes: tuition fees for all (whether upfront or deferred), no tuition fees and dual track tuition fees. Therefore, the payment of tuition fees can be linked to the financial responsibility of the parents. In Colombia and the Philippines, upfront tuitions fee policies require contributions from parents based on their income. In most countries, upfront tuitions are not connected to the family income, however, means-tested grants and government subsidized loans exists. Also, No tuition fees are paid in some countries, where income taxes covers the costs of tertiary education for qualified students who can take out student loans, for example in Argentina, Brazil or Finland. In Australia and England, there is a choice between paying the “up front” tuition fees or a deferred payment, which is done only after graduation and in an income-contingent basis. In addition, there is a difference when student loans are for everyone to take or means-tested. Another variation for deferred loans is graduate tax, which are to be paid throughout one’s working lifetime. However, graduate tax has not been introduced in any country. In Russia, Egypt, Pakistan and several central and eastern European countries, dual track tuition system is used. In most of these countries, no tuition fees were applied for many years. Thus, there are legal restrictions or strong protests against tuition fees.

The dual track system offers limited fees or very low cost university places for the best performing students and the other qualified students pay tuition fees. However, fee-paying students could apply for subsidized places later on their studies; and also, low-performing subsidized students could become fee-paying ones so they could move between the “two tracks” based on their academic performance. Extra fees usually appeal to international students, and special continuing education programmes or courses taught in a foreign language (Table 2) (Marcucci and Usher, 2012).

Table 2: Tuition fee policies in the G-40 countries with data available, 2011

Upfront tuition fees		Deferred tuition fees	No or only nominal tuition fees	Dual track tuition fees
Canada, Chile China, Colombia France ^d Hong Kong India, Indonesia Italy, Japan Korea (republic of) Malaysia	Netherlands, Nigeria ^a Philippines, Singapore South Africa, Spain Switzerland, Taiwan, Thailand Turkey, USA Vietnam	Australia U.K. ^b	Argentina Brazil Finland Germany ^c Iran Mexico (nominal) Saudi Arabia Sweden	Egypt Pakistan Poland Russia Ukraine

Source: Marcucci and Usher, 2012

^a Nigerian private and state universities charge tuition fees; the six federal universities do not.

^b Deferred tuition fees are in place in England, Wales and Northern Ireland; Scotland does not require tuition fees to be paid by Scottish or EU students, but require levy tuition to be paid by students from other parts of the U.K.

^c Tuition policy varies by Länder. Six charge no fees at all. Five charge fees only for Master's students and undergraduates who have exceeded the regular study period. Five charge relatively light fees (under 1000 Euro/year) for undergraduates.

^d While some may consider university education in France to be tuition-free (and in some universities, the fees are nominal), we are treating the *droits de scolarité* as tuition fees here, given their increasing size and importance as a source of revenue in many universities.

Tuition fees in tertiary education move on a wide scale in OECD and G20 countries. It is usually tertiary institutions that determine the amount of fees. Public institutions of eight OECD countries charge no tuition fees; and in nine countries with available data, national students have to pay approximately USD 1500 annually. However, higher tuition fees are usually observed in private funded institutions. The public sector pays for most of the direct costs of tertiary education, which are basically tuition fees. Tuition fees comprise approximately 20% of the total investment made by a tertiary graduate, which is an estimated USD 11 000 altogether across the OECD. It is widespread among the OECD countries that most of the private expenditure on tertiary education is borne by households. However, it is only in Austria, Belgium, Canada, the Czech Republic, the Slovak Republic and Sweden that private businesses and non-profit organizations account for more private expenditure. This occurs because of the moderate tuition fees in these countries, except Canada. Consequently, with the exception of Poland, the lowest amount of public expenditure per student is in connection with the fewest students' numbers in public tertiary education. The share of public funding for tertiary institutions gradually decreased from 77% to 68% between 1995 and 2010 across the OECD countries. However, the increasing tuition fees for example in Portugal and the United Kingdom, was due to the donation of several generous enterprises to tertiary institutions in non-European countries. In parallel, private spending in absolute and relative numbers increased between 2000 and 2010 in most OECD countries. The proportion of private expenditure of individuals, business and other private sources on tertiary education, ranges from less than 5% up to more than 70% in OECD countries. For example, in the Nordic countries, it is traditionally low just like tuition fees. In other countries, there is a tendency that the higher the tuition fees are, the higher the private share of the expenditure on tertiary education. In the United Kingdom, where all students are enrolled into government-subsidized private institutions, more than 50 % of the budget comes from tuition fees and the proportion of private expenditure is over 70% (Diagram 1).

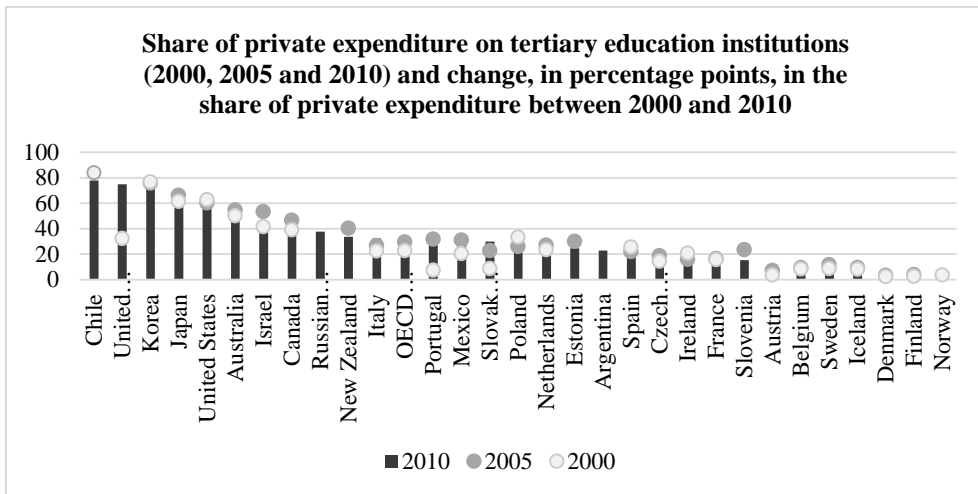
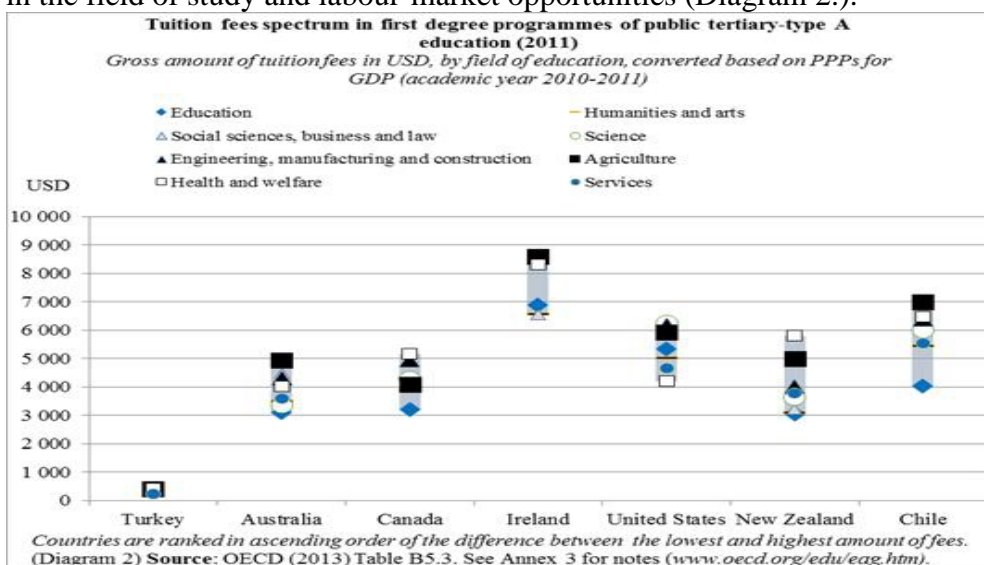


Diagram 1. Source: OECD (2013)

The determination of tuition fees is in connection with the cost of education for students, and the resources of the institutions. Particularly for lower income student, public support to students, which is sometimes conditionally given, could increase participation, access and equality of opportunity. Public support to students also means the indirect fund of higher education institutions. This results in competition among tertiary institutions. Public subsidies include for example; aid for students' living costs, means-based subsidies, family allowances for students, tax allowances for students or their parents, or other household transfers. Furthermore, about half of the OECD countries determine different tuition fees according to the fields of education. However, these fees are determined on the basis of the public cost in the field of study and labour-market opportunities (Diagram 2.).



In public and state-funded institutions, tuition fees are usually not higher for second and further degree programmes than for first-degree programmes, except in Australia, Chile and the United Kingdom. Usually, a higher level of tuition fees has to be paid by non-national students. In the last decade, 14 out of the 25 OECD countries with available data made reforms on tuition fees, which were mostly in combination with student's support systems, except for Iceland and the Slovak Republic. In 2012, the most notable change in fees happened in the United Kingdom, where tuition fees doubled or nearly tripled in some institutions, which was not included in this analysis. This change was also the case of Korea, where finance assistance of students was improved in 2011. However, there are basically four approaches to funding tertiary education on the basis of the amount of tuition fees and the development of student support systems (Figure 1) (Diagram 3) (OECD, 2013).

Model 1: Countries with no or low tuition fees, but generous student support systems

The approach to funding tertiary education in the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) is based on equality of opportunity and social equity. No tuition fees are paid by students who benefits from generous public support to study in higher education. As a result, the average entry rate (75%) into tertiary-type A education is 15% higher than the OECD average (60%). However, more progressive tax system and high income tax rates mean the sources for funding in these countries. In Denmark and Sweden from 2011, international students have to pay for their tuition fees; thus, this has led to a decrease in their numbers, according to Swedish Higher Education Authority (2013).

Model 2: Countries with high tuition fees and well-developed student-support systems

The second model consists of mainly English-speaking countries (Australia, Canada, the Netherlands, New Zealand, the United Kingdom and the United States), where tuition fees mean high financial obstacles for students, who, on the other hand, receives significant public support. The average entry rate to tertiary-type A education is 76%, which is 16% higher than the OECD average. This high level of entry rates could be explained by the well-developed student-support systems and the salient number of international students. For example, there has been a drastic increase in the level of tuition fees in the United Kingdom since 2010-2011, which signifies a more recent change. In this group of countries, the share of financing tertiary institutions by private businesses and non-profit organizations is the

highest. As a consequence, the cost of education is more balanced among government, households and private companies.

Model 3: Countries with high tuition fees, but less-developed student support systems

Group 3 (Chile, Japan and Korea) is basically characterized by high tuition fees and less developed student support systems. These financial obstacles has led to low entry rates into tertiary-type A institutions in Chile (45%) and Japan (52%), but interestingly above the OECD average in Korea (69%). In Japan and Korea, public expenditure on tertiary education as a percentage of GDP is low. Therefore, this could explain their inefficient expenditure on student loans. However, in these two countries, students with high academic records and with finance problems could get reduction in their admission and/or tuition fees. Moreover, student-support systems are being developed in both countries, so there is a tendency of shifting towards Model 2.

Model 4: Countries with low tuition fees and less-developed student-support systems

The majority of European countries with available data (Austria, Belgium, the Czech Republic, France, Ireland, Italy, Poland, Portugal, Switzerland and Spain) and Mexico follows model 4. These countries are characterized by moderate fees with a maximum of USD 1300 in state-funded institutions and less-developed student-support systems available to a maximum of 40% students. Despite the relatively low tuition fees in this group, entry levels in tertiary education (56%) are usually below the OECD average. Expenditure per student is also relatively low on an average in this model. Furthermore, tertiary institutions are usually state-dependent concerning funding. In some countries like France, other supports are not taken into account in this analysis, which may amount to a considerable extent (housing allowances, tax reductions and/or tax credits for education).

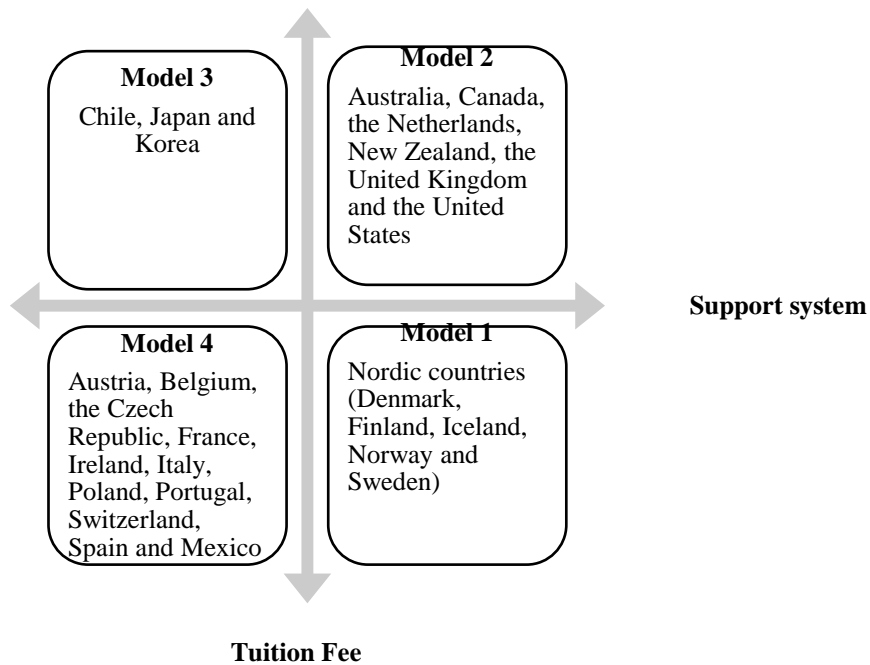


Figure 1. Source: Own editing based on OECD (2013)

Relationship between average tuition fees charged by public institutions and proportion of students who benefit from public loans and/or scholarships/grants in tertiary-type A education (2011)

For full-time national students, in USD converted using PPPs for GDP, academic year 2010-2011

Average tuition fees charged by public institutions, first degrees programmes, in USD

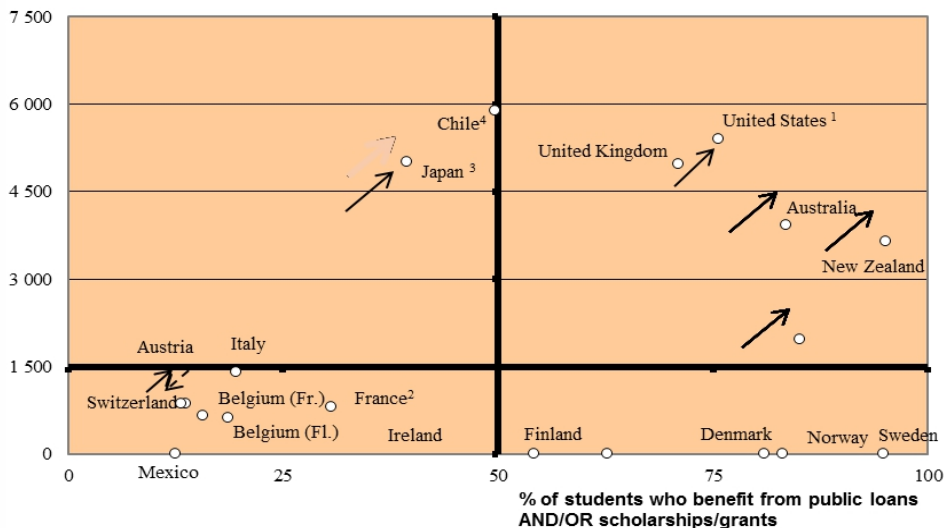


Diagram 3. Note: Arrows show how the average tuition fees and the proportion of students who benefit from public support have changed since 1995 further to reforms (solid arrow), and how it may change due to changes that have been planned since 2008-2009 (dash arrow)

¹. Figures are reported for all students (full-time national and full-time non-national/foreign students)

². Average tuition fees from USD 200 to 1402 for university programmes dependent on the Ministry of Education.

³. Tuition fees refer to public institutions, but more than two-thirds of students are enrolled in private institutions.

⁴. If only public institutions are taken into account, the proportion of students who benefit from public loans AND/OR scholarships/grants should be 68%.

Source: OECD (2013) Tables B5.1 and B5.2. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

This graph shows the relationships at the tertiary-type A level of education, between annual tuition fees charged by educational institutions and public support to households for students' living costs. The arrow show how the average tuition fees and the proportion of students who benefit from public support have changed since 1995 following reforms.

Financing Hungarian Tertiary Education

In Hungary, financing higher education was institution-based funding between 1990 and 1996. Therefore, the provision of funding to cover the agreed cost of the institutions was designated by the State according to the previous base year. In the case of institution-based funding, the amount of subsidy does not depend on the performance of the institution or the quality of their service. For Hungarian students, obtaining their first diploma was free until the beginning of the 1990s. In 1995, a monthly 2000 HUF (~10 USD) tuition fee was introduced. The introduction of this tuition fee met with high resistance in the society, and was abolished by the new government in 1998, fulfilling its campaign promises. In parallel, the ratio of offering fee-paying full-time programmes was increasing, which has not been typical previously. The reimbursement has not been determined centrally, so the fees move on a large scale based on the programme and varies from institution to institution (Polónyi, 2012).

Between 1990 and 2003, full-time student population tripled. The number of part time students increased sixfold and the total number of students quadrupled in Hungary (Polónyi, 2005).

However, the financing of higher education institutions between 1997 and 2000 was characterized by normative market modeling funding, which was also built on the previous base year and normative bargains along fixed agreements. In the period between 2001 and 2005, partly market modeling

and partly cost modeling, was applied according to per capita funding formula on the grounds of the previous year's per capita basis and agreements. Funding of higher education has been similar since 2006, with strong interest groups of medicine, art and science areas (Temesi, 2012).

According to the Act 2005 CXXXIX on Higher Education, higher education institutions receive per capita funding from the central budget, adapted to the institution's student population. The per capita support is made up of several factors: normative support for student bursaries, training grants, grants for scientific purposes, maintenance and support for other tasks (Felvi, 2014b).

The offered fee-paying programmes of the term 2014/2015 were analyzed according to 15 fields of study and three degree levels of education. However, all the offered programmes (except for foreign students) were taken into account and an arithmetic average was calculated on their fees. The fees ranged between 45.000 Ft and 1.890.000 Ft. Full-time programmes were usually more expensive on an average than part-time programmes. On average, the long first degree programmes proved to be the most expensive ones, followed by bachelor and short-cycle tertiary programmes. Considering the field of studies, the most expensive ones were Art, Medical and Health Science, Teacher Training, Art Mediation and Technology. Therefore, the higher amount of fees could be explained partly by the resource-intensiveness and popularity of these programmes. The least expensive fields of studies on an average were Agriculture, Arts and Humanities, Social Sciences, Law and Administration and Religious Studies (Table 3). According to Schaper et al. (2010), there are six broad types of resource regarding enterprises, which could be adapted to higher education. These resource and equipment requirements could influence the fee of the programme:

- Financial: this includes money, shares and other assets
- Physical: refers to tangible property such as equipment and office space, buildings, and laboratories
- Human resources: includes the knowledge, training, experience, as well as the time of the employees
- Technological: are embodied in a process, system or physical transformation (unique software products and tailored information system architecture)
- Reputation: encompasses the perceptions that people have of higher education institutions
- Organizational: include the structure, routines and systems of higher education

Table 3. The average fees of programmes per field of study for a semester in 2014/15 (in Hungarian Forints, rounded)

Field of study/Degree level of education	Short-cycle tertiary education	Bachelor level	Long first degree (at least 5 years)	Total average
Art	141 000	457 000	563 000	443 000
Medical and Health Science	190 000	266 000	934 000	354 000
Teacher Training	117 000	139 000	327 000	300 000
Art Mediation		287 000		287 000
Technology		226 000	340 000	229 000
Natural Sciences		204 000		204 000
Computer Science	137 000	216 000		188 000
Sport Science		185 000		185 000
National Defence and Military Studies		183 000		183 000
Economic Studies	142 000	195 000		164 000
Agriculture	120 000	184 000	688 000	157 000
Arts and Humanities		156 000		156 000
Social Sciences	130 000	171 000		155 000
Law and Administration	111 000	147 000	185 000	150 000
Religious Studies		113 000	162 000	130 000
Grand Total	135 000	218 000	332 000	238 000

Source: Own work based on Felvi (2014a)

Regarding the fees of the bachelor programmes, the most expensive field of studies were Art, Art Mediation, Medical and Health Science, Technology and Computer Science. The least expensive fields of studies on an average were Social Sciences, Arts and Humanities, Law and Administration, Teacher Training and Religious Studies (Diagram 4).

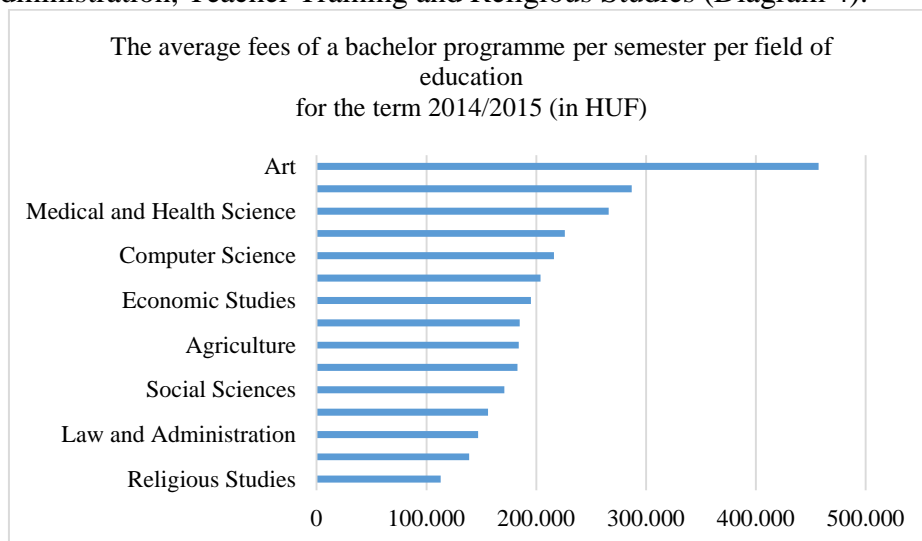


Diagram 4. Source: Own work based on Felvi (2014a)

According to the graduate's salary level per field of education, it is not in line with the tuition fees per field of education. Therefore, there is no significant correlation between the fresh graduate's salary and the tuition fees per field of education, neither at the bachelor level, nor considering all the three levels of education (Table 4). Likewise, there is no significant correlation between the tuition fees per field of education and the proportion of those who found a job within one month after getting all the credits (Veroszta, 2014).

Table 4. Correlation between tuition fees and salaries

Correlations		fee bachelor	netto_sal
fee bachelor	Pearson Correlation	1	,285
	Sig. (2-tailed)		,370
	N	12	12
netto_sal	Pearson Correlation	,285	1
	Sig. (2-tailed)	,370	
	N	12	12

Source: Own work based on data from Veroszta (2014) and Felvi (2014a)

Conclusion

In conclusion, there is great individual and social demand for tertiary education, which was shown in the increase in enrolment and participation. It is crucial for the future that young people should be able to find their way, whether studying further after compulsory education or participating in the world of work. Higher level of education could lead to better job market opportunities and other benefits. If young men decide to apply for a higher education programme, they have to take into consideration the finances and costs of their studies. The tuition fees and support systems may be altered from country to country through the basic four models. Thus, the financing of higher education institutions could be different according to state-funded and private institutions. In Hungary, different tuition fees are determined according to the fields of education, on the basis of public cost in the field of study. In addition, the tuition fees of different fields of study are less in line with labour-market opportunities, like the level of salary or the proportion of those finding a job within a month after getting all their credits at the higher education institution.

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