

Research Paper

# Students in Hungarian Higher Education and Their Perception of Difficulties During Their Studies

Anett Hrabéczy<sup>1</sup>

Recommended citation:

Hrabéczy, A. (2021). Students in Hungarian higher education and their perception of difficulties during their studies. *Central European Journal of Educational Research*, 3(3), 101–113. <https://doi.org/10.37441/cejer/2021/3/3/9990>

## Abstract

Our research aims to examine the recruitment of students who experience difficulties with learning during their higher education studies and the motives behind their career choices, as well as the correlation of these factors with student persistence. The topicality of the problem stems from the diversity of students as a result of the expansion of higher education, as well as the increasing proportion of reading comprehension and other learning difficulties that can hinder individuals' progress in the labour market. Previous research has linked problems in learning in higher education to underdeveloped skills. However, we hypothesize that the occurrence of difficulties during students' studies and careers is determined by career choices, which are influenced by social background. While in higher education the social status differences of the family background already seem to disappear, the origin also affects the higher education career. To test the viability of this assumption, statistical methods were used to analyze the CHERD-Hungary database PERSIST 2019. In the case of difficulties and low persistence, we found a relationship with the career choice patterns of the students studied, especially with family factors influencing career choice and students' interest in their current education. One of our most important findings is that students who experience difficulties during learning can be divided into two groups. One group is characterized by low social status indicators, participating in low prestige and high risk fields of education, and there are specific cultural disadvantages in the background of their difficulties. The other group includes students who come from a higher-status family and concentrate on higher-risk but more prestigious courses, characterized by above-average selectivity and a higher risk of dropping out.

*Keywords:* reading comprehension; difficulties; higher education; career choice; persistence; drop-out

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## Introduction

The expansion of higher education has resulted in the opening of universities to a wide range of non-traditional students, and thus the student body has diversified on the basis of social status as well as skills and competencies (Kozma, 2004; Attewell et al., 2007; Harper et al., 2009; Lombardi et al., 2013; Pusztai et al., 2014; Pusztai, 2015; Ndlovu, 2019). In terms of motivation, prior education and learning ability this student body is very heterogeneous, a phenomenon that has changed the dropout rates of higher education (Varga, 2010; Pusztai, 2011; Fenyves et al., 2017; Molnár et al., 2019; Hódi et al., 2019). So it is not enough to widen access, academic progress and effectiveness before entering higher education also play an important role in shaping the proportion of people with university degree (Nakajima et al., 2012). From the perspective of equal opportunities, the expansion of higher education can be seen as a very significant step forward, but insufficient compensation and support can lead to an increase in the drop-out rates (Szemerszki, 2018). In addition to the inability of higher education to reduce social inequalities due to dropout, another problem cited in research is that the final examination and the complexity of the higher education assessment system do not allow applicants to form a realistic picture of their suitability for higher education and their abilities, and do not provide them with objective help in choosing the right field and higher education institution. (Hódi et al., 2019). Therefore, it can be assumed that students in higher education may face difficulties that may have remained hidden until the beginning of their higher education studies due to differences in the quantity and quality of the curriculum and

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<sup>1</sup> University of Debrecen, Debrecen, Hungary, [hrabeczyanett@gmail.com](mailto:hrabeczyanett@gmail.com)

differences in the required or sufficient learning methods. Difficulties encountered in higher education that did not previously exist or were hidden are unlikely to be simply underdeveloped areas of competence, but may be related to different aspirations associated with the individual's social status, cultural capital, realistic career choices and commitment to study (Bean, 1985; Bennett, 2003). The purpose of our research is to examine who perceives the signs of study difficulties during higher education and by which social background and career choice motives these students can be characterized. Our main research questions were whether the socioeconomic status of the students studied was related to learning difficulties, whether the family background had an impact on career choice, and whether it was related to persistence.

### **The issue of competences and skills in previous research**

Behind the differences in performance and study difficulties, research sees differences in students' reading comprehension, mathematical and scientific skills, which are prerequisites for all students to successfully complete their studies and enter the labor market (Thorn, 2009; OECD, 2013; Hódi, 2019; Molnár, 2019). This study attempts to address the issue of the effectiveness of higher education, which is one of the basic information processing skills, from the point of view of difficulties in reading comprehension and processing the curriculum (OECD, 2013; Hódi et al., 2019; Molnár et al., 2019). The issue of comprehension skills is the subject of a number of studies of university students, but these studies view low achievement in higher education not as unexplored study difficulties but as skill areas to be developed (Thorn, 2009; OECD, 2013; Hódi et al., 2019; Molnár et al., 2019).

Different competencies are measured several times during the primary and secondary school years, but at the moment that immediately precedes further education, in the final year of secondary school, no measurement of competences is carried out (OECD, 2013; Hódi et al., 2019). Basically, measuring different competencies is not a common practice in higher education either, but we can find research results based on which such efforts are already taking place in Hungarian higher education (Fenyves et al., 2017; Molnár et al., 2019; Hódi et al., 2019). In Hódi and Tóth's 2019 study, which examined first graders' comprehension by comparing their scores to final exam scores, they found that there was only a weak or moderate correlation between comprehension test scores and final exam scores, with the intermediate level final exam having an even weaker correlation (there are two levels in the Hungarian final exam, intermediate and advanced) (Hódi et al., 2019). This result seems to confirm the statement in the literature that the final exam does not give students an objective picture of their own abilities and aptitude. There was a significant difference between gender, which, though not outstanding, showed that the male respondents scored lower than the females. However, very few in their study scored one standard deviation worse than the average, so the researchers see little risk of the students surveyed dropping out of school because of their reading comprehension difficulties (Hódi et al., 2019).

Difficulties that remained hidden prior to higher education may mean not only a possibly less developed ability to comprehend reading, but in some cases even more severe learning difficulties that may lead to additional difficulties in the absence of objective measurement tools. Measures of competence interpret these abilities to mean that, with appropriate development, an individual is able to participate in everyday life through the effective use of the unit of linguistic forms expected and defined by society (Thorn, 2009; OECD, 2013). Based on data from the 2012 PISA tests analyzed by the OECD, comprehension was found to be a crucial factor in a person's future economic productivity, labor market opportunities, health status and overall self-confidence, regardless of their education, occupation or work experience (OECD, 2013). Thus, if the ability to do so is so severely limited that the person is unable to properly perform the activities required for daily life or learning, we can speak of learning difficulties, and in more severe cases even of learning disabilities (Tánczos, 2006; Dávid, 2015). However, the diagnosis of individuals with a learning disability who were not diagnosed with a learning disability at all during the years of public education (either due to lack of adequate information or due to a more serious perception of the problem) may be subject to debate.

In Hungary, Pusztai (2019) was the first to conduct an analysis of perceived or hidden reading and comprehension difficulties. Pusztai (2019) surveyed 605 drop-out students, about 30% of whom had reading and comprehension difficulties. According to the responses, these difficulties manifested themselves in both processing of textbooks and note-taking as well as in comprehension of the text read. Students who subsequently dropped out were considered to have undiscovered learning difficulties which could not have come to light through the compensatory effect of excellent skills in other areas of public education, but had already arisen as a result of the increased requirements in higher education (Pusztai, 2019).

It can be said that in the group of dropouts surveyed by Pusztai, men are overrepresented, although men have a higher risk of dropping out of university (Pusztai, 2019). Previous findings have also confirmed the poorer performance of males in reading comprehension tests, and we should not forget that the largest proportion of pupils with learning difficulties in the growing population of pupils with special educational needs today is also male (Hódi et al., 2019; KSH, 2019). Typically, they did not come from a low-status family, and the family's relationship to learning did not differ in a negative direction compared to the other students surveyed. Learning was important to the parents and it was characteristic that they invested both time and energy in their children's education, and their expectations were no lower than those of the other students (Pusztai, 2019). From this result we can conclude that the learning difficulties of the students studied do not depend on the social status and cultural capital of their families, but are caused by specific ability characteristics. Among the problems that often occur as a result of learning difficulties, the literature includes slower processing of information and teaching materials and their difficulty, as well as difficulties in concentration, which were clearly revealed in the analysis of the students (Tánczos, 2006; Dávid, 2015). In their study, cluster analysis was used to create four groups of dropouts: those who dropped out for financial and employment reasons, those who dropped out for academic and institutional reasons, those who gave multiple reasons, and those who were disappointed with higher education and training. Students with difficulties were over-represented in the group of dropouts for academic and institutional reasons, which highlights the seriousness of the problem (Pusztai, 2019).

Although to an unknown extent, this is a phenomenon that occurs when a person's special educational needs and learning problems are not discovered or are discovered very late. Hrabéczy (2019) points out the resulting difficulties. Consequently, the timing of the discovery of special educational needs plays a crucial role in an individual's academic career. According to the findings of this interview study, respondents who were not identified as having special educational needs until a later age did not have timely skills and strategies to effectively compensate for their difficulties and did not receive special help, and this deficit played a key role in dropping out of higher education. (Hrabéczy, 2019).

For the age group of college students, the classic characteristics of learning disabilities are described by the Association on Higher Education and Disability as follows. This age is still characterized by a slow reading pace, and the individual is able to comprehend and memorize what is read to varying degrees. There is also a problem with emphasizing the essentials, incorporating new words and phrases into the vocabulary, and it is difficult for the person to read for long periods of time (Tánczos, 2006; Dávid, 2015). Based on these characteristics, it can be assumed that the learning problems encountered during the years of higher education may even mean unrecognised learning difficulties, in more severe cases learning disabilities, which, in the absence of adequate help, pose a serious risk of dropping out.

### **Relationships between academic performance and career choice in previous research**

Previous research has linked the phenomenon of university dropout to social inequalities within universities as a result of expansion, such as changes in the admission rate of students with lower social status and lower academic achievement and efficiency among these students (Hrubos, 2012; Veroszta, 2012; Szemerszki, 2012, 2015; Csók et al., 2018). As a result of the expansion of higher education, students have diversified not only in terms of social status and skills, but also in terms of their motivation to continue their studies in further education (Fábri et al., 2004; Csók et al., 2018). In terms of family, social and educational background, students have also come to higher education with very limited information about the higher education system and further education (Fábri et al., 2004; Pusztai, 2011). In the elite phase of higher education, the children of university-educated parents had a broader knowledge of the higher education system. The theories of Tinto (1993) and Astin (1984) have shown that some students in extended higher education find it more difficult to integrate into the higher education environment, resulting in lower levels of engagement and persistence (Nakajima et al., 2012). Social differences in access to information have been shown to result in lower persistence due to flawed decision-making mechanisms in terms of career choice. In these cases, individuals and their parents do not have sufficient knowledge of their socioeconomic environment on which career guidance cannot be based (Nakajima et al., 2012; Pusztai, 2018). Several previous studies have highlighted that family involvement can have a positive impact on an individual's academic career (Jimerson, 2000; Parr et al., 2015; Bocsi et al., 2018). However, considering the results on access to information, it can be assumed that the strong influence of lower-status families with more limited information on career choice may

pose additional barriers for individuals, as the family cannot adequately support career choice without adequate sources of information.

Based on previous research, it is clear that persistence and determination to pursue studies, as well as earlier and higher education learning outcomes, are related to status factors (Reay et al., 2009; Ceglédi et al., 2016; Pusztai, 2018). A high level of commitment to study and institutional involvement is also a crucial element of the learning process itself (Bloom, 1974; Gagne, 1977; Fisher et al., 1980; Astin, 1984). Persistence is thus not only influenced by status factors at the level of commitment and willingness to exert effort, but can also strongly influence the process and quality of curriculum processing. However, in contrast to the main international trends, a recurrent element in Hungarian research is academic inefficiency, skepticism, frustration and fluctuating integrity in the case of higher status individuals (Pusztai, 2011; Kovács et al., 2019). In the present study, we aim to test the existence and explanation of this relationship by looking for characteristics of students who experience difficulties during learning.

### Hypotheses

H1: Based on Fábri and Roberts (2004), we hypothesize that students with learning difficulties may be characterized by lower social status. Several studies have shown that lower social status, poorer financial status, and lower parental educational attainment negatively affect academic progress and the amount and quality of information that individuals and their families have about further education.

H2: Since we assume a strong effect of family background, our further hypothesis is that the influence of parents plays an important role in the career choice of the studied students, assuming a negative effect in their case. Following Pusztai (2019), we hypothesize that the role of parents plays an important role in both career choice and study-related attitudes.

H3: We also hypothesize that the students studied may be characterized by below-average persistence. Based on our hypothesis, students with learning difficulties may have received less information about higher education due to their low social status, leading to incorrect career choice decisions and low commitment to their studies, which negatively affects academic progress.

### Methods

The data comes from a large-scale database of students collected by CHERD-Hungary in the 2018/19 academic year. The data collection took place in one of the easternmost higher education regions of the European Higher Education Area. The research was conducted in higher education institutions in the eastern region of Hungary and in four other higher education institutions. The aim of the present study was to analyze the Hungarian sample (N = 1045), which is representative of faculties, fields of sciences and funding type. The sample included full-time second year students BA / BSc and full-time second or third year students in undivided Master's programs.

Students who reported difficulties were compared with students without difficulties. In the variable created for this purpose, the group of students reporting difficulties was formed on the basis of the answers to the questions according to which the students themselves have difficulties in processing textbooks and notes and understanding what they read. We consider it is important to point out that in most research, aptitude tests are used to determine the level of various skills and competencies of individuals, whereas in the present research we rely on the respondents' self-assessment and perception of the problem. In general, aptitude tests provide specific quantifiable results about the level of performance an individual has achieved at the time the test is administered (although performance may be influenced by a number of external and internal factors). However, individuals' subjective assessments of their own abilities already summarize their past and present experiences with their abilities and difficulties.

Based on the variables thus created, the following two groups were formed and compared on the basis of social and family background factors and career choice motives:

- Students with difficulties according to their own experiences and statements (hereafter students with difficulties) (N = 325).
- Students with no difficulties according to their own experiences and statements (in the following: students without difficulties) (N = 720)

## Results

In our study, we examined students who indicated difficulties based on their responses and self-reports and compared them with students who did not have such difficulties. 31.1% of the sample self-reported having difficulties. In the course of the study, we first examined the study characteristics of the target group and then investigated the relationships between social background and career choice.

### *Persistence*

Table 1 shows the extent to which the various difficulties appear in the studies of the students surveyed. In terms of difficulties, we asked about the presence of problems related to scheduling, access to curricula and information, learning, and collaboration with lecturers and students. We also asked about administrative and financial problems during the course of study, such as switching to self-funded education. From these 22 risk factors, we created an index and then formed groups of students with a below-average and an above-average number of risk factors. It is a plausible result that the majority of students with no difficulties in their studies have below average risk factors, while students with difficulties are highly overrepresented among those with above average risk factors. As risk factors we considered problems that students identified as difficulties in their higher education studies, regardless of how closely they were related to learning activities in a narrower sense.

**Table 1.** Average frequency of risk factors (Chi-square test,  $p \leq 0,05$ ), (%),  $N=913$ )

	Students without difficulties	Students with difficulties
<b>Below average number of risk factors</b>	<u>62,8%</u>	36,2%
<b>Above average number of risk factors</b>	37,2%	<u>63,8%</u>
<b>N</b>	642	271

Source: PERSIST 2019. Note: For underlined values, the value of adjusted residuals is greater than 2.

We examined how the proportion of those who come close to dropping out evolves among those who report a study problem. We found that the proportion of those who were already in such a situation was overrepresented among them (Table 2). Looking at potential overrunners, i.e. those who will miss one or more semesters compared to the duration of study foreseen in the curriculum, students with difficulties are also overrepresented. While only one fifth of students without difficulties can be described as potential overrunners, one third of the group with students with difficulties are potential overrunners (Table 2).

**Table 2.** Rate of dropout risk and potential overruns (Chi-square test,  $p \leq 0,05$ ), (%),  $N=1037$ )

	Students without difficulties	Students with difficulties
<b>Were already at risk of dropping out</b>	42,9%	<u>53,7%</u>
<b>Potencial overrunner</b>	21,5%	<u>35,2%</u>
<b>N</b>	716	321

Source: PERSIST 2019. Note: For underlined values, the value of adjusted residuals is greater than 2.

In the study, the researchers distinguished three groups of students according to the pace and characteristics of their learning progress: the group of correcting students, the group of students who have stopouts and overruns, and the group of students with standard study path (Pusztai 2020). Our data show that students with difficulties are overrepresented in the group of students who have stopouts and overruns and underrepresented in the group of those on a standard pathway (Table 3).

**Table 3.** Different study paths (Chi-square test,  $p \leq 0,05$ ), (% , N=1045)

	Students without difficulties	Students with difficulties
<b>Correcting</b>	18,6%	19,7%
<b>Stopouts and overruns</b>	19,3%	<u>31,1%</u>
<b>Standard path</b>	<u>62,1%</u>	49,2%
<b>N</b>	720	325

Source: PERSIST 2019. Note: For underlined values, the value of adjusted residuals is greater than 2.

#### *Social, economic background, recruitment*

In studying learning problems, we cannot avoid examining which demographic and social groups are most likely to be affected by this phenomenon. Looking at gender distribution, Table 4 shows that although the proportion of males with difficulties is lower, they are still over-represented. In her study, Pusztai (2019) examined students who had dropped out of higher education, and again males were over-represented among those with reading and comprehension difficulties, although dropping out of school poses a greater threat to males.

**Table 4.** Gender distribution (Chi-square test,  $p \leq 0,05$ ), (% , N=1045)

	Students without difficulties	Students with difficulties
<b>Male</b>	36,8%	<u>44,4%</u>
<b>Female</b>	<u>63,2%</u>	55,6%
<b>N</b>	702	315

Source: PERSIST 2019. Note: For underlined values, the value of adjusted residuals is greater than 2.

While parental education and academic achievement are closely correlated in almost all studies of public and higher education, our data suggest that students with learning difficulties do not come from parents with lower levels of education. In terms of parents' educational level, only the mother's highest completed educational qualification showed a significant difference between the groups of students studied. Table 5 shows that the proportion of mothers with elementary or lower school education is overrepresented among students with learning difficulties, while those whose mother has a high school diploma are underrepresented. Unexpectedly, on the other hand, the proportion of mothers with a university degree is also very high.

**Table 5.** The mothers' level of education (Chi-square test,  $p \leq 0,05$ ), (% , N=1045)

	Students without difficulties	Students with difficulties
<b>Primary school or lower</b>	3,3%	<u>6,6%</u>
<b>Vocational training</b>	15,7%	13,3%
<b>High school final exam</b>	<u>40,0%</u>	32,9%
<b>University degree</b>	41,0%	47,2%
<b>N</b>	702	316

Source: PERSIST 2019. Note: For underlined values, the value of adjusted residuals is greater than 2.

#### *Career choice*

In the case of university admission, it is possible to cheque which additional points students have applied for when applying higher education. For the different additional points (which can be applied primarily to disability, disadvantage and multiple disadvantage, and childcare, additional points for a technical qualification, performance in a sports competition, placement in a study competition, intermediate and/or advanced language examination, advanced final examination), which were examined separately, we found a significant difference only for the additional points for disability, where students with difficulties were over-represented, but the number of people who received additional points for disability was only 12 in the whole sample. We then formed 4 groups based on the additional points available, as shown in Table 6. We distinguished between

students who did not apply for additional points at all at admission, a group of students who applied for preference points for any kinds of disadvantages, those who received additional points for achievement, and those who applied for additional points for both at the same time. Table 6 shows that students with difficulties are over-represented among those who did not apply for additional points at all and under-represented among those who applied for additional points for achievement only. From the results it can be concluded that the students studied did not show any difficulties or additional achievement during their years in public education, i.e. the difficulties in this case probably remained hidden during the years in public school, or other factors that compensated for the difficulties emerged during higher education.

**Table 6.** Types of additional points (Chi-square test,  $p \leq 0,05$ ), (%), (N=1045)

	Students without difficulties	Students with difficulties
<b>Did not applied for additional points</b>	36,8%	<u>46,8%</u>
<b>Applied for any kinds of disadvantages</b>	2,3%	1,8%
<b>Applied additional points for achievement</b>	<u>53,9%</u>	44,3%
<b>Applied for both</b>	7,0%	7,1%

Source: PERSIST 2019. Note: For underlined values, the value of adjusted residuals is greater than 2.

In the case of career choice motivations, we examined, among other things, career choice motivations in relation to the individual's social environment. Table 7 shows which results turned out to be significant. However, we found no difference in the effect of educators, friends, and career counselors. However, a look at Table 7 shows that students with difficulties were over-represented among those who retrospectively recalled basing their career choice on the expectations and advice of their parents and the example of their siblings, and under-represented among those who had their own ideas about their career choice. These findings suggest that the family plays a greater role in career choice, although the retrospective viewpoint naturally allows the students to escape the responsibility of their earlier decision due to academic difficulties. At the same time, it is a fact that children of parents with higher levels of education followed their parents' advice to a greater extent in their decision to pursue further education, which is not surprising since it is a general research experience that parents with high educational status make conceptual and ambitious plans for further education to a greater extent for their children.

**Table 7.** Persons influencing career choices (Chi-square test,  $p \leq 0,05$ ), (%), (N=1045)

	Students without difficulties			Students with difficulties		
	They followed the expectations of their parents	They followed their own decision	They followed the example of their siblings	They followed the expectations of their parents	They followed their own decision	They followed the example of their siblings
<b>No</b>	<u>73,5%</u>	19,9%	<u>95,8%</u>	66,8%	<u>29,8%</u>	92,9%
<b>Yes</b>	26,5%	<u>80,1%</u>	4,2%	<u>33,2%</u>	70,2%	<u>7,1%</u>
<b>N</b>	720	720	720	325	325	325

Source: PERSIST 2019. Note: For underlined values, the value of adjusted residuals is greater than 2.

We can find significant differences between the two groups in three aspects of the factors influencing career choice. Table 8 shows that students with difficulties are over-represented among those who applied for the education of their choice because of a family tradition and under-represented among those who chose education in order to find a profession or to increase their knowledge. Consistent with family tradition, the children of parents with higher levels of education are overrepresented. This result indicates a greater influence of family ambitions on the career choice of the studied students. Based on the results, it can be said that students who report learning difficulties are more likely to find students who implement bold family goals and family traditions.

**Table 8.** Career choice motivations (Chi-square test,  $p \leq 0,05$ ), (% , N=1045)

	Students without difficulties			Students with difficulties		
	Family tradition	To find a profession	To increase knowledge	Family tradition	To find a profession	To increase knowledge
<b>No</b>	76,8%	12,8%	9,2%	68,8%	<u>18,9%</u>	<u>15,8%</u>
<b>Yes</b>	23,2%	<u>87,2%</u>	<u>90,8%</u>	<u>31,3%</u>	81,1%	84,2%
<b>N</b>	702	709	714	320	322	322

Source: PERSIST 2019. Note: For underlined values, the value of adjusted residuals is greater than 2.

This can also be seen from the fact that the weakness of perseverance in studies and low persistence are due to the fact that students either do not approve of the desired field of study or it does not match their skills and interests. In turn, it is said, an unsuitable career choice increases the risk of dropping out (Bean 1980, 1985, Tinto 1975, 1993, Bennett 2003, Csók et al. 2018, Kovács és mstai 2019). Therefore, an important question is whether there is a relationship between engagement and satisfaction with the chosen education beyond career orientation among the studied target group.

Table 9 illustrates the proportion of those in the target group who did not want to take the degree program they attended and who showed no interest in the chosen degree program after admission.

**Table 9.** Disinterest in the chosen degree program (Chi-square test,  $p \leq 0,05$ ), (% , N=1042)

	Students without difficulties	Students with difficulties
<b>Inadequate career choice</b>	16,30%	<u>26,20%</u>
<b>Perception of poor fit</b>	9,30%	<u>18,20%</u>
<b>N</b>	718	324

Source: PERSIST 2019. Note: For underlined values, the value of adjusted residuals is greater than 2.

Table 9 shows that students with difficulties are over-represented among those who did not want to attend the degree program they are currently attending and also among those who showed no interest in the course in question after enrolment. This finding is consistent with the findings that the career choices of students studied are far less determined by their own interests than those of students without difficulties.

There is no significant difference between the two groups depending on the field of study, i.e. the occurrence of difficulties is not specific to the field of study, so that the weaker performance of the students cannot be attributed solely to the characteristics of the different fields of study and specializations. However, degree programs have also been classified by education policy according to the number of credit points and student average sufficient to remain in public funding. The data in Table 10 show that the proportion of children of mothers with the lowest education is higher in the so-called easier degree programs, while the proportion of children of mothers with higher education is significantly higher in the more difficult programs.



**Table 10.** Career choice depending on the difficulty of the program and the mother's highest level of education (Chi-square test, \* $p \leq 0,05$ ), (%), N=1018)

		Students without difficulties	Students with difficulties
<b>A program deemed easier by education policy</b>	<b>Primary school or lower</b>	3,9%	<u>10,3%</u>
	<b>Vocational training</b>	17,5%	12,1%
	<b>High school final exam</b>	41,8%	42,2%
	<b>University degree</b>	36,8%	35,3%
	<b>N</b>	285	116
<b>*A program deemed harder by education policy</b>	<b>Primary school or lower</b>	2,9%	4,5%
	<b>Vocational training</b>	14,4%	14,0%
	<b>High school final exam</b>	<u>38,8%</u>	27,5%
	<b>University degree</b>	43,9%	<u>54,0%</u>
	<b>N</b>	417	200

Source: PERSIST 2019. Note: For underlined values, the value of adjusted residuals is greater than 2.

In order to obtain a more accurate picture of the programs taken by the students studied and their marketability, we examined the relationship between social status and the occurrence of learning difficulties in relation to the risk of dropping out of the programs taken by the students. We also examined the net earnings prospective employees could expect after completing the programs taken by the students surveyed.

The dropout risk variable was dichotomized to create two groups of students with below average and above average dropout risk. According to the data in Table 11, students with a low risk of dropping out are overrepresented among students with learning difficulties in courses with a below-average dropout risk. Although no significant relationship can be found in courses with above average dropout risk, it can be said that students with learning difficulties are underrepresented among the children of mothers with high school final exams and the proportion of mothers with higher education degree is much higher.

**Table 11.** The relationship between the risk of dropping out and the appearance of difficulties based on the mother's highest education level (Chi-square test, \* $p \leq 0,05$ ), (%), N=1018)

		Students without difficulties	Students with difficulties
<b>* Training with a below-average drop-out risk</b>	<b>Primary school or lower</b>	3,7%	<u>9,7%</u>
	<b>Vocational training</b>	16,9%	12,4%
	<b>High school final exam</b>	42,2%	37,2%
	<b>University degree</b>	37,2%	40,7%
	<b>N</b>	325	145
<b>Training with an above-average drop-out risk</b>	<b>Primary school or lower</b>	2,9%	4,1%
	<b>Vocational training</b>	14,6%	14,0%
	<b>High school final exam</b>	<u>38,2%</u>	29,2%
	<b>University degree</b>	44,3%	52,6%
	<b>N</b>	377	171

Source: PERSIST 2019. Note: For underlined values, the value of adjusted residuals is greater than 2.

With regard to the occurrence of difficulties, two subgroups can be distinguished. According to the results, the first subgroup includes students who, when entering higher education from families with low social status, choose courses that can be completed with greater certainty, but are in a more difficult position to complete their studies in these courses due to their cultural disadvantage. The second subgroup includes students who are children of parents with high social status, so that their parents have more courage to choose more difficult, higher-risk courses in which students are more likely to experience learning difficulties because of the high demands and highly selective nature of the courses.

In the following test, we examined how the previously hypothesised components affect the occurrence of difficulties. To examine this, we conducted a logistic regression analysis, which is presented in Table 12. As part of the analysis, we examined, among other things, how applying for a course considered difficult in terms of education policy, parental influence on career choice and interest in the course affected the occurrence of learning difficulties, but these were not significant in our regression model as this would weaken the explanatory power of the model.

**Table 12.** Factors influencing the chances of becoming a student with difficulties (Exp(B)-s) (\* $p \leq 0,05$ ), (N=883)

Independent variables	First model	Second model	Third model
	Exp(B)-s	Exp(B)-s	Exp(B)-s
<b>Constant</b>	0,394*	0,428	0,378*
<b>Male students</b>	1,377*	1,323*	1,168
<i>Mothers level of education (ref: university degree)</i>			
<b>Primary school or lower</b>		1,642 *	1,590
<b>Vocational training</b>		0,725	0,687
<b>High school final exam</b>		0,727*	0,762
<b>Difficulty in paying university expenses</b>		1,563*	1,115
<b>Above average number of risk factors</b>			2,684*
<b>Learning in inadequate degree program</b>			2,289*
<b>Perception of poor fit in the program</b>			1,864*

Source: PERSIST 2019. Note: The first step involved the gender of the students (first model), the second step involved the financial background indicators (second model), the third step involved the indicators of the difficulty of studies (third model).

Based on the results of Table 12, it can be said that in the first model, the gender of the student has a significant impact on the enrolment chances of students with difficulties. If the person is male, he is more likely to experience this type of difficulty in his studies. In the second model, the explanatory power of gender increases with the inclusion of background variables representing financial status, and all but the mother's university degree prove significant. However, the greatest explanatory power came from the fact that students had difficulty meeting the costs of their studies, i.e. financial difficulty increased the likelihood of being in a group with difficulties. However, in the third model, which includes factors related to study and field of study, background indicators related to gender and financial situation also become less significant, so they are not an explanatory factor in this model. It is also found that the presence of a higher than average number of risk factors when students are not studying in their preferred degree program and the perception of a poor fit have significantly high explanatory power. These factors increase the likelihood of the occurrence of difficulties significantly more than was the case for gender or material background in previous models. From our model, we can conclude that while students' social and financial background may have an impact on learning performance, it is much more crucial whether students study a subject that matches their interests and abilities.

### Conclusions

In our study, we investigated the students who report learning difficulties during their higher education studies based on the CHERD-Hungarian Research Center database PERSIST 2019 and compared them with those who do not experience such difficulties during their studies.

In examining our hypothesis about the social background of the students studied, we encountered an unexpected correlation. Although we assumed low social status for students with learning difficulties, this was only true for a subset of the target group studied. For children from families with low social status, learning difficulties also occurred in those programs that were considered easier in terms of educational policy and were characterized by a low risk of dropping out. However, the proportion of families with higher status was also significantly higher among students with difficulties, who typically appear in higher numbers in courses with a high dropout risk, which are considered difficult in terms of educational policy, so it can be said that a significant proportion of students in these courses have a higher probability of experiencing difficulties in their studies. We assumed a stronger influence of family in the background of career choice and success of the studied students. This conjecture has been confirmed and we can say that both low and high social status have an

influence on career choice and success. Low social status families tend to assign their children courses that are easier to complete and have little or no specific expectations.

However, in these courses, low social status students struggle because of their cultural disadvantage. High-status families are bolder about steering their children into more difficult, higher-risk but higher-income educational courses and also have higher expectations for their children. The extent to which students feel they are in the right place, whether their decision to continue learning is appropriate, whether they perceive their education to be suitable and whether they are studying in their preferred education all play an important role in the inclusion of students with difficulties. Thus, our results show that perceptions of difficulties are related to both objective and subjective indicators of effectiveness.

In summary, based on our results, we can assume that there is a segmented higher education market in which the children of parents with high status and high expectations appear in higher proportions in the more difficult but marketable fields of study. However, these courses are highly selective and associated with a high risk of dropping out, which increases the likelihood of learning problems even if the student has a much better record at entry. Children of low status parents are over-represented in more secure, easier but less marketable courses. In these courses, however, it is the culturally disadvantaged who are more likely to develop difficulties in their studies. Undoubtedly, it is desirable to screen students with difficulties in a timely manner because, as the data show, they are at risk of disappointment and drop-out. However, we believe that identifying the two groups of people with difficulties is extremely important because they require institutions to take a different approach to dealing with their problems.

**Acknowledgments:** We thank Johnathan Dabney for the English language editing.

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