

Thematic Article

Myth or Reality? Mobility Trends among Recent Graduates of Different Fields of Study

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Recommended citation:

Fónai, M., & Láncki, V. (2023). Myth or reality? Mobility trends among recent graduates of different fields of study. *Central European Journal of Educational Research*, 5(1), 43–57. <https://doi.org/10.37441/cej/2023/5/1/12390>

Abstract

The paper focuses on the intergenerational mobility processes in Hungarian higher education over the past decade. Its purpose is to explore these processes and to analyse the differences between the fields of study. The second-generation mobility theories, which serve to be the theoretical background of this paper, focus on the differences between income, education, occupational groups and social classes in connection with status attainment and mobility. Among the mobility theories relating to higher education, theories analyzing inequalities are studied, to discover whether they are found in Hungarian higher education („Maximally Maintained Inequality”, MMI and the theory of „Effectively Maintained Inequality”, EMI). The analysis also covers the „dynastic effects” related to mobility, whether they strengthen or weaken intergenerational processes. The database of the analysis is the Graduate Career Tracking System 2010-2021.

Keywords: mobility, types and fields of mobility, higher education, family background, differences between fields of study

Introduction

The aim of the paper is to explore the intergenerational mobility processes that can be seen among graduates of Hungarian higher education over the past decade, and the differences between the fields of study. Several theoretical backgrounds have been analyzed, and their main findings are taken into consideration in order to interpret the results.

One of the theoretical frameworks is the theories belonging to the second generation of mobility analyses, which examine status acquisition and mobility processes. They focus on four areas and their connections: income mobility, school mobility, movements between occupational groups and social classes, as well as their connections. These theories describe mobility as a process of status acquisition. Theories belonging to the other group focus on the connections between higher education and mobility processes.

A significant part of the literature describes the enforcement of inequalities and the mechanisms that maintain these inequalities; at the same time, based on the industrialization theory of second-generation mobility theories, the impact of decreasing inequalities is also taken into consideration. „Maximally Maintained Inequality” (MMI) and „Effectively Maintained Inequality” (EMI) theories were created to explain the functioning of inequalities. They emphasize that, despite the expansion of higher education, inequalities have been persisting, both in terms of quantity (MMI) and quality (EMI). Papers belonging to this group argue in favor of the functioning of inequality mechanisms with a number of empirical research results. Summarizing the main theories concerning first-generation students and non-traditional ones is also considered to be important because intergenerational mobility affects these students along with recent graduates. The theoretical frameworks are suitable for the conceptualization of the studied phenomenon (mobility, intergenerational mobility, higher education inequalities) and their empirical testing. The empirical statements are based on the analysis of the 2010-2021 national database of the Hungarian DPR, Graduate Career Tracking System. However, there are limitations to the analysis of the DPR database. Because of the content of the database, mobility theories

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prevalent after the turn of the millennium as an interpretation framework cannot be evaluated. Thus, the focus of analysis is on the claims and results of the second generation of mobility theories and research.

Mobility and higher education

Mobility, types of mobility and its fields

As it has been mentioned in the introduction, the paper focuses on the mobility processes taking place in Hungarian higher education between 2010 and 2021. The main question is how, during these processes, the proportion of groups of recent graduates with different social and family backgrounds changed over the studied decade. This approach also derives from the structure of the available database, thus the analysis aspects of the second generation of mobility research is taken into consideration (Róbert, 2001a). However, due to the limitations of the database, regression analyses have not been conducted. The paper analyzes the theoretical issues of the studied phenomenon.

Regarding the concept of mobility and its types, it can be said that there is an almost century-old consensus regarding the more narrowly defined basic concepts. Conceptualization of the basic concepts can rarely be found in literature. The authors adopted the definition of Encyclopaedia Britannica as a basis:

„Social mobility, movement of individuals, families, or groups through a system of social hierarchy or stratification. If such mobility involves a change in position, especially in occupation, but no change in social class, it is called “*horizontal mobility*.” An example would be a person who moves from a managerial position in one company to a similar position in another. If, however, the move involves a change in social class, it is called “*vertical mobility*” and involves either “*upward mobility*” or “*downward mobility*.” An industrial worker who becomes a wealthy businessman moves upward in the class system; a landed aristocrat who loses everything in a revolution moves downward in the system.”³

The paper focuses on the vertical mobility, or „upward mobility”, of recent graduates. Intergenerational mobility does not refer only to an upward (or downward) movement in society, however. It is also a measure of economic equality or life chances. It shows how high the children of the wealthiest or least wealthy families achieve regarding the distribution of earnings or income as adults (Blanden et al., 2005, p. 4). The paper presents the impact of the areas of mobility and the relationships between these areas. The researchers of the second wave of mobility research concentrated on the process of status attainment and its fields.

Based on the studies of several authors, the results of research studying the process of intergenerational mobility and status attainment show that income inequality and the differences between the income and education of the poorest and the richest have also increased, there is a cause-and-effect relationship between income and education (Blanden et al., 2005, p. 14). Blanden et al. are convinced that inequalities in educational attainment alone cannot be equalized through redistribution. Instead, early years’ education and the development of schools in poor communities could improve the situation.

Blanden also emphasizes that intergenerational mobility shows a close relationship between the parents’ socio-economic status and their children’s socio-economic results as adults (Blanden, 2013, p. 2). This relationship can be measured in several ways: with family and individual income, social class, occupational status and education – these areas are also the areas of intergenerational mobility and status attainment.

It is important that the results of income and education attainment correlate quite well with each other, information on educational mobility is a good substitute for that on earning mobility, especially if they are not available (Blanden, 2013, p. 3). Baron also emphasizes the importance of education, regarding the differentiation of occupations in terms of education and knowledge (Baron, 1980, p. 831-832).

Among the four areas of intergenerational mobility, Checchi et al. focus on occupational mobility and educational mobility (Checchi et. al., 1999). This paper highlights two aspects from their study. One is an apparent paradox: the Italian education system is centralized and centrally financed, it could be expected to reduce inequalities and to improve labor market positions.

However, the decentralized and non-standardized American education system responds more flexibly to changes in the labor market (this is how it helps occupational mobility). The other aspect concerns how differently economists and sociologists define and measure mobility. Economists highlight the transition

³ <https://www.britannica.com/topic/social-mobility>

between income classes, while sociologists focus on the transitions between occupations ranked according to social prestige (Checchi et al., 1999, p. 353).

In relation to the connection between education and class mobility, Jackson, Goldthorpe and Colin (2005) explain that the relationship between the individuals' class origins and their level of educational attainment weakens over time (Treiman & Terrel, 1975). In contrast, the relationship between the individuals' educational attainment and their class destinations strengthens over time. Its reason is that technological and economic efficiency requires that the abilities and motivations developed and demonstrated in the education system become the dominant selection criteria in the labor markets. At the same time, the connection between class origins and their class destinations of individuals is weakening, in other words, social fluidity is increasing (Jackson et al., 2005, p. 5-6).

Among the second-generation mobility theories, Treiman's theory of industrialization is one of those most cited. Treiman highlighted the structural effects of industrialization. They result in increasing the level of mobility and education, but it was more influenced by structural changes and less by the status of families (Treiman, 1970).

One of the basic questions of the studies analyzing the status attainment process is the change over time in the role of ascription based on origin and achievement during the mobility process, that is what affects the occupational situation more: the father's occupation (origin) or the school performance of the individuals. Luijkx et al. formulated several hypotheses regarding the answer. Origin has a stronger effect on the status attainment for older than for younger cohorts, however, the role of performance increases in younger cohorts (it also confirms Treiman's industrialization thesis). The father's occupation tends to have an effect at the beginning of the occupational career, but then this effect decreases. The role of education is also decreasing, but it still has a significant impact on job transitions at the beginning of the career (Luijkx et al., 1995, p. 3-10).

Based on the implications of the status attainment model, Péter Róbert (2001b) assumes that the explanatory power of the socio-economic background is more important than the effect of demographic variables. Among the three indicators of status (education, occupation and income), education is the main mediator between origin and status. Examining the relationship between social status and socio-economic background, both cultural and material resources are actual mediating variables, their consideration reduces the direct effect of family background. Cultural capital is the most important factor among the capitals, the direct effect of origin was stronger than the indirect effect through material capital (Róbert, 2001, p. 89-105).

Based on Zsuzsa Blaskó's (1998) mobility research, she believes that origin, and especially the amount of cultural capital determined by origin, has more effect on education and less on the achieved occupational position. From this it can be concluded that cultural capital has the strongest effect on educational attainment among the components of social status.

Her other articles formulate and test the hypothesis of „mobility driven by cultural capital”. According to it cultural capital not only promotes the retention of the already acquired social position and thus the reproduction of the structure but also affects individual mobility chances. The latter one is not determined directly by the absolute level of the supply of cultural capital but by its general level (Blaskó, 1999, p. 2).

This paper can primarily take the theories that emphasize the influence of parents', especially fathers' education into account. The analyzed literature has in common an emphasis on the importance of the school and education system in the status attainment and mobility, including, for example, the influence of fathers.

Higher education and mobility

One of the most debated questions in mobility research is whether mobility can reduce various social inequalities. Since mobility research examines several possible areas and forms of social mobility (income, school, occupational status and class mobility), numerous types of inequality can be discussed. As higher education is one of the channels of mobility, it is also important to know how much higher education contributes to social mobility and whether it can reduce various inequalities.

There are different opinions about the possibilities of higher education. They reflect to the ambivalent situation where higher education „participates” in social mobility. According to Blackstone, (2012), for example, the greater the inequality in wealth and income, the greater the inequality of opportunity, and the more difficult it is to create equal educational opportunities. Additionally, the author makes normative statements: efforts should be made to promote equal opportunities and ensure access to good education (Blackstone, 2012, p. 4). The method typically used in the literature.

According to the author the secondary school selection processes in British secondary education contribute to the maintenance of the differences between universities as well as to student selection. Blackstone's expectation, although it is also normative in nature, refers to the possibilities of higher education policies and the way universities operate, because the Social Mobility Index used in American higher education shows the extent to which a university trains more economically disadvantaged students (family income below the national median) by providing lower tuition fees and the extent they obtain well-paying jobs.

The higher education system can thus reverse the destabilizing trend of increasing economic immobility (Social Mobility Index, 2021).

At the same time (and it is true not only for American higher education) according to Haveman and Timothy Smeeding, income-related differences in both access and success in higher education are large and they are growing continuously. At top colleges and universities, almost three-quarters of the entering classes come from the highest socio-economic quartile (Haveman & Smeeding, 2006). The connection between income inequality and inequality between generations (including the role of education) is called the Great Gatsby Curve (GGC). Its testing was performed by Jerrim and Macmillan (2015).

Based on their international comparative analysis, educational level drives the relationship between parental education and their children's earnings. Income inequality shapes access to education. The fact that the relationship between parental education, their earnings and the education of their children varies according to income inequality suggests that financial resources play an important role in the intergenerational transmission and also in passing on the benefits (Jerrim & Macmillan, 2015, p. 528).

One group of authors is somewhat more optimistic about the impact of higher education on mobility. This does not exclude the fact that according to literature higher education reduces social inequalities. According to a British report, higher education is one of the main drivers of social mobility. Young university students from less wealthy backgrounds are more likely to get to higher income classes. Additionally, income gaps are narrower between graduates with advantaged background and graduates with disadvantaged background than disadvantaged graduates and disadvantaged individuals who are non-graduates (Universities and Social Mobility, 2021).

Among the indicators applied in British higher education, Participation of Local Areas (POLAR) is able to express the disadvantaged situation. POLAR distinguishes five groups. In the 1st quintile 18.5% of the 18-year-old English people belonging to the most disadvantaged group „accepted” a full-time education offer, while the chance of 44.9% of those belonging to the 5th, i.e. to the most favorable quintile, to enter higher education, was 2.4 times higher (Working in Partnership, 2016, p. 16).

”MMI” and ”EMI” theory

An important theoretical framework for this paper is the theory of „Maximally Maintained Inequality” (MMI) and „Effectively Maintained Inequality (EMI). These theories have been developed in connection to higher education and to the role of higher education in social mobility (Boliver, 2011, Boliver & Wakeling, 2016, Pferrer et al., 2014).

These theories and the research based on them emphasize that in spite of the expansion, the counter-arguments for educational inequalities do not disappear, as those with more favorable social situations, those from higher class backgrounds can better grab new educational opportunities (MMI), providing themselves with qualitatively better educational opportunities at a given level (EMI).

Qualitative inequalities between social classes in terms of enrollment chances in more traditional courses with higher-status, as well as participation in „old” universities remained basically unchanged in the 1960s and 1990s. Briefly, inequalities between social classes have been maximally and effectively maintained in (British) higher education (Boliver, 2011).

As a consequence, social class origin strongly determines the entrance into higher education, and obtaining a higher education degree is associated with the most rewarding outcomes. The direct connection between the origin and the „destination” has largely been replaced by the indirect effect through (higher) education. According to comparative international studies, although inequalities in access to higher education institutions have decreased, inequalities between types of institutions have increased at the same time, and in addition to quantitative inequalities, qualitative inequalities in access have become dominant (Boliver & Wakeling, 2016, p. 3-4).

Several processes and causal relationships can be observed behind this phenomenon. Some of them are related to the functioning of inequalities (partly in the field of mobility), some originate from the functioning of higher education. Of course, the two phenomena are also closely related.

Selective, often elite universities take little part in this upward mobility, (most) of their students come from affluent families, and institutional selectivity is often difficult to be found (de Alva, 2020).

The operation of institutional selectivity is also analyzed by Blackstone (2012), who sees that the „top universities” have a high prestige on their research reputation, they attract many foreign students, but are selective when admitting British students, as their students come from the best private schools. High prestige universities require very good grades, while less well-known institutions expect significantly lower grades. At first glance, it may seem to be meritocratic and fair.

However, in practice, as prior performance is prioritized, it leads to socially segregated universities, which affects social mobility. The secondary schools with the best graduation rates unsurprisingly turn out to be the secondary schools where a large number of students with privileged background can be found (Blackstone, 2012, p. 13-14).

The MMI and EMI hypotheses assume that there are also differences between higher education institutions („elite” university, „old” university, „high prestige university”, university rankings, etc.). Two types are differentiated by Brezis and Hellier (2017). First, the higher education system is dual, there are standard and elite universities, which differ in quality (identified by the expenditure per student) and in the severity of their selection process.

In addition, in all higher education institutions, the admission procedure is meritocratic and is based only on the level of human capital (Brezis & Hellier, 2017: 3). Not regardless of social processes, this dual university system also contributes to the development of social stratification. In the lower class, individuals only with a primary degree are included, people with traditional university degrees belong to the middle class, and persons with elite university degree form the upper „elite” class (Brezis & Hellier, 2017, p. 3-4).

Selectivity between the institutions significantly shapes admission, mobility and income chances (after graduation). Analysis of mobility rates shows that increasing access to college for students from low income families, who have positive outcomes, can increase upward mobility and demonstrate the contribution of higher education to that mobility. However, as Chetty et al. (2017) explain, students from low-income families (although they can get into even Ivy League universities) mostly go to colleges with a high mobility rate. They have good results, they are not selective, and they have a high added value. Although the authors do not deny the existence of the MMI and EMI hypothesis, they emphasize that there are institutions in higher education systems that significantly contribute to mobility.

According to Murphy (2020), prestigious universities (Ivy League) are selective, they are less involved in social mobility. Although they provide significant benefits to the admitted working-class and low-income students, they also admit a small percentage of Pell grant-eligible students (a federal grant for low-income students) according to Murphy (2020).

Although the less selective universities admit the majority of poorer students, the more selective institutions offer the best chance of becoming higher earners, even taking the previous characteristics of the students into account, and the „wage gap between classes” is lower among graduates. That is, although the more selective institutions are less involved in the „mobilization” of those from lower backgrounds, they are able to reduce the brought inequalities in the labor market (Universities and Social Mobility: Summary Report, The Sutton Trust, November, 2021, Research Brief).

First-generation students in higher education

In higher education mobility, students considered „mobile” are more upwardly mobile than their parents’ educational level, i.e. their education level is higher than that of their parents’ (excluding other areas of mobility such as income, occupational status or social class). Based on the mobility measured in relation to the parents’ education, *”a first-generation student refers to someone who is the first member of their immediate family to attend a four-year college or university to obtain their bachelor’s degree.”*⁴

This definition indicates the characteristics of American higher education. In general students, who are the first in their family to obtain a degree, are considered to be first-generation students. It differs from the definition of “non-traditional students”, although first-generation students can also be found in this group.

⁴ <https://www.umt.edu/global-engagement/education-abroad/resources/diversity-and-inclusion/first-generation.php>.

„A non-traditional student can be defined as someone who might not have attended university immediately after high school, someone who completed their GED instead of obtaining their high school diploma, who works full-time while attending college or who had dependants (other than a spouse).”⁵

In addition to the types presented in the definition, other groups can also be considered „non-traditional” ones: women, students, and members of ethnic minorities, immigrants, the elderly and people with some form of disability (Schuetze & Slowey, 2002). Gilardi and Guglielmetti (2011) highlight that there is no uniform definition of the concept of non-traditional students. At least three definitions can be found in the international literature. The first approach uses age as a differentiation criterion, and it takes older students (usually 23 or 25-year-old ones at the time of enrollment) into account.

Students from backgrounds different from the majority of students, including ethnicity, lower socio-economic status, first-generation students, and employment status belong to the second approach. The third approach focuses on dropout risk factors (Gilardi & Guglielmetti, 2011, p. 34).

The term “working-class student” is also often used in literature. They can be first-generation students, but also “non-traditional” students (who, for example, do not start their studies at the age of 18, or who work and study at the same time).

Pascarella et al. (2004) typologized research studies aimed at first-generation students. The first group includes studies that typically compare first-generation and other college students in terms of demographic characteristics, high school preparation, college choice process, and college expectations.

The second group of studies describe the transition from secondary school to higher education. They indicate that first-generation students as a group have greater difficulty transitioning than those who are not first-generation. Articles that are in the third group study staying in college, obtaining a diploma and how the person does in the labor market at the start of their career.

These studies consistently show that compared to students whose parents graduated from college, first-generation students are more likely to drop out at the end of their first year and less likely to remain enrolled (Pascarella et al., 2004, p. 250).

Veronika Bocsi (2020) refers to the literature distinction accepted for first -generation and working class students. Although there are significant overlaps for the two groups, the starting point of the first approach is the parents’ education level, while in the second approach the category is the lack of profession and parental diploma. In the case of the first-generation students, the literature focuses on the choice of professions requiring a university degree (for example, why the proportion of students in teacher training is high among them), and one of the decisive issues is the integration of these students into higher education.

This is significantly shaped by the „institutional habitus” and the „institutional cultural capital”. First-generation students can be described with characteristic value choices, attitudes, motivations, lifestyles and identity patterns. Studying the situation and higher education integration of these students is also important because their proportion has increased at universities due to the expansion of higher education. The proportion of first-generation students is clearly different at bachelor and master levels, but in the case of certain faculties, smaller institutions or programs, the proportion of these students is higher. This situation is typical in the field of teacher training or social work (Bocsi, 2020; Bocsi et al., 2022).

The main problem of these student groups is the integration into academic life: how much they can integrate into the academic milieu, which significantly differs from the norms and the forms of social relations of their former social group. Reay et al. (2009) describe them as “strangers in paradise”. In their high school years, when they studied in an environment similar to them, they paradoxically felt like a „fish out of water”, while simultaneously integrating better into the elite university world, as elite students of those universities. They separate their student identity from their social identity, making them “familiar strangers” but “strangers” nonetheless (Reay et al., 2009). The conflict these students must confront, beyond the movement between two identities, is that the universities they attend are increasingly considered to be “second-class” universities, both in others’ eyes and in their own. They, therefore, risk ending up with a devalued degree coming after a long school career that required significant sacrifices (Reay et al., 2010, p. 121).

⁵ <https://www.umt.edu/global-engagement/education-abroad/resources/diversity-and-inclusion/first-generation.php>.

Dynastic effect, family pattern

In mobility research, including those related to higher education, family and parental influences as well as the socio-economic status of parents are considered to be very important. It gives an opportunity for the „dynastic” interpretation of mobility processes, although it should be mentioned, it is a negligible interpretation in the literature. However, Adermon et al. (2016) indicate that it is not sufficient to use data only for parents and children to explain the persistence of human capital, it is also worth taking the broader relatives and the brothers into account.

Torche (2011), analyzes this effect from the side of horizontal stratification, highlighting the advantages of people with an upper-class background in leadership positions and in achieving higher income, which is due to their favorable socio-economic position (ultimately, this is also a „dynastic” effect). In previous research studies the authors also argued in favor of the „dynastic effect” (Fónai, 2014), for example in the case of lawyers and teachers.

The explanatory model of the authors was based on Weber’s „status group” theory (Weber, 1978), assuming that the „status group” of highly prestigious legal professions lies on both an „occupational” and a „hereditary” basis (Fónai 2014; Fónai et al., 2014). It seems that dynastic effects actually prevail and bring benefits especially in the case of high-status and prestigious professions. The case of teachers is controversial, while the „dynastic” effect is significant, i.e. while many come from „teacher dynasties”, the status and prestige of these professions is low (Fónai et al., 2014).

The changing role of mothers

Mobility analyses hardly touch the role of mothers in mobility processes and status attainment; to measure and characterize them, mainly fathers’ education, occupational status and class position are taken into consideration. At the same time, since the 2000s, it has been observed in the Western world that the proportion of women in higher education exceeds that of men. When this turning point in higher education occurred, in terms of the educational level of the entire society, the level of education of women did not exceed that of men, i.e. the high percentage of women in higher education did not follow from the level and proportion of the educational level of mothers.

Regardless of this, it can be constantly detected that, for example, the educational level of mothers among Hungarian higher education students is already higher than that of fathers. Two processes are connected: the educational level of mothers, regardless of the proportions within the entire population, is already higher than that of the fathers among university students. In addition, the proportion of women among students is higher than that of men. This can have significant effects on the social status of families, on the process of status attainment, and on mobility.

The phenomenon is primarily detected in the literature regarding the increase in the proportion of female students. Only few authors focus on social status, status attainment and mobility processes. Beller (2009) specifically emphasizes that when measuring family class background, just like in mobility research, only fathers’ class characteristics are taken into consideration, although families are becoming more and more complex and mothers’ participation in the labor market is increasing. Blanden (2013) also points out that ignoring the role of mothers does not show a complete picture of, for example, intergenerational class mobility.

Zsuzsa Blaskó (1999) specifically argues that the social status of the mother (measured by her educational attainment) has a stronger influence on the amount of cultural capital arising from the child’s own activities than the social status of the father (measured by his educational attainment) (Blaskó, 1999, p. 4).

Method and pattern, limitations

This paper analyzes the databases of recent graduates of the Hungarian Graduate Career Tracking System in the 2010–2021 period. The applied method is statistical secondary analysis, the analyses presented in this paper are determined by the structure and data content of the DPR databases.

This also means that the sample selection, or more precisely, the specifics of the created samples, are not shaped by a systematic sample selection, because the central organizations participating in the DPR, Graduate Career Tracking System (Educatio Kft., then the Educational Authority) and the participating higher education institutions strove for a comprehensive data collection based on their own databases. The composition of the created samples was shaped by the composition of the actual respondents. It was compared to the main

characteristics of all the recent graduates contacted with during the finalization of the database, and it was the basis how the annual samples and databases were weighted.

From 2010 to 2019, the Graduate Career Tracking System aimed at reaching the entire range of students who obtained their pre-degree certificate stating that all course-units have been completed, one, three, or five years before the year of the survey, and from 2019, those who obtained their pre-degree certificate stating that all course-units have been completed one or five years earlier (in bachelor, master, and undivided programs). The data collection was carried out by the higher education institutions participating in the national DPR, based on their own address lists (Veroszta, 2015).

The anonymous responses to the online data collection were and are collected and managed by the institutions, the institutional databases with a uniform structure were merged, and finally they were cleaned and weighted by Educatio Nonprofit Kft. and then by the Educational Authority. The period since 2010 shows that the initial, relatively high willingness to respond (between 15-25%) has dropped significantly, the initial samples of approximately 20-25 thousand people have decreased to 8-9 thousand by today. The analyses of this paper, based on methodological considerations, focus on the „year of the data collection” and not on the „year of graduation”. Both are possible paths, the analyses based on the DPR databases show examples of both options. What methodologically more problematic is the merging of the graduates who have graduated in different years into one data base – regarding this, several concerns may arise, because the data collection is not longitudinal panel research, i.e. the „merge” of the years is problematic. This paper performs the analyses based on the „year of data collection” and not the „year of graduation”. The paper considers students as „mobile” who, compared to their parents’ education, obtained a higher degree by *graduating from university*, i.e. who can be characterized as having „intergenerational mobility”. They are the ones who were „first-generation students” when they were university students, and a significant part of them were also „non-traditional” students. Although mobility is primarily measured in relation to the social status of fathers, the educational level of mothers is also pondered in this analysis.

The lack of information in the database on certain variables resulted in several limitations. There was no data on institutional habits and cultural capital, thus, they could not be evaluated. Furthermore, the occupational homogeneity of recent graduates and their parents can only be compared to a limited extent (through the „dynasty effect”). Finally with no data on institutional variables, it was not possible to compare higher educational institutions. Consequently the paper is focusing on intergenerational mobility between field of studies.

Hypotheses

The hypotheses based on the analyzed literature frameworks are as follows:

- H1: the typical processes of structural and individual mobility can be identified. It is expected that among the possible types of mobility, structural mobility is more likely to be found during the expansion period, while after the expansion larger differences due to the individual mobility effect are assumed. In this sense, the effect of expansion increases mobility in an undifferentiated way, and then the moderation of expansion results in another differentiated increase in mobility. An essential element of the structural effect is that the educational level of the parents also moves upwards, but it does not stop even after the expansion slows down.
- H2: significant differences prevail between fields of study in mobility processes. MMI and EMI hypotheses can also be analysed and verified in the area of inequalities as well as mobility paths and opportunities. Quantitative inequalities are abundant between the areas, the mobility differences of the fields of study are also qualitative. The proportion of those coming from more advantageous positions, in this case those from graduate families, is higher in the more advantageous fields of study. These inequalities, partly as inequalities of cultural origin can be identified between the fields of study, and additionally intergenerational reproduction of school advantages can be observed.
- H3: ambivalent „dynastic” effects to prevail are expected, in some fields of study the effect of the „family pattern” is associated with high status and prestige, while in other areas the „family pattern” compensates for the low status and prestige of occupations.

Results

The authors study intergenerational mobility in Hungarian higher education, between 2010 and 2021. Intergenerational mobility is expected to be mostly shaped by the expansion of higher education. The data presented in this paper refer to the situation of Hungarian higher education around the expansion and after the expansion.

Higher education numbers culminated between 2004 and 2008 (depending on the program), after this time due to several factors (demography, higher education policy), a relatively rapid decline took place, and by 2014, ratios before the expansion can be observed in student numbers and proportions (Híves & Kozma, 2014).

If the expectation expressed in hypothesis H1 were to prevail, then the proportion of first-generation students would increase rapidly until approximately 2013, and then it would decrease after the expansion runs out. Let's see how, in comparison, over more than a decade, the proportion of parents with a degree has developed in the case of recent graduates (Table 1.).

Table 1. Percentage of parents with a degree, by years, %

	Father	Mother
2010	25.9	25.7
2011	32.4	35.1
2012	33.8	35.6
2013	23.7	29.0
2014	33.7	37.0
2015	34.0	38.1
2016	33.7	39.2
2017	35.4	40.6
2018	36.6	42.3
2019	38.1	38.0
2020	36.1	42.5
2021	36.1	42.2

(Source: Graduate Career Tracking System, 2010-2021)

Two processes can be observed: one is a trendless fluctuation, regardless of the gender of the parents. However, during the studied period the change is linear, i.e. compared to 2010, the proportion of parents with a degree increased by almost one-third in the case of fathers, and by four-tenths in the case of mothers. Trendless fluctuation mostly occurs in the first third of the studied period, after this time a relatively linear increase can be detected. It also means that the effect resulting from the expansion of higher education only partially prevailed.

Another important phenomenon is the effect of the educational level of fathers and mothers. The data show that the educational level of mothers tends to be higher than that of fathers. This can have several consequences. Regardless of who determines the „social status” within the families, the higher educational level of the mothers overrides the traditional status-determining positions, despite the men/fathers.

Since the educational level of the mothers in the analyzed sample of the Hungarian recent graduates is more decisive today than the educational level of the fathers, its implications must be taken into account. In addition to the educational level of the parents, which is also an indicator of social mobility, it is very important how the „dynasty effect” develops among recent graduates, i.e. what proportion of the graduates is in a similar field in the family of the respondents (Table 2.).

Table 2. Percentage of family members with a degree in a similar field, by years % (parents and grandparents together)

	Yes, between parents and grandparents	Yes between only parents	Yes, between only grandparents	Together
2011	4.6	11.9	2.3	18.8
2012	4.4	11.9	2.2	18.5
2013	4.4	11.7	2.2	18.3
2014	4.6	11.8	2.1	18.5
2015	4.8	11.8	2.5	19.1
2016	5.1	12.1	2.6	19.8
2017	5.2	12.3	3.2	20.7
2018	5.7	12.0	3.0	20.7
2019	4.1	10.8	2.8	17.7
2020	4.7	9.9	2.0	16.6
2021	4.9	10.1	2.5	17.5

(Source: Graduate Career Tracking System, 2010-2021)

In 2010, the question was presented differently, it cannot be compared.

It is very noticeable that in the case of the examined Hungarian recent graduates the proportion of graduates in a similar field hardly changes, i.e. the „dynastic effect” is characteristic of only one fifth of the students. Considering higher education as a whole, this is a relatively low indicator and does not globally prove the prevalence of „dynastic” effects in higher education. In addition, it can be observed that the proportion of people with similar qualifications within families is relatively constant, even taking modest differences into consideration.

However, the situation is different in some fields of study and specific professions. This phenomenon will be analyzed below.

As it has already been mentioned, there was a continuous increase in the proportion of parents with a degree in Hungarian higher education during the studied period. It was partly the result of expansion and partly the change in parents’ education. At the same time, the proportion of graduates in the parents’ age groups is much lower than among recent graduates.

Even at the level of the basic distributions it indicates that higher education is relatively closed, since the children of parents with a degree have a higher chance of admission. There are significant differences in the proportion of parents with a degree by field of education (Table 3.). In the past decade 10-15 fields of study were distinguished in Hungarian higher education, and they are close to the more commonly used international classifications (International Standard Classification of Education. Fields of education and training 2013 (ISCED-F, 2013).

Several degrees or professions belong to each Hungarian field of study, thus fields of study have heterogeneous composition. Especially the medical and health sciences or law fields of study can be mentioned here, where, in addition to the high-prestige medical and law programs, less prestigious health and administration programs can also be found. The heterogeneous professional composition of the fields of study thus often hide the actual differences in recruitment, status and prestige.

Table 3. Percentage of graduate parents by field of study, %

	2010		2015		2020	
	Father	Mother	Father	Mother	Father	Mother
Agricultural science	20.1	18.0	30.1	32.9	32.1	38.1
Humanities	24.6	26.6	37.5	42.4	37.7	44.8
Economics	36.6	35.8	35.6	39.5	37.3	46.5
IT	27.0	28.0	36.5	40.5	39.9	46.3
Law	33.0	34.2	35.2	38.5	36.3	42.6
Political Sciences					30.6	38.8
Technology	20.9	21.8	35.1	38.9	37.5	42.7
Arts			52.3	56.8	40.7	48.1
Art communication			40.8	50.0	25.0	41.7
Administrative, law enforcement and military			24.4	26.9		
Medical and Health Sciences	18.4	21.8	37.5	43.2	38.3	40.8
Teacher's Training	11.5	14.5	24.3	27.8	25.7	30.2
Sports Science			29.4	31.1	28.1	46.9
Social Science	22.4	15.6	32.9	38.1	37.3	45.5
Natural Science	30.3	27.3	36.1	41.6	34.9	44.9
Religious education			42.4	30.3	27.5	27.5
Total sample	25.8	25.7	34.1	38.3	36.1	42.5

(Source: Graduate Career Tracking System, 2010, 2015, 2020)

The number and names of the fields of study have changed several times during the studied period (empty cell: the fields of study did not exist in the year of the survey or there is no data). The Chi-square test shows significant differences in every studied year ($p = 0.000$)

The statement of the authors about the proportion of parents with a degree is also valid for the fields of study, i.e. no structural effect that can be verified with the expansion of higher education (a dynamic increase in the proportion of people from families without a degree) can be analyzed. In fact, an opposite trend can be seen: the increase in the proportion of parents with a degree. *It shows the slowing down of the intergenerational mobility processes.* It corresponds to literature data on the strengthening of immobility (Erát et al., 2022). Another important conclusion was the dynamic increase in the proportion of mothers with a degree in the studied decade (see footnote 4). For the cross-tab analysis, for the sake of clarity, three years of the studied period have been highlighted: the beginning and the „middle” of the DPR (Graduate Career Tracking System) data collection as well as 2020).

The cross-tab analysis clearly shows the differences between the fields of study. As a general trend, it can be observed that the differences in fields of study increased during the studied period. In 2010, the proportion of parents with a degree was high in relatively few fields of study (economics, IT, law, natural science), these fields increased the proportion of parents with degrees in the entire sample.

In comparison, in 2015 and 2020, some of the fields of study (humanities, IT, medicine and health sciences), can be characterized by a higher proportion of parents with degrees than the average for the fields of study, the weight of „average” fields of study is significant (economics, law), while in two large training fields, the proportion of parents with degrees is very low (agricultural sciences and teacher training fields).

After 2015, it can also be seen that in some fields of study (humanities, economics, social sciences) there is a significant difference between the proportion of fathers and mothers with graduate degrees. In the smaller fields of study, such as art, art communication, sports science and religious education, just because of the low number of graduates trend-like processes cannot be seen, and very strong annual fluctuations are experienced.

Overall, it can be said that in the studied decade, the proportion of parents with degrees among recent graduates increased continuously and significantly, i.e. *the extent of intergenerational mobility decreased* (Erát et al., 2022). However, in the case of recent graduates of two fields of study, *in agricultural and especially in teacher training significant intergenerational mobility can be observed.*

As it has been mentioned, the fields of study include several bachelor, master and undivided courses. With the exception of agricultural and especially teacher training, the other fields of study are relatively closed, with decreasing intergenerational mobility. In the case of two professions, the proportion of parents with a degree is exceptionally high. In the studied period, almost half of the parents and by 2020, more than half of the mothers of the graduated *lawyers* had a degree.

The number of graduated parents in 2010, 2015, and 2020, was as follows: 43.5% of fathers and 44.5% of mothers (2010), 41.8% of fathers and 43.9% of mothers (2015), 48.4% of fathers and 56.0% of mothers (2020). In the case of young doctors, we see an even greater degree of closure; 40.2% of fathers and 44.% of mothers (in 2010), 57.8% of fathers and 64.1% of mothers (in 2015), 66.9% of fathers and 66.7% of mothers (in 2020) had a graduate degree.

The proportion of parents with a degree shapes intergenerational mobility, and in many ways the proportion of parents and grandparents with similar (school, professional) qualifications is at least as important (after 2019, the DPR data collection took the entire kinship into account when studying the „dynastic” effect). The role of family members with similar qualifications is also significant in career choice and subsequent professional socialization, especially in the field of indirect professional socialization (Bernáth, 2016; Tódor, 2020; Susánszky & Szántó, 2002).

The influence of family patterns helps career choice and results in an early identification of the chosen profession, and significantly shapes the possibilities of intergenerational mobility (reduces intergenerational mobility in the case of high „dynastic” effects). Based on the basic distribution of the entire sample, it can be seen that close family members with similar qualifications occur in the families of every fifth or sixth student and recent graduate. Let’s see how the effect of family patterns developed over time and by field of study (Table 4.).

Table 4. Proportion of family members with a degree in a similar field, parents and grandparents together, by years %

	2010	2015	2020
Agricultural science	29.7	24.7	18.7
Humanities	23.8	17.1	9.2
Economics	25.3	20.1	18.8
IT	16.4	12.5	10.6
Law (and administration)	25.7	16.1	12.6
Political Sciences			18.4
Technology	26.0	23.4	21.9
Arts		21.1	16.7
Art communication		13.2	
Administrative, law enforcement and military		16.0	
Medical and Health Sciences	26.8	23.9	21.8
Teacher’s Training	19.7	25.0	22.6
Sports Science		14.5	7.8
Social Science	11.5	10.8	7.3
Natural Science	23.3	15.2	10.5
Religious education		20.5	5.9
Total sample	23.3	19.2	16.6

(Source: Graduate Career Tracking System, 2010, 2015, 2020)

The number and names of the fields of study have changed several times during the studied period (empty cell: the field of study did not exist in the year of the survey or there is no data). The Chi-square test shows significant differences in every studied year ($p=0.000$)

The most striking general phenomenon is the declining role of the „dynastic influence” in the studied period. It seems that the increase in the proportion of parents with a degree has reduced the proportion of parents with similar qualifications in most fields of education, together with the prevalence of family patterns and „dynastic effects”. However, strong „dynastic effects” can be seen in some fields of study, which are only partially related to the proportion of parents with degrees, moreover, this family pattern occurs even with a low and a high proportion of parents with degrees.

The proportion of parents with similar qualifications far exceeds the sample average (even if in a decreasing extent) in the fields of agriculture, technology, medicine and health sciences, as well as teacher training, i.e. as if the existence of „*engineer; doctor; teacher*” dynasties in these fields can be found (which corresponds to also the socio-historical characteristics of these professions). It seems to be particularly outstanding if the corresponding data of those with law and medical qualifications are taken into consideration.

In 2010, 30.7% of the families of newly graduated lawyers and 46.5% of the families of doctors had similar qualifications. In 2015 and 2020, these figures decreased radically, but they are still well above the average for graduates: in 2015, the proportion of young lawyers with similar qualifications was 18.8%, in 2020 it was 15.5%, while in the case of young doctors it was 29.2% and 23.6%. The degree of the decrease is striking, but it is a general phenomenon, it occurred in addition to a significant increase in the proportion of parents with a degree (according to the authors’ assumption, the DPR’s method of data collection may also have influenced the answers).

There is one more phenomenon that should be mentioned: although the existence of „*engineer; doctor; teacher; lawyer*” dynasties are very clear, the professional commitment and career choice of agricultural engineers and teachers (in their case, several professions can be included) coming from families of lower social status is supported by the dynastic influence of the families, they are able to counterbalance the negatives of low-status and prestigious professions. In contrast, in the case of high-status and prestigious lawyers, engineers and doctors, the „dynastic background” further strengthens the effect of the perceived or actual advantages.

Conclusions

The conclusions relate to the above mentioned hypotheses. Hypothesis H1 about the structural effect related to the expansion expected that this effect would contribute to intergenerational mobility, since students with a lower social status are more likely to enter higher education.

This hypothesis was only partially confirmed, because intergenerational mobility decreased, and the proportion of parents with degrees increased very quickly during the studied period. However, the increase in the educational level of the parents cannot be found, i.e. not only the increasing educational level of the parental age groups is behind the increase in the proportion of parents with a degree. At the same time, a significant effect of mothers’ education can be detected in the studied population as well.

Hypothesis H2 was confirmed, both regarding the MMI and EMI effects. The results show that the MMI phenomenon, i.e. the proportion of people coming from graduate families increased significantly during the studied period. The EMI effect has also been confirmed because there are very important differences between the fields of study. It means that families who have degrees can teach their children effectively, and at the same time they find the most beneficial fields of study in the higher education.

Hypothesis H3 was confirmed regarding the effect of family patterns. However, one phenomenon should be pointed out, and this is the decrease in the strength of the „dynasty effect”. Except for doctors, it seems that the goal to obtain a similar education is not so important, but it is rather the advantageous diplomas and professions that are attractive to parents with a degree and their children. The duality of the dynastic effect was also confirmed in some fields of study: the effect of the „family pattern” is associated with high status and prestige, while in other fields the „family pattern” compensates for the low status and prestige of the occupations.

Based on the results one more „tentative hypothesis” should be formulated: it concerns the role of mothers. Literature dealing with social status, stratification and mobility focuses on fathers’ education, occupation and class status. However, the here presented results show that the increase in women’s education and its impact on their children’s further education raises the need to review the previous models, not only with regard to the social status of families, but also with regard to the influence of the actors who play a role in mobility.

Acknowledgement: We thank Johnathan Dabney for the English language editing.

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