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Social Mobility of Graduate Men and Women. Women's Advantages in Higher Education and Disadvantages on the Labour Market

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Abstract. In this paper, firstly the social background of boys and girls attending higher education is compared and, secondly, their later status after graduation is examined. Regarding boys' school mobility, it has been revealed, in line with our previous regional results, that the school mobility of boys is lower, and only the ones with better social background (parents with better qualifications) enter higher education. However, boys' more favourable background cannot be observed in majors with male majority. Our explanation is that boys are generally in minority in higher education, as there is a self-selection of boys. Due to this fact, they are in minority, and they are more selected concerning social background, as well (their background is better, so their social [school] mobility is smaller). Our further result is that there is a status inconsistency between girls' education and labour market position. According to our data, women's more favourable position in education can be observed in several aspects, but they are still in a disadvantaged position on the labour market. Women tend to be in a less favourable situation after graduation than men, and, in addition to wage disadvantages, horizontal and vertical segregation by gender was also detected on the labour market, which are partly at the bottom of wage disadvantages. Thus women seem to benefit less from the investment into higher education than men.

Keywords: higher education, gender differences, social mobility, quantitative research

Introduction

Two issues are dealt with in this paper: the social (school) mobility of boys and girls in higher education, i.e. the comparison of the social background of higher education students, on the one hand, and the later status of graduate men and

women according to gender, on the other. Our previous results from the Partium region[1] show that boys are in minority in higher education, and their school mobility is smaller; only the ones with better social and cultural background get into higher education. However, according to several research results, boys' later labour market position is more favourable than that of girls. As a matter of fact, boys will acquire a more favourable social mobility due to their advantageous labour market position, since the social background of girls and boys is similar in general (but not in higher education). In our previous research, this phenomenon was not investigated due to the lack of data related to the status gained later, and another limitation of our previous research was that we only had data from the Partium region, and not from the whole territory of Hungary.

In our paper, exploratory studies will be carried out on the basis of the two databases of the Graduate Career Follow-Up System.[2] The research was carried out at national level (Hungary), and we have data on graduate men's and women's status gained later, as well. We did not generally come up with preliminary hypotheses. But based on the comparison of the social background by gender, the large item number of the sample made it possible to check whether the self-selection of boys (entering higher education with better social background) also happens in 'masculine' majors, where boys are in majority, or only in the majors where girls are in majority. We can also examine the reason for lower monthly net income of graduate women. In our linear regression model – based on the literature – we included several independent variables in four steps. We have attempted to check whether the boys' better social background and the horizontal and vertical segregation by gender in the labour market are at the bottom of wage disadvantages of graduate women, or after controlling these effects there still is an unexplained part of women's wage disadvantage.

Status inconsistency between women's position in education and labour market

Women's advantage in education can be found in several dimensions. On the one hand, they are in majority in secondary schools and in higher education, both in developed countries and in Hungary. Even at high prestige university faculties, such as medical, law and economics faculties, girls tend to be in majority (Székelyi, Csepeli, Örkény and Szabados 1998; Bae, Choy, Geddes, Sable and Snyder 2000;

1 Partium is a historically cross-border region of Hungary, Romania and Ukraine. In present-day Hungarian usage, *Partium* only refers to the Romanian part of the historical region, but we have defined it differently, by concerning the historical usage of the *Partium* term.

2 Educatio Társadalmi Szolgáltató Nonprofit Kft. TÁMOP 4.1.3. project of high priority called: The systemic development of higher education services: Graduate Investigation 2010, Students' Motivation Research 2009.

Róbert 2000; Freeman 2004; Buchmann, DiPrete and McDaniel 2008; Fényes 2010). On the other hand, based on the data from the Partium region, it was shown that girls' school mobility was higher than that of boys who get into higher education only if their social background is more favourable (Fényes 2010). This tendency seems to be confirmed by American results, as well (Buchmann and DiPrete 2006). It is also worth mentioning that the acquired cultural capital of girls in secondary schools and higher education is bigger, they read more, their cultural consumption is larger (theatre, museum, cinema and concert attendance), which may also contribute to their future social mobility (DiMaggio 1982; DiMaggio and Mohr 1985; Fényes 2010). Moreover, girls are in the lead in several patterns of informal learning (Fényes 2010), and their secondary school efficiency is better (better school achievement, more language exam certificates, larger participation in inter-school competitions, more challenging plans for further study). Even in higher education, girls' outdo boys in some aspects, such as language exam certificates and plans for further study after graduation (Fényes 2010).

Despite their high rate in education, girls are still in a disadvantaged position on the labour market. Status inconsistency can be observed between women's qualification and their labour market position (Ferge 1976). Women's high level of qualification can be seen as a waste resource, which does not yield sufficient value in proportion, or fulfils its productive function only through transmissions, which is in a way both a personal and social waste of resources. Both in entering the labour market, and within the mobility on the labour market, women seem to be in a disadvantaged situation, and this fact may trigger conflicts not only for the individual but also for society as a whole by not making use of resources at disposal (Koncz 1994b).

In connection with status inconsistency, two questions arise: 1) Why are women in a disadvantaged position on the labour market, and 2) why are women in majority in higher education if the rate of return for them is actually lower?

Reasons for women's disadvantaged position on the labour market

In theory, women's employment opportunities should be increasing on the labour market due to their better qualifications, but in real life it does not seem to be happening. What actually is at the bottom of the problem, is that qualification is only one of the determinants of the favourable labour market position.

Horizontal and vertical segregation by gender on the labour market are partly responsible for women's less favourable labour market position. Jobs by horizontal segregation are more and more 'feminised' and 'masculinised,' and, according to vertical segregation, women tend to be employed in managerial positions in a smaller number. These seem to be relevant, because these facts do play a part in the fact that women are employed in underpaid jobs, and the prestige of their profession and their salaries are low.

Regarding the demand of the labour market, according to the classical feminist approach, one of the reasons for women's lower salary is the diverse evaluation of 'feminine' and 'masculine' jobs, which is as a matter of fact disadvantageous for women, not to mention the way household jobs are estimated in general. Masculine jobs are held in high esteem by the market. The prestige and esteem of jobs held by women have been decreasing due to the massive influx of women, and the reverse has also been taking place, women are taking up lower paid jobs to a large extent (Ferge 1976; Koncz 1994a). Besides, according to the hierarchy theory, the emergence of feminine and masculine jobs is socially determined and not given by nature, and it is actually not the content but the status of the job that is determining whether a job is done by men or women (Belinszky 1997).

The other reason for lower wages is that the rate of women in management positions is lower. This is the phenomenon of vertical segregation. Its reasons can be ascribed to the intrinsic personality characteristics of women, organisational causes, and combined causes both in the individual and the organisation (for details, see Nagy, B. 1997, 1999, 2001).

Another explanation for the lower wages earned by women is that women own less human capital. What the human capital theory (see Schulz 1998) implies is that women tend to invest less into qualifications that could be useful on the labour market (e.g. they participate in job trainings in a lower rate than males), since they are much more engaged in household and family matters than men. Besides, lower wages can also be due to the fact that housewives, even with high qualifications, are not making use of their human capital. Their human capital has been decreasing during the time spent at home as housewives, thus its labour market value has also reduced. However, it can be detected that only fifty percent of the wage differences between the two sexes is due to the difference in human capital (Belinszky 1997, Nagy, B. 2011).

Women's adverse labour market position can also be attributed to the fact that employers prefer men with a steady presence on the job, and, according to gender stereotypes, they think that women are less committed to their jobs due to their family engagements. This can be described as one of the cases of gender discrimination at the workplace (Nagy, B. 2001). Employers are frequently on the opinion that "women from the outset plan to spend less time in employment thus their labour market aspirations are less serious" (Nagy, B. 2001, 36). Thus they are less frequently employed and their wage rise seems to be rather slow during their career. Their double load makes employers think that women can not become a reliable workforce and therefore they are not employed in certain jobs. Particularly, private businesses take up women to a lesser degree, as making profit is the primary concern in the selection of labour force. Thus, in the civil servant sector with lower wages feminisation is taking place (Koncz 1994b).

The reasons of female majority in higher education

The second issue related to status inconsistency concerns the reasons of female majority in higher education. The question is why women are in majority in higher education when their labour market return is much less, and what the reason for boys' self-selection is.

One of the possible reasons for female majority in higher education is that many of the boys do not even reach the tertiary level of education. As the self-selection of boys is taking place, they pursue their studies in other types of secondary education wherefrom there is no straight road to higher education (for example vocational schools). Self-selection is affected by the gender of students, namely whether they have applied to grammar school or higher education at all (Nagy, P. T. 2004). In higher education, the self-selection of boys can be observed, thus they are in minority in the training, and their social background seems to be better. Boys with disadvantageous social background can be found in vocational schools (Fényes 2010).

Another explanation for female majority in higher education can be that girls much more identify themselves with 'credentialism' (using the term introduced by Miller and Roby 1974). They believe that having a degree (a document) will be more conducive to their success on the labour market compared to boys who are rather 'status-seekers' (based on evolutionary theory, there are sex differences in the strength of the status striving motive; see Buss 2008). Presumably, by identifying with the traditional breadwinner role, boys are much more ambitious to earn money as soon as possible, and this is why they do not enter higher education.

Further explanation for the female majority in higher education can be that the relative return of education for girls has increased as the wage disadvantage, discrimination, horizontal and vertical segregation by gender have been decreasing on the labour market. Nevertheless, boys still seem to be in an overall advantage (DiPrete and Buchmann 2006). According to another economic explanation, the female wage advantage of higher education is bigger compared to secondary education, especially amongst young women. Boys can have decent job opportunities even with secondary qualifications (Bae et al. 2000; Jacob 2002).

The female majority in higher education can also be attributed to the fact that girls' secondary school efficiency is better. As they are more efficient in secondary education, they are keen on studying, and learning in itself is important for them, thus presumably more of them plan to study at tertiary level. As it was shown by our previous research, female students in secondary schools gain better performance averages, obtain more language exam certificates, participate in greater numbers at student competitions, and they are more ambitious concerning further education plans than boys (Fényes 2009).

Michelson (1989) comes up with several explanations for the question why there are so many women in higher education when the financial return they receive is

considerably smaller. These are: 1) the female reference groups (the occupational structure segregated by gender, women career job opportunities are taken into consideration regarding the return of education); 2) unrealistic expectations (women tend to be more optimistic about the future and underestimate their labour market disadvantages, and they also expect their husband to contribute to household chores on an equal term); 3) availability of high status husbands[3] (career motivations are secondary to good marriage and financial and social security) and 4) gender role socialisation (external approval seems to be more important for women, and the role of the 'good little girl' also contributes to their more efficient educational performance).

But we have to mention that girls' specific personality traits mentioned by Michelson and their better performance at secondary level could have been observed in the 1950s. So these facts do not really explain why the rate of women has increased considerably in higher education over the past decades. Taking everything into consideration, the question why there are more women in higher education when the financial (labour market) return they achieve is much smaller than that of men, is only partly answered. It is also a question why one's qualification does not really predict the presumable status. The lack of inequalities in education seems to obstruct reasoning (Jacobs 1996).

Previous results concerning boys' and girls' school mobility

At the time when the rate of girls was lower at the higher levels of education, their social (school) mobility was also lower than that of the boys. In Hungary, the social background has considerably affected the qualification of girls (H. Sas 1984) as it happened in other developed countries, as well (Alexander and Eckland 1974). Thus girls' social background was better in higher education than that of boys. But due to the influx of girls into grammar schools and tertiary education, girls with adverse social backgrounds entered higher education, moreover, it can be expected that recently their social background has been less favourable.[4]

Our earlier, 2003 and 2005 research results from the Partium region (Fényes and Pusztai 2006; Fényes 2010) reveal that among first year university and college students the boys' parents were more educated, their material background was better, the type of location was more favourable, thus boys' social (school)

3 In Hungary, regarding the current trends in the selection of partners, aspirations for homogeneity can be observed especially in qualification (Bukodi 2004).

4 The girls' higher school mobility nowadays is demonstrated by US data (see Buchmann and DiPrete 2006).

mobility was lower. In the fourth year students' database, the parents' education of both boys and girls was similar (perhaps due to the expansion of education or the drop-out of the students). The type of location of girls in the fourth year was similar to that of boys (perhaps the girls have moved), it was "only" the material background of the boys that was more favourable. In order to interpret this phenomenon, the rational decision making model was introduced for deciding on further education. Only boys with favourable background were supported by their families to pursue further studies, whereas girls with adverse material backgrounds still participated in higher education. Besides, it can also be supposed that boys and their parents with similar adverse material conditions rather decide on vocational schools after primary schools, due to their lower costs, in order to have jobs sooner.[5]

The further, 2008 and 2010 results also gained from the Partium region showed that boys' mobility in higher education was lower at that time, too. Whereas in Bachelor's training courses, boys' background was better in almost every indicator, such as parents' education, reading habits, the family's cultural assets, the objective and subjective material position of the family. In Master's degree courses, only the fathers' education, the subjective material position and the type of settlement of the residence place were more favourable. Thus girls attempted to enter Master's degree courses when their background was much better, partly due to their lack of confidence, whereas boys' background was rather similar at the two levels of training courses, and this is why the difference in social mobility by gender is smaller in Master's degree courses than in Bachelor's training, although girls' advantage can also be detected there, as well (Fényes 2012).

It should be noted that, according to Treiman's (1998) industrialisation hypothesis, in modern societies, it is through education that social origin has an effect on the status achieved, and the direct effect of social origin is smaller. His further hypothesis is that future status is strongly influenced by education, which implies that modern societies have become more and more meritocratic. However, in the case of boys, the relationship between qualification and future status is weaker. Presumably, lower male mobility is related only to school mobility, and might not be relevant to the actual social mobility. The novelty of this paper can be that the later labour market position of graduate boys and girls is also examined.

As opposed to Treiman, Boudon (1974) has pointed out that, whereas a tremendous expansion took place in education in developed countries in the 1960s and 1970s, and more and more people graduated from higher educational

5 Gender differences in social capital were also examined in a previous paper (Fényes and Pusztai 2006). Our results show that boys' social capital (weak and strong bonds) was smaller than that of the girls. Regarding useful connections, boys did not come with more than girls, in contrast with other elements of the social background.

institutions, it still can be observed that graduates were not necessarily able to find high prestige jobs. Inequalities have shifted a level above, and it is not in qualification but in the later labour market position where differences in social origin and gender can be detected.[6]

Databases and the variables examined

We used two databases of the Graduate Follow-up System in the analysis: the *Students' Motivation Research 2009* and the *Graduate Investigation 2010* databases. The students' motivation research covered regular full-time BA, BSc students and 'undivided' college and university students in 2009 (N =7,835). The research was carried out at national level (Hungary), covering every grade, in contrast with our previous regional studies. The sample was representative according to majors, grades and gender, and proportional quotas were created at various faculties. The number of students per faculty was 80–200. Based on selecting the faculty in the first place, the most popular 70 faculties were put into the sample, and only one dominant area of training per faculty was examined.

In the *Graduate Investigation 2010*, the 2010 position of university and college students, who graduated in 2007, was examined. The members of the samples were students from all higher educational institutions in Hungary in 2007, taking part in Bachelor's and other trainings, providing degrees at every faculty and in all forms of financing. Using simple random sampling, the item number of the sample was 4510. We selected only full-time students (N=2,793) in order to be able to make comparisons with the previous research and the 2009 study of students.[7] The samples of graduate research covered students from ten areas of training including all the institutions of the training courses. The sub-samples of the institutions were not proportional, a larger number of students were interviewed in institutions with fewer numbers of students, but this was corrected by means of weighing later on in the database.

Regarding our research topic, it should be noted that the rate of women among full-time students was as much as 53% between 2005 and 2010 in Hungary, according to the OKM educational statistical data. Here, in the 2009 research, it is somewhat less (50.44%) than that and in the graduate research, the rate of

6 Blaskó (2008) pointed out that in Hungary the employment opportunities of career-starters are in relation with the social strata they come from even in case of identical qualifications. Social origin has a direct impact on later status, and these trends have not much changed after the change of the system in 1989.

7 The selection of full-time students was also more reasonable considering their later labour market position, because the labour market position of part-time students is different in many ways and to a large extent from regular students, and this fact could have made the interpretation of the data more complicated.

women was slightly higher (60.6%), so there might be some distortion in the samples. In our previous Partium research, the rate of women was also somewhat higher than it was shown by the national data at the time of the interviews.

The variables examined are: 1) gender; 2) training area; 3) social background (the education of fathers and mothers of the persons questioned at the age of fourteen; type of settlement of the residence place; and the average financial conditions of the family at the same time); 4) the data related to the 2010 status, such as the net monthly income, other net benefits per month, the net monthly income of the household, the average number of members of the household, the type of settlement of the present location, the section of the job and the type of the business of the present/last job, and, finally, the present assignment. In this research, social background was examined only by the above variables in contrast with our earlier regional investigations where considerably more variables had been available.

In our linear regression model, the dependent variable was the monthly net income of graduates. Among the independent variables, besides the gender of graduates (1=men, 0=women), mothers' and fathers' qualification variables were included, and both variables were dichotomised according to whether parents had gained a higher education degree (diploma) or not. Concerning the section of job, we differentiated between education, health and social provision (labelled by 1) and other fields (labelled by 0). Concerning the type of business, state, local self-government and non-profit companies were marked by 1, and other types were marked by 0. Concerning the position, we have differentiated between employees, entrepreneurs, self-employed workers (labelled by 1) and managers (labelled by 0).

Analyses and results

School mobility, the social background of boys and girls in higher education

As it can be seen in Table 1. and Table 2., the parents of students graduated in 2007 have more vocational and secondary vocational school qualifications and fewer university degrees than in the 2009 research. It is noteworthy that the social background of the generation some years younger seems to be more advantageous, and after the slow-down of the expansion in education, the signs of social closing down can be observed. Thus, in general, the social mobility of higher education students seems to be decreasing. In the databases, it can also be seen that fathers hold higher education degrees to a larger extent than mothers, thus the female advantage in tertiary education in the parents' generation cannot yet be detected.

Regarding gender differences, it can be seen that boys' fathers and mothers are more educated in both databases, thus the boys' background, just like in the earlier Partium-based research, seems to be more advantageous nationwide (in Hungary), as well.[8]

Overall, in line with the results obtained in the Partium region, and with the US data, boys' social background in connection with parents' qualification is more advantageous in both investigations, which implies that boys' social (school) mobility is lower, and they attempt to enter university level programmes if their socio-economic background is advantageous. A kind of self-selection can be observed among the boys, which is described in the theoretical part of this paper. Boys are in minority in higher education, and, regarding social background, their groups seem to be more selective.

Table 1. Mothers' qualification in the two databases by gender (percentages).

	Students' motivations research 2009		**Graduate investigation 2010**	
	Men	**Women**	**Men**	**Women**
Primary school or less	2.95	3.63	4.48	**5.31**
Vocational school, school of professional training, technical school	9.53	9.81	14.55	**15.16**
Secondary vocational school, secondary technical school (GCSE)	20.50	**22.56**	23.33	**27.79**
Grammar school	19.04	20.22	18.48	**21.77**
College	**27.26**	26.12	**25.07**	19.47
University degree	**17.45**	15.48	**11.71**	8.08
University degree with scientific qualification	**3.26**	2.19	2.38	2.24
N	3,892	3,967	1,093	1,695

Above and in the following tables, for Chi-square and Anova tests, significance below 0.000 is marked by ***, between 0.001 and 0.01 by **, between 0.01 and 0.05 by *, and NS is non-significant relation. In the present case, Chi-square is significant at ** and *** level.

8 As for the 2007 graduates, comparative data were available on the material situation of the families at the age of fourteen of the interviewed person, but no significant difference by gender was found. Besides, in the 2009 study on students, data were also available on the type of the settlement of the permanent location of the family at the age of fourteen of the interviewed person, but no significant difference by gender was found.

Table 2. Fathers' qualification in the two databases by gender (percentages).

	Students' motivations research 2009		Graduate investigation 2010	
	Men	**Women**	**Men**	**Women**
Primary school or less	2.20	3.19	2.66	2.67
Vocational school, school of professional training, technical school	17.79	**19.74**	23.51	**28.45**
Secondary vocational school, secondary technical school (GCSE)	24.71	**26.23**	28.83	**29.76**
Grammar school	10.12	**11.37**	10.01	9.78
College	**18.07**	15.95	**16.25**	15.17
University degree	**22.34**	19.71	**15.15**	11.08
University degree with scientific qualification	**4.79**	3.82	**3.40**	2.96
N	3,885	3,957	1,089	1,687

Chi-square is significant at level *** and *.

Social background at 'masculine' and 'feminine' majors

In this section, only the 2009 data were used, as the item number is larger, and this is why the students' social background can be more clearly examined by gender in the 'feminine' and 'masculine' training programmes, respectively. In order to separate the 'masculine' and 'feminine' training programmes (where men or women are in majority), the rate of men and women in fourteen training programmes have been established.

Table 3. The rate of men and women in various higher education training programmes (percentages).

	Men	**Women**	**N**
Agriculture	46.79	**53.21**	577
Faculty of Arts	28.40	**71.60**	1,141
Economics	37.05	**62.95**	1,301
Informatics	**92.33**	7.67	600
Law and management	40.08	**59.92**	504
Polytechnics	**80.23**	19.77	1,502
Arts	46.49	**53.51**	299
Arts inter-mediator	27.06	**72.94**	85

	Men	Women	N
National defence and military	**59.00**	41.00	100
Medical school and health care	38.51	**61.49**	509
Pedagogy	7.07	**92.93**	198
Sports	50.00	50.00	102
Social science	33.58	**66.42**	402
Science	44.83	**55.17**	551
Total	49.56	**50.44**	7,871

(*Students' Motivation Research 2009*)

Chi-square is significant at level ***.

As it is shown in Table 3., boys are in large majority in three training programmes, in informatics, polytechnics and national defence, so horizontal segregation can be found in tertiary training by gender. The number of students is 2,195 in the 'masculine' areas, which amounts to 28% of the total number of students. In the other training programmes, the rate of girls is 50% or even higher. The rate of 'masculine' majors is considerably lower than the rate of 'feminine' majors, but at "masculine" majors, men's majority is rather considerable. This is why it is possible that all in all the rate of girls is just slightly higher in the total sample.

Further on, students' social background is examined by making use of data broken down, and the question whether the boys' self-selection regarding social background can be detected at 'masculine' majors or only at 'feminine' majors, is analysed.

According to our data, at 'masculine' majors, self-selection cannot be observed, boys are in majority in these training programmes, and their social background is not more advantageous than that of the girls. The boys' background is similar to that of the girls and neither in the type of the settlement of the place of residence, nor in mothers' education were found significant gender differences. (This is why the data are not shown.) However, in the fathers' qualification, there is a slight difference (see Table 4.). Whereas boys' fathers' education at secondary level took place in secondary vocational schools, girls' fathers obtained GCSE in grammar schools, which refers to the girls' slightly more favourable background. Thus, it seems to be remarkable that girls tend to be admitted to "masculine" majors if their fathers' qualification is somewhat higher, and they opt for "feminine" majors if their background is not really favourable.

Table 4. Fathers' qualification in 'masculine' training programmes by gender (percentages).

	Men	**Women**
Primary school or less	1.06	**3.13**
Vocational school, school of professional training, technical school	20.36	20.89
Secondary vocational school, secondary technical school (GCSE)	**25.77**	19.84
Grammar school	10.26	**14.36**
College	17.88	17.23
University degree	20.47	21.15
University degree with scientific qualification	2.92	2.87
N	1,812	383

(*Students' Motivation Research 2009*)

Chi-square is significant at level **.

Table 5. Mothers' qualification in "feminine" training programmes by gender (percentages).

	Men	**Women**
Primary school or less	2.50	**3.52**
Vocational school, school of professional training, technical school	7.41	**9.74**
Secondary vocational school, secondary technical school (GCSE)	18.00	**22.36**
Grammar school	19.01	**20.15**
College	**28.39**	26.18
University degree	**20.64**	15.57
University degree with scientific qualification	**3.90**	2.32
N	2,078	3,583

(*Students' Motivation Research 2009*)

Chi-square is significant at level ***.

Table 6. Fathers' qualification in 'feminine' training programmes by gender (percentages).

	Men	Women
Primary school or less	1.54	**2.18**
Vocational school, school of professional training, technical school	15.53	**19.61**
Secondary vocational school, secondary technical school (GCSE)	23.78	**26.92**
Grammar school	9.99	**11.05**
College	**18.23**	15.81
University degree	**23.97**	19.56
University degree with scientific qualification	**6.42**	3.92
N	2073	3574

(*Students' Motivation Research 2009*)

Chi-square is significant at level ***.

As it shown in Tables 5. and 6., in the so called "feminine" training programmes – as in the case of the whole database – boys' parents are better educated, they only choose these majors with favourable background, thus boys' self-selection is happening in this case, and also, their social (school) mobility is lower. It can be seen that the male minority is the reason for social selection at the same time (boys' better background).[9]

Later status by gender

Further on, some of the variables are examined in the sample of the 2007 graduates, which indicate the social status at the time of the interview (2010). We were wondering if the status inconsistency between girls' position in education and on the labour market, formulated in the theoretical section, can be observed, and whether it is also possible to draw conclusions on boys' and girls' actual mobility based on the status achieved.

Table 7. The income data of the graduates and the number of persons in the same household by gender (averages).

		monthly net (thousand HUF)	other monthly benefits (thousand HUF)	total household net (thousand HUF)	Person per household
Men	Average	**159.33**	27.81	**284.01**	2.64
	N	601	397	480	1,066

9 There was no difference by gender in the type of settlement at the age of fourteen (the data are not presented for the lack of significance), in contrast with the results obtained in the Partium region where the village type of settlement was more characteristic of girls than boys.

		monthly net (thousand HUF)	other monthly benefits (thousand HUF)	total household net (thousand HUF)	Person per household
Women	Average	131.62	24.93	260.65	2.59
	N	1,047	645	834	1,645
Total	Average	141.73	26.03	269.18	2.61
	N	1,648	1,043	1,315	2,711
	ANOVA	***	NS	**	NS

(*Graduate Investigation 2010*)

An important component of the achieved status is the level of income. By means of the comparative averages, four variables have been examined by gender (see Table 7.). Whereas the other monthly benefits and the number of people in the household did not vary by gender, according to our expectations, boys' monthly net income was significantly higher than that of girls. It is noteworthy that the total net income of the household was higher in the case of boys, which actually contains the income of all members of the family, including women. Girls' estimation of the household income including the husband's income seems to be lower than that of boys, which may be due to the distortion of the estimation, or the changing patterns of partner relationships, as female university level graduates may choose partners with lower qualification.

In Table 8., the 2010 data on the type of settlement of the place of residence of the 2007 graduates can be seen, which can be one of the components of the present social status.

Table 8. Present type of the settlement of the place of residence by gender (percentages).

	Men	Women
Capital	28.96	**30.90**
County seat	**24.47**	20.70
Other town	**29.15**	26.81
Village	17.05	**21.35**
Abroad	0.37	0.24
N	1,091	1,686

(*Graduate Investigation 2010*)

Chi-square is significant at * level.

In our previous research, it was shown that local commitment is more characteristic of girls (Fényes 2010), and, according to this, the type of settlement of boys is more favourable among the graduates, as well (see Table 8.). Only women live in the capital in a somewhat higher rate. It can be presumed that a larger amount of girls remain in their original village than boys, and this is why the type

of settlement of boys' location is more favourable.[10] Boys' advantage is prevalent in this respect, and their status is more favourable regarding the type of settlement. As it was pointed out in the theoretical section, horizontal segregation by gender in the labour market may also contribute to the wage disadvantage of girls.

Table 9. The section of the present/last job of the interviewed by gender (percentages).

	Men	**Women**
Agriculture, forestry, game, fishery	**4.26**	2.50
Mining	0.39	0.12
Processing industry	**6.68**	3.00
Electricity, gas, vapour, water supply	**4.07**	1.00
Construction industry	**4.94**	2.37
Trade and repair	**8.81**	7.18
Hotel, bed and breakfast and catering	2.32	**6.06**
Haulage, storage, mail, telecommunication	**5.03**	2.94
Financial transaction	6.10	6.62
Real estate, economic service	1.45	**2.94**
Public administration, defence and compulsory social insurance	9.97	10.18
Education	8.71	**18.05**
Health and social provision	5.52	**13.49**
Other community, and personal services, other activities	**8.42**	7.56
Other	**23.33**	15.99
N	1,033	1,601

(*Graduate Investigation 2010*)

Chi-square is significant at level ***.

As it can be seen in Table 9., the rate of graduate girls is higher in the service sector, mainly in catering and economic services, the rate is somewhat higher in real estate, and their rate is remarkably high in education, health care and social provision. Gender distribution in the types of jobs is in line with the traditional division of labour and the traditional gender roles. The rate of women in the helping professions considerably exceeds that of men. The relevance of the above mentioned facts is that the social and material prestige of these jobs is much lower, contributing to women's disadvantaged position on the labour market, as we have pointed it out in the theoretical section of the paper.

Further information is provided on horizontal segregation by the type of business according to gender. As it can be seen in Table 10., the rate of women

10 This is in line with the fact that in the 2009 study on students no difference was found in the type of settlement at the age of fourteen by gender.

holding higher education degrees is significantly higher in the section of state and local self-government as well as in the non-profit sector, whereas the rate of men is higher in the competitive sector. This may also account for the lower level of salary earned by women. As it was pointed out by Koncz (1994b), it is men and not women who are preferred in the competitive sector mainly due to discrimination (see the theoretical section for details). In the state sector, where wages are lower, feminisation is markedly pronounced.

As it has been pointed out, vertical segregation by gender also accounts for the wage disadvantage of women, as women tend to be in minority in management positions.

Table 10. The type of business of the present/last job held by the interviewed by gender (percentages).

	Men	**Women**
Entrepreneur	2.80	**3.87**
Deposit company	2.12	**2.74**
ltd.	**44.26**	33.94
Stock company	**18.32**	13.16
Public utility	0.58	0.62
State	14.85	**19.21**
Local self-government	11.38	**19.40**
Non-profit company (foundation, association)	1.93	**3.62**
Other	3.76	3.43
N	1,037	1,603

(*Graduate Investigation 2010*)

Chi-square is significant at level ***.

Table 11. The position of the interviewed in the present/last place of job by gender, percentages.

	Men	Women
CEO	**5.36**	1.49
middle level manager	**11.02**	6.77
Other manager	**10.15**	4.84
Employee	69.64	**83.74**
Entrepreneur, self-employed	3.83	3.17
N	1,044	1,611

(*Graduate Investigation 2010*)

Chi-square is significant at level ***.

As it is shown in Table 11., the rate of female university level graduates is considerably higher in the employee position three years after the graduation, whereas men are in majority in management (and not only in CEO positions). Thus

vertical segregation by gender is prevalent on the labour market according to our data, as well, and it may also contribute to the lower wages earned by women.

Factors on balance

Further on, we will examine which factors are responsible for the lower monthly net income of graduate women in a frame of a linear regression model. First, we examined the effect of men's better social background on monthly net income, than we included independent variables concerning horizontal and vertical segregation on the labour market by gender. The independent variables were included in four steps.

Table 12. The effects on monthly net income of graduates in the frame of linear regression model (linear regression Beta coefficients).

Gender	0.206***	0.189***	0.16***	0.14***
Mothers' qualification		0.098***	0.078***	0.083***
Fathers' qualification		0.063***	0.042	0.41
Section of job			-0.109***	-0.099***
Type of business			-0.133***	-0.123***
Position				-0.141***
Adjusted R^2	0.042	0.061	0.106	0.125

(*Graduate Investigation 2010*)
Significance below 0.000 is marked by ***, between 0.001 and 0.01 by **, between 0.01 and 0.05 by *.

Our results (Table 12.) show that graduate men's monthly net income is higher than that of women, but the advantage of men is decreasing after including the other independent variables. As we supposed, after controlling men's better social background (measured by the qualification of parents), the advantage of males in income has slightly decreased. In the next step, we included two other independent variables, which represent horizontal segregation on the labour market (the section of job and the type of business). If the graduate people work in the field of education, health and social provision (and mostly women work in these fields, see above), it has a significant negative effect on income. Similarly, if someone works in state, local self-government or at a non-profit company (this is again mostly a characteristic of women), this has a negative effect on income, as well (compared to those who work at the competitive sector). Our results also show that the advantage of males in income is decreasing after controlling the effect of these two variables. Finally, we examined the effect of position on income. We have found that – not surprisingly – employees, entrepreneurs and self-employed earn less than managers, and the wage advantage of men has also

decreased after controlling the effect of this variable, as men are more likely to work in managerial position.

All in all, based on the results of our regression model, after controlling the effects of boys' better social background and horizontal and vertical segregation on the labour market (measured by the mentioned variables), there still is a significant unexplained part of men's wage advantage in the *Graduate 2010* database. The advantage of men can still be observed, and we can suppose that discrimination or other special characteristics of men and women can play a part, but the above hypotheses can not be controlled because of the lack of data.

Discussion and conclusions

In this paper, the social background of boys and girls in higher education is compared, on the one hand, and the later status after graduation is examined by gender, on the other. Regarding boys' school mobility, it has been revealed – in line with our previous regional results and with the US data – that the school mobility of boys is lower, and only the ones with better social background (parents with better qualifications) enter higher education. In the explanation of these results, we have pointed out that the self-selection of boys is taking place, namely, even when applying for secondary school, boys do not choose the type of secondary schools as much as girls do, and that provides access to obtaining a degree. Many of them get qualification in vocational schools. The lower rate of boys in higher education also accounts for the fact that the group of boys is more selected concerning social background than that of the girls in higher education, i.e. the boys' background is better. The fact that this process boils down to self-selection is also supported by our further outcomes, namely that the more favourable background of boys cannot be observed in majors with male majority, boys, even with adverse social background, manage to enter "masculine" majors, and in these majors, actually, the girls' social background is slightly more favourable. However, in other educational programmes with female majority (and as it has been mentioned, this applies to most of the majors), boys' background is much more favourable than that of girls. This explains the lower rate of boys' social mobility in higher education in all majors.

In the theoretical section of the paper, the reasons for boys' self-selection in higher education and the reasons for female majority in higher education have been outlined. Besides the question why girls are in majority when the return in the labour market for them is lower, has been analysed. This is in connection with the second topic of the paper, the status inconsistency between women's position in education and on the labour market. According to our present and previous data, women's more favourable position in education can be observed in several

aspects, but they are still in a disadvantaged position on the labour market, as it is revealed by both other and our own research results. Women tend to be in a less favourable situation after graduation than men, and, in addition to wage disadvantages, horizontal and vertical segregation by gender in the labour market was also detected, which are partly at the bottom of wage disadvantages based on the results of our regression model and in accordance with the literature. Three years after graduation, men's net income per month was considerably higher, and the rate of women in education, health care and social provision was much higher, where the wages are generally lower. Moreover, the rate of graduate women in the competitive sector was lower and higher in the public and the non-profit sector, which also accounts for the lower level of salaries. Finally, we have pointed out that three years after graduation, the rate of men in management positions was much higher than that of women, and this also applies to middle level and other managerial positions, not only CEOs. Thus status inconsistency does exist and women seem to benefit less from the investment into higher education than men.

Coming back to social mobility, our results suggest that the higher social mobility of girls presumably refers only to school mobility, and in the actual social mobility, in which the later status is also taken into consideration, the boys are in the lead, as the background of the boys and girls seem to be similar in general. It may also happen that the earnings of boys with secondary level qualification are higher than that of graduate girls gaining employment in the helping professions, which are underpaid and low-prestige. The findings of this paper can be relevant in various ways regarding gender differences in education and on the labour market. Relying on nationwide Hungarian data and based not only on the level of education, but on the status gained later on, we could examine social mobility of graduate men and women.

The limitation of our research was that we could not examine the whole status attainment process, as the qualification of the respondents' represented only one type, namely higher education students or graduate males and females. This is why social mobility was only examined by means of a simple methodology in our research. Further on, a more detailed (multilevel) analysis could be carried out concerning the school mobility of men and women, including the effects of faculty types on social mobility.

The other limitation is that our research is mostly exploratory, and only two hypotheses have been tested. The first hypothesis was that, due to the self-selection model at masculine majors, the boys' better social background will not be detected, because they are in majority in these majors. This was supported by our data. The second hypothesis was that at the bottom of the wage disadvantage of graduate women could be the better social background of males and the horizontal and vertical segregation on the labour market by gender, but there will still be an unexplained part of women's wage disadvantage. This was also supported in a frame of our regression

model. But we could not examine all effects on women's wage disadvantage, which is a limitation of our research. If more data had been available in the databases, we could have checked the effects of discrimination or other personal characteristics of women on wage disadvantage. So there are still tasks which could be done in order to examine the social mobility of men and women, and in order to explore the effects of other variables on the wage disadvantage of women on the labour market.

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