# Women in the World of Higher Education's Leadership in Hungary from a Territorial Aspect 

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#### Abstract

The aim of my essay is to demonstrate - using primary and secondary databases - the state of women and their opportunities in higher education in Hungary. Since the 90 s , several changes happened within domestic higher education. The expansive increase of the number of students; the appearance of private institutions and their new popularity, and the introduction of the Bologna system, brought several novelties into our higher education system which were working in a relatively closed, traditional, hierarchy up until then. These new developments present us with many different questions: Is mass education or elite training required? Are there more female leaders in private institutions than in state ones? Does a degree gained in a private institution have the same value as a degree from a prestigious state institution? However, as a fact it can be stated that higher educational institutions constitute the so-called intellectual elite, to which belongs a certain kind of prestige, and it's also a fact that this world has been closed for women for a long time. As a gender researcher, the examination of the latter is especially important for me. The questions I will try to answer in my presentation are: Are women able to make use of the opportunities offered by higher education, and if yes, in what way do they want to be involved in its management and transformation? Would they like to be leaders? Do they have the opportunity for this? Finally, can we observe the differences from the different regional aspects?


## I. Introduction

The transformation of the national higher education is a dynamic process that is still currently taking place. As active participants (students, instructors, or as a parent) we feel the weight of these changes. The nineties opened the "higher education market" for private institutions, so that not only the system had to come to terms with the expansive growth of the student population, but, also the expansive growth of private institutions. Moreover, not all male-female roles could remain unchanged because as more and more women are involved in higher education, more and more women now want to have a higher position in the educational system and they want the socalled "glass ceiling" to finally disappear.

## II. Methods

I would like to represent the higher education in Hungary, regarding the state of women in the world of higher education based on the 2001 and 2011 census data and other secondary databases (e.g. WP8 Report). Additionally, I present a questionnaire survey and results
of the interviews I made with women leaders of higher educational institutions. In my online questionnaire, I have asked nearly 500 students (from Dec. 2015 - Jan. 2016) from different higher educational institutions about their visions and plans of career and family, among other things.

## III. Results

In the first chapter of the study, I present how the proportion of those above the age of 25 changed, with the help of a ten-year, long time series examination. The secondary data was obtained from the Central Statistical Office's official census. The research was based on the results of the 2001 and 2011 census.


Figure 1. The proportion of graduates in the age group older than 25 years (2001) Source: own editing with the help of geomarketonline.hu, based on the 2001 census

As you can see in the first figure, Budapest has shown an extremely high value among graduates in 2001. Examining the $25+$ population, we can see Budapest's over representation on the above figure, while Pest, Győr-Moson-Sopron, Baranya and Csongrád are also prominent counties. Beyond the positive examples I would like to emphasize the negative ones as well, which can be seen in Nógrád, Szabolcs-Szatmár-Bereg, Jász-Nagykun-Szolnok, and Bács-Kiskun counties. Obviously, these data strongly implicated the evolution of the spatial distribution of higher education institutions. We can assume that there is a relevant and coherent relationship between the number of graduates and the number of higher education institutions in a county.


Figure 2. The proportion of graduates in the age group older than 25 years (2011) Source: editing with the help of geomarketonline.hu, based on the 2011 census

In the second figure - which is based on the census taken ten years later - we can see a more homogeneous picture. Budapest still maintains the same high position, but other counties have started to catch up. Special attention should be given to Pest, Györ-Moson-Sopron and Csongrád counties, which show an excellent improving trend compared to the past ten years. (Certainly it is related to the location of higher educational institutions, and the development of new institutions and faculties of the expansion of existing institutions.) We can see that in 2001, regarding those aged above 25 , the proportion of graduates were more than $13 \%$ only in Budapest.

During the ten years of the two censuses the capital doubled this number, and many other counties continued to progress. It also shows improving trends that in 2011 there was no longer a county in which the proportion of graduates, aged 25 or over, were below $10 \%$.

But let's see this picture in a male-female distribution.


Figure 3. Men-women ratio of graduates based on the 2011 census data Source: editing with the help of geomarketonline.hu, based on the 2011 census

The third figure shows that - as we know from multiple sources - women are over-represented among the graduates. This process has been apparent since the nineties and we may say that women's participation will progressively get stronger and stronger in the higher educational system in the future.

## IV. WOMEN LEADERS IN HIGHER EDUCATION

In this part I would like to present the state of women in the world of higher education based on literature references and my own interviews. We may treat it as a fact - as we could see in figure 3., that women are overrepresented in higher education (as students) since the 1990s, and now we can discuss the minimum of equality between the Ph.D. students. However, we cannot see this tendency at the level of researchers, leading-researchers or in the leadership of a higher educational institution, which - in my opinion - is wasted money, in terms of what we have paid for the qualification of women. In my opinion we train highly qualified men and women to be those leaders, who will improve the economy, the education, and the country. However, if we do not let them 'succeed', and the "status inconsistence" continues to prevail (Fényes, 2011), the money spent on their training and the time and energy invested on their behalf would become pointless since for the lower positions they end up occupying, a lower degree..
"The European Commission set up the so-called Enwise Expert Group in October 2002, tasked to audit the Central and Eastern European and Baltic countries. The work came to its final result in September 2004, appearing in the Waste of Talents: individual fates public issue - Women and Science in the Enwise countries. In the report the following main problems were brought to light:

- There are huge differences between the various disciplines, e.g. in social sciences there are a relatively high proportion of women, however, in the engineering fields the ratio is very low;
- Many female researchers work in those areas where the payments are the lowest and the research conditions are the poorest;
- Very few women scientists are working in those industries; where the material conditions are the most favorable;
- More than $40 \%$ of the doctorate degrees are obtained by women, but at the top of the research hierarchy their proportion is significantly lower.
(Papp E., Groó D., 2005, 1450. p.)


Figure 4. The ratio of women in the number of research sites by occupation categories (2005) Source: WP8 JELENTÉS A WP8: The results were made under the "Wise Monitoring the follow-up activities" WP survey in Hungary

Since the Enwise report despite more than ten years have passed not much change can be observed. Approximately $1,084,726$ researchers at the EU level have been
registered, of which $36 \%$ work in higher education. (Papp E., Groó D., 2005, 1450. p.)

We can say at a theoretical level, that - because of the performance-specific nature of the scientific and higher educational career - men and women can possibly start with totally equal opportunities and chances. Moreover, because of the over-representation of women graduates nowadays, we can even say that in principle they could be in an advantage, as the possibility of the immersion is greater. However, the practice shows a totally different picture. Male-orientation is a well-known phenomenon in the scientific life. In the life of the MTA for example the first women who could hold a leading position is Ms. Valéria Csépe, Deputy Secretary General. Only 4\% of the total members are women. (Riba, 2011)

## V. FAMILY FOUNDING, CHILDBEARING PLANS BASED ON the 2012 Hungarian Youth Research

My goal is to analyze and present - with the example of Hungary and several Western European examples the currently transforming education, higher education and academic leadership, including women and their potential career paths. For this, first according to the "Magyar Ifjúságkutatás 2012" large-scale representative survey I present the 15-29 age group's plans in relation to family founding with emphasized attention on the respondent's gender. After this, I analyze the higher educational top leadership. I tried to find the answer to the question if there are available so-called "good practices", and if there is a possibility to put them into practice, how can it be implemented in Hungary?

We face the problem of an aging society in Hungary and in Europe as well. The time of getting married and having children is being postponed. The social differences are increasing. These trends are well known for all of us. I would like to find some answers about what's behind them. What is the casual relationship? As a gender researcher I put emphasized attention on the issue of the modern and traditional roles of men and women. In this part I will examine, using the database of Hungarian Youth in 2012, the results of a national representative research sample to see what they show in this regard.

The first cross tab examined whether there is a significant correlation between the respondents' gender and current marital status. I considered it important - as according to the stereotypes - that we may think that women marry earlier, as if it would be more relevant for them than for their male counterparts. Based on the results of the research we can say that, on one hand, there is a significant correlation between them ( $\mathrm{p}<0.01$ ), on the other hand, the majority of respondents (almost $90 \%$ ) are unmarried. However, among the married people the number of women is twice as high as that of men (265 men - 506 women are married).

TABLE I.
THE RESPONDENTS' GENDER AND MARITAL STATUS CORRELATION ANALYZES (CROSS TABS)

|  |  |  | The respondents' gender |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Boy/Men | Girl/Women |  |
| What is your current marital status? | married | Count | 265 | 506 | 771 |
|  |  | \% | 6,6\% | 12,7\% | 9,6\% |
|  | Unmarried | Count | 3706 | 3395 | 7101 |
|  |  | \% | 92,4\% | 85,1\% | 88,8\% |
|  | divorced | Count | 17 | 58 | 75 |
|  |  | \% | 0,4\% | 1,5\% | 0,9\% |
|  | widow | Count | 1 | 1 | 2 |
|  |  | \% | 0,0\% | 0,0\% | 0,0\% |
|  | DK | Count | 10 | 9 | 19 |
|  |  | \% | 0,2\% | 0,2\% | 0,2\% |
|  | DA | Count | 13 | 19 | 32 |
|  |  | \% | 0,3\% | 0,5\% | 0,4\% |
| Total |  | Count | 4012 | 3988 | 8000 |
|  |  | \% | 100,0\% | 100,0\% | 100,0\% |

Source: own edition based on the Hungarian Youth 2012 research's database (SPSS)

In the following cross tab, I examine (from the gender point of view) whether those who currently aren't married are planning to get married or not. The results we are seeing perhaps are optimistic, since the vast majority of young people surveyed (63\%) said rather yes, or definitely yes, so they want to get married sooner or later. We could only observe a significant difference between men and women in the case of the "definitely yes" voters, because as opposed to $29 \%$ of the boys, $36.7 \%$ of the girls have chosen this answer.

TABLE II.
CORRELATION ANALYSIS OF GENDER AND MARITAL INTENTIONS OF THE RESPONDENTS (CROSS-TAB)

|  |  |  | The respondents' gender |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Boy/Men | Girl/Women |  |
| If you do not currently live in marriage, do you want to be married? | No, for sure | Count | 298 | 245 | 543 |
|  |  | \% | 8,0\% | 7,0\% | 7,5\% |
|  | Rather no | Count | 488 | 322 | 810 |
|  |  | \% | 13,0\% | 9,2\% | 11,2\% |
|  | Rather yes | Count | 1119 | 1075 | 2194 |
|  |  | \% | 29,9\% | 30,9\% | 30,3\% |
|  | Yes, for sure | Count | 1087 | 1278 | 2365 |
|  |  | \% | 29,0\% | 36,7\% | 32,7\% |
|  | DK | Count | 642 | 479 | 1121 |
|  |  | \% | 17,1\% | 13,8\% | 15,5\% |
|  | DA | Count | 113 | 83 | 196 |
|  |  | \% | 3,0\% | 2,4\% | 2,7\% |
| Total |  | Count | 3747 | 3482 | 7229 |
|  |  | \% | 100,0\% | 100,0\% | 100,0\% |

Source: own edition based on the Hungarian Youth 2012 research's database (SPSS)

The author of the cited study called attention to an interesting context that the extension of the period of education has a measurable effect on the development of lasting partnerships. As she says: "...out of those amongst the 25-29-year-old respondents who have finished their studies at the age of 16, 78 percent lived with a life partner or spouse, while the figure is only 55 percent for those who had left their studies at the age of 23 , and only 37 percent for those who were still studying at the time of the survey." (Makay, 2013, 59. p.)

In my opinion, it is necessary to examine what held / holds back the respondents from getting married. During the research, respondents had to evaluate 10 aspects on a
scale from one to five, depending on the how true they felt the statement to be for themselves (one meant complete disagreement with the statement, while five meant complete agreement). The table below summarizes the context examination results of the respondents' gender and their opinion formed about these viewpoints.

TABLE 3
THE RESPONDENTS' GENDER AND DISINCENTIVES FROM MARRIAGE

| CORRELATION ANALYSES (SUMMARY TABLE) |  |
| :--- | :---: |
|  | Pearson's Chi- <br> square value |
| The environment (society) does not expect it | 0,075 |
| It means too many constraints | 0,000 |
| He/she wants to finish his/her studies first | 0,321 |
| Too young for this | 0,000 |
| Not sure, that he/she has found the right one <br> yet | 0,003 |
| Doesn't want children | 0,004 |
| The financial conditions are missing | 0,000 |
| Doesn't agree with the institution of marriage | 0,046 |
| Has negative experiences from his/her <br> surroundings | 0,782 |
| Spouse / mate / partner does not want to get <br> married | 0,016 |

Source: own edition based on the Hungarian Youth 2012 research's database (SPSS)

From the examined 10 aspects, there is six significant relationship between the respondent's gender and the relevant factor's assessment. In relation to the aspects of social expectation, the completion of studies, previous bad experiences from the environment, and the fact that the partner does not intend to get married, there is no statistically significant difference between the opinion of boys/men and girls/women.

From the point of view of my research however, it is quite important to further examine those factors, where the progress of time and the establishment of a secure living will not resolve the situation, or change their current way of thinking for sure. Therefore, I shall analyze the following aspects in a more thorough way: means too many constraints; doesn't want children, and does not agree with the institution of marriage.

## VI. A SELECTION OF RESULTS OF MY PRIMARY RESEARCH

I sent my research questionnaire online in cooperation with all the Hungarian higher educational institutions invoking the largest community portal. The target group was the younger generation, who are studying in higher education. From the almost five hundred participants nearly $70 \%$ ( $69 \%$ ) are between 18 and 25 . Two-thirds are full-time students, the majority study in bachelor $(\mathrm{BSc} / \mathrm{Ba})$ education, but temporary master or Ph.D. students were also represented in the sample.

In terms of gender, the female predominance is noticeable ( $70 \%$ ), which may be a part of their overrepresentation in higher education, or a sign of their social sensibility, helping at will, that they are potentially more willing to fill out a survey, helping researchers, than are men.

The marital status and number of children is not an issue which caused a particular surprise, because of the age range view, and understanding the demographic characteristics of the country. The fifth figure shows that the largest proportion of respondents $(41.5 \%)$ live in a relationship, one third (34.4\%) single / unmarried and only $14.6 \%$ are married. The vast majority ( $84.6 \%$ ) currently do not have
children (Figure 6).


Figure 5. The respondents' marital status
Source: own edition, based on the primary research


Figure 6. The number of children of the respondents
Source: own edition, based on the primary research
After that, I was curious, if they plan to continue their studies in a doctoral (Ph.D.) program. This can be seen in figure 7 by gender. We can see that the total one-fifth of all respondents want to continue their education doctoral program, but it is also striking that there are proportionally more women ( 78 women, 20 men).


Figure 7. Are you planning to continue your studies in a Ph.D. program? Source: own edition, based on the primary research

For me, the most interesting question was what do young people think, which type of career can they coordinate most with family planning. It means that I was curious about their belief, what kind of career is possible to achieve, which can be reconciled best with the founding of a family/with family expansion. This issue is also emphasized to a great extent since both a number of literature and in my own research have already examined the issue of family and career compatibility. Therefore, it was relevant in the present case for me to think about
what prospective young intellectuals think about this question.


Figure 8. What do you think, which top-leader career can be reconciled with family founding? Source: own edition, based on the primary research

Surprisingly, $48 \%$ of them believe that the management of a company of their own is the most reconcilable with the family. As opposed to this, only $9,4 \%$ of the respondents think that higher education is the ideal one, and only a quarter of them are men.

## VII. Conclusion

My article presents the 2001 and 2011 census data by comparing how Hungary has increased the proportion of graduates, this process, and its regional context. It can be seen that women are over represented among graduates, but if we examine the female researchers, leading researchers, and academic leaders, it is no longer apparent. Beyond the analysis of the secondary databases, I presented some results of my questionnaire survey carried out in December 2015 - January 2016. The results of the nearly five hundred people research sample confirmed that the conclusions of the analysis of secondary databases and other research potentials were also raised.

During the research, the assessment of the importance of other required factors for marriage were examined. In the following I investigate this according to gender set up in a prioritized rate based on the replies of boys and girls, respectively.

Table IV.
THE ASSESSMENT OF THE IMPORTANCE OF OTHER REQUIRED FACTORS FOR MARRIAGE ACCORDING TO THE RESPONDENT BOYS AND GIRLS

| (SUMMARY TABLE) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Boys/Men |  | Girls/Women |  |
|  | mean | deviation | mean | Deviation |
| financial stability | 4,23 | 0,934 | 4,19 | 0,939 |
| adequate housing | 4,28 | 0,911 | 4,26 | 0,935 |
| the parents' consent / <br> approval | 3,50 | 1,262 | 3,54 | 1,271 |
| finishing school | 3,94 | 1,231 | 3,93 | 1,242 |
| a steady job | 4,28 | 0,964 | 4,15 | 1,045 |
| mutual respect / appreciation | $\mathbf{4 , 6 0}$ | 0,727 | $\mathbf{4 , 6 4}$ | 0,707 |
| similar thinking | 4,39 | 0,825 | 4,45 | 0,732 |
| Love | $\mathbf{4 , 6 0}$ | 0,740 | $\mathbf{4 , 6 6}$ | 0,684 |
| friends' reviews | 3,10 | 1,342 | 3,05 | 1,347 |


| good sexual relationship | 4,47 | 0,817 | 4,43 | 0,828 |
| :--- | :---: | :---: | :---: | :---: |
| Reliability | $\mathbf{4 , 6 2}$ | 0,720 | $\mathbf{4 , 6 6}$ | 0,670 |
| child bearing | 3,98 | 1,122 | 4,11 | 1,058 |

Source: own edition based on the Hungarian Youth 2012 research's database

The summary table shows that for both boys / men and girls / women the same three factors are in the first three places of the priority ranking: reliability, love, and mutual respect / appreciation. (In addition, we see here a relatively low standard deviation value, which shows that the respondent's opinion is homogeneous.) When we do a T-test correlation test there is a significant difference between respondents according to gender in many cases. For men, financial stability, a steady job, and good sexual relationship are considered more important, the first two of which clearly belong to the traditional male role. For women in turn mutual respect / appreciation, similar thinking, love, reliability, and willingness to have children ranked higher in (mean) value. These are emotional factors, and they belong to the traditional female roles.

The intention to marry in my opinion is greatly influenced by how the younger generation believes marriage will affect different areas of their life. The following table summarizes the opinions of the respondents about this. (The respondents had to classify their opinions one to five, where one meant a very bad influence, five meant a very good influence.)

Table V.
THE HYPOTHETICAL EFFECTS OF MARRIAGE OF THE EXAMINED FACTORS (SUMMARY TABLE)

|  | Mean | Deviation |
| :--- | :---: | :---: |
| Happiness | 4,22 | 0,908 |
| Sexual life | 4,01 | 0,958 |
| Financial status | 3,71 | 0,973 |
| The opportunity of free time activities | 3,53 | 1,049 |
| Relations with family and friend | 3,48 | 1,008 |
| Workplace career | 3,39 | 1,020 |
| Learning opportunities | 3,16 | 1,084 |

Source: own edition based on the Hungarian Youth 2012 research's database (SPSS)

Young respondents think that marriage will improve their happiness the most, but it will badly influence their learning opportunities and workplace careers. It is especially interesting that they do not expect their financial situation to deteriorate. Moreover, it takes up a relatively good position in the rankings, while the greatest risk of impoverishment in Hungary is represented by the bearing of children.

It is also necessary to see this question broken down by gender, examining the correlation between the respondents' gender and perception of the above. In three cases - the financial situation, sexual life, and the situation of family-friendly relations - there is a statistically significant difference between the opinions of girls / women and boys / men.

Table VI.
THE RESPONDENTS' GENDER AND THE HYPOTHETICAL EFFECTS OF MARRIAGE OF THE EXAMINED FACTORS (SUMMARY TABLE)

|  | Financial status |  | Sexual life |  | Family-friendly <br> relations |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys/ <br> Men | Girls/W <br> omen | Boys/ <br> Men | Girls/W <br> omen | Boys/ <br> Men | Girls/W <br> omen |


| 1 | 2,8 | 2,2 | 1,8 | 1,5 | 4,6 | 3,8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 5,1 | 3,9 | 2,8 | 2,4 | 9,7 | 7,4 |
| 3 | 38,4 | 36,1 | 25,9 | 29,6 | 39,1 | 38,9 |
| 4 | 29,6 | 31,8 | 29,9 | 28,1 | 26,4 | 27,4 |
| 5 | 24,1 | 26,0 | 39,6 | 38,5 | 20,3 | 22,5 |
| SU <br> M | 100, <br> 0 | 100,0 | 100, <br> 0 | 100,0 | 100, <br> 0 | 100,0 |

Source: own edition based on the Hungarian Youth 2012 research's database (SPSS)

After marriage, the financial situation and the situation of the family-friendly relations hypothetically change in a good way according to a higher ratio of girls / women, but in the case of sexual life becoming better, the ratio is higher among males in this assessment.

In the following table I was seeking the correlation between the respondents' gender and their willingness of having (another) child within the next three years. The correlation is significant. Because of the age composition (15-29) it is not surprising that more than half of the respondents $(55.1 \%)$ said that they in no way want to have (further) children in the next three years, however, I point out that with this issue there was not such a significant difference between the male and female respondents, only a 3-5\% difference can be seen.

Table VII.
The respondents' Gender and relationship-examination of WILLINGNESS TO HAVE CHILDREN IN THE NEXT THREE YEARS. (CROSS-

|  |  |  | The respondents' gender |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \hline \text { Boy/Me } \\ \mathrm{n} \\ \hline \end{gathered}$ | Girl/Wome <br> n |  |
| Are you planning to have (an other) children in the following three years? | Definitel y | Count | 213 | 347 | 560 |
|  |  | \% | 5,3\% | 8,7\% | 7,0\% |
|  | Rather yes | Count | 350 | 458 | 808 |
|  |  | \% | 8,7\% | 11,5\% | 10,1\% |
|  | Rather no | Count | 718 | 766 | 1484 |
|  |  | \% | 17,9\% | 19,2\% | 18,6\% |
|  | No way | Count | 2377 | 2027 | 4404 |
|  |  | \% | 59,2\% | 50,8\% | 55,1\% |
|  | I can't have (more) children | Count | 10 | 18 | 28 |
|  |  | \% | 0,2\% | 0,5\% | 0,4\% |
|  | DK | Count | 286 | 318 | 604 |
|  |  | \% | 7,1\% | 8,0\% | 7,6\% |
|  | DA | Count | 58 | 54 | 112 |
|  |  | \% | 1,4\% | 1,4\% | 1,4\% |
| Total |  | Count | 4012 | 3988 | 8000 |
|  |  | \% | 100,0\% | 100,0\% | 100,0\% |

Source: own edition based on the Hungarian Youth 2012 research's database (SPSS)

With correlation analysis, I examined whether there is a correlation between the respondents' age when they got married, and between being how old they were when their first child was born.

## Table VIII.

CORRELATION ANALYSIS BETWEEN THE AGE OF MARRIAGE AND THE AGE OF HAVING CHILDREN (CORRELATION ANALYSIS)

|  |  | How old were <br> you when you <br> got married? | How old <br> were you <br> when your <br> first child <br> was born? |
| :--- | :--- | :--- | :--- |
| How old were | Pearson | 1 | , $380^{* *}$ |


| you when you <br> got married? | Correlation |  |  |
| :--- | :--- | :--- | :--- |
|  | Sig. (2-tailed) |  | , 000 |
|  | N | 848 | 599 |
| How old were <br> you when <br> your first <br> child born? | Pearson <br> Correlation | , 380 | 1 |
|  | Sig. (2-tailed) | , 000 |  |

** Correlation is significant at the 0.01 level (2-tailed).
Source: own edition based on the Hungarian Youth 2012 research's database (SPSS)

The correlation analysis confirmed my hypothesis: There is a correlation between the respondents' marital age and the birth of their child age. Because of the previous correlations I wanted to examine whether the gender of the respondents effect the time when they would like to have their first child or not. For this examination, I used a T-test.

Table IX.
CORRELATION STUDY BETWEEN THE RESPONDENTS' GENDER AND THE
PLANNED DATE OF THE FIRST CHILD (T-TEST)

|  | The <br> respondents' <br> gender | N | Mean | Std. <br> Deviation | Std. <br> Error <br> Mean |
| :--- | :---: | :---: | :---: | :---: | :---: |
| At what age, <br> do you want <br> to have your <br> first child? | Boy/Men | Girl/Women | 2328 | 36,05 | 19,126 |
| , 396 |  |  |  |  |  |

Source: own edition based on the Hungarian Youth 2012 research's database (SPSS)

The table above shows that there is a statistically significant correlation ( $\mathrm{p}<0.01$ ) between the planned date of the first children and the gender of the respondents. The girls in average would like to be 34.21 for the first child, and the boys the age of 36.05 , which is nearly two years later. This is consistent with the general stereotype that girls mature on average two years earlier than boys. Therefore - among other things - this correlation might be explained with this simple stereotype.

## Segregation between men and women, the state of higher education in Hungary

From the previously presented research achievement we can conclude that for the questioned aged group the attitudes of tradition are still important, but the willingness of learning and making a carrier can also be found in the case of girls/women. It is worth examining further the (academic) career opportunities for men and women.

The effects of dual segregation between men and women have been analyzed in numerous studies. (For example by Hajnalka Fényes). From these, and from our experiences we know and sense that segregation is perceived both horizontally and vertically in the national (and international) labor market. Many professions effeminate and become more feminine (for example nursing or teaching professions), while other professions put on, or keep their original, rather masculine character. In addition, so-called unisex professions have evolved,
which by nature supposed to have promise for both sexes, offering equal career opportunities. Higher education is a segment like that. The intellectual elite could be the milieu-where the fight against gender gaps and discrimination could take place, yet unfortunately it prevails there as well.

In the following I attempt to prove with several data what might be the reasons behind female activity/passivity. The fact is that women are overrepresented among students in higher education since the 1990s. I will also show that among PhD students the ratio is at least equal nowadays. In the following, I will also present - with lots of data - the female activity/passivity. Some people are trying to show clear features of female leadership styles (e.g.: Csilla Czeglédi PhD. thesis), others are examining women's research career as leaders (leader researchers), their difficulties / ease of their experiments (Esther Papp, PhD. Dissertation), and still others prefer to explore the women's general position in leadership (Koncz Katalin Nagy Beata). Almost all researchers of the subject agree that Hungary has predominantly conservative, traditional attitudes regarding family and career. This greatly complicates the state of women in the labor market and in leadership alike.
"...women should not be expected to search and find the same way as men do, because it does not give them equality. It can only hinder the growth of knowledge. They can reach equity if you allow them to examine with their advantage of nature and the different attitudes in social relations - never forgetting how gender relations' class, race and culture can change according to these factors." (Harding S., 2002. 321. p.) It means that even in developed Western countries it is also common that a woman should adopt a "masculine" attitude to get by. But - as the above quote suggests, - the world of researchers would be much more "colorful" with admitting new things, and new points of view. The MTA doctors' role is decisive in research, development and innovation activities, knowledge creation and dissemination, as well as its practical utilization.

However, even though a few ladies obtained a MTA doctorate, it is no wonder that there are shockingly few ladies among the Academy members. On the $31^{\text {st }}$ December 2009 the Secretariat of the Council registered 6815 MTA Doctoral degree holders in the group of MTA members under 75 years, and only $23 \%$ of them were women. (KSH, 2011) By 2014 the proportion of member selection did not improve significantly, from 26 correspondent members we can only find four female members. (www.mta.hu)

In the academic career path, we can see a well-defined gap in the proportion of women and men. In other words, as we move forward through the ranks, the proportion of women is deteriorating. Fewer and fewer women are represented as associate professors, professors, or
members of the Hungarian Academy of Sciences, and this increasingly shows male dominance. (Riba, 2011)

Of course, it would be interesting to examine separately the academic careers of researchers and higher educational careers. However, this is not separated from each other so graphically in everyday life, as academic research institutions expect their researchers to carry out major teaching activities. Not to mention that among the academic members of the various committees, academic professors can be found as well. The women, again, have a "greater burden" than their male counterparts, as it has been included in the "double burden" mentioned many times (work and family), which is still associated with the research and teaching activities as well. "The inequality of opportunity is an example of what a UK survey revealed (Davies - Holloway 2004. p. 16.). The researchers are working an average of 53.5 hours a week, of which 17-18 are administrative work, and most of the research is performed in the evening or on weekends. Women at all levels work more than men, and they do more administrative work. The average work week consists of 64.5 hours for a female university professor, while a man's is 58.6 hours. " (Papp E. 2007, p. 35.)

I examined the circumstances of what could impede women in building their career, why do not we see expansive growth in the number of women in the higher education field, based on the study of Mária Schadt titled "Inequalities between the genders' social determination in higher education and scientific research".

In the above-mentioned survey research they were trying to find the answers to the question of whether the over representation of women in higher education pairs with equal opportunities in the academic/research careers or not. They showed that women's careers are interrupted and slowed down many times by their domestic tasks, while men's careers are not effected that much by these factors. For me it is astonishing that even today women are more than twice as obstructed by "family reasons" as are men. The graph below represents this statement.


Figure 9. What was the reason that your career stopped or slowed down? - Gender separately Source: Schadt M, 2010, 78.0.

It's definitely worth mentioning, that family background and other factors influence women's career are beside the general role expectations connected to the
family. In the light if this, it is worth analyzing the matter in more detail. Acsády Judith writes in the Hungarian Science's 2010 study that it should be taken into consideration that "in a professional environment experienced mechanisms become common, while selfevident interactions that could strengthen certain discriminatory processes in the professional life ahead fracture and weaken."(Acsády J., 2010, p. 1398)

## Western European standard

A potential workaround, or at least a progressive attempt appeared in the Scandinavian Mona Eliasson, Helena Beggren Fredrik Bondestam "Mentor Programsshortcut for the woman's academic careers" research study, which is recording an 18 -month long research's results. The study was conducted at the University of Uppsala, Sweden with 14 university lecturers (later mentored, Protégé) and 14 professors (senior mentor) in attendance. They were trying to find the answer to the question whether the gender-gap will narrow on the teaching side of Swedish higher education with the help of the mentor program. The conclusion was that yes, it's a potentially useful solution to the problem. The program basically consisted of two parts:

1) Individual discussions, meetings between the mentor and mentored colleagues
2) Group meetings, which were open to all participants

The average mentees were 49 -year-old teachers who had been selected just one step away from becoming a professor. The mentors (who were academics) had a mean age of 56 years. From the 14 mentors, only two were women.

Mentoring (including formal, informal factors) is a complex process that is not easy to measure in concrete results. Because of this, during the examination they documented everything, and a number of methods have been used (questionnaire, observation, interview). This experiment was part of the university leadership development program. It is positive, that it does not require a fundamental change in the functioning of the organization. During the period of the research in addition to individual and group discussions, the participants had the opportunity to listen to lectures on social gender equality and participate in each other's lectures and other academic programs.

The mentees also formulated their goals with the program at the beginning of the experiment. These were professional expectations such as assisting them to know when to apply for professorial appointment, helping them to better use their time at work, and to have more time for publishing beside their teaching activity, and similar things. The mentors did not have pre-formulated expectations, they came because they were asked, and they considered it their duty towards the university and their colleagues. A few months later, during an interview
with mentees they had much less specific objectives, including: "Opportunity to discuss the problems of women in the university system," and "better understand the university as a functioning organization ". The two most popular goals were personal development and a deeper insight into the organization's formal and informal workings. One of the most remarkable parts of the program was that all the 14 mentees arrived from various disciplines, so a wide range was presented. The program was successful in the way that all participants benefited much from it (they understood better the organization's functioning and the state of women in higher education), and this has facilitated further their career development. (Eliasson M. Berggren H. Bondestam F., 2000)

In my opinion, this program - even on an experimental level - can be put into effect in Hungary. There is no established tutoring system currently in Hungary, neither for young researchers nor for experienced colleagues. However, the Women in Science Association - as can be read on their website - wants to do something in order to create such a network, and takes active steps to assist the building of the young, early-stage researchers' careers. (www.nokatud.hu)

Another study by Lucinda Barrett and Peter Barrett entitled "Women and academic workloads? Slow lane or career Cul-de-Sac" (L. Barrett, P. Barrett, 2010) suggests that women may be delayed, and only a very small proportion reaches top management positions. They are getting stuck in the lower-middle level of leadership and face an invisible wall - the much-cited "glass ceiling or glass wall phenomenon" - which separates them from top management positions. The study, based on previous research (ECU 2009. Statistics for 2006/08), states that in the United Kingdom's higher education institutions the proportion of women ( $42.6 \%$ women within the whole university staff) is slowly improving, but only $18.7 \%$ of them are managers or at professorial level. Twice as many men can be found in the better paying or higher ranked jobs.

## The EU's goal

The EU has always been at the forefront of the fight against all forms of discrimination. For example, the year 2007 was declared the year of equal opportunities, and in recent times it also takes steps toward equality in several ways. It is formulated in the objectives of the "Education and Training 2020" strategic program, among the main factors of the knowledge based society, lifelong learning and the facilitation of mobility. The Horizon 2020 program is the first in EU history when "throughout the compilation of the research project, the selection of participants, and during the evaluation process, the aspects of social genders are represented appropriately in case of research and innovation strategies, programs, projects, in all phases of researches.

## My experiences from my previous interviews

My previous interviewees were working in higher education, at least on the department management level, but I managed to contact rector women as well. I made more than 15 interviews until now, and my goal is to continue it with male leaders in similar positions.

For me it was shocking that although they have a brilliant carrier of their own, when we asked about what advice would they give to their young colleagues to acquire a similar success, or do they think the under representation of women leaders will change in the near future, they gave surprisingly pessimistic answers. Some said that this is a very slow process (the social stereotypes, on account of the traditional outlook), seeing a chance in a $20-30$ years perspective for some proportions to increases Almost all respondents highlighted that the discipline is very decisive because while in social sciences or humanities we see a lot of ladies, in the world of natural or technical sciences we usually find the lack of them. This information can be supported in an EU level as well. "Only 33\% of European researchers, only $20 \%$ of academic professors, and only $15 \%$ of the heads of higher education institutions are women." "In 2010, the proportion of female students ( $55 \%$ ) and those with a degree (59\%) was higher than the proportion of male students, but among doctoral and doctoral degree holders, men were represented at a higher rate (the proportion of women were $49 \%$ and $46 \%$ ). What concerns the university career ladder, women completing a doctoral degree represented the $44 \%$ of researchers on the first level of their university career, while only $20 \%$ of those on the highest level. The low number of women in science and engineering fields is even more striking." (http://europa.eu/rapid/press-release IP-13-303 hu.htm)

My personal experiences confirmed the answers provided by my respondents, that men accept certain women, and certain careers, but they do not generalize. It is also surprising how naturally my respondents treated that throughout their careers they are many times faced by the fact that their male colleagues have ranks, positions when they are addressed (Dear Professor, Dean Lord, Lord Chancellor), but they 'only' seem to have first names.

## Summary, potential solution proposals

The higher education system in the past decade has drawn three major changes: the expansion of the number of students, the integration of the increase in the number of training places after, and the transition to the Bologna system beyond 2006. This process is aimed at creating a European Higher Education Area in which qualifications mutually accept other higher education systems, thus they are interoperable. It would facilitate the level of competitiveness on one hand, and on the other hand increase the mobility of both the instructors and the students. (KSH, 2009)
Therefore, in theory equal opportunities are delivering
more opportunities for women and men, who in the expanding labor market face better opportunities to build their careers in the way they prefer. However, this has not exactly been perceived
.Potential solutions could be proposed by the Swedish model of a mentor system, since it does not require any special financial expenses. However, the question is that how feasible it would be in Hungary. In addition to the traditional approach known as the "like attracts like" principle, and since the majority of academic leaders are men, they are more likely to choose men as their successors.

Another solution might be to call the ladies' attention to the importance of networking, and how significant network building is. In the course of network-building beyond international reputation, professional reputation, and support may be generated, which are essential for the building of a fulfilling higher education or academic career. Since this is one area (networking itself), in which only a very small percentage of women still excels, it would be worth implementing - social and individual discussions, dialogues, in order to make use of networking as well.

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