



Gender Economics Research Center, Narxoz University

Gender Statistics: Gender Imbalance in Higher Education

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1. Introduction

1.1 General characteristics and urgency of the research.

The article studies the question of women underrepresentation in higher management in Higher Education (HE) in Kazakhstan. The research question of the paper is: “Why there are fewer women compared to men in higher managing positions in higher education in Kazakhstan?”

Current direction of a great interest in gender asymmetry in Education is supported with the great interest of researchers in barriers of so called “glass ceiling” for women in terms of achieving higher managing positions. Some researchers suggest that for women it is almost impossible to get through hidden obstacles in the system of Education (A.B.Ostapenko 2014,). However, there are some other factors which need a closer view.

The question of gender balance in education in countries of CIS area is regarded in a different way. Elementary and secondary educations are mostly represented by women. However higher management is mostly represented by men. If women in elementary and secondary structures of education occupy most of the teaching staff places, men tend to hold higher positions in higher managing organizations like city and regional Board of Education. According to the data of Government Committee on Statistics in 2006 the number of women in managing positions in the system of elementary and secondary education made up 56,1%: in the system of vocational and technical education – 37,5%: in higher education about 19 %. The rake off between male and female teachers is changing so that there are fewer men. The proportion of male teachers is three times less than half than female teachers and make up only 18% (according to figures of Senate representative of the RK Dinara Nuketayeva, at the annual meeting on the 15th of February 2018.).

Higher Education system of CIS area is also managed by men mostly. Women in the field which is regarded as a female field of work are mostly represented as manaees whereas men hold positions of managers.

In 2006 Kazakhstan has accepted the strategy of Gender Equality, where one of the main fields is Education. Women are regarded as economically unprotected segment of the people.

Nevertheless, the question of Gender Equality was authorized as one of the priorities of socio-economic development when Kazakhstan joined Beijing Declaration and the Platform of Action “Institutional mechanisms for the advancement of women” in 1995.

Immediately, the mechanism was launched, which affected the legislation. In 1995, after the adoption of regulations in the labor legislation of Kazakhstan there were made amendments on gender equality and equal rights of men and women in hiring. Changes were also made in personnel selection technologies that support the policy of gender equality.

The law of the Republic of Kazakhstan about “State guarantees of equal rights and equal opportunities for women and men” is based on the Constitution of the Republic of Kazakhstan. Constitution of RK supports gender equality in all aspects, whether it is work or social needs. Nevertheless, it is worth emphasizing the article 2 of the law, which states that if state laws do not comply with international treaties ratified by the Republic of Kazakhstan, in that case the rules of the international treaty apply. However, it is impossible to follow every situation, when women’s rights are being violated.

Kazakhstan has actively started the way to gender balance, having set goals for implementation of international treaties’ regulations. International treaties that Kazakhstan has joined are: Beijing Platform for Action in 1995,

UN “Convention on the Elimination of all Forms of Discrimination Against Women” of 1998,
Convention relating to the status of refugees, Geneva of 1998,
ILO Convention 1958 «On discrimination in respect of employment and occupation" of 1999,
ILO Convention, 1951 «On equal remuneration for men and women workers for work of equal value" of 2000,
ILO Convention "On the revision of the Convention (revised), 1952 maternity protection Convention" of 2012,
ILO Convention "Concerning equal opportunities and equal treatment for workers of men and women workers: workers with family responsibilities" of 2012.
(Federation of Labour Unions of the Republic of Kazakhstan)

It stands to mention that Kazakhstani women society is trying actively to establish gender balance, almost in all fields of interest (like: education, entrepreneurship, politics, health etc.) On the 25th of August in 2009 there was established Alliance of Women’s Organizations of the Republic of Kazakhstan. (Kazakhstan Today, Allianc of Women’s Organizations of the Republic of Kazakhstan). There is more to say, that there are about 16 officially registered Women Organizations in Kazakhstan (Non-Governmental Foundation “Informational resource-centre” Almaty city)

Although there are situations of gender imbalance in different fields, gender imbalance among academic staff in higher education in Kazakhstan is getting more prominent. Therefore, the abovementioned justifies the relevance of the research topic.

1.2 The degree of the development of the problem.

The question of gender balance in education has been studied internationally, discussing different aspects of gender imbalance influence in education. This question is studied by: Sheelagh Drudy, Val Singh, Siri Terjesen, Susan Vinnicombe, Donald E. Piburn, Bryan G. Nelson, Heather Savigny, Sue Sheperd et al.

In CIS area the question of gender equality is studied by: Zharkynbayeva R.S (2016), L.V. Shtyleva(2008), M.Y. Baskakova 2005, O.A. Khasbulatova (2014), A.B. Ostapenko (2014) et al.

Internationally the question of gender imbalance in education has been studied mostly as the influence on children. Researches would touch upon the impact on personal development of students through nurturing process, development of role models through communication with teaching staff. Another question which was also discussed in the USA, Canada, Russia, Ukraine is curriculum. The curriculum stands out to be one of the key factors which would motivate a student to choose future jobs. Taking into account that gender equality is bound to cultural habits researches also discuss the influence of mentality, cultural standards in relation to the country.

In Kazakhstan the question of women underrepresentation in managing positions is not well developed and studied. The degree of the research of gender imbalance in higher education is very low. Researches of abovementioned authors have become the key factor of choosing the topic of the research.

1.3 Purpose and the objectives of the research.

Purpose. The aim of the research is to find reasons which prevent women to get higher positions in higher educational institutions in Kazakhstan.

Research objective is to study following questions:

1. Having achieved gender balance among academia is still a target for higher managing positions. Women make up the minor part for rectors and vice-presidents compared to men. If

this field is now accepted as female field of work, it is a question why women are not in managing positions as well.

2. Finding a career paths, which would lead to get to the highest positions and analyses if they are applicable for both genders.

1.4 Object and the subject of the research. The object of the research is academia staff in HEI (Higher Education Institutions) in the Republic of Kazakhstan. The subject of the research is attitude and relation of human capital towards career in HEI, which are influenced by the factors that affect socio-economical attitude of academia staff.

1.5 Informational background of the research.

Statistical data, annual reports, analysis of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan will be used as the informational background. The information of universities which is available on the websites will be collected for the research.

1.6 Evaluation of results of the study. The research will be discussed at international conferences, touching only conceptual issues. The basic issues will be also discussed during local roundtables, seminars, conferences organized by the center of Gender Economic Studies, NARXOZ. The study will be included in the study guides of the practical course “Gender Economics” in Kazakhstan and Central Asia.

1.7 Research result publication. As the basics of the research will be discussed during the conferences, some of the research will be included in published at conferences. The basic framework will be published in a scientific journal.

2. Literature review

2.1 Women in senior management in HE (higher education).

Not only in Kazakhstan, but worldwide the problem of women underrepresentation in senior management has become an important issue. Worldwide the number of women in general senior management is dropping. Moreover, they represent less than 40 % within a country. In Kazakhstan career in HE is usually regarded as a work schedule outside the traditional workweek. (Catalyst, Quick Take: Women in Management (July 30, 2018)) A teacher’s workday can last until eleven at night. Cultural habits and traditions in Kazakhstan have influenced every aspect of a person’s life. Women in that respect have a list of duties at home. This is taking care of children, being responsible for meals (breakfast, lunch, dinner), taking care of parents and obeying your husband. Therefore, such a working day is not convenient for a woman, otherwise she is always stressed. On the other hand, such factor as having babies may have become the reason of the preference of non-traditional 9 to 5 working day. It is convenient to take your child to the kindergarten in the morning and taking your offspring in the afternoon home. While somebody is helping you, by looking after your child you can go to work and provide classes.

Due to such working schedule women tend to take long breaks during the work day or have additional teaching hours in other universities as an option to have breaks. Therefore, despite having a greater number of women in academia are usually made up of part-time workers. (Martinez Aleman & Renn, (2002), Klotz, Ann Marie (2014)) This is usually needed for so-called parental hours, which HR-management cannot provide with the staff of a university. In Japan, for example, companies have special time for their workers to pick up their children from school, have special kinder rooms if a worker has to work long hours. Unintentionally, but, part-time working has become as a compensation for women in terms of low salaries and long hours. Unfortunately, women in

Kazakhstan can usually rely only on themselves in questions of looking after their children. As a matter of fact, women through such career route do not have any interest in promotion, or even have any vision of improving their position status. It is worth mentioning that in Kazakhstan, according to annual statistics, there are 283503 women who have four or more children. (www.stat.gov.kz). The average marriage age among women in Kazakhstan is 23-35 y.o. (www.stat.gov.kz). This is usually right after graduation. If to take into account local traditions, women after their marriage, have to spend most of their time at home obeying new family rules and doing most of the work about the house. Women tend to take more family responsibilities taking care of their children, family and extended family. (Thi Lan Huong Nguyen (2012)). Such attitude is very common and widespread, as being a part of a culture in Asian countries.

At the same time cultural standards have become such etiquette of behavior for women in Asian countries. In order not to lose the statues of a well-respected woman, or so-called ideal behavior, women have to sacrifice their interests. If building relationships and business connections at work is a fruitful behavior and is a part of everyday work, for women this might be challenging. Communicative behavior sometimes stands out like a bad manner, thus making it difficult for women to get higher positions or makes improvements slow. On the other side women can face judgments for being active in expressing communicative skills as the sign of low presence of agentic skills (Eagly, A. H., & Carli, L. (2007)., Thi Lan Huong Nguyen (2012)). Other factors that usually block the career pathway for women are their doubts in own capability of dealing with higher responsibility or dealing with unfamiliar work. They usually step back in that respect, rather than accepting the challenges. (Sandberg, S. (2013), Klotz, Ann Marie (2014), Jenny Neale & Ozlem Özkanlı (2010))

In terms of men, as they do not have as much housework as a woman usually does, 9 to 10 working day may be not as stressful as it is for a woman. Paperwork, low occupational status and salaries have been one of the most valuable factors. Status comes out one of the effective factors which can attract men into academia and vice versa. The higher status of a university the more men there are. Otherwise, the perspective of a routine work does not attract men and only pushes them outside, where they can find a better paid job. (Kate White & Özlem Özkanlı (2010)).

The question of accrediting of taking resolute decisions to women is one of the most important issues. Another instrument of acceleration to the highest level of management is a CV. Women were facing difficulties as their CV would not show their experience in managing big companies, organizations. They would not show experience in management, which would have played a big role when choosing a candidate (Heather Savigny (2014)). Gender segregation in managerial positions in different fields have become more prominent by 2010. The good side of this is that women have started improving their CVs and managing positions have become more available. Nevertheless, there are still situations of gender segregation, in that turn gender blind rating of CVs would factor out CV evaluation with considerable bias. (Heather Savigny (2014), Klotz, Ann Marie (2014)). Another problem that women have been facing is wage gap, which has become a way of discrimination (William Scarborough (2018)).

2.2 The influence of gender imbalance in academic staff.

There are several issues which are being studied in the question of gender imbalance in the system of education: role models, teaching materials, curriculum etc.

The profession of a teacher often being compared with bringing up children is regarded as a female profession. This part of family life has always been determined as a list of duties for women (taking care of children, monitoring of their studies, controlling the private life of children and so on). Furthermore, many authors mark following factors: the statues of the profession, salary, female nurturing and education, absence of role models, educational material, female prevalence both in social life and education. More frequently there can be found researches in moral upbringing, male and female subjects, relationship between students and teachers, system of education.

The research, done by Baskakova Y.A., in the system of education in Russia has shown that disparity between females and males in education will keep increasing. **(Baskakova Y.A. 2005).**

Social perception of women in education is as important as the role model, if not more. It is believed that women, during educational process, unwillingly lay the stereotype for women to be managers. A clear example to that can be the status of women in educational institutions. In elementary (kindergartens) and secondary (secondary schools) institutions 90% of the staff consists of women (minor positions: nursery teacher, nannies, supervisors, secretaries, teachers, operating personnel) **(A.N.Ospanova 2010, Y.Yarskaya-Smirnova 2001).** There comes another interesting moment. If teaching staff in Higher Education, is mostly prevailed by women, then leading-managing positions, such as deans, pro-rectors, rectors, are overwhelmed by men. This imbalance influences over further choice of jobs for students. Therefore, if to take such subjects like: economics, law, medicine, engineering, women are usually in favor of humanities (teaching, psychology, creative subjects etc.), whereas men priorities over economics and law. **(O.A. Hasbulatova 2014).** As it is stated in some other researches, “hidden curriculum” puts stress on upbringing of social roles of students **(Введение в гендерные исследования: Учеб.пособие. 2000; Y.Yarskaya-Smirnova 2001).** Besides role models there are teaching materials and facilities which have the influence as well. Taking into account the numeric disparity of female examples in teaching material, the perception of a misbalanced worldview is being grounded from childhood. In CIS countries like Russia and the Ukraine in the books of “Worldwide history” women make up 4.1 % for the first country and jus for 1% below for the second one, only 3%. **(Y.A.Golubeva 2015)** Children not learning as much about women as they do about men at schools, lose the opportunity of developing the understanding of justice, a clear idea of what violence is. **(A.N.Ospanova 2010; Y.Yarskaya-Smirnova 2001; Введение в гендерные исследования: Учеб.пособие. 2000; Kay A. Chick 2006; Nasiema Mustafa Sadeq AL-Khalidi 2016)**

Another very impactful factor is profitability. According to the research in Ireland about salary, there can be drawn a parallel between salary in education. **(O’Connor, P. 1998, Sheelagh Drudy 2008).** In previous times women used to work to maintain the status. They used to choose convenient time like part-time job, to be able to finish work early. Some might have conceived it as a hobby. As the time went by, the need in a job and income increased, but not in line with working conditions and income. Nevertheless, women were agreeable for low salary and the worst working conditions. Consequently, any scope of activity or business sector, which underwent feminization, became low-paid. That is when we see that female labor has become cheap. Those men who get involved in a feminized environment, face the same problems. Depending on that, salary of teachers is very low as women make up about 80% among teachers **(O’Connor, P. 1998, Sheelagh Drudy 2008, Griffiths, M. 2006.)**

In Kazakhstan salary for teachers of Higher Education varies depending on the region. The lowest salary makes up about 96000 KZT. In two cities, Almaty and Astana salaries are higher, whereas for Astana it is almost two times more than for Almaty and almost three times more than for other regions of the country. In Astana teachers get about 250000 KZT and in Almaty about 155000. Average monthly salary is 137000 KZT, with a difference in regions of 2,7 times **(according to the data of site statistics of RK.).** Advantage in number of female teachers in elementary schools reduces the interest in the profession among men in secondary schools, hence in the system of higher education. **(Lyn Tett & Sheila Riddle 2009).**

In the studies of Diane Perrons, she states that gender perception and difference it is something that society has developed, but not a natural evolution of attitude of both males and

females toward each other. In that case we come to the understanding that we build our opinion, view of what and how gender differences should be appreciated (**Diane Perrons 2018**).

2.3 Possibilities and opportunities for women and men for promotion in Higher education in RK?

Men, when choosing a future profession, look for the prestige. Academic life in most respects means a lonely way to self-promotion. Teachers themselves make steps to build a career path, and basically it means on their own. In other words, academic career consists of individual decisions influenced by different conditions (**Sue Sheperd 2017; Markus Lörz1& Kai Mühleck 2018, Theoretical considerations.**).

Notwithstanding that there are more women teachers there is a vertical dissymmetry in Higher Education system. Women are mostly involved in the second field, which has become more forthcoming (**Rosemary Deem 1998; С.Н.Маркова 2013**). In CIS area: Kazakhstan, Russia, Uzbekistan, Tajikistan, Kyrgyzstan correlation of women and men is 70% to 30% on average. (**Жаркынбаева Р.С. 2016**). The share of women, holding positions of rector is just under 20% (according to the data collected from universities' sites and site statistics of RK) as well as in Russia. The share of men holding positions of rectors is about 80%. (**С.Н.Маркова 2013**). In addition to influencing the attractiveness of the pedagogical profession for men, gender differentiation has an impact on the decision to hire an employee. The employer pays attention to the employees' decision-making approach (**Diane Perrons 2018**). The management style is also taken into account. For example, women's management is called "soft" management, while men lead "hard" management policies. Women are not characterized by risky decisions, unlike men. (**Diane Perrons 2018; Rosemary Deem 1998**). Although, in J.P.Einhorn's worldview (**Jessica P.Einhorn World Bank Treasury 2018**), gender diversity can avail variety of opinions. Options between styles and methods to manage can have a fruitful effect on management. (**Rita Stankeviciute and Audrey Mpunzwana, World Bank Treasury 2018; Val Singh, Siri Terjesen, Susan Vinnicombe 2008**).

It can be observed that having achieved the goal of education access, women are more involved in secondary positions. Majority of teacher-professors feel the need for the approval from their colleagues for further promotion in their career, which shows that teacher is usually insecure in themselves, their skills and opportunities. This is another obstacle. (**Sue Sheperd 2017**). Women often take a break in their career. Formerly women would not promote their professional skills, if there was a possibility for them to be pregnant in the nearest future. They would not pass trainings, career development courses for further promotion. For employers investing in an employee who would soon leave was meaningless as well. (**Val Singh, Siri Terjesen, Susan Vinnicombe 2008**). The outcome of this mixture of factors is that, currently, women tend to work in more than one university. Low salary and shortage of teaching hours may come out as leading factors, however there are social and household duties which may affect the employment as well (for example working part-time or taking morning and evening hours of teaching). Men, on the other hand tend to work in one university with probably less hours of teaching than women have, taking into account all educational institutions they work for. However, it has a positive effect on men's career promotion. Yet women concede in that.

Leading positions used to be less available for women, due to the education level. (**Баскакова Е.А 2005**) Nowadays it is more frequent to note that women have master's degree or PhD. However, having obtained this point, women have faced the next obstacle, which is work

experience in Management, absence of management skills. According to recent research women tend to get better education, have become more competitive to men's skills and knowledge. Consequently, the curriculum vita of women has become competitive to men's, and is more and more attractive to an employer (**Val Singh, Siri Terjesen, Susan Vinnicombe 2008; Markus Lörz1& Kai Mühleck 2018**).

Social status of women can also affect their interest in further academic career in Kazakhstan. Career promotion is unstable for women. One of the main factors, which influence career is maternity leave and marriage. After getting married women enlarge their list of duties (these are usually: house work, taking care of children, taking care of husband's family). Dealing with these obligations, women doubt that they can handle with their career as well, so they chose in favor of family. Kazakhstan is not alone in this issue. CIS countries: Kazakhstan, Russia, Uzbekistan, Kyrgyzstan, Tajikistan face with is issue when women have to choose between career and marriage. Thus, for women it is more difficult than for men to get career promotion.

The system of educational process is organized in such a way that repels men from the desire to enter the teaching profession. Career road in higher education is much more difficult to advance and requires constant confirmation of a scientific degree (lecturing, writing scientific articles). The increase in wages will affect the status of the profession. These two factors are of a great importance for men and influences o their choice of professions. The third point is paperwork. Checking homework, preparing lectures, practical exercises seem to be too voluminous for men. Attracting men into the field of teaching will give impetus to raising wages. The field of education can be a kind of springboard for men who are interested in a political career. Among the deputies of the Republic of Kazakhstan, almost 70% (according to www.parlam.kz) have a doctoral degree, an academic degree, also have experience in teaching at an institution of higher education, some have held senior positions (head of department, dean of the faculty, rector). To confirm their degree, the deputies should give lectures in universities, conduct practical classes.

Based on recent research women have become more competitive. The concepts of «soft» and «hard» management have almost disappeared. Employers pay attention to academic and doctoral degrees, as well as experience in management or similar positions (leadership positions, if in the field of education, then experience in the position of head of the department, dean). Management positions have become more accessible for women, there is access to higher education, and there is experience in management. However, low wages force women to work in several universities at the same time, or it often forces them to change their field of activity. With such a work schedule, women fail to build a career in the university; thereby men have more opportunities for career growth in higher education.

3. Methodology and data used.

In this research there are used statistical analysis, descriptive and comparative analysis (according to the time period, gender and positions), interview.

The study uses:

1.Data collected from government statistic website. There is given a snapshot of change in the number of men and women of different age groups between 20-24 to 95-99, according to academic degrees: PhD, Candidate of Science, and Doctor of Science collected in 2009. This is the period of early graduates of Bologna Declaration.

The data also includes statistical information about the number of male and female academia at HEI over the past 10 years according to the Academic degrees and ranks: PhD, Candidate of Science, Full Professor and Assistant Professor. There is also information about the number of females and males in higher managing positions in HEI.

2.Data collected from university sites. The data has information about state and national universities. I have taken these two categories as they are regulated by the government. In Kazakhstan there are 9 national universities and 31 state universities. However, the data includes only 30 universities: 22 state universities and 8 national universities. The list of studied universities is incomplete due to lack of full information about Rectors and Vice -Principals. In this study there has been studied work experience of all current rectors. There are analyzed 3 ways of career path: faculty path, practitioner path, corporate path. All paths have career paths with differences.

All three paths have general information about the qualification of Rectors and vice -Principals and what academic ranks and degrees do they possess. The faculty and practitioner paths usually have the maximum rank of a Full Professor and more than one degree of a Doctor. The corporate path usually has maximum of PhD degree. Faculty path consist of a position in a faculty which can be a lecturer, senior lecturer. The rest development of the career lasts with amid level position in a faculty, which is: head of a department and dean. The next step is senior level management, the positions are: vice president, executive rector. The highest level of a university hierarchy is rector. As for the practitioner path the difference is that the first position at a university is a position in any university division, which may be a position of a secretary, research assistant and so on. In most cases such rout does not usually include teaching; therefore, there can be seldom met Full professors. However, some university teachers after getting the degree of a Candidate of Science may immediately hold a position of the head of a department. Being the head of a department however, does not release them from teaching. Therefore, they provide classes, and after gaining a long-term experience in teaching at a university they can achieve the rank of a full professor. The last step before the highest level of hierarchy is the position of a vice-president. Corporate path among these three paths does not include a great experience in academia. The qualification which is of a high importance is experience in the same or relevant position. This does not have to be an experience in the field of education.

The study can show if the policy of the government to promote gender balance in all fields has had a result. As state and national universities have strong relation with politics and government, there should be seen a change in the career path for women.

4. Analysis

Academic stuff.

The positions of rector and vice-president used to be appointed by the government. The system of the USSR nomination of candidates was also reflected in the system of positions appointing in Higher Education in Kazakhstan. Candidates were chosen for meritorious service. A candidate however must have had the Doctorate degree and in most cases relevant to the field of study of the university. This would mean to have at least 10 years of experience. As women had to take maternity leave after their marriages to look after their babies, they had and academic gap. From that perspective

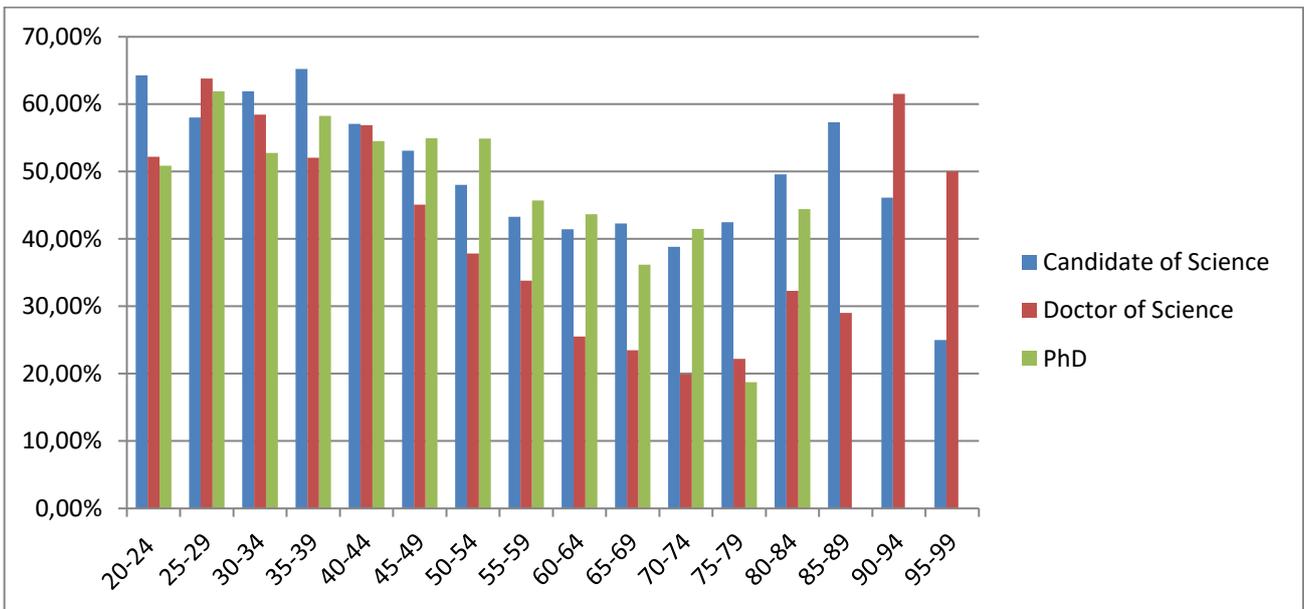
men had the advantage of non-stop work and education experience. The position of a rector or vice-president was expected to be occupied by a candidate, who would not have the duty to take long breaks.

Before 2004 education in Kazakhstan was counted as being more available for men rather than women. However, the problem was designed by cultural habits and traditions. In Kazakhstan a woman is usually regarded as a home keeper, where housework stands out to be the task of a day. After getting married family issues take most of the time and girls would choose family to building their carrier. A carrier in academic world would mean gaining teaching experience in Higher Educational Institutions, which would have taken about 10 years of experience. That would allow to a student to apply for Candidate of Science. However, those 10 years were not exact, and could change in the length. In the result, not having concrete time border lines made it more abstract and unclear of how much time a woman would need to get to PhD level. Familywise that plan did not fit in, as a woman was supposed to spend most of her time teaching, doing research, writing articles etc.

Accepting Bologna Declaration has shaped the system of education in Kazakhstan. This new pathway has become an ideally designed path for women, as now there has appeared a definite timeline structure. First of all, 4 years of bachelor's degree + 1,5\2 years of master's degree instead of 5 years of education to get master's degree. This is now followed by 3 years of PhD instead of 10 years of experience and additional year for getting PhD. Of course, new system has its own rules. If previous 5 years at university would allow teaching at university, new bachelors do not have enough qualifications to teach at university and are eligible only to work in secondary education. Moreover, obtaining master's degree or PhD has become a requirement in many fields for promotion for higher positions.

Current system of education has made education and promotion in academic world for women more attractive and easier. Nevertheless, this gender balance in education does not mean gender balance in private life. It is worth mentioning, that PhD students do not have to spend their whole time at university. Some universities have rules that a PhD student cannot work while studying, as they have to do a lot of research work. Therefore, women can spend most of their time at home physically as they may have 3-4 lessons on average during a day. Previously, Candidates of Science did not have to study. As it has been mentioned earlier, Candidates of Science would have a "nonstop" academic work experience. At the same time, they would be working on their thesis as well.

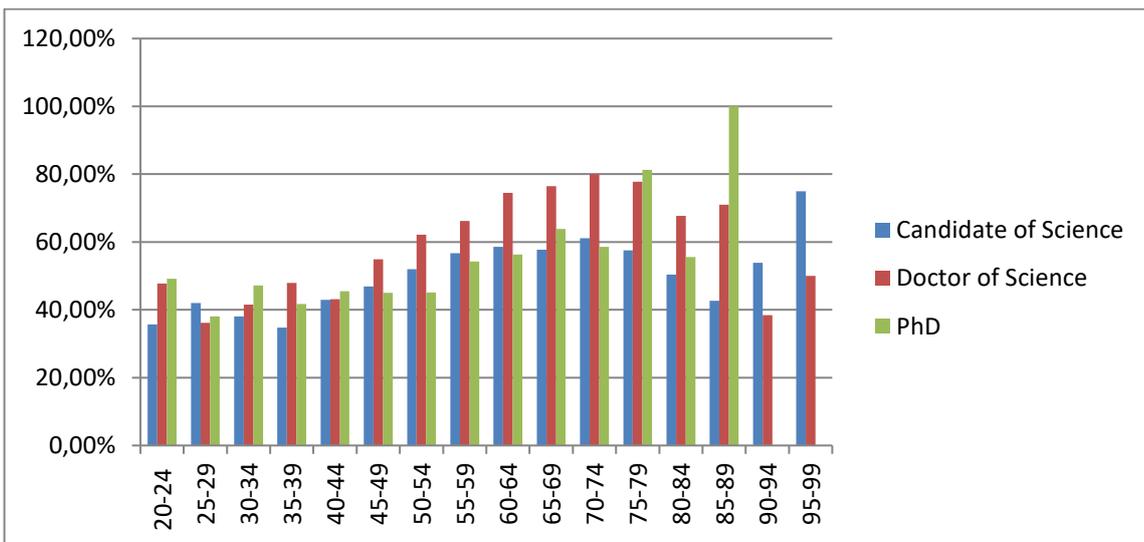
Graph 1. Percentage of women who have degrees of Candidate of Science, Doctor of Science and Phd of different age groups from 20-24 to 95-99 in 2009.



(The data is collected from statistical books “Women and men of Kazakhstan” from 2008 to 2017 www.stat.gov.kz)

New system of education has opened wide opportunities for housewives as well. As they are on maternity leave, they have more free time. This is usually between 20s and 30s in Kazakhstan. Therefore, the high dynamics in the number of PhD degree is clearly seen. As there have appeared more PhD degrees, as a consequence, the number of Doctor of Science has increased as well. Until mid-40-s women are actively involved in academia. However, for current PhD students it is obligatory to publish their articles, research in peer reviewed journals

Graph 2. The percentage of men who have degrees of Candidate of Science, Doctor of Science and PhD of different age groups from 20-24 to 95-99 in 2009.

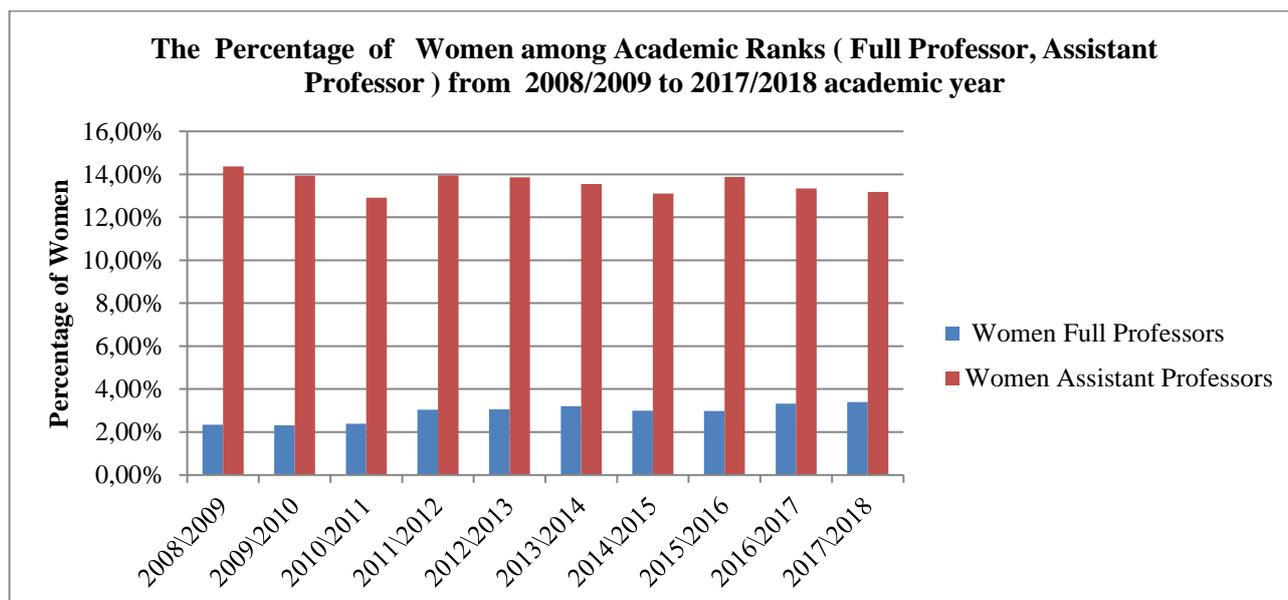


(The data is collected from statistical books “Women and men of Kazakhstan” from 2008 to 2017 www.stat.gov.kz)

Men on the contrary become more involved in higher education system after mid 30s and are more interested in promotion until 60s. The vast majority of men in higher education are older than mid-40s, which means that in about 20 years they are going to retire, and the amount of men will decrease twice. In the result there will be more women in teaching at universities.

The graphs demonstrate the change in the number of male and female academia over the last 10 years. As for academia there are taken figures for: Doctor of Science, Candidate of Science, Full Professor, and Assistant Professor. These positions are regarded as senior positions in academia. The time period is counted in academic years, starting from 2008\2009 to 2017\2018 academic year.

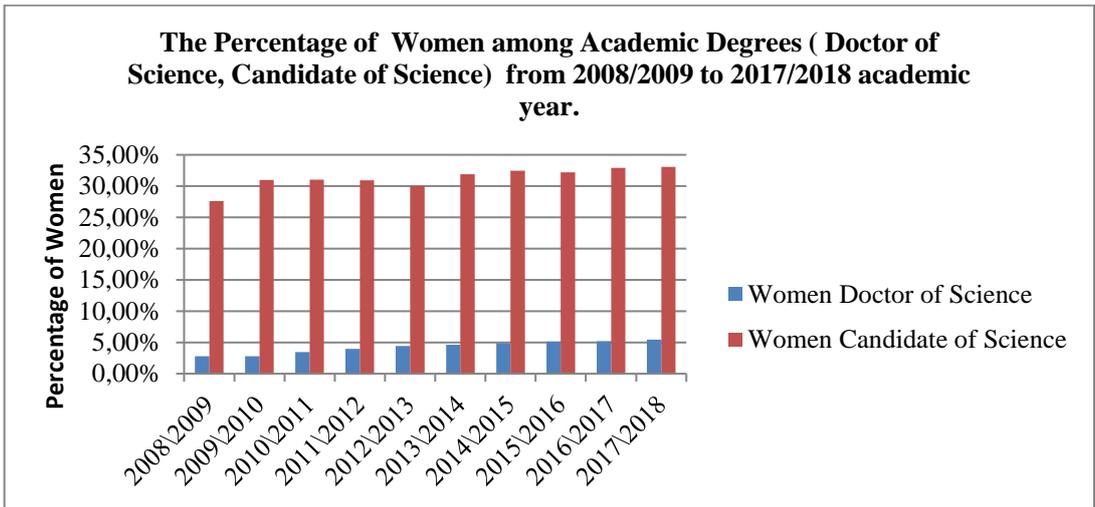
Graph 3. The Percentage of Women among Academic Ranks (Full Professor, Assistant Professor) from 2008/2009 to 2017/2018 academic year.



(The data is collected from statistical books “Women and men of Kazakhstan” from 2008 to 2017 www.stat.gov.kz . The full link to whole data : http://stat.gov.kz/faces/wcnav_externalId/publicationsCompilations;jsessionid=2z8ebryU6j3e2B3Li9dkYurmW8rOEvoIs6TIflwJQTzjLDjCB5mT!-1141199228!1266970695?lang=ru&_afLoop=2220192331126145#%40%3F_afLoop%3D2220192331126145%26lang%3Dru%26_adf.ctrl-state%3D10clq3ys_4)

The graph illustrates the number of female academia in 2 academic ranks: Full professor, Assistant professor over the last ten years. In the beginning of the period Full professors made up just above 2% when the number of Assistant professors was almost 6 times more and made up just above 14%. The number of Full professors increased insignificantly throughout the period. By the end of the period the number of women among Full professors was just about 3 %. The trend for Assistant professors in the beginning of the period was just over 14%, but it decreased insignificantly by the end of the period for 1 %.

Graph 4. The Percentage of Women among Academic Degrees (Doctor of Science, Candidate of Science) from 2008/2009 to 2017/2018 academic year.

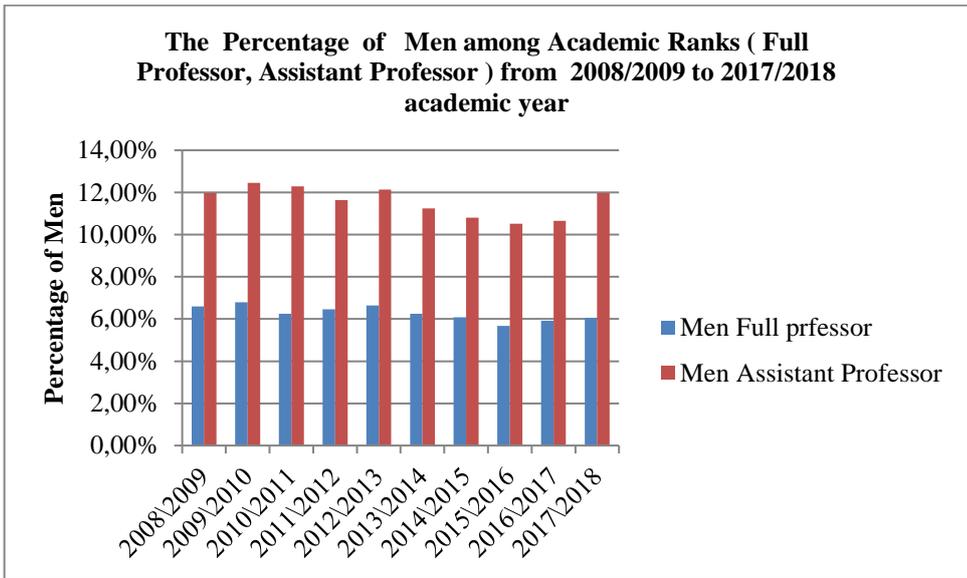


(The data is collected from statistical books “Women and men of Kazakhstan” from 2008 to 2017 www.stat.gov.kz . The full link to whole data : http://stat.gov.kz/faces/wcnav_externalId/publicationsCompilations;jsessionid=2z8ebryU6j3e2B3Li9dkYurmW8rOEvoIs6TIfIwJQTzjLDjCB5mT!-1141199228!1266970695?lang=ru&_afLoop=2220192331126145#%40%3F_afLoop%3D2220192331126145%26lang%3Dru%26_adf.ctrl-state%3D10clqqe3ys_4)

The picture for Academic degrees among women overall had an upward trend. In the beginning of the period the number of Doctor of Science among women was around 2, 5%. During first 6 years there was a gradual increase and in 2014/2015 it reached 5% and remained stable till the end of the period. Women among Candidate of Science made up about 27%. During first 4 years there was a slight increase for about 3 %, but in 2012/2013 it decreased for less than1 %, recovered next year and kept increasing till the end of the period. In the end of the period figures for Candidate of Science reached about 33%.

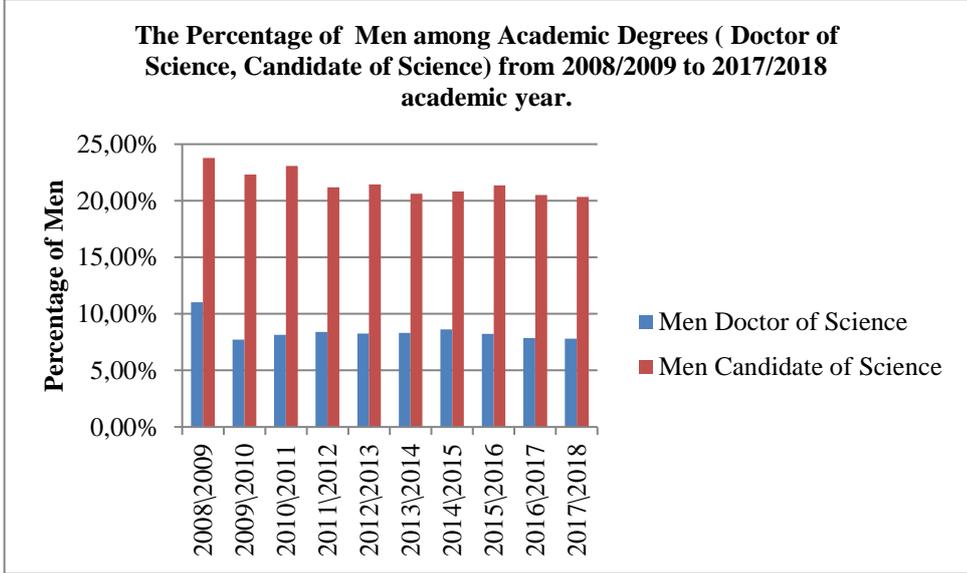
Overall both graphs illustrate interest among women in getting higher qualifications for further positions. They keep getting more involved in teaching process as the increase in number for Assistant professors shows.

Graph 5. The Percentage of Men among Academic Ranks (Full Professor, Assistant Professor) from 2008/2009 to 2017/2018 academic year



(The data is collected from statistical books “Women and men of Kazakhstan” from 2008 to 2017 www.stat.gov.kz . The full link to whole data : http://stat.gov.kz/faces/wcnav_externalId/publicationsCompilations;jsessionid=2z8ebryU6j3e2B3Li9dkYurmW8rOEvoIs6TIfIwJQTzjLDjCB5mT!-1141199228!1266970695?lang=ru&_afLoop=2220192331126145#%40%3F_afLoop%3D2220192331126145%26lang%3DrU%26_adf.ctrl-state%3D10clqqe3ys_4)

Graph 6. The Percentage of Men among Academic Degrees (Doctor of Science, Candidate of Science) from 2008/2009 to 2017/2018 academic year.

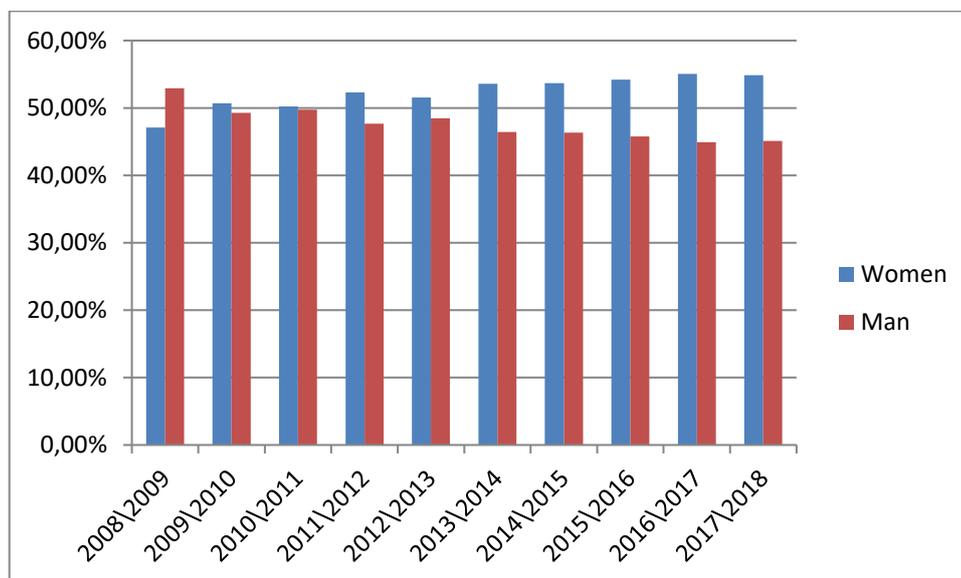


(The data is collected from statistical books “Women and men of Kazakhstan” from 2008 to 2017 www.stat.gov.kz . The full link to whole data : http://stat.gov.kz/faces/wcnav_externalId/publicationsCompilations;jsessionid=2z8ebryU6j3e2B3Li9dkYurmW8rOEvoIs6TIfIwJQTzjLDjCB5mT!-1141199228!1266970695?lang=ru&_afLoop=2220192331126145#%40%3F_afLoop%3D2220192331126145%26lang%3DrU%26_adf.ctrl-state%3D10clqqe3ys_4)

As for men there is a downward trend in all four occupations. In the beginning of the period Doctor of Science and Assistant professor had almost the same data around 11% and Candidate of Science

was a bit more than two times, about 24%. Full professor had the lowest figures almost 7%. Doctor of Science and Candidate of Science have dropped by around 3 %, while other two positions (Full professor and Assistant Professor) decreased insignificantly by less than 1 %. However, the difference between Assistant professor and Full professor remains about 5%. Candidate of Science is more than three times than Doctor of Science.

Graph 7. Total number of academic staff for men and women from 2008/2009 to 2017/2018 academic year.



(The data is collected from statistical books “Women and men of Kazakhstan” from 2008 to 2017 www.stat.gov.kz . The full link to whole data : [The third graph shows a gradual growth for women through the period and by the end of the period the figures are just over 50% whereas data for men has decreased and is less than 50% at the end of the period. In 2010\2011 academic year both women and men indicators had the same distribution. The difference remained insignificant the rest two academic years and from 2013\2014 academic year fell dramatically and in 2017\2018 the difference between men and women data was almost 10% \(women 54% and men 45%\).](http://stat.gov.kz/faces/wcnav_externalId/publicationsCompilations;jsessionid=2z8ebryU6j3e2B3Li9dkYurmW8rOEvoIs6TiflwJQTzjLDjCB5mT!-1141199228!1266970695?lang=ru& afrLoop=2220192331126145#%40%3F afrLoop%3D2220192331126145%26lang%3Dru%26 adf.ctrl-state%3D10clqqe3ys 4)</p>
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In contrast to academia staff, managing positions have quite opposite situation. In 2000 men in managing positions were almost twice more than women and made up just over 60%, whereas women were almost 40%. The last three years show women and men have reached gender balance, however women were slightly less.

Table 6. Share of female heads (rectors) of higher educational institutions (top managers in higher education)

Year	Higher Education System			
	Total (rectors, vice-rectors, deans, deputy deans and up to the level of department chairs)		Of these, heads of universities - the number of rectors	
	Women	Men	Women	Men
2000	872	1474	5	52
2001	932	1501	5	56
2002	962	1536	5	56
2003	1043	1610	6	58
2004	1146	1670	6	60
2005	1251	1646	6	61
2006	1266	1691	6	61
2007	1315	1711	5	66
2008	1370	1717	6	67
2009	1402	1679	8	66
2010	1451	1647	7	65
2011	1489	1673	8	65
2012	1529	1636	13	65
2013	1553	1566	12	65
2014	1559	1544	11	67
2015	1551	1527	16	95
2016	1531	1563	14	100

(The information is taken from the site www.stat.gov.kz. The full link : http://gender.stat.gov.kz/page/frontend/detail?id=42&slug=-36&cat_id=8&lang=ru)

According to table in 2000 women made up less than 900 for all managing positions, whereas men made up almost twice more than men. Only in 2013 women and men reached gender balance in the number of occupied managing positions. Throughout the period the figures for women increased gradually and by the end of the period showed about 1500. At the same time figures for men kept increasing until 2008 and reached its peak of about 1700. Although it kept decreasing till the end of the period and reached around 1500, it was still higher than for women.

The position of a rector occupied by women was more less than 10 times than for men only 5 women in managing positions, whereas men occupied 52. There was insignificant increase for women till 2012. In 2012 the numbers for women increased almost 3 times and reached a peak of 16 in 2015 but decreased in 2016. In the end of the period women made up about 18% of all rectors.

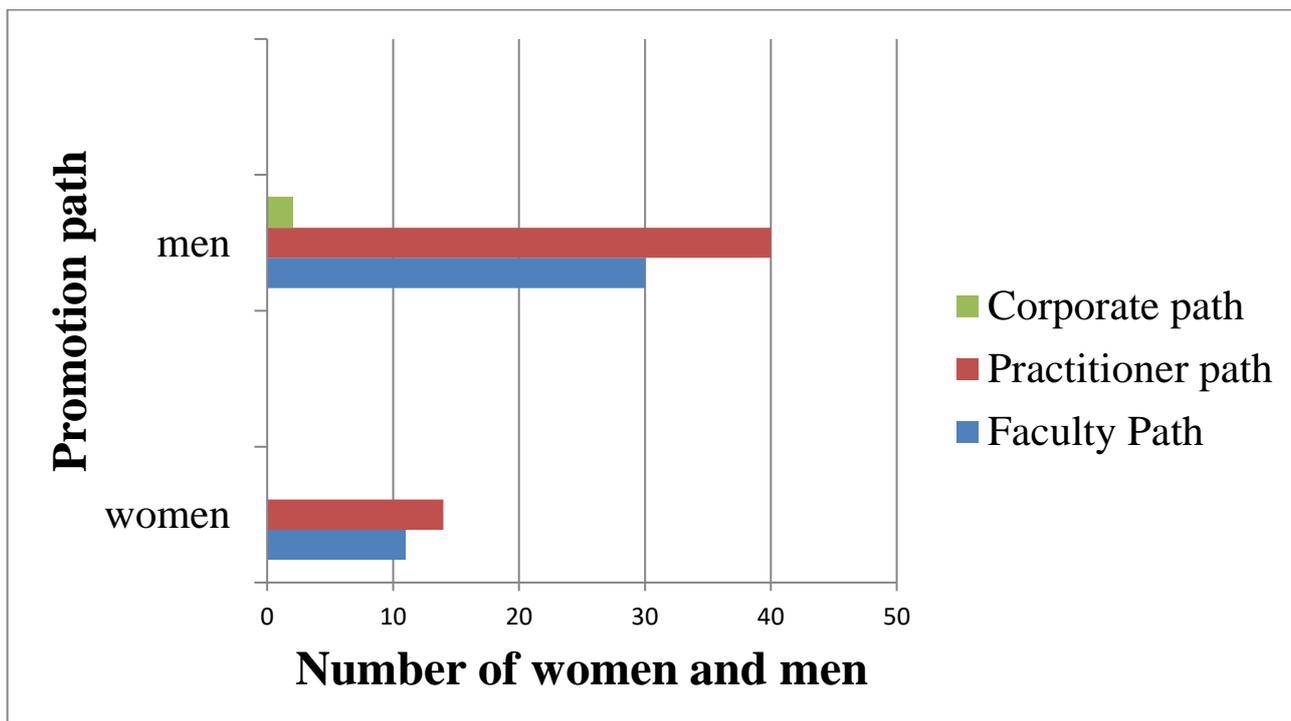
Higher Managing Positions.

Table 7. Division of rectors and vice-principals according to the way of their promotions.

Total number	Faculty Path	Practitioner path	Corporate path
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Rectors and vice-principals	97	41	54	2
Female rectors \ vice-principals	25	11	14	0
Male rectors \ vice-principals	72	30	40	2
National universities	8	-	-	-
State universities	22	-	-	-

Graph 8. Division of rectors and vice-principals according to the promotion paths.



(This data is collected from universities' websites and also from the official site www.online.zakon.kz)

The data collected contains information about the number of rectors and vice rectors in 30 state and national universities. The information was collected in December 2018. The table contains three promotion paths: faculty path, practitioner path, corporate path. The description of all three paths

were given in the “Methodology and data used” part. Unfortunately, the data misses information about work experience and academic degree, of 19 academia. For faculty path promotion a person would need to pass at least 5-10 years of experience and contribute to the university development and progress. The age, of those missing work experiences, of 19 academia varied from 23 to about 55 y.o. Therefore, they were included to the practitioner path. The oldest age among all academia is 70 y.o and the younger 23 y.o.

The most popular way to promotion is practitioner path among both male and female academia, whereas faculty path stays behind with quite significant difference for men and for women. Corporate path is the least used way of promotion to higher positions in HEI.

As we can see male make up about 70 % of all higher management. Therefore, it is worth looking at highest positions rather than including all managing positions at universities. If the figures of today have only improved, it means earlier the figures for women were even lower.

While studying the information about work experience of higher and highest management at universities there notice important moments. Two of male academia started promoting in politics in 2016. This is when the government policy on gender balance in politics started improving. In 2016 the numbers of women in parliament increased for 11 % compared to 2011.

Such positions as vice-rector in: vice rector for strategic development and Leadership, Vice-Rector for administrative work, vice-rector for creative work and international relations, vice-rector for financial, economic and legal issues, first vice-rector was not so popular among women.

Of all positions of vice-rectors there are three which are almost in every university: Vice-Rector for educational and methodical work, Vice-Rector for Research and Integration, Vice Rector for educational and social work.

Nevertheless, the two pathways for promotion require a full-time work with active participation in academic world, which is usually challenging for women in Kazakhstan as they are overloaded with family and home issues.

Interview.

There were conducted interviews among PhD student, associate professors, deans as well as among rectors and vice-rectors. There were not in-depth interviews. Due partial revealing of personal information the survey touched upon covering questions. Both interviews included one question for the first group and two questions for the second group.

Unfortunately, for the 2nd group it was possible to have only 2 interviews, as the rest interviewees did not to answer. The interview included only two questions. The interviewees have about 30 years of work experience at HEI.

1.Is there a relationship between career path and institutional type?

In previous years there was a binding to the specialization of the university. Logically, in technical universities the top management was occupied by men, as on a percentage basis they were greater in number among academic staff.

Nowadays quite often, the rectors and vice-rectors are people who in their specialty do not correspond to the direction of the university and there are more women. Among them there are more

economists regardless of the profile of the university and there are more women. One of the reasons is that among them there are more economists, not depending on the type of a university.

2. Is there a relationship between the career path and the personal characteristics of presidents\ rectors? Other factors related to family duties?

Career growth directly depends on personal qualities, since uncommunicative and not aimed at the professional realization person cannot be a vice-rector. In addition, it is considered that an important point that in order to work with an academic environment, one must have a sense of tact and respect for the team and students. Having a family is a motivating factor, since any person wants their family to be proud.

3. What are the issues women face in HEI to get promoted?

The great problem universities have is part-time academia, as women are pushed to work in that order. The next is that there are many cases of teachers to have break in their career. Sometimes for teaches it is difficult to cope when facing teaching routine. This is mostly due to the fact that majority of academia on nowadays are specialists. They did not study such core subjects as: pedagogics, psychology. Therefore, for them it is difficult to work without breaks or they change the place of work. This, of course, effects the promotion. More often, women keep teaching rather that get promoted to higher managing positions. From this perspective, it is worth to say that, there are stumbling blocks for women in higher education, but it is possible to cope with them.

There were interviewed PhD student, Associate professors, Deans:

There were not figured out any gender related barriers for women in achieving higher managing positions. The crucial requirement for higher managing positions is that there are not provided long breaks in career. Therefore, for women it was difficult to get higher positions because of maternity leave. According to the law, only women could take care of children. Currently there is a law which allows men take paternity leave. Therefore, women have possibilities to have non-stop work experience.

Another reason of high interest in getting higher qualification like Candidate of Science, that it has become more flexible for women. There were interviewed 10 PhD women students.

The question of the interview was:

Why did you decide to enter PhD course?

Women who are younger than 33 y.o. were interested in getting higher qualifications. Those who have already been working in Higher Educational Institutions are interested in having the opportunity of higher salaries. Some of the interviewees have children and live with their in-laws; however, this does not distract them from education. Though they have to spend most of their time reading, doing research etc., the fact that they can spend more time at home gives them feeling of a flexible time-table and the sense of more free time.

There were several reasons for women to get back to education or to choose this field:

For some women education is a source of income that would not require a lot of physical time spending at university. Moreover, for those had little children and lived with their in-laws it was even easier. Though they are looking after their babies, 4-5 hours on education a day is a convenient

amount of time for their in-laws helping with their babies. For those who had experience of working in HEI, the PhD degree would be profitable as it would increase their salaries.

Some women are ruled by stereotypes. Firstly, being an academia usually make good impression on people. So, women would get more respect and trust. Secondly, the sense of state structure gives to them a sense of protection. According to some opinions, this is because women get introduced with legislation in education very closely. Thirdly, it is usually their parents' choice. Some of them are not interested in connecting their future with education.

Another interesting reason is migration. According to some ideas getting PhD would benefit if moving to another country. Women feel the importance of obtaining PhD degree. As this could also be used as a means of getting a job abroad.

Some women get higher positions or want to get PhD degree because their students have achieved big results in their jobs, education. So, they felt great importance to increase their self-esteem. Moreover, they sometimes feel embarrassed for have only master's degree.

Conclusion

According to the research, there are still difficulties for women in promotion in higher education. On the one hand higher education has reached gender balance. Women holding higher managing positions (i.e. deans), women holding the rank of a professor, PhD students have reached its balance. Even though Kazakhstan has ratified and signed international agreements in relation to women's rights and gender equality, women are still underrepresented in the decision-making positions. One of the main stumbling blocks for women is experience gap which is due family issues. Another reason it is society stereotyping of role models of women and men.

The greatest influence of women involvement in higher education is due to the new system of education. Taking into account that Kazakhstan has joined many international programs, receives support and assistance of international organizations i.e. UN, ADB, EC and World Bank, "Bologna Declaration" has done a great change in achieving gender equality.

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