

Krzysztof Popiński (*Wrocław University of Economics and Business*, Wrocław) ORCID 0000-0002-5594-7838 krzysztof.popinski@ue.wroc.pl

FEMINIZATION OF HIGHER EDUCATION IN POLAND IN 1918-2018

Abstract: The text is devoted to women's presence in the Polish higher education in 1918-2018. Its history is presented in chronological-thematic order, including information about the beginnings of women's studies at universities as well as their basic political, economic and cultural conditioning. Although during the discussed period, basis of political system in Poland changed three times, there was a constant development of the size of higher education, as well as an increase of women's participation among students and academic faculty. The beginnings were very modest. However, today women constitute already the majority of students of higher education and almost a half of academic employees. Women, during their fight for equality in access to studies and academic career, had to overcome many legal obstacles, also informal ones, resulting from vitality of the image of traditional social role of women. Even though, the formal equality was gradually earned, it is still more difficult for women than for men to undertake studies at some faculties, and to get higher degrees and academic positions as fast as men.

Keywords: feminization, Polish higher education, women students, women's academic careers.

doi: 10.2478/sho-2019-0007

INTRODUCTION

For much over one hundred years, women's presence in higher education all over the world is more and more visible, both in the students' community, as well as that of the employees of higher schools. Polish chapter of this process is equally old and began already before gaining independence in 1918. It still continues, being, at the same time, due to various problems, far from the conclusion.

This text presents this phenomenon in chronological-thematic order. It focuses on presenting the evolution of the number and programs of studies undertaken by women, the percentage of women in the total number of students. I am making an attempt at distinguishing the most important stages, at underlining the mains reasons for the occurring changes, their course and consequences. Feminization of the Polish higher education is presented with consideration of its basic political, economic and cultural conditioning.

For a long time, the presence of women at Polish universities was very poorly reflected in scholarly publications. Although this phenomenon was noticed quite early, because already before the first world war, more in-depth studies devoted to this topic were not conducted. At first, it appeared mostly in the form of mentions in the publications devoted to national higher education in general. The pioneer of studies on the issue of studies undertaken by women and their presence among academic employees was, in the 1930s, Jan Hulewicz. Only at the turn of 1960s and 1970s, more regular studies in this topic were undertaken. They were at that time inspired mostly by the Intercollegiate Institute of Higher Education Studies (later the Institute of Academic Policy and Higher Education) and published in their journal "Życie Szkoły Wyższej" (later "Nauka i Szkolnictwo Wyższe"). We should mention here the articles of Zofia Dach or Elżbieta Kassyk, taken into consideration in this text. More people were undertaking the topic of women's presence in academic world as an element of broader analysis of higher education in Poland. We can include here Małgorzata Dabrowa-Szefler, Julita Jabłecka, Halina Najduchowska, Elżbieta Wnuk-Lipińska and Jan Kluczyński. A new quality in the studies on women's history in Poland, their place in political, social and cultural life, was brought by systematic and multi-directional research began on the initiative of Anna Zarnowska in the end of 1980s. It was conducted, among others, as a part of the Group for Research on Social History of Women in Poland, and included also the question of women's access to education and various forms of women's presence at universities. On the initiative of Anna Zarnowska, Historical Institute of Warsaw University began a series of seminars devoted to the place and role of woman in the processes of modernization of society in the 19th and 20th century. Their results were published in eight subsequent volumes edited by A. Żarnowska and A. Szwarc in 1990-2004. The effects of these activities contributed to the realization of the little extent in which women's topics were previously included in the studies on the history

of Poland, and initiated the process of filling this gap. At the same time, they became an inspiration and a point of reference for subsequent generations of Polish women scholars who undertook the task of presentation of women's issues, also their relationships with the academic world. The works are continued both with application of more traditional narration (e.g. Urszula Perkowska, Dorota Mazurczak, Mariola Kondracka), as well as from the point of view of feminism (Renata Siemieńska, Jolanta Kolbuszewska, Monika Sulik, Dobrochna Kałwa, Agata Zysiak, Agnieszka Majcher).

Since at least 1970s, the feminist movement in the West began to express its resistance to depreciation of women's role in the academic world. A new scholarly discipline was born then - Women's Studies, Gender Studies, working on multidimensional, interdisciplinary analysis of men's and women's gender identity, role, models and social-cultural patterns and their functioning in science, culture and social practice. The purpose of Women's Studies, and the feminology studies conducted as a part of them, is to make beliefs, experiences, needs and interests of women accepted as their full-fledged contribution to knowledge production. They focus on both the problems of studying women, as well as on the problems encountered by women researchers and teachers in the academic environment dominated by men. After 1989, this trend began also to develop in Poland. Women's themes are more and more often undertaken by research communities. Still, however, Gender Studies faces reserve, or even reluctance of the part of Polish academic world accusing it of being subjected to ideology instead of scientific reliability. Research on the subject of women was initiated in various scientific centers, among which the Poznań and Łódź centers play a significant role. Women's studies are also undertaken in other academic centers, and there are postgraduate studies in this topic organized at several universities [Sulik M. 2010: 56-61].

WOMEN IN ACADEMIC WORLD BEFORE 1918

The postulate of giving women access to all levels of education, including higher education, became one of the main slogans of the emancipation movement of women in the second half of the 19th century. Receiving education was treated as one of the basic elements of gaining professional independence, improving social position of women in Europe and North America. These postulates encountered resistance of traditionally con-

servative circles of society, so their fulfillment was possible only in stages, stretched throughout decades. The pace and character of those changes was different in particular countries depending on local social-political conditions. First to open their gates to women were, in the 1860s, Swiss universities. They were followed by French and British universities, and later by other Western European countries. In Austria, it took place in 1896, in Germany in 1895-1908. The authorities of Tsarist Russia did not decide to make this step, and only allowed informal university courses for women to function. Opposition towards the presence of women at universities was weakening with time, but it was really undermined only during the years of the first world war. Its experience buried previous imaginations about social order [Schulze F., Ssymank P. 1910: 419-21; Flaeschendrueger W. 1981: 138-40; Hulewicz J. 1939: 192-201; Molik W. 1989: 83; Popiński K. 1995: 188-9; idem 2002: 18].

An increase of educational aspiration of Polish women and lack of possibility to study in the Polish territory made the first of them to undertake studies abroad. Although it is difficult to get precise data, due to the difficulty with distinguishing nationality in the statistics of that time, it is estimated that in 1870-1914, about 3 thousand Polish women in total matriculated at foreign universities. In the mid 1890s, after long term attempts, women gained access to studies at the universities of Galicia - at Jagiellonnian University in Krakow and at Jan Kazimierz University in Lviv. A very small number of the first alumnae has a chance to undertake work at any university, mostly at less prestigious, low-paid, secondary positions. Only individuals managed, despite reluctance, especially on the beginning, and obstructions of the academic environment dominated by men, to pursue academic career. In the Polish territories under partitions, the possibility of undertaking university jobs by women appeared only at the beginning of the 20th century. In 1896, women were allowed to nostrificate foreign diplomas of medical doctor, as well as to obtain them at local universities. From 1904, women were allowed to be hired at positions of demonstrators and trainees, and in 1906 at position of assistant [Hulewicz J. 1939: 201-25; Molik W. 1989: 83; idem 2016: 37-45; Halbersztadt J. 1996: 108-9; Kondracka M. 2000: 271-3; Sikora K. 2007: 249, 254-5, 262-6; Dobkowska J. 2016: 97-8, 100-03; Kolbuszewska J. 2017: 36-49; Siemieńska R. 2019: 53-4].

IN THE SECOND REPUBLIC 1918-1939

Together with gaining independence in 1918, Poland joined, after years of partitions, the group of free democratic states. It was, however, burdened with poverty, social inequalities, economic underdevelopment and many civilizational retardations. Nevertheless, the processes of modernization, including the national educational system, began.

In the Polish conservative and right-wing circles, still existed beliefs considering woman's fate as determined by biology which limited her role to the sphere of motherhood and family. Fortunately, the belief about social justice prevailed, and it influenced the acceptance of the rule of equality of women and men in the Polish legal system. Social practice of the interwar Poland was, however, making it difficult to fully introduce it. The generation of the first university alumnae had after 1918, still, fundamental problems with getting most of public positions, including academic ones. It was impossible to eliminate with one legal act all the existing limitations of women's rights. It was necessary to amend all the legal system in the course of a longer process. The constitution from March 1921 gave women full electoral rights, it guaranteed them a possibility of undertaking jobs in administration and jurisdiction. They could sit in parliament and other collegiate bodies. However, it was still difficult to overcome the traditions and stereotypes rooted in the Polish society. Governmental institutions, dominated by men, were in practice reluctant to accept women, especially to appoint them to senior positions. Numerous violations of the rule of equality, inconsistent with the constitution, would occur. Although formal equality was a fact, social consciousness was changing slowly [Żarnowska A. 2000: 287, 291-2, 295-7; Łysko M. 2015: 382-3, 395-6; Gawin M. 2015: 292-4].

1) Women Students

Formal equalization of rights of women and men, which took place in the independent Poland after 1918, opened access for women to the majority of university programs. Their number and rate among the total number of students at Polish universities were growing systematically. On the beginning of the 1920s, this factor doubled in relation to the prewar period. In the academic year 1921/22, girls constituted 23.2 %, and in 1931/32 about 28 % of all students. In this time, the rate of women in the

states of Western Europe was lower than in Poland. In the 1930s, in the countries which entered the path of totalitarianism it dropped even more. While in the Great Britain the rate of women among students was about 24 %, in Germany and Italy women at universities constituted already only 14%. An exception was USSR, where women, due to realization of the systemic rules, constituted about 36% of all students [Kolbuszewska J. 2018: 120].

The process of democratization of the higher education in the interwar Poland was slowed down not only by the financial barrier difficult to overcome, but also by the quota assumed top-down by particular universities which limited the number of students of particular nationality or gender. This was practiced in many countries from the 19th century. In Poland, it mostly affected Jewish students who, from 1937, consisted 20-40% of the total number of students of Polish universities. In that year, some universities assumed acceptable quota of Jewish youth at 10%. However, numerus clausus was also affecting women. For example, in 1923/24, Medical Department of Jagiellonian University, limited women's participation from 10 to 5%. That decision was explained by difficult room conditions, and financial limitations of the Department. The practice of recruitment affected mostly Jewish women who constituted half of women applicants, and only proportionally small number of them was accepted. Despite limitations, they constituted over 35% of the total number of girls studying in all departments. The rate of girls of Greek-Catholic faith at Krakow university was 14.3%, and of Orthodox faith was even smaller [Perkowska U. 1994: 22-3; Kolbuszewska J. 2018: 121].

During all the interwar period, women remained generally worse educated than men. In 1923/24, girls constituted 38.5% of students of secondary schools and only 23.7% of university students and those proportions did not undergo significant changes till the outbreak of the second world war. Also, women constituted about a half of school teachers, a third of secondary school teachers, and only a scintilla of academic teachers [*Rocznik Statystyki...* 1925: 224, tab. 8; Kolbuszewska J. 2018: 121].

There were significant differences in the rate of women's participation at particular universities, departments and programs. Women dominated in dentistry (about 70%), in so called philosophical programs, especially in the humanities (about 64%) and were equaling the number of their colleagues men in pharmacy (about 50%). They also constituted quite high, although visibly lower, rate in artistic studies (30-40%), growing in economics (from 13.3% on the beginning of 1920s to about 32.5% in the end

Table 1: Rate of women students at Polish universities in the Second Republic of Poland

	1923/1924		1928/29		1937/1938	
Specification	students in thousands	including of women [%]	students in thousands	including of women [%]	students in thousands	including of women [%]
Total	38.4	23.7	43.6	26.4	48.0	27.2
State schools	32.1	22.7	37.9	27.1	37.5	27.4
Private schools	6.3	28.6	5.7	28.1	10.5	31.4
		University	y programs			
Theology and canonical law	0.4	0.0	1.0	0.0	1.0	0.0
Law and political science	9.7	9.3	11.0	10.9	13.2	18.1
Medicine	4.7	19.1	3.8	18.4	3.9	20.5
Pharmacy	0.5	40.0	0.8	50.0	1.2	50.0
Veterinary science	0.4	0.0	0.7	0.0	0.8	12.5
Dentistry	0.3	66.7	0.4	80.1	0.5	60.0
Philosophy*	11.8	51.7	13.6	55.1	12.0	53.3
Agriculture	2.2	9.1	1.8	16.6	2.4	25.0
Technology	6.6	4.5	6.3	4.7	7.6	6.5
Fine Arts	0.3	33.3	0.7	28.5	0.7	42.8
Economic science	1.5	13.3	3.4	26.4	4.3	32.5
Physical education	0.0	0.0	0.1	0.0	0.2	50.0
Journalism	0.0	0.0	0.0	0.0	0.2	50.0

Sources: author's table based on: Rocznik Statystyki... [1925: 242, table 20]; Rocznik Statystyki... [1929]; Maty Rocznik Statystyczny... [1939: 332-4]; Historia Polski w liczbach... [2003: 503-4., Tab. 207(472].

of 1930s), agricultural science (it increased gradually to about 25%), medicine (above 20%). A low percentage of women could be found in technical science, as well as in veterinary science (12% in 1937/38), and in law and political science (9.3% in 1923/24 and 18.2% in 1937/38). A small number

^{*}under this term, according to the university tradition, all arts and sciences were considered

of women in legal departments was related to the impossibility of taking a position of a judge, or difficulty with obtaining higher position in public administration. Studies were not necessary for taking a position of a secretary or a court recorder. Situation was not better in different professions. For example, in 1938 women constituted only 16% of professionally active medical doctors. Programs most popular among women enabled them to undertake jobs in school education after finishing studies. Considering the type of higher school, the most of women studied at universities, the least at technical universities and in some economic schools. The rate of women was slightly higher at private universities (about 30%) than at state ones (about 25%). Among the universities with the higher rate among women, University of Warsaw stood out. There, in the mid 1930s, women constituted almost 40% of total, while at the university in Krakow, Lviv, Vilnius and Poznań, 30%. The number of girls bigger that at Warsaw University was only at the Free Polish University, Fine Arts Academy in Warsaw, and at the Academy of Stomatology in Warsaw [Gerber R. 1959: 77-8; Perkowska U. 1994: 34-40; Halbersztadt J.: 109-11; Mazurczak D. 2011: 198, 204; Jołkiewicz D. 2001: 40-6; Majewski P. M. 2016: 132-6].

2) Academic career of women

In the interwar period, women had the right to take up jobs at universities and to pursue academic career formally granted by the constitution. It was, however, confronted with local and particular regulations and unwritten laws of concrete circles, centers and associations. Resistance towards their presence in the academic world had mostly traditional character. The majority of conservative academic world was against women at universities in general. Many professors were complaining about "feminization" of universities, that is equalization of proportions between genders among students. The first women scholars were not treated as equal partners. Academic career was possible only to the most determined of them. They would often pay for it with painful sacrifices in personal life. Their abilities for pursuing academic job was being depreciated. They, as other professionally active women, were accused of being selfish and fulfilling their own ambitions at the expense of family life and even their femininity. Finally, women climbed the entire ladder of academic career, but these posts were still more of bridgeheads than strongly grounded positions, especially in the case of independent academic faculty at universities [Kałwa D. 2001: 105-15; Sikora K. 2007: 266-7; Kolbuszewska J. 2018: 124-29, 132].

The first generation of alumnae of higher studies in the country, who completed studies at the Jagiellonian University, Jan Kazimierz University in Lviv, or the University of Warsaw, functioning from 1915, or educated abroad, undertook jobs at universities at the dawn of independence. After 1920, women who received doctorate were quite numerous. In the 1920s, women constituted 21.9% of the total number of doctoral students, and in the 1930s already 31.6%. Only at the Jagiellonian University in 1918-1938, 571 women were awarded with a doctorate, including 320 in the Department of Philosophy. At Jan Kazimierz University, 663 women were pursuing doctorate, including 297 in the Department of Philosophy. Still, however, women's doctorates, even in the departments of philosophy, were proportionally less numerous than those of men, even though women generally constituted the major part of students. Doctorate did not guarantee employment at university and only a small number of women having that degree would take a position of an assistant. At the mentioned Krakow's university, at the same period, 187 women in total went through assistant positions. In 1925/26, for example, 30 of them (15.2%) were employed, and in 1935/36 - 43 (17%). In the interwar period, formal obstacles on the road to academic positions disappeared for women. Receiving assistant position depended on the abilities of candidate and favorable disposition of the head of faculty. Still, however, the majority of them was giving up this job after a few years, not being able to come to terms with intense academic work and numerous, not only academic, duties, combined with the necessity, forced with a law salary, of additional part-time jobs. This problem concerned also men, but it affected women more. The possibility of further academic career for them was in practice significantly hindered [Perkowska U. 1996: 142-43, 146; Kolbuszewska 2018: 123-24].

Coming to terms with the presence of women in the groups of students and employees taking assistant positions did not result yet in the approval of the conservative majority of the academic world for further promotion of women in academic hierarchy. The problem would appear at the stage of pursuing habilitation and related promotion to the title of associate professor. Period of intensive work without proper financial security, was exceptionally difficult to go through, especially for women. Many people, including proportionally many women with habilitation,

never got a position at university. And those who got it, had to fulfill their duties through the period of subsequent 5 years without salary, in order to begin pursuance of the title of an associate professor and taking a chair associated with it. There was a phenomenon of overproduction of intelligentsia who could not find employment in academic-research institutions. The first woman obtained habilitation in Poland in 1920. Till 1939, women's habilitations were, however, still a rarity. It was obtained in the entire interwar period only by 50 women in all the disciplines and at all universities. The most of them, over a dozen, at the Jagiellonian University and Warsaw University. In other institutions, there were individual cases, mostly in the humanities and medicine. Law, let alone theology, did not have any habilitation of a woman [Szarras H. 1975: 63-9; Kolbuszewska J. 2018: 124-28].

Women's professorships were even more rare. And in the interwar period, according to the law of that time, professors were the only fullfledged academic teachers. They decided about functioning of the university, and all other academic employees were playing an assisting role. New universities in Warsaw, Poznań and Vilnius, building their faculties from scratch, were more willing to employ young scholars, including women, than the oldest from the universities. University of Poznań was the first one to accept women among their independent employees. But also there, however, these were individual cases, and women rarely would finalize favorably their attempts to take up chairs, they would more often lose that competition with men. The first professorship appointment for a woman in Poland took place only in 1929. The position of women at universities was reinforced a bit from mid 1930s. In 1938/1939, there were 68 women lecturing at all Polish universities, including only 5 as full professors, 1 associate professor, 4 with the title of a professor, 35 assistant professors and 23 doctors. Exceptionally liberal was the Free Polish University, which was employing 35 women at academic positions, including 5 with the title of a professor. We can estimate that in the 1930s, women constituted only 3% of all independent academic employees, that is professors and adjuncts, and over a dozen percent of all academic employees, including lower staff. Quite feminized was administration, among which women constituted over a half of total, rarely, however, they would hold management positions [Kondracka M. 2000: 280-2; Mazurczak D. 2011: 199-204; Kolbuszewska J. 2018: 130-1; Magiera E. 2015: 35-7, 42-3].

Modest progress in taking up academic positions by women in the interwar period, slower than the process of feminization of studies, can be understood as a reflection of generally slow pace of the process of real equality of women in various areas of social life of Poland before 1939.

IN PEOPLE'S POLAND¹ 1945-1989

After the end of the second world war, power in Poland was, for several decades, overtaken by the representatives of the Communist Party. Following the models from the USSR, they undertook an attempt of modernization of the country, which was accompanied by a radical transformation of the political a social-economic structure. Power was now to be exercised in the interest of social masses – workers and peasants, and an unprecedented advance was also to concern women in the area of education.

In this period, we could witness popularization of education at higher level all over the world. A number and rate of studying women, as well as women employed as academic positions, also increased. Equality of women was a part of ideology propagated by the communist authorities, one of the elements of the rules of social justice. It also had its practical dimension. In relation to the plans of carrying out fundamental social-economic changes in the country, its industrialization, a high increase of the need for training personnel was assumed. Its fulfillment was depended, in major part, on rising the level of education of women. At the same time, education was becoming a carrier of social and professional advance of women [Erazmus E. 1974: 109; Siemieńska Renata 2019c: 75].

The state was institutionally supporting the increase of educational aspirations of Polish women after 1945. This phenomenon was also encountering social acceptance bigger than previously. Undertaking subsequent stages of education by women was also favored by the fact that thanks to the developed system of vocational education, men were more often

¹ This informal name was applied in the text as the description of the entire time of Communists' authority in Poland. Similarly to the official name of People's Republic of Poland, although it formally was used from 1952. The acceptance of such solution was supported by the majority of participants of the survey *Historycy o badaniach dziejów Polski Ludowej* [2008], organized by the editors of the journal *Polska 1944/45-1989. Studia i materiały*), vol. VIII.

choosing this type of education, resigning from further education. The reality of the Polish People's Republic guaranteed higher salary to skilled workers than to majority of intelligentsia. This did not mean, however, than in the People's Republic women had always easier access to studies than men. It would often turn out that, for example, the university programs most willingly chosen by women, had lower supply than demand due to the educational policy of the state. Competition among women would then be more fierce than among men, and concentration of women and men in different fields of education would, in effect, give unequal opportunities of professional advance [Majcher A. 2007: 30-3].

In the Polish People's Republic, as in other communist countries, public sphere was formally open for women, equality of genders was strongly propagated, women, however, were most often occupying worse paid positions, being at the same time, still, burdened with family and household duties. Changing professional status of women was not accompanied by a sufficient change of cultural models [Młodożeniec M., Knapińska A. 2013: 50-8].

1) Women students

In the first postwar years, we can observe rebuilding and fast development of all levels of education. Thanks to cancellation of fees for school, development of the system of material support, development of forms of extramural education and introduction of many other improvements, studies became accessible for broad groups of society. Educational advance included women as well. In 1947/48, girls constituted already almost a half of students in high schools, and in the institutions of teachers' education and schools for adults these proportions were even better for women. In the higher education, the number of studying women was in total exceeding 20 thousand, and their rate among the total number of students was about 34-35 % [Erazmus E. 1974: 170-1; Kassyk E. 1971: 69-71].

Communist countries of Eastern Europe had never realized the assumed factors of women's presence at universities. While in Poland, since the beginning of 1950s, it was possible to lift general rate of women studying to the level of thirty something percent (in reference to about 27% in 1937/38), in GDR and ČSR, it was significantly, in a few percent, lower [Connelly John 2014: 355-359].

Despite the fact that since the end of the 1940s, a considerable development in women's education occur, men still were obtaining professional success faster and easier than women with similar education. This was one of the reasons of the inflow of women to secondary schools and of increase of their aspirations for university studies. The awareness that preconceptions about women's work can only be effectively fought when they have on average higher qualifications than men, became the factor boosting women's activity in the area of education. This process underwent acceleration in 1956-60, and its expression was increasing feminization of secondary schools. In result, on the beginning of 1960s, girls constituted already 64% of total number of students in secondary schools, and this rate grew even more in the two following decades. Feminization of secondary schools was, on the one hand, considered a positive process, on the other hand, some would try to see in it "violation of constitutive rule of equality in relation to men, as well as violation of social and productive balance in the scope of personnel with secondary and higher education" [Erazmus E. 1974: 250-1].

Girls going to secondary schools, and later to universities, were receiving there education allowing them to obtain jobs as clerks, teachers, or health center worker. It was a chance of an advance both for the girls from the working class, and even more from peasantry. It was also a chance for girls from intelligentsia to reproduce the status of their parents. At the same time, girls, generally more often than boys, had ambitions for obtaining higher professional status than their parents [Zysiak A. 2016: 213; Siemieńska R. 2019c: 75].

Higher educational aspirations of women were confirmed by the date of CSO. The rate of spread of education on the higher level increased from 9.2% in total and 7.4% for women in 1960 to 13.5% in total and 12.7% for women in 1970, and to 17.1 in total and 19.7% for women in 1981 [Rocznik Statystyki Międzynarodowej... 1985: 364].

The increasing rate of women among students in Poland in all universities in total was in 1970/71-42.3%, and in 1974/75-48.3%. After 1977/78 there was a general decrease of the number of students at Polish universities. It also concerned women, although in a smaller extent that men. In 1984/85, women's participation in the total number of students was 50.8%, and at the end of the decade it grew a few percent more. With the women students rate among the total number of students over 55%, Poland was next to GDR, Bulgaria and USSR in the lead of socialist countries, but also, in the 1970s and 1980s, it was surpassing in a few percent a majority

of developed capitalist countries [Dach Z. 1987: 18, 25-6; Popiński K. 2010: 263-4].

The rate of women at particular types of universities was quite diverse. In 1971/72, for 347 782 students in total, there were, at Polish higher schools, 151 351 women (that is about 40%), including: at universities 61 065 (almost 50%), at technical universities 27 349 (about 21%), 13 903 at agricultural universities (about 40%), at economic universities 15 353 (about 62%), at pedagogical universities 8 169 (about 68%), in higher teachers' schools 5 469 (about 72%), at medical universities 14 975 (about 66%), in higher schools of physical education 2 351 (about 40%), in higher schools of fine arts 2611 (about 48%) and at theological universities 603 (46%) [Tymowski J. 1975: 68 (tab. 5)].

Differences were also between particular programs of studies. From the end of the 1960s, the percentage of women dropped in medical programs from 66% in 1970/71 to 62.8% in 1984/85. Changes in 1970s and 1980s were also occurring in technical programs. In the postwar period, up to 1977/78, an increase of women's participation in technical programs was ongoing. It was respectively: in 1950/51-8%, in 1970/71-19.8%, in 1977/78-24.2%, and then it began to drop and in 1984/85 was 21.1%. Drop in interest in technical studies was caused by, as in the case of men, the difficult social-economic situation in the country, situation on the job market characterized by relative saturation with engineering staff and decrease of its prestige. In technical programs, only Hungary had that factor lower than Poland (16.8%). In Czechoslovakia it was 22.8%, in GDR - 29.7%, and in Bulgaria 38.4%. In capitalist states, participation of women among students in technical programs was significantly lower. In Belgium it was 8.5%, in the Great Britain 9%, in Canada 10%, in Western Germany 12%, while in Japan only 2.5%. High degree of feminization concerned studies in the humanities (about 76%), and in science and economy (60-63%). [Dach Z. 1987: 19-21].

On the beginning of the 1950s, women already constituted a half, and in the mid 1980s, even ¾ of the total number of students of medicine. At the same time, there was a progressing process of feminization of medical jobs. Already from the 1960s, women constituted 80% of medical employees having direct contact with patients, while among doctors they constituted, from the 1970s, almost a half, among stomatologists and pharmacists about 80%, and nursing and obstetric jobs were completely dominated by them. A smaller degree of feminization of the profession of medical doctor can be related to the limitations in recruitment of women at partic-

Table 2: Percentage of women among students according to the programs of studies in 1948-1986 (%)

	1948/1949	1962/1963	1971/1972	1985/1986
Total number of students (in thousands)	103.7	141.6	221.1	340.7
% women	36.4	38.3	47.5	50.9
	Group of	programs of stud	lies	
Technical	7.5	14.2	25.2	19.8
Agricultural	26.1	31.3	42.8	45.2
Economical	32.9	b. d.	63.6	56.6
Legal-administrative	with economical	41.3	50.0	45.7
Humanities	62.5	63.8	74.5	75.5
Science	52.0	58.5	59.9	61.5
Medical	53.4	59.6	65.8	62.3
Physical education	b.d.	b. d.	37.5	35.8
Fine arts	52.8	45.2	46.9	51.3
Phedagogical	b.d.	b. d.	70.4	b. d.

Source: calculations – for 1948/49 author's, based on: *Rocznik Statystyczny* 1950 [1951: 150, tab. 26]; for 1962/63, 1971/72, 1985/86: Siemieńska R. [2019a: 58].

ular universities introduced already from the 1960s. An example of this can be the regulation of the Ministry of Health and Social Care from 31 December 1985. Because women generally would get better results at entry examinations than men, this regulation was introducing limits of 50% for men and 50% for women. Defending this discriminatory decision before the Constitutional Tribunal in 1987, the minister was arguing, among others that medical programs, especially surgery, require specific psychophysical characteristics that only men had. The Tribunal decided that this argumentation is unfounded and in contradiction with the constitutional rule of equality of women and men, guaranteed also by international obligations assumed by Poland, and it ordered its annulment. This statement prohibited introduction of any limits in recruitment for all programs

of studies, which would be discriminatory for women [Jołkiewicz D. 2001: 40-6].

Also women professionally active were not resigning from further education. They constituted a significant and increasing percentage of student in programs of studies for working students. In the 1970s, women constituted 30% of total number of students in extramural studies, and in the following decade, almost a half of them. Only in the evening studies, which were conflicting with everyday duties of women, and were conducted in fields chosen by them more rarely, they constituted not more than ¼ of the total number of students [Świecki A. 1975: 306].

At first, women were visibly more rarely undertaking postgraduate studies, started in 1965. However, at the end of the People's Republic, they were already the majority of their students (1970 -24.6%, 1980 -41.2%, 1989 -59.6%). Slightly different was the situation concerning doctoral studies. The percentage of women among their students was relatively stable to the end of the 1970s, and in the 1980s, in the time of clear crisis of this form of education, it dropped. In 1970, women constituted 35.5% of 3 235, in 1980 -35.8% of 5 844, and in 1989 already only 26.9% of 2 692 doctoral students [Roczniki statystyczne szkolnictwa ... 1966/67-1990/91; Siemińska R. 2019a: 59].

Summarizing women's education in 1945-1989 we should note an increase of their number and rate among students. In the 1980s, women studying at universities were already exceeding men in number, especially in full time studies. At the same time, the process of feminization of part of the fields was progressing. For women, a possibility of undertaking intellectual work after secondary school or studies was, despite low salaries, more attractive than tiring physical work. Higher education, although it did not guarantee good salary, was, however, giving in the Polish People's Republic certain higher social status. That was the case at least till the crisis of the 1980s when a university diploma temporarily lost its real significance [Siemińska R. 2019a: 59-60].

2) Academic careers of women

Although People's Republic guaranteed full political, economic and social rights to women, and women were being promote in the party and administrative structures, they would rarely perform a managing function, and their presence in decisive boards was almost symbolic. Top-

down feminization, managed by the government, was formally increasing professional mobilization of women, but it did not release them from their previous responsibility for family life and children. Officially, the state was supporting women's careers, in reality, however, such process had a character of a seeming emancipation. It also concerned women working academically. Here, women, still burdened with household duties, were perceived as less promising. Institutional and cultural factors were still against them. Communist authorities aimed at the transformation of the academic world and science according to their ideological and political assumptions. They aimed at development of personnel in the higher education, and their staff policy did not make specific difference in relation to women and men [Kolbuszewska J. 2016: 154-58].

In the post-war reality, women were being employed more willingly at new universities being created in Wrocław, Łódź, Toruń or Lublin, mostly due to staff shortages existing there. It was also easier for them to pursue their careers at those universities and take management positions. At older universities in Kraków, Warsaw, and even in Poznań, the prewar mentality, impeding getting jobs by women, was more strongly preserved [Kolbuszewska J. 2016: 159, 171].

Despite the fact that women were completing studies with similar results to men, they were more rarely employed as assistants which was the beginning of academic career. This phenomenon concerned both feminized fields of studies (e.g. pedagogy, humanities), as well as those where women's participation was small (e.g. sciences, technical science, engineering). Smaller number of women at positions of assistants resulted from, among others, uneven distribution of women in various programs of studies, and from the fact that the number of employed assistants was changing according to the number of students in certain program [Siemieńska R. 2019a: 62-63; idem 2009: 303].

Slower professional advance of women in higher education in Poland did not differ from the situation in many other countries, both socialist, as well as capitalist. The factors differentiating the course of academic careers of women and men were beginning to work rather after obtaining doctorate than before that. A part of academic women would put maternity to the time after defense of doctorate, trying to guarantee for themselves further employment (not receiving the title of doctor in time resulted in dismissal) and to leave for themselves the free time needed for care after a child. Being at that stage, burdened with family duties, they would

	1970/1971	1980/1981	1985/1986	1988/1989
In total	30.7	35.1	35.1	36.3
Professors	8.6	11.2	12.9	13.2
Assistant professors	13.2	17.6	19.4	19.7
Adjuncts	32.8	33.1	33.3	33.4
Assistants*	35.0	39.3	38.5	41.9
Lecturers**	26.6	26.6	38.6	43.4
Librarians	69.1	78.8	79.3	79.9
Other***	52.3	65.5	58.8	58.5

Table 3: Percentage of women employed in the academic positions 1970/71 – 1988/89 (%)

begin to pursue the degree of habilitation. Late maternity influenced post-poning the works on habilitation [Siemieńska R. 2019a: 65-67].

Many women, who with determination undertook academic career, paid a high price for it in their personal life, staying childless. Private sphere was subordinated to academic career. Undertaken obligations were forcing to postpone decisions about marriage, birth of children, and even to resign and make personal sacrifices, etc. And anyway, they were underappreciated by men. Their colleagues from university would complain that because of house duties of their female colleagues, they had to work more organizationally and didactically, what would delay their own academic work. Many women would resign from further academic career for their family, husband's career, or at least would delay it [Zysiak A. 2016: 252-253].

In the 1960s, 70s and 80s, however, a systematic, although slow increase of the number and participation of women among all the groups of academic teachers was taking place. However, there was a regularity among academic teachers according to which, the higher degree or academic position, the smaller women's participation was. While in junior staff it was over 30%, and in some categories even over 40%, among independent academic employees, depending on the category, it reached

^{*} assistants and senior assistants combined

^{**} lecturers and senior lecturers combined

^{***} junior librarians and employees of academic documentation, teacher of foreign languages, physical education, defense subjects, vocational subjects and practical training. Source: according to the date from the tabl: Siemieńska R. 2019a: 63.

merely over a dozen, and among full professors merely a few percent [Dach Z. 1987: 27-28].

According to the studies carried out in 1973, almost 40% of a representative group of women employed in higher schools and in other academic institutions in the academic positions, the period of realization of their doctoral thesis lasted most often for about 10 years after completing studies, and 4-6 years from the beginning of work on the dissertation. Only one third of women was in that time helped by their family members. Their situation was also not easier due to the underdevelopment of child care institutions in terms of the adjustment of forms and work time for the needs of working parents [Kassyk E. 1975: 73-75].

Situation would not improve for women, also after obtaining the degree of doctor and the position of an adjunct. With visibly lower salaries than in the case of independent academic employees, they had, at the same time, less possibilities of transferring duties to other persons, and most often they had small children that they had to take care of. Time-consuming household and family duties were interfering with conducting academic work in their case more than in the case of men, and they were slowing down preparations for habilitation [Najduchowska H., Wnuk-Lipińska E. 1990: 20-21].

Comparing the percentage of women's presence among academic teachers in Poland with the situation in other countries, it was easy to see generally a higher rate in socialist countries than in the capitalist ones. Polish People's Republic, with 35%, was in the very lead [Dach Z. 1987: 29].

Summarizing the issue of women's employment in higher education in 1945-1989 and their academic careers, we should note that changes, especially at the level of independent academic positions, were taking place very slowly. For example, the percentage of women obtaining the title of habilitation never exceeded 20% in the Polish People's Republic. It was anyway more than in GDR, where until 1970s only a few academic women would get it annually. The difference in terms of pace of academic careers of women and men need to be explained, to a large extent, by different obligations put on women and man at various stages of their life [Majcher A. 2007: 30-33].

IN THE TIMES OF POLITICAL TRANSFORMATION 1989-2018

After 1989, Poland underwent a radical transformation of political and social-economic system. Dictatorship of the Communist Party, attempts of central planning of economic and social processes, command and distribution system, and state ownership of enterprises and institutions ended, and Poland shifted towards democratic system and market economy. One of the most spectacular expressions of the changes was a rapid development of higher education and significant increase of the number of higher schools and students. A similar process took place in the majority of developed countries of the world. Popularization of Polish higher education after 1989 was made thanks to market mechanisms, that is – a possibility of satisfaction of the demand for higher education through the introduction of fees for some programs of public universities and establishment of private schools.

1) Women students

From the beginning of the 1990s to the peak in 2007/2008, the number of students grew almost five times, and the rate of women's participation was higher and higher. In the mod 1990s, the predominance of women was visible already in all forms of studies, and their percentage increased from 50.2% in 1990 to 56.8% in 1999/00. In 1999/2000 women constituted 53.4% of full time students. However, they more often were choosing shorter programs than man, for example 3-year long BA programs available in smaller towns, offering worse quality of education, what resulted in decrease of their job opportunities. Women's participation in part time programs of studies and private schools was increasing and was in 1990s particularly high. In 1997/98, women constituted 61% of students of part time studies, 72% of extramural studies, and 55% of evening studies. In 2005/6, they constituted 56% of students of all forms of studies and 55.3% of full time students. Women participation was, at the same time, higher in higher private schools than in public schools. In 1994-1998, they constituted over 65% of the total number of students of the first type of studies and about 55% of the latter. From the beginning of the 21st century, the difference between these rates of women in both types of schools diminished. In 2005/2006 it was respectively: 57.9% and 55.8%. Despite the drop

Table 4: Percentage of women among students, postgraduate students and doctoral
students in the Polish higher schools in 1990-2018 (%)

Rok	Total number of students (in absolute number)	Including women students [%]	Women postgraduate students	Women doctoral students [%]
1990/1991	388 589	51.6	59.6	26.9
1994/1995	677 024	55.0	57.4	35.9
1996/1997	922 167	56.6	58.6	39.3
1999/2000	1 425 846	56.9	65.3	43.7
2002/2003	1 800 548	57.0	68.6	46.7
2004/2005	1 917 293	56.5	70.6	48.3
2007/2008	1 937 404	56.4	68.5	51.1
2009/2010	1 900 014	58.2	68.1	52.4
2012/2013	1 676 927	58.7	70.5	53.1
2014/2015	1 469 386	58.1	69.7	54.3
2016/2017	1 348 822	57.6	72.8	55.1
2017/2018	1 291 870	57.8	72.1	54.9

Sources: author's calculation based on numerical data in: *Szkoty wyższe i ich finanse* 1990-2018 [1991-2018].

Table 5: Percentage of women according to the fields of studies in 1995-2015 (%)

	1995/1996	2005/2006	2015/2016
Total number of students	789 440	1 953 832	1 405 133
(in thousands)			
% of women in total	56.1	56.5	57.7
	Fields of studie	es	
Technical	20.1	22.4	32.1
Agricultural	54.5	53.3	53.2
Legal	53.7	53.4	60.0
Business and administration	58.0	61.1	63.5
Humanistic	74.5	71.4	70.8
Science	61.2	63.6	67.2
Medical	63.6	75.9	74.2
Artistic	59.8	64.8	69.0
Pedagogical	84.7	71.0	80.3
Services	63.4	49.5	52.2

Sources: author's calculations based on: Szkoły wyższe i ich finanse 1995, 2005, 2015 [1996, 2006, 2016].

of the total number of students observed from 2008/2009, the percentage of women did not decrease and was in 2017/2018 almost 58% [Siemieńska R. 2001: 44, 52; Dąbrowa-Szefler M., Jabłecka J. 2007: 41-2; Inglot-Brzęk E. 2012: 222].

As for the structure of women's studies, they dominate in almost all fields of studies, mostly, however, in those which were already previously strongly feminized, that is pedagogical, medical, and humanistic, where they constitute almost ¾ of the total number of students. They become stronger in the fields of fine arts, science, business and administration and law, where there is a 2/3 of them. Women are minority only in the technical fields, including sub-field of forestry, or in such fields as protection and security and transport [Dąbrowa-Szefler M. 2007: 25; Siemieńska R. 2009: 306-7].

Taking a closer look at women's choice of particular technical studies programs, we can see that they constitute the lower rate in electrotechnology, automatics and robotics (less than 10%), low in machine production and mechanics, electronics and communication, IT, tele-IT, telecommunication, applied IT and aviation and astronautics (10-20%), medium in energy production, mining and geology, transport, construction, management and engineering of production, logistics, environmental engineering and material engineering (20-50%), high and dominant already in geodesy and cartography, management, mathematics, graphics and biomedical engineering (50-70%), and highest in biotechnology, architecture and chemical technology (70% and more) [Kobiety na politechnikach... 2019: 9-17].

In 1990-2017, in the times of dynamic development of doctoral studies, the number of doctoral students grew three times, and women, at the end of that period, began to constitute 55% of them. The percentage of women among the total number of doctoral students in higher technical schools is still significantly lower and oscillates around 40%. They slightly predominate in number, however, in the humanities and agriculture. If we assume the thesis that the most attractive on the job market are economical and legal, as well as technical fields, this result will confirm the thesis, known from many studies, that men predominate in number in the professions which give more opportunities in the job market. During their studies, women doctoral students participate in research projects more rarely than men. Women dominated, even more, postgraduate studies and constitute, in the recent years, already 72% of their participants [Dąbrowa-Szefler M., Sztabiński P. B. 2008: 18-9, 22-3, 52-4, 56; Siemieńska R. 2019d: 18-9].

Years	Total	Professors	Doctors with habilitation	Adjuncts	Assistants
1990/91	37.0	15.1	19.3	34.6	43.1
1996/97	37.7	17.3	16.6	34.2	44.5
1999/00	38.4	18.4	20.1	35.1	46.9
2002/03	39.8	20.2	20.4	37.6	49.2
2005/07	41.0	21.7	21.2	40.4	51.2
2008/09	42.3	22.8	31.7	42.9	52.9
2011/12	43.1	24.5	31.5	44.7	53.7
2014/15	44.2	26.6	31.7	46.6	53.1
2017/18	45.0	28.1	31.3*	47.2	53.2

Table 6: Women's participation among academic staff in various positions 1990-2018 (%)

The growth of educational aspirations of women, observed from the beginning of the 1990s, was already clearly visible in the results of recent censuses. In the census from 2002, it showed that higher rate of them, than that of men, already had higher education (10.4% among women and 9.3% among men). In subsequent years, this phenomenon was becoming more and more visible. In 2005, these rates were at 15.9% for women and 11.7% for men, in 2008 it was respectively 19.8% and 14.7%, and in 2011 – 19.0% and 14.8%. So, according to two recent censuses, almost one fifth of women already have a diploma of a higher school [Inglot-Brzęk E. 2012: 222; *Ludność. Stan i struktura...* 2013: 104-5].

2) Academic careers of women

Since the beginning of the political transformation, the percentage of women undertaking academic career has been continuously growing. It is still, however, significantly lower that in the programs of studies. Between 1990 and 2018, the rate of women employed in academic positions increased, in general, from 37% to 45%. Considering changes in particular categories in this period, we can note an increase of women's participation among assistants from 43.1% to 53.2%, among adjuncts from 34.6% to 47.2%, among doctors with habilitation from 19.3% to 31.3%, and among associate and full professors combined from 15.1% to 28.1%. At the

^{*}data from 2016/2017. Source: author's calculation based on the numeric data in: Szkoły wyższe i ich finanse 1990-2017 [1991-2018].

same time, we can see a differentiation in this regard in particular types of schools. The highest rate of women among academic employees occurs in medical and economic schools and at universities. It is lowest in technical and agricultural higher schools, and in the case of independent academic employees, paradoxically, also in pedagogical schools, where men in positions of professors constitute about 75%. Although the number and rate of women among academic staff is increasing even in technical higher schools, it occurs still slower that, on average, at all universities. In 2018/19, women constituted at technical universities 34% of adjuncts, 27% of doctors with habilitation and only 14% of professors. Preparation of a doctorate and habilitation was still taking women more time than men, but they were faster in obtaining the title of full professor than men. This acceleration of further stages of academic career should be associated with the change of their life, regaining time previously taken by taking care for their children. Considering women's presence among people employed in higher education, we should note that women predominate in other, not previously mentioned, categories. They constitute about 65% of lecturers, over 80% of librarians, and also most of language instructors, or administration employees [Siemieńska R. 2001: 58-59; idem 2019c: 81-87, 90-98; Młodożeniec M., Knapińska A. 2013: 47-50].

Rate of women among academic teachers in Poland is currently, in general, close to the average in the European Union, while the rate of women among professors belongs to the highest ones. It is not, however, an unequivocal proof of equality of women and men, and rather an effect of transfer of a part of men, in the conditions of the transformation, to better paid jobs. In part of academic disciplines, gender discrimination is still kept in terms of professional promotion [Siemińska R. 2009: 304-9; Młodożeniec M., Knapińska A. 2013: 68].

Gender still influences the course of academic career, although research effectiveness of women does not differ from that reached by men. Nevertheless, they are not appropriately appreciated. A few percent less women than men obtain research grants, an example of which can be financing of development projects awarded by the Ministry of Science and Higher Education in years 2005-2007. Similar image is presented by the statistics of the National Science Center for years 2012-2014. Women who constituted almost a half of applicants for its grants, were still receiving them more rarely than men. The difference was only in a few percent, but constant. In addition, the amount of funding awarded to women combined was almost two times smaller than in the case of men. Women be-

come directors of advisor grants more rarely, more often they conduct individual projects. This reflects relatively lower position of women in the hierarchy of academic world. In 2005-2008, almost exclusively men sit in the committees of the Ministry of Science and Higher Education responsible for awarding grants. An expression of positive changes seemed to be participation of women before doctorate among the fellows of the Foundation for Polish Science. In 1993-2008, it increased from 17.4% to 44.9%. Unfortunately, in the following editions from 2008-2015, women constituted about a half of applications, and only 1/3 of beneficiaries [Siemieńska R. 2009: 309-14; idem 2019b: 313-24; Siemieńska R., Domaradzka A., Matysiak I. 2019: 330-5, 337-41, 344-47].

Women still have to low positions enabling real, not only formal, influence on their own academic disciplines. In the first decade of the 21st century, they still constituted only a few percent of rectors, about a dozen of dead. The higher the position, the more rarely it is filled by a woman. If they already are in the management of their schools, they are rather in less decisive positions – of deputy rectors (about a dozen of percent), deputy deans (almost 1/3), but more related to concrete substantive work [Sulik M. 2010: 49-50].

Currently, the movement for equality of women is rising all over the world. The United Nations assumed in 1979 a convention about elimination of all forms of discrimination. Activities aiming at change of this situation are supported by bigger and bigger number of governments of various countries and international organizations. Particularly strong is, currently, the disagreement for tolerance of gender inequality in Western countries, including those belonging to the European Union. At least since the 1980s, there are ongoing attempts at increasing the number of women in academic elites through various activities fighting with discrimination. Women's and men's chances are being equalized in top-down way, via legal and administrative regulations. Positions of proxies for equal status of women and men are created, with the right to participate in recruitment committees supervising treatment of women and men. Such issues as "gender and academic career" or "gender and academic job market" began to gain interest in recent years and are more and more often undertaken in research. It is related to the increasing significance of the intellectual reflection over the problems of gender and an increasing disagreement of contemporary women to the tolerance of their marginal role in academia. There is a growing belief that increase of the number of women in academia, including positions enabling making decisions concerning the directions of devel-

opment of science, choice of research priorities, selection of academic employees, etc. is necessary for maintaining or increasing effectiveness of system of education and science. Not making use of the potential of women is a mismanagement of the costs of their education and a waste of the values and perspectives that women, due to their different experiences or priorities, can contribute to science. In Poland, the question of women's participation in science is still not sufficiently present in the debates on the reform of the model of academic career. Gradually, however, the problem began to be noticed. Awareness of its significance grows thanks to the results of studies which are undertaken more and more often. One of the effects of this change is that the strategy of development of higher education for 2010-2020, prepared under auspices of the Conference of Academic Rectors of Polish Schools and the Foundation of Polish Rectors 2009, lists among the basic dangers "omission, among the national priorities, of the problem of balancing the structure of academic career according to age and gender" [Majcher A. 2007: 28-9, 42; Młodożeniec M., Knapińska A. 2013: 61; Gromkowska-Melosik A. 2011: 31-36].

SUMMARY

At the end of the 19th century, persistent fight of women's movements and organizations aiming at lifting the social status of women, making them equal in rights to men, led to the university gates being opened to them. It also concerned universities in the Polish territories. Because, however, women's presence in the academic world was burdened, at its beginning, with various formal and informal limitations, it was only a start of the fight for complete equality on the university ground. Resistance and reluctance of the conservative social circles opposing the change of traditional function of women, brought down to maternity and family life, were slowing down this process, but they were not able to stop it.

Formally, gender equality which was introduced in Poland after gaining independence in 1918, did not guarantee immediate liquidation of all limitations and expressions of discrimination towards women. After 1945, real social-economic advance of women was still very hindered. Partygovernmental decisive boards were still dominated by male majority, which, in spite of expressed declarations about gender equality as one of the foundations of social justice, was sharing conservative visions of women's place in the society. In the conditions of liberty and democracy re-

gained after 1989, guaranteeing freedom of speech and openness to the contacts with the world, the ideas of contemporary feminist movement came to Poland and developed. Its postulates are, on the one hand, gaining in popularity, on the other, meet with more and more violent resistance of traditionalists who are not few also among academics.

The ongoing progress in the scope of quality of women's access to education on higher level, and work in academic positions in the Polish universities, influenced the evolution of the goals of activities. In the case of studies, at first it was about granting women access to universities at all, later about liquidation of the still existing barriers and expressions of discrimination in the status of students and possibilities of studies without top-down limitations in all programs. Although at the end of the second decade of the 21st century, women constitute already the majority of students, the directions of further efforts still seem current.

As for university jobs, they started from gaining agreement for employment in assisting positions, later for equalizing women with men working in the same positions, later for liquidation of the barriers of professional promotion to higher academic positions. In the recent decades, formal full equality of women has already been a fact, and they currently constitute almost a half of the total number of academic employees. Still, however, we can notice that the higher the position and title, the smaller rate of women who reach it. Postulates concentrate then on liquidation of the last barriers slowing down women's academic careers and on granting them access to real participation in the process of decision-making concerning development of science and higher education.

Today, as earlier, crucial for the success of the idea of equality in the academic world is breaking negative stereotypes concerning women, their ability for effective academic work. The male part of the academic world is still not sufficiently free from them. Resistance towards full-fledged presence of women in universities is already rarely expressed in official and open way. It is rather expressed through articulation of critical, degrading opinions towards women from the world of academia, hidden activities of blocking their access to the highest positions. Lack of full acceptance of women's presence make it impossible for full partnership of genders in the academic world to exist.

As for the title of this text, we can surely say that in the course of the last one hundred years, feminization of the Polish higher education, understood as the existence of mass and formally full-fledged presence of women at universities, both among students as well academic employees,

took place. This process was, however, accompanied by various problems and resistance from the men's part. Only a complete change in their mentality will make it possible for this process to conclude and reach a complete form.

REFERENCES

Literature

- Connelly J. (2000), Captive University. The Sovietization of East German, Czech, and Polish Higher Education, 1945-1956, University of North Carolina Press, Chapel Hill.
- Dąbrowa–Szefler M. (2007), Narodowy kontekst rozwoju szkolnictwa wyższego, [in:] Dąbrowa–Szefler M., Jabłecka J. (eds.), Szkolnictwo wyższe w Polsce. Raport dla OECD, Ministerstwo Nauki i Szkolnictwa Wyższego, Warszawa, 18-28.
- Dąbrowa-Szefler M., Jabłecka J. (2007), Szkolnictwo wyższe w Polsce. Raport dla OECD, Ministerstwo Nauki i Szkolnictwa Wyższego, Warszawa.
- Dąbrowa-Szefler M., Sztabiński P. B. (2008), Model kształcenia doktorantów. Wnioski z badań, Centrum Badań Polityki Naukowej i Szkolnictwa Wyższego, Uniwersytet Warszawski, Warszawa.
- Dach Z. (1987), Kobiety w szkolnictwie wyższym w Polsce w latach 1970 1984, Życie Szkoły Wyższej, 2, 17-29.
- Dobkowska J. (2016), Poglądy w kwestii potrzeby oraz zakresu edukacji kobiet panujące w drugiej połowie XIX i na przełomie XIX i XX wieku, Acta Universitatis Lodzensis. Folia Historica, 96, 89-107.
- Erazmus E. (1974), *Prawo do nauki w Polsce Ludowej. Studium polityczno-historyczne*, Wydawnictwo Poznańskie, Poznań.
- Flaeschendrueger W. (1981), Kaiser, Korps und Kapital. Akademische Bildungsstaetten in Dienst von Monarchie und Imperialismus, [in:] Steiner G., Flaeschendrueger W. (red.), Magister und Scholeren. Profesoren und Studenten. Geschichte Deutsche Universitaeten und Hochschulen im Ueberblick, Urania, Lepzig-Jena-Berlin, 122-55.
- Gawin M. (2015), Spór o równouprawnienie kobiet (1864-1919), Instytut Historii Polskiej Akademii Nauk, Polskie Towarzystwo Historyczne, Wydawnictwo Neriton, Warszawa.
- Gerber R. (1959), Młodzież akademicka w Polsce w okresie międzywojennym, Życie Szkoły Wyższej, 1, 75-92.
- Gromkowska-Melosik A. (2011), Edukacja i (nie) równość społeczna kobiet. Studium dynamiki dostępu, Oficyna Wydawnicza Impuls, Kraków.
- Halbertsztadt J. (1996), Kobiety w murach Uniwersytetu Warszawskiego 1915-1939, [in:] Żarnowska A., Szwarc A. (eds.), Kobiety i kultura Kobiety wśród twórców kultury intelektualnej i artystycznej w dobie rozbiorów i w niepodległym państwie polskim, Wydawnictwo DiG, Warsaw, 108-9.
- Historycy o badaniach dziejów Polski Ludowej. Ankieta (2008), Polska 1944/45-1989. Studia i materiały, VIII.
- Hulewicz J. (1939), Sprawa wyższego wykształcenia kobiet w Polsce w wieku XIX, Polska Akademia Nauk, Kraków.
- Inglot-Brzęk E. (2012), Przemiany demograficzne a rozwój szkolnictwa wyższego w Polsce, Nierówności Społeczne a Wzrost Gospodarczy, 26, 216-29.

- Jołkiewicz D. (2001), Kobiety w naukach medycznych wczoraj i dziś, Nauka i Szkolnictwo Wyższe, 2/38, 35-47.
- Kałwa D. (2001), Kobiety aktywne w Polsce międzywojennej. Dylematy środowisk kobiecych, Towarzystwo Wydawnicze Historia Iagiellonica, Kraków.
- Kassyk E. (1971), Dynamika i struktura kształcenia kobiet w szkołach wyższych, Życie Szkoły Wyższej, 3, 56-72.
- Kassyk E. (1975), Kariery naukowe kobiet, Życie Szkoły Wyższej, 11, 67-76.
- Kobiety na politechnikach. Raport 2019 (2019), Fundacja Edukacyjna Perspektywy, Warszawa.
- Kolbuszewska J. (2016), Akademickie kariery kobiet w PRL-u. Historyczki samodzielne pracownice nauki w nowopowstałych uniwersytetach, Sensus Historiae, XXIV, (2016/3), 153-72.
- Kolbuszewska J. (2017), Polki na uniwersytetach trudne początki, Sensus Historiae, XXVI (2017/1), 35-53.
- Kolbuszewska J. (2018), Wskrzeszenie państwa polskiego a równouprawnienie kobiet w nauce, Sensus Historiae, XXX, (2018/1), 119-34.
- Kondracka M. (2000), Kobiety na uniwersytetach, [in:] Żarnowska A., Szwarc A. (eds.), Równe prawa i nierówne szanse. Kobiety w Polsce międzywojennej, Wydawnictwo DiG, Warsaw, 271-84.
- Łysko M. (2015), *Udział kobiet w życiu publicznym II Rzeczypospolitej Polskiej*, Miscellanea Historico-Juridica, XIV, 1, 381-400.
- Magiera E. (2015), Uwarunkowania prawne karier akademickich w Polsce międzywojennej (1918–1939), Pedagogika Szkoły Wyższej, 1, 25-44.
- Majcher A. (2007), Płeć w "grze o awans". Kariery akademickie kobiet i mężczyzn w Polsce i Niemczech, Nauka i Szkolnictwo Wyższe, 1/29, 28-46.
- Majewski P. M. (2016), Społeczność akademicka 1915-1939, [in:] Dzieje Uniwersytetu Warszawskiego 1915-1945. Monumenta Universitatis Varsoviensis 1816-2016, Wydawnictwo Uniwersytetu Warszawskiego, Warszawa, 51-323.
- Mazurczak D. (2011), Przykłady karier akademickich kobiet na Uniwersytecie Poznańskim w okresie międzywojennym, Przegląd Politologiczny, 2, 197-205.
- Młodożeniec M., Knapińska A. (2013), Czy nauka wciąż ma męską płeć? Udział kobiet w nauce, Nauka, 2, 47-72.
- Molik W. (1989), *Polskie peregrynacje uniwersyteckie do Niemiec 1871-1914*, Wydawnictwo Naukowe Uniwersytetu im. Adama Mickiewicza w Poznaniu, Poznań.
- Molik W. (2016), Polscy studenci na uniwersytetach niemieckich od końca XVIII wieku do początku XX wieku, Nauki i Innowacje, Poznań.
- Najduchowska H., Wnuk-Lipińska E. (1990), *Nauczyciele akademiccy 1984* (*Raport z badań ankietowych*), Państwowe Wydawnictwo Naukowe, Warszawa-Łódź.
- Perkowska U. (1994), Studentki Uniwersytetu Jagiellońskiego w latach 1894-1939. W stulecie immatrykulacji pierwszych studentek, Wydawnictwo i Drukarnia SECESJA, Kraków.
- Popiński K. (1995), *Pierwsze kobiety na studiach na Uniwersytecie Wrocławskim (1895-1918)*, Studia i Materiały z Dziejów Uniwersytetu Wrocławskiego, vol. IV, 187-200.
- Popiński K. (2002), Borussia, Lusatia, Marcomania... Świat burszów, piwiarń i pojedynków. Studenci Uniwersytetu Wrocławskiego 1871-1921, Wydawnictwo GAJT, Wrocław.
- Popiński K. (2010), Rola edukacji na poziomie wyższym w modernizacji społeczno-ekonomicznej Polski w latach 1945-1989, [in:] Chumiński J. (ed.), Modernizacja, czy pozorna modernizacja. Społeczno-ekonomiczny bilans PRL 1944-1989, Gajt s.c., Wrocław, 232-294.
- Schulze F., Ssymank P. (1910), Das deutsche Studententum von den altesten Zeiten zur Gegenwart, R. Voigtlanders Verlag, Leipzig.

- Siemieńska R. (2001), *Kariery akademickie i ich kontekst porównania międzygeneracyjne*, Nauka i Szkolnictwo Wyższe, 1/17, 42-61.
- Siemieńska R. (2009), *Kobiety w (męskim) zawodzie naukowca*, [in:] Piotrowska J., Grzybek A. (ed.), *Kobiety dla Polski. Polska dla kobiet. 20 lat transformacji 1989-2009*. Raport przygotowany z okazji Kongresu Kobiet Polskich 2009, Fundacja Feminoteka, Warszawa, 303-17.
- Siemieńska R. (2019a), Kariery akademickie w Polsce w XIX i XX wieku: czy płeć je różnicowała, [in:] Siemieńska R. (ed.), Kariery akademickie kobiet i mężczyzn. Różne czy podobne?, Wydawnictwo Naukowe Scholar, Warszawa, 51-71.
- Siemieńska R. (2019b), *Płeć naukowców a ich dostęp do grantów badawczych w Polsce z początkiem lat 2000.*, [in:] Siemieńska R. (ed.), *Kariery akademickie kobiet i mężczyzn. Różne czy podobne?* Wydawnictwo Naukowe Scholar, Warszawa, 311-27.
- Siemieńska R. (2019c), Uniwersytety jako miejsce uprawiania nauki i karier akademickich w pierwszych latach transformacji ustrojowej, [in:] Siemieńska R. (ed.), Kariery akademickie kobiet i mężczyzn. Różne czy podobne? Wydawnictwo Naukowe Scholar, Warszawa, 72-101.
- Siemieńska R. (2019d), Uwarunkowania akademickich karier kobiet i mężczyzn na świecie zarys problematyki i przegląd badań, [in:] Siemieńska R. (ed.), Kariery akademickie kobiet i mężczyzn. Różne czy podobne? Wydawnictwo Naukowe Scholar, Warszawa, 11-28.
- Siemieńska R., Domaradzka A., Matysiak I. (2019), Wnioskodawcy i beneficjenci zróżnicowanie współczynnika sukcesu w pozyskiwaniu środków na badania naukowe w Polsce, [in:] Siemieńska R. (ed.), Kariery akademickie kobiet i mężczyzn. Różne czy podobne? Wydawnictwo Naukowe Scholar, Warszawa, 328-60.
- Sikora K. (2007), *Pierwsze kobiety na Uniwersytecie Jagiellońskim*, Acta Universitatis Paedagogicae Cracoviensis. Studia Politologica, 3, 248-68.
- Sulik M. (2010), Kobiety w nauce. Podmiotowe i społeczno-kulturowe uwarunkowania, Silesian Univresity Press, Katowice.
- Świecki A. (1975), Oświata i szkolnictwo w XXX-leciu PRL, Wydawnictwo Książka i Wiedza, Warszawa.
- Szarras H. (1975), Kształcenie kadr naukowych w szkolnictwie wyższym, Państwowe Wydawnictwo Naukowe, Warszawa.
- Tymowski J. (1975), Organizacja szkolnictwa wyższego w Polsce, Państwowe Wydawnictwo Naukowe, Warszawa.
- Żarnowska A. (2000), Obywatelki II Rzeczypospolitej, [in:] Żarnowska A., Szwarc A. (eds.), Równe prawa i nierówne szanse. Kobiety w Polsce międzywojennej, Wydawnictwo DiG, Warszawa, 287-300.
- Zysiak A. (2016), Punkty za pochodzenie. Powojenna modernizacja i uniwersytet w robotniczym mieście, Zakład Wydawniczy NOMOS, Kraków.

Statistic sources

- Historia Polski w liczbach. Państwo i społeczeństwo (2003), vol. 1, Główny Urząd Statystyczny, Warszawa.
- Ludność. Stan i struktura demograficzno-społeczna. Narodowy Spis Powszechny Ludności i Mieszkań 2011 (2013), Główny Urząd Statystyczny, Warszawa.
- Mały Rocznik Statystyczny 1939 (1939), Główny Urząd Statystyczny, Warszawa.
- Rocznik Statystyki Międzynarodowej 1984 (1985), Główny Urząd Statystyczny, Warszawa.
- Rocznik Statystyki Rzeczypospolitej Polskiej 1923/24 (1925), Główny Urząd Statystyczny, Warszawa.

Rocznik Statystyki Rzeczypospolitej Polskiej 1928/29 (1929), Główny Urząd Statystyczny, Warszawa.

Rocznik Statystyczny 1950 (1951), Główny Urząd Statystyczny, Warszawa.

Rocznik Statystyczny 1963 (1964), Główny Urząd Statystyczny, Warszawa.

Rocznik Statystyczny 1972 (1973), Główny Urząd Statystyczny, Warszawa.

Rocznik Statystyczny 1986 (1987), Główny Urząd Statystyczny, Warszawa.

Rocznik statystyczny szkolnictwa 1966/67-1990/91 (1967-1991), Główny Urząd Statystyczny, Warszawa.

Szkoły wyższe i ich finanse 1990-2018 (1991-2018 Główny Urząd Statystyczny, Warszawa.

Krzysztof Popiński, Ph.D, a historian employed as an adjunct in the Faculty of Philosophy and Economic History of Wrocław University of Economics and Business; he specializes in social-economic, political and cultural history of Poland, Germany and Silesia in the 19th and 20th century, including issues concerning higher education.