What Are the Differences in Perception of Gender Disparities in Academia? A Survey of Academics from Russia

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Abstract

This study examines the perception of gender issues in academia in the Russian context. Specifically, the paper aims to reveal the criteria due to which academics might perceive gender-related problems in academia in different ways. The research was conducted among 901 men and women academics with Russian affiliation. The survey was presented as a 20-item anonymous online questionnaire with five major blocks, covering up various gender-related topics. By surveying men and women academics from the Russian academic environment, it reveals that most academics, in their perception, had never experienced gender inequality in the current workplaces. However, for those with such experience, the share of all given gender disparities women academics has ever encountered during their academic career is higher compared to men. The most common gender disparities, namely low chances for career promotion and barriers from rising to senior-level positions reflect career promotion gaps relevant for both men and women academics. The results also demonstrate that gender inequality is mostly not considered as a problem of academic environment but rather a social issue. In particular, most men academics and, to a lesser extent, women academics strongly disagree with considering gender inequality as the academic problem. The paper provides an example for addressing gender disparities issues for men and women academics and assessing perception of gender inequality and, conversely, equality.

Keywords

gender, perception, academia, gender disparities

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1. Gender differences in academia: defining the problem

Despite significant improvements in promoting gender equality over the last few decades, disparities in social roles, especially in power and status, are still a prominent feature of our cultural and social landscape [Neff, Cooper, Woodruff, 2007; Eagly, 2007]. At present, academia as well as many other areas of society, is inclined to

different manifestations of gender disparities [Goddard et al., 2021]. Gender inequality in scientific careers is a persistent problem: women are under-represented in senior and decision-making positions and systematically under-recognised [Bryson, 2004; Gunawardena et al., 2006; Shen, 2013; Kumar, 2016]. Denial of women academics' contributions and breakthroughs have long been obvious in most academic communities. In 1993, Rossiter invented the term 'the Matilda effect', implying that men's research contributions are central within science and are therefore acknowledged more often and evaluated more highly.

Since then, over the past 30 years, women have made considerable inroads into academia, being indispensable in both national and world academic communities [Wyn et al., 2000; Eggins, 2017]. However, despite remarkable improvements for women, gender disparities still persist across various academic inclusion and success measures [Sağlamer et al., 2018; Eslen-Ziya, Yildirim, 2022]. As a consequence, the problems of 30 years ago are still urgent.

Currently, gender disparities are most evident at the high and highest levels across research fields in the academic profession all over the world. Specifically, women hold fewer scientific positions than men do at later career stages and evidently face related difficulties in terms of research production (see, e.g., [Santos et al., 2021; Fox, 2019; Nielsen, 2016; Aiston, Jung, 2015]). Representation of women in academic management positions is also consistently low throughout the world [Shepherd, 2017]. In academia, various manifestations of gender disparities occur, for example, persistent pay gaps, gender segregation across research fields and activities, sexual harassment, and verbal gender-based violence (see, e.g., [Kachchaf et al., 2015; Jagsi et al., 2016; Santos et al., 2021; Rosa, Clavero, 2021]). Indeed, the process of integration into an academic career and the probability of obtaining a permanent academic position may also be strongly gendered [Murgia, Poggio, 2018; Drew, Canavan, 2020]. Therefore, gender imbalances persist at both top and bottom levels of academic hierarchy and remain its relevant problem. Without appropriate changes, many fields will not achieve gender equality for decades on their current trajectories [Holman et al., 2018; Dworkin et al., 2020].

The situation in the Russian academic system is no exception. Despite women's overall quantitative dominance, with approximately 60% of all academic positions, they are significantly underrepresented at the highest and most senior ranks[1]. Women mostly occupy lower positions, such as research fellows, lecturers, and assistants, while senior academic positions, on the contrary, are ge-

[1] HSE (2021) Women in Russian science: https://issek.hse.ru/news/448782899.html (accessed 20.08.2024) (In Russian).

nerally held by men [Bagirova, Surina, 2017; Sterligov, 2017; Pilkina, Lovakov, 2022]. As a possible outcome, women academics in Russia face various gender disparities, e.g., pay gaps, the glass ceiling effect, or social stereotypes (see, e.g., [Rudakov, Prakhov, 2021; Polihina et al., 2022]).

Although there are obvious gender inequalities problems in academia in various dimensions and corresponding studies on them, relatively little attention has been paid to how academics, both men and women, perceive gender disparities in their workplaces. It is widely accepted that gender disparities within academia generate a chilly atmosphere for women, meaning that women's professional role becomes invisible and not valued [Eslen-Ziya, Yildirim, 2022]. However, the perception of the 'chilly climate' itself and the constituent disparities among men and women academics remains under-researched. Thus, considering the existing gendered challenges in academia, up-to-date research on perception of gender-related problems by academics is needed today.

Previous and recent studies on the perception of gender disparities in academia focused specifically on some national systems, for instance, Spain and the UK or/and particular research fields [Kessels, Taconis, 2011; García-González et al., 2019; Popp et al., 2019; Makarova et al., 2019]. This study explores the perception of gendered issues among academics, ranging from the interpretation of gender-based disparities per se to their possible explanations and the necessity of changes towards gender equality. To that date, the author chose one national academic system with relevant gender disparities — Russia. The Russian case is of particular interest as it is rooted in the Soviet academic system, which significantly contributed to the consolidation and recognition of women [Rudakov, Prakhov, 2021].

The involvement of women in Russian professional and academic life is closely linked to the Soviet gender equality policy, which began under Lenin's Bolshevik government. The revolutionary government that came to power in Russia in 1917 promoted political equality for women. A radical change in the position of women scientists in academia became feasible only after the October Revolution, when the Soviet government proclaimed wide inclusion of women in professional activities, thereby ensuring involvement of women in the academic system [Grishina, 2008].

However, the declared equality in the Soviet academic environment was formal. While this period is related to women's professional empowerment, significant restrictions to women's social rights continued and the traditional female role was consolidated. Indeed, the process of integration into academic careers and the likelihood of achieving a permanent academic position were gendered: women were widely represented in academic institutions, but their status positions were generally low [Dolgova, 2020].

Over the past 30 years, the focus of Russian gender studies in academia has been mostly on the underrepresentation of women in high and highest academic positions, the causes of gender inequality, the difficulties faced by women when making academic careers and particularly the influence of family responsibilities on women's professional activity, and gendered academic policy (see, e.g., [Sillaste, 2001; Khasbulatova, 2002; Belyaeva, Ermolaeva, 2011; Polihina et al., 2022]). Despite the increase of gender factor in educational studies, only a few papers address the perception of gender disparities in the Russian academic landscape. A study by Gorshkova & Miryasova [2020], based on a survey and in-depth interviews with men and women academics, found that "many higher education employees, especially women, recognize gender inequality issues in higher education" (p. 41). Nevertheless, according to the authors, such recognition does not lead to the idea of solving the problem of gender disparities.

This article, through the perceptions of Russian academics about various disparities they face at work, analyses whether gendered challenges are perceived as a problem of academia. However, both then and now, like in many other countries, the Russian case relates to the pattern of evident gendered barriers for equal representation and recognition of women within academia [Pilkina, Lovakov, 2022; Polihina et al., 2022].

The paper is an original survey aiming at both academics' perceptions of gender disparities and their gender-related disparities experience. This study explores the experience and perception of gender disparities by men and women members of Russian academia. Specifically, the survey aims to reveal the criteria due to which academics might perceive gender-related problems in academia in different ways. To achieve the research goal, the study asks the main research question: How do men and women academics perceive gender disparities? The main research question is operationalised into the following sub-questions:

(1) What type of gender disparities do Russian men and women academics face?
(2) What are the most and least common gendered challenges men and women academics encounter in their workplaces?
(3) What are the differences in the perception of gender disparities in academia by men and women academics?

To answer these questions, an anonymous online survey with 901 participants working across Russian academia was conducted. A thorough understanding of this is essential to evaluate the scale of gender disparities and design possible measures that would be both widely accepted within the community and effective in dealing with gender gaps.

The contribution of this research is twofold. First, by analysing the perception of gender disparities in academia by immediate actors, Russian academics, this article develops the literature on manifestations of gender disparities within academic systems and contributes to the perception of gender differences in the context of a social and specific issue related to the academic environment. Second, this article contributes to the literature on the place of gender and gender differences in relation to academic career analysis.

2. Materials and methods

2.1. Survey participants

Using the Web of Science (WoS, Science Citation Index Expanded, Social Sciences Citation Index, and Arts & Humanities Citation Index) database from Clarivate Analytics, the author collected journal articles with at least one Russian author, published between 2017 and 2019. From the population of 171,296 academics, the author extracted 29,740 academics with Russian affiliation and those whose emails end with .ru. This approach allows to adopt a non-probability sampling technique that might be applied in similar research with the analysis based on the authors database [Rowley, Sbaffi, 2021].

To ensure that our survey method did not introduce any non-response biases, participants were given the option of not responding to each question. Some questionnaires had two to four unanswered questions mostly related to respondent profile (e.g., gender, age, or information about children), but were included into the database as their responses offered useful insights at the same extent as those with all questions filled. The inclusion of such questionnaire accounts is the main reason for the slight differences in the total number of responses. Overall, 901 questionnaires were considered acceptable for analysis, corresponding to a response rate of 3%, which is in line with response rates seen on other surveys with academics, ranging from 1.5 to 6% [Rowley, Sbaffi, 2021; Ni et al., 2021]. For more details of the participant profiles, see Table 1.

Table 1. **Demographic and academic profiles of respondents**

Gender			Type of working institution			Academic degree		
	N	(%)		N	(%)		N	(%)
Women	389	44	Higher Education	417	41	Candidate degree [incl. PhD]	536	60
Men	496	56	Research Centres	570	56	Doctor degree	246	28
Other	4	0.4	Other	37	4	No degree	109	12

2.2. Content of the questionnaire

The survey was presented as a 20-item anonymous online questionnaire with five major blocks: (1) Demographic characteristics (gender, age, information about children, the type of current workplace,

the region of research origin (where the academic started considering themselves per se), the country of current employment), (2) Academic background (academic degree, research area, and position), (3) Gender-related background (the types of gender disparities the academic had experienced and disparities that might be regarded as gendered), (4) Perception of gender issues, and (5) Reasons and development directions of gender issues in academia. All questions were asked in Russian.

The section 'Gender-related background' describes the academic experiences of women and men in terms of gender inequality. Here, the author lists different types of gender disparities that academics have ever encountered. All questions refer to the researchers' personal perception, e.g. "What gender inequalities have you personally experienced? Please indicate all the options and note how often this has happened" (see Figures I, II, and III below). This approach helps to focus on real experience of respondents.

The author has moved away from the perception of the academy as a 'masculinist working environment' and do not focus on the complexities that women face while combining work and personal commitments, namely motherhood. This approach is justified by numerous studies on both the problem itself and the influence on women's professional activities (e.g., [Goulden et al., 2011; Heijstra et al., 2014; Bos et al., 2019 Ysseldyk et al., 2019]). Thus, this article sees men and women academics as equal actors in terms of their professional activity, not as unequal parties striving for parity. This strategy is actively used by gender researchers as a part of feminist approaches [Beckwith, 2005; Spitzer-Hanks, 2016].

In the 'Perception of gender issues' part, the author explores various dimensions of gender disparities: perceptions of gender inequality in the workplace, academia and society in general; perceptions of gender differences between men and women. The survey also includes questions covering the perception towards the development of gender equality agenda within academic community and possible explanations of the current state of gender-related affairs in academia. Mostly, the responses to the questions with perception review of gendered issues within academia were constructed as 5-point Likert scales, with higher scores indicating the strongest agreement and vice versa. Additionally, open and qualitative comments on the topic and the content of the survey were collected.

2.3. Research ethics

The survey was sent out in March 2022, followed by a reminder two weeks later. This was a closed questionnaire with survey invitations sent by email. The data in this study were collected through the website testograph.ru. and analyzed anonymously.

At the beginning of the survey, all participants were informed about the purpose and research ethics of the survey and anonymization of data collection. All responses were voluntary and anonymous. There was neither special promotion, nor advertisement, nor any incentive for participation. Any personal data, such as academics' names/surnames or their affiliations, were not collected in the survey as a measure to protect personal information. However, respondents interested in the results could leave their email address to receive the survey results later.

2.4. Data analysis

To explore the differences in the perception of gender issues, several statistical analysis techniques were used. Particular analysis procedures and methods differ by both the scale of dependent variables and the number of variable items. First, the author performed descriptive statistics of the respondents' profiles and responses to each question. Also presented are the types of gender inequalities currently or previously faced by male and female academics. Then, the non-parametric Mann-Whitney U test was used to assess the statistical significance of differences *(p)* between the genders.

3. Research results and discussion

This result section, first, presents the demographic characteristics and academic background of men and women academics surveyed. Using Russian academics' responses in the survey, the author assesses gendered challenges that men and women academics have ever encountered. Next, the section explores the perception of gender issues by Russian academics. Finally, it presents attitudes towards possible gender equality in the Russian academic community.

3.1. Demographic characteristics and academic background

This section provides a summary of the demographic profile and academic background of the respondents. While this survey included the possibility for respondents not to disclose their gender (n = 3), the data presented are limited to those respondents who identified themselves as either men or women (see Table I). The first result shows that the responses by gender differ from the sample that was chosen for the analysis — Web of Science (WoS, Science Citation Index Expanded, Social Sciences Citation Index, and Arts & Humanities Citation Index) and InCites databases. The respondents self-identified themselves as women (44%) and men (56%). The numbers are generally consistent with the overall Russian picture. According to the recent statistical review for the Russian academy, 58% of academics are men and 42% are women, which allows

the results to be extended to the Russian academic community as a whole, given its gender composition[2].

However, when selecting participants, the author drew on The WoS database, where the men-to-women ratio is 63% to 37% [Pilkina, Lovakov, 2022]. The possible explanation has to do with how men and women feel influenced by the gender topic. On the one hand, gender distribution of the respondents suggests that women academics generally feel more affected by the survey topic, which echoes previous findings [Popp et al., 2019]. On the other hand, historically, men's role in gender issues has been marginal and, accordingly, they do not feel personal involvement with the survey topic [Scambor et al., 2014]. This may also be due to the research fields to which the scholars belong. For example, in fields dominated by one sex, mostly men (e.g., STEM), gender issues are a priori less likely to arise and therefore the gender agenda does not seem relevant. Even within the survey, some qualitative comments left by men include insulting and dismissive comments about the survey topic ('the problem of gender inequality in academia is far-fetched'; 'I don't think gender inequality is a problem, no need in this ridiculous research'; 'stop doing nonsense research').

Table I presents the type of working institutions and information about academic degrees. Respondents' ages ranged between 22 and 93 without any divisions into age categories.

The demographic characteristics also include data about respondents' country of research origin and the country of current employment. The absolute majority of respondents (96.8%) name Russia as the place where they started positioning themselves as academics. A similar situation is relevant for the country of current workplace, with Russia mentioned in 98% of responses. The rest of participants are based in post-Soviet states (0.6%) and Europe (0.9%). Therefore, the analysis of both country of origin and workplace were not included in the analysis due to homogeneity of the data.

The sampling appears to be broad and diverse as it includes academics with different research fields and positions (Table II). As the initial database with scholars within was taken from WOS, the research fields were also structured in this way to match the initial differentiation. The respondents were allowed to choose several research fields, so the total number of responses is higher than that of respondents. This approach makes it possible to extend the results to the entire academic environment in Russia, without limiting them to a specific field of research.

[2] HSE (2021) Women in Russian science: https://issek.hse.ru/news/448782899.html (accessed 20.08.2024) (In Russian).

Table II. **The research fields and positions of respondents**

Position [*n* = 1115]			Research Area [*n* = 1492]		
	N	(%)		*N*	(%)
Professor	87	8	Physics	198	13
Assistant Professor	149	13	Chemistry	214	14
Senior Lecturer	21	2	Materials Science	144	10
Lecturer	19	2	Geosciences	141	9
Assistant	11	1	Engineering	107	7
Rector or vice-rector	5	0.5	Mathematics	95	6
Dean or deputy dean	1	0.1	Medicine	34	2
Head of department	27	2	Biology & Biochemistry	126	8
Head of laboratory	96	9	Plant & Animal Science	43	3
Head of another unit	40	4	Space Science	8	1
Junior Researcher	67	6	Microbiology	17	1
Researcher	119	11	Environment/Ecology	57	4
Senior Researcher	214	19	Social Science	75	5
Chief Researcher	57	5	Computer Science	32	2
Leading Researcher	115	10	Pharmacology & Toxicology	21	1
Administration staff	7	0.6	Neuroscience & Behaviour	20	1
Teaching auxiliary staff	18	2	Molecular Biology & Genetics	50	3
No full-time position	11	1	Agricultural Sciences	15	1
Other	51	5	Psychiatry/Psychology	15	1
			Immunology	10	1
			Economics/Business	30	2
			Other	40	3

3.2. Gender disparities experience

The results show the gender differences that men and women academics have ever or never experienced during their academic careers. In most cases — 74% men and women academics have never experienced any of the gender disparities listed. The proportion of academics who have never experienced gender disparities ranges from 57% to 87% of cases, all disparities taken together. This finding echoes a similar done in Morocco and shows that academics may believe that there are no gender disparities in their work environment, despite experiencing gender discrimination [Llorent-Bedmar, Llorent-Vaquero, Navarro-Granados, 2017].

As for the disparities that Russian academics have ever encountered, Figure I displays related experiences. Among the 26% of academics who have experienced gender disparities, the share of all given gender disparities that women academics have ever expe-

rienced during their academic careers is higher than that for men. This fully confirms previous research showing that women academics are more likely to experience gender inequality than men (see, e.g., [Ceci et al., 2009; Larivière et al., 2013; García-González et al., 2019; Westoby et al., 2021]).

Figure I. **The share of men and women academics in Russia who have ever had such an experience**

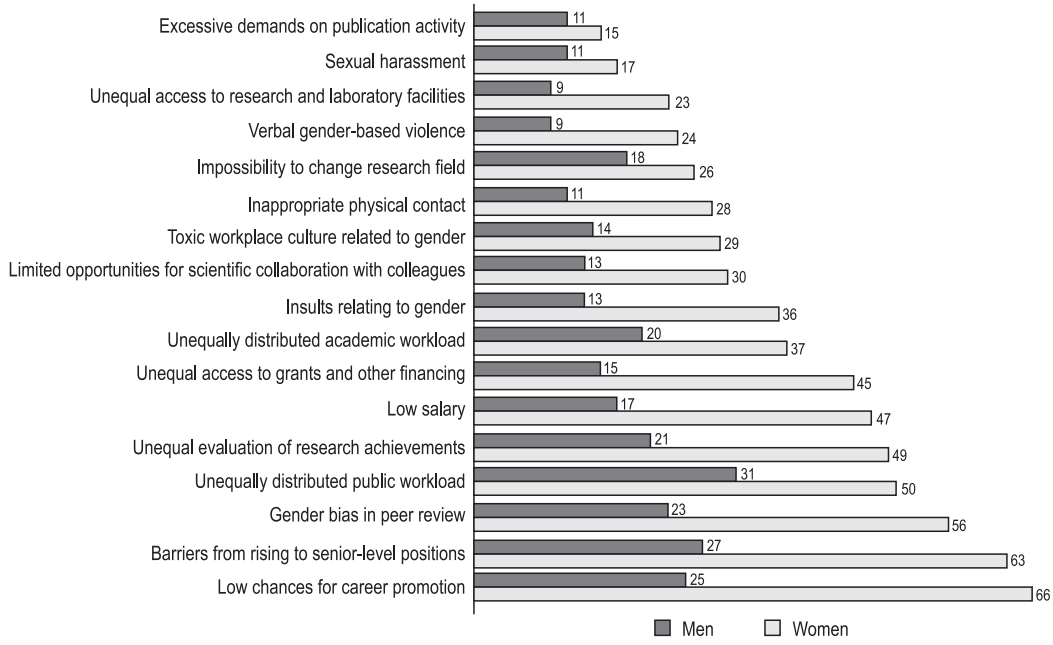


Table 3 shows the result of the non-parametric Mann-Whitney U-test on the 17 statements about experiences of gender inequality, clustered according to the sub-sections of the questionnaire. There are only two disparities without a statistically significant difference ($p < 0.05$) between women and men; those are highlighted in grey. The gaps between women's and men's experiences are the largest for various disparities, low chances for career promotion (66 points difference), barriers from rising to senior-level positions (63), gender bias in peer review (56), and unequally distributed public workload (50). This implies that the most common gender disparities for women in Russian academia are related to the problem of leaky pipeline which refers to the decrease in the number of female employees at every stage of the career path [Aktepe, 2020]. Women are shown to be less likely to pursue academic careers, to become tenured, and to gain high/highest positions. All statistically insignificant differences between men and women are highlighted in grey.

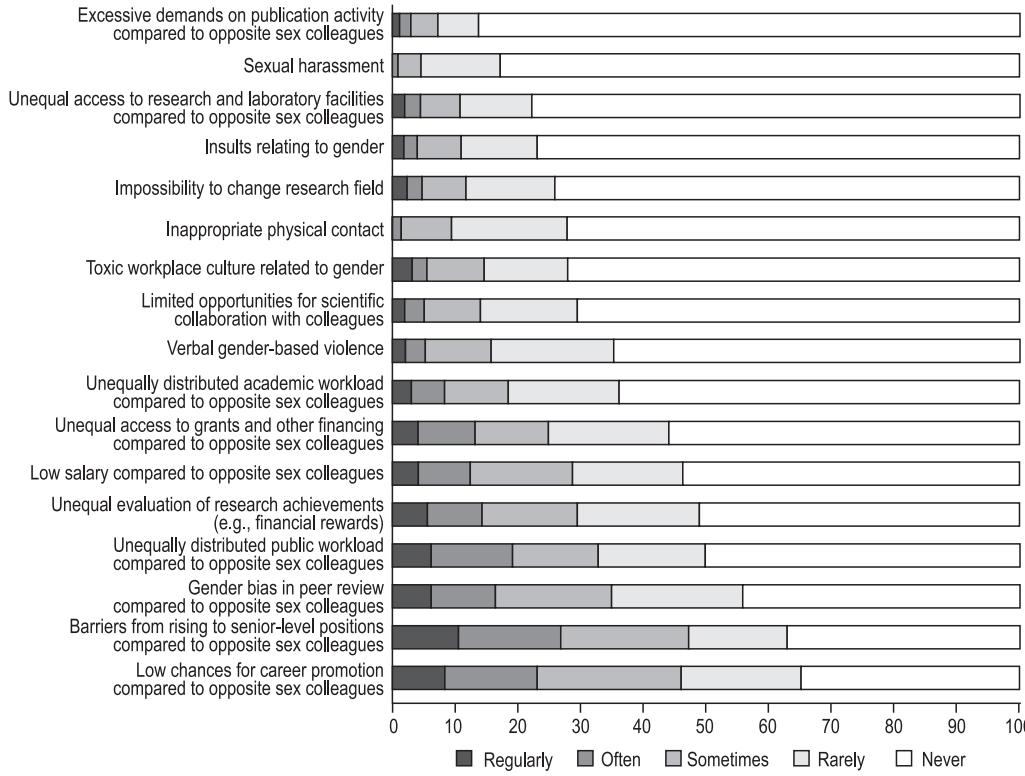
Table III. **Mann-Whitney U-test between groups for gender**

Statement	Mann-Whitney U test	*p*
Low salary compared to opposite sex colleagues	61308.000	0.000
Low chances for career promotion compared to opposite sex colleagues	40775.000	0.000
Barriers from rising to senior-level positions compared to opposite sex colleagues	43623.500	0.000
Unequally distributed academic workload compared to opposite sex colleagues	62462.000	0.000
Unequally distributed public workload compared to opposite sex colleagues	51756.500	0.000
Gender bias in peer review compared to opposite sex colleagues	48690.000	0.000
Unequal access to research and laboratory facilities compared to opposite sex colleagues	75171.500	0.000
Impossibility to change research field	75992.500	0.016
Excessive demands on publication activity compared to opposite sex colleagues	83378.500	0.277
Unequal evaluation of research achievements (e.g., financial rewards)	56023.000	0.000
Limited opportunities for scientific collaboration with colleagues	69517.500	0.000
Insults relating to gender	69200.500	0.000
Inappropriate physical contact	73977.000	0.000
Toxic workplace culture related to gender	64500.000	0.000
Sexual harassment	83330.000	0.051
Excessive demands on publication activity compared to opposite sex colleagues	60633.500	0.000

In contrast, the most common types of gender disparities that both men and women occasionally or regularly face are (1) fewer opportunities for career advancement compared to colleagues of the opposite sex, and (2) barriers to advancement to senior positions compared to colleagues of the opposite sex (43% for both), (3) unequal distribution of workload compared to colleagues of the opposite sex (39%), and (4) gender bias in peer review (37%). It correlates with a previous gender-based survey of academics, displaying that there are a few factors that both genders agree are important [Rowley, Sbaffi, 2021]. This trend may indicate the apparent dominance of career advancement gaps for both men and women academics in Russia. At the same time, Russian academics are least likely to experience (1) excessive demands for publication activity (13%), (2) sexual harassment (14%) and (3) unequal access to research and laboratory facilities (15%) compared to their colleagues of the opposite sex.

Figure II displays what gender disparities have been the most and least common for women academics in Russia. 86% and 83% of women academics have never faced excessive demands on publication activity and sexual harassment, respectively. Women academics are also less likely to experience unequal access to research and laboratory facilities, any gendered insults and inappropriate physical contact, or limitations to change the research field.

Figure II. **Gender disparities faced by women academics**

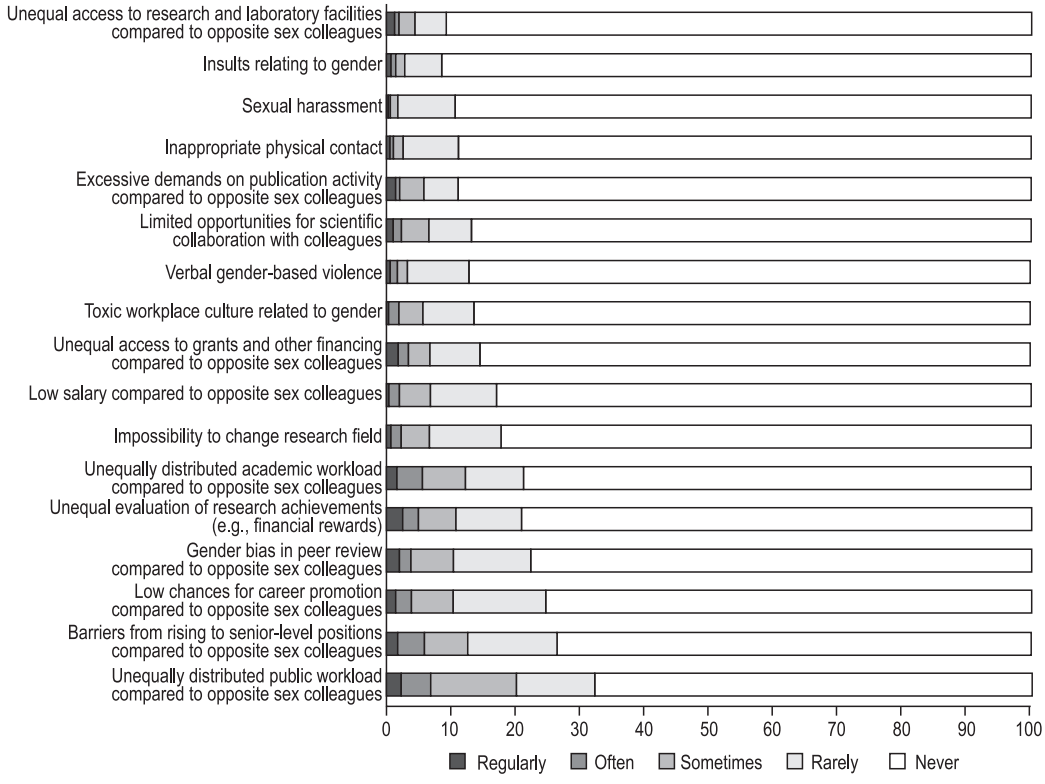


The most common gendered challenge women academics are dealing with regularly is low chances for promotion and barriers from rising to senior-level positions (65% and 63% of women compared to their male colleagues). This trend might be explained by the fact that Russian women usually occupy lower positions, such as associate professors, lecturers, and assistants, while being less represented at higher academic ranks [Bagirova, Surina, 2017; Sterligov, 2017; Pilkina, Lovakov, 2022].

Figure III shows the most and least common gender disparities faced by male academics. The share of men who have never experienced any gender disparities in their workplace lies between 68%

and 91%. Less common gender disparities for men include sexual harassment, inappropriate physical contact, excessive demands on publication activity, and limited opportunities for collaboration with colleagues, and unequal access to research and laboratory facilities.

Figure III. **Gender disparities faced by men academics**



The share of disparities men academics have ever faced is comparatively low, 4% on average. Men mostly refer to unequally distributed public workload (32%), barriers from rising to senior-level positions (26%), and low chances for promotion (25%) as disparities they usually or occasionally face in their workplace. Correspondingly, for women academics in Russia the most common gender disparity relates to career promotion, while for men it is about public workload. This does not quite correlate with the vast majority of studies that found women to engage in more campus services and various public activities within academic institutions than their male colleagues (see, e.g., [Carrigan et al., 2011; O'Meara et al., 2017]). Some contradicting studies, however, demonstrate that only a few gender differences in public workload remain significant after considering details of academic profiles, specifically, academic degree and

position, research area, discipline, and institutional type (see, e.g., [Porter, 2007; Mitchell, Hesli, 2013]). Conflicting findings seem to stem from scholars using different methods, controlling for different sets of variables [O'Meara et al., 2017], but in this study, based on the academics' perception of gender disparities, unequal public workload seems relevant for both men and women academics.

The general trend could be due to several reasons. First, men academics are less aware of gender bias and its implications at their workplaces [Flood, Russell, 2017]; women, on the contrary, are more prone to experience gendered challenges [Williams, Ceci, 2015; Popp et al., 2019]. This means that men are not only less likely to experience gender disparities, but rarely notice any gender-related problems in their professional academic environment. Second, perception of gender disparities per se might be different. For example, while some women view cases of verbal gender-based violence as evident gendered insults (e.g., allusions to weakness and femininity of women), others perceive whistling as a gender disparity. Thereby, different interpretations of gender disparities among both men and women academics might have a significant influence on results.

3.3. Perception of gender disparities

Figure IV shows gender differences in the perception of gender inequality and, conversely, equality. The share of women who consider gender inequality a problem of academia exceeds that of men by two times. However, it remains low for both genders. Only 12% and 27% of male and female academics agree or completely agree that gender inequality is relevant to the Russian academic community. Correspondingly, men academics strongly disagree (46%) and disagree (32%) that gender inequality is a problem in academia. As for the statement that gender inequality exists in academic environment, the share of women who strongly disagree with it is 19%, which is smaller than that of men, while the proportions of those who disagree are the same (32%). This finding echoes previous studies that indicate that men academics usually do not recognize gender inequality issues to the same extent as women do and even evaluate a confirmation of gender disparities as less meritorious than women do [Handley et al., 2015].

However, as for considering gender inequality to be a social problem, the proportion of men and women academics who agree is increasing. Indeed, 54% of women (24% and 30%) and 31% of men (19% and 12%) academics agree and strongly agree that gender inequality is a social problem. The proportion of those strongly disagreeing has correspondingly decreased: 24% of men and 8% of women. This implies that gender inequality is regarded as rather a social than academic problem.

Figure IV. **Gender differences in perception of gender issues within academia**

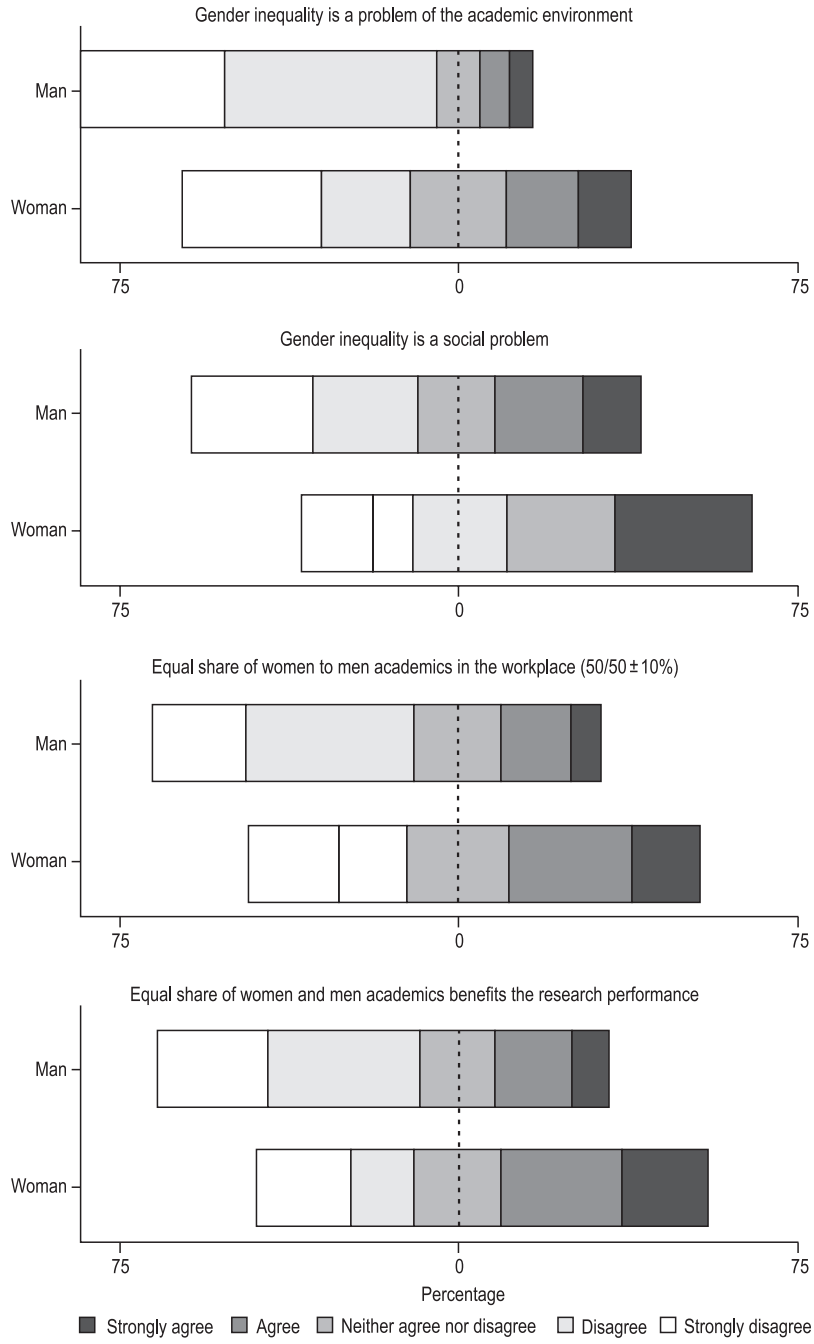


Figure IV compares the perception of gender parity issues within the Russian academic environment. A strong disagreement with the suggestion that work should be shared equally between women

and men academics is expressed more often by men (31%) than women (12%), resulting in an average of 23% among all respondents. Correspondingly, there are fewer men who agree (13%) and strongly agree (6%) with the need to have an equal gender share of academics. By contrast, 34% women both strongly agree and agree that equal representation in academic positions is necessary. These findings demonstrate that men are less likely to agree that there is a need for gender equality in the Russian academic community.

A similar trend is observed in the perception of an equal gender share as potentially beneficial for research performance. When respondents were asked whether an equal share of men and women academics benefits research performance, 28% of men agreed (the options "strongly agree"/"agree"/"partially agree"). In contrast, women's perceptions of equality were significantly higher: 46% agreed and 38% strongly disagreed, disagreed, or partially disagreed that academia benefits from gender equality. This trend might be explained by the recent shift toward a more gender inclusive climate in science, where young women are exposed to biased behavior less frequently than senior women scientists were at the start of their careers.

The tendency towards a different perception of gender issues between men and women academics is evident. Table 4 shows the results of a non-parametric Mann-Whitney U-test with a statistically significant difference ($p < .05$) between women and men, which is relevant to all statements on gender (in)equality.

Table IV. **Mann-Whitney U-test between groups for gender**

Statement	Mann-Whitney U test	*p*
Gender inequality is a problem of the academic environment	60677.500	0.000
Gender inequality is a social problem	62924.500	0.000
Equal share of women to men academics in the workplace (50/50 ±	77604.500	0.000
Equal share of women and men academics benefits the research performance	74507.500	0.000

Overall, these results show that in the Russian academic system women have a more positive perception of a possible equal share of men and women academics in their workplaces and commitment to benefits from gender equality than men do. Importantly, the results demonstrate that both women and men tend to regard gender inequality as a social problem but not an issue in academia.

However, attitudes towards gender issues may change for the better in the foreseeable future. Indeed, a recent study by Kataeva et al. displays that in post-Soviet countries, including Russia, gen-

der research is developing in many fields, including sociological and politically oriented research (2023). This means that integration of gender issues into various academic fields will increase the awareness of gender-related problems and demand for gender equality in academic community as well as society on the whole.

Conclusion

The present study identifies various gender disparities relevant to men and women academics and analyses their perception of gender inequality and, conversely, equality. The survey of Russian men and women academics has demonstrated that gender disparities remain an unpopular and 'unserious' issue in Russian academia. Women generally feel more affected by the survey topic than their men colleagues but the overall motivation for changes aimed at reducing gender inequality in academia remains insignificant.

The results show gender disparities experience in Russian academia (e.g., in terms of promotion, pay gap, and gender biases) are reported more often by women (38%) than men (17%), resulting in an average of 26% among all respondents. The most common gender disparities women academics usually or occasionally encounter are low chances for promotion (65%) and barriers from rising to senior-level positions (63%) while men face disparities in the distribution of public workload (32%) and also barriers from rising to senior-level positions (26%). This implies that women academics significantly suffer from leaky pipeline issues while men also face difficulties with career advancement but to a lesser extent.

The findings also provide significant evidence that men and women academics in Russia have a different understanding of gendered challenges in the academic environment. Our results show that women more often perceive gender inequality as a problem than men do. However, although men academics appear less receptive to this matter, both men and women consider gender inequality a major social problem. This implies that gender challenges are more serious for academics when encountered in society than in their workplace. Gender disparities may be felt as acute problems because of their more obvious manifestations (e.g., overall statistics on gender pay gaps or official career restrictions for women). Another explanation might be the lack of awareness of the problem of gender inequality in the Russian academic community. Notwithstanding the value of the contribution of this study, there is considerable scope for further research into the hidden facets of gender disparities and the reasons for the comparatively low relevance of gender issues in the academic environment.

This research also has certain limitations. First, our sample of academics is limited by the WoS database. It means that the analysis includes only those Russian academics who have publications

in journals included in WoS indexes. Therefore, the findings describe only that part of Russian academics that publish their papers in international journals. Future research may take a broader sampling by having academics who publish, for example, in local journals. However, the available databases with academics' emails are not available for local Russian journals. Second, the analysis is limited to specific gender disparities selected for this study. This might somehow influence the results since the survey itself was inclined to specific gendered challenges. Nevertheless, a closed list of disparities was followed by a final open-ended question where academics were open to enumerate additional gender difficulties they encountered.

A potential avenue for future research could be to interpret gender inequality as such and then focus on raising awareness of it. The author posits that strategies based on the real perceptions of academics are viable avenues for individual scientists, scientific institutions, organizations to address gender inequality.

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Conflict of Interest

The author declares that they have no conflict of interest.

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References

Aiston S.J., Jung J. (2015) Women Academics and Research Productivity: An International Comparison. *Gender and Education*, vol. 27, no 3, pp. 205–220. http://dx.doi.org/10.1080/09540253.2015.1024617

Aktepe S.O. (2020) Gender Inequality in Work Organizations: What HRM Practices Mean for Gender Inequality. *Macro and Micro-Level Issues Surrounding Women in the Workforce: Emerging Research and Opportunities* (ed. B.U. Tan), Hershey, PA: Business Science Reference, pp. 1–36.

Bagirova A., Surina S. (2017) Gender Asymmetry in Russian Higher Education: An Experience of Quantitative Analysis]. Proceedings of the *III International Scientific and Practical Conference (Yekaterinburg, 2017, April 21–22) "Strategies for the Development of Social Communities, Institutions and Territories"*, vol. 1, pp. 204–207 (In Russian).

Beckwith K. (2005) A Common Language of Gender? *Politics & Gender*, vol. 1, no 1, pp. 128–137. http://dx.doi.org/10.1017/S1743923X05211017

Beidas R.S., Hannon P.A., James A.S., Emmons K.M. (2022) Advancing Gender Equity in the Academy. *Science Advances*, vol. 8, no 13, Article no eabq0430. http://dx.doi.org/10.1126/sciadv.abq0430

Belyaeva G.F., Ermolaeva E.O. (2011) Women of Moscow University: Professional Career and Family. *Almanac of Modern Science and Education,* no 5, pp. 77–82 (In Russian).

Bos A.L., Sweet-Cushman J., Schneider M.C. (2019) Family-Friendly Academic Conferences: A Missing Link to Fix the "Leaky Pipeline"? *Politics, Groups, and Identities,* vol. 7, no 3, pp. 748–758. https://doi.org/10.1080/21565503.2017.1403936

Bryson C. (2004) The Consequences for Women in the Academic Profession of the Widespread Use of Fixed Term Contracts. *Gender, Work & Organization*, vol. 11, no 2, pp. 187–206. http://dx.doi.org/10.1111/j.1468-0432.2004.00228.x

Caplar N., Tacchella S., Birrer S. (2017) Quantitative Evaluation of Gender Bias in Astronomical Publications from Citation Counts. *Nature Astronomy*, vol. 1, no 6. http://dx.doi.org/10.1038/s41550-017-0141

Carrigan C., Quinn K., Riskin E.A. (2011) The Gendered Division of Labor among STEM Faculty and the Effects of Critical Mass. *Journal of Diversity in Higher Education*, vol. 4, no 3, pp. 131–146. http://dx.doi.org/10.1037/a0021831

Ceci S.J., Williams W.M., Barnett S.M. (2009) Women's Underrepresentation in Science: Sociocultural and Biological Considerations. *Psychological Bulletin*, vol. 135, no 2, pp. 218–261. https://doi.org/10.1037/a0014412

Dolgova E.A. (2020) *The Birth of Soviet Science: Scientists in the 1920s and 1930s*. Moscow: RSUH (In Russian).

Drew E., Canavan S. (eds) (2020) *The Gender-Sensitive University: A Contradiction in Terms?* New York, NY: Routledge. http://dx.doi.org/10.4324/9781003001348

Dworkin J.D., Linn K.A., Teich E.G., Zurn P., Shinohara R.T., Bassett D.S. (2020) The Extent and Drivers of Gender Imbalance in Neuroscience Reference Lists. *Nature Neuroscience*, vol. 23, no 8, pp. 918–926. https://doi.org/10.1038/s41593-020-0658-y

Eagly A.H. (2007) Female Leadership Advantage and Disadvantage: Resolving the Contradictions. *Psychology of Women Quarterly*, vol. 31, no 1, pp. 1–12. http://dx.doi.org/10.1111/j.1471-6402.2007.00326.x

Eggins H. (ed.) (2016) The Changing Role of Women in Higher Education: Academic and Leadership Issues. Cham: Springer. Vol. 17. http://dx.doi.org/10.1007/978-3-319-42436-1

Eslen-Ziya H., Yildirim T.M. (2022) Perceptions of Gendered-Challenges in Academia: How Women Academics See Gender Hierarchies as Barriers to Achievement. *Gender, Work & Organization*, vol. 29, no 1, pp. 301–308. http://dx.doi.org/10.1111/gwao.12744

Flood M., Russell G. (2017) *Men Make a Difference: How to Engage Men on Gender Equality*. Sidney: Diversity Council Australia.

Fox M.F. (2019) *Scholarly Writing and Publishing: Issues, Problems, and Solutions*. New York, NY: Routledge. http://dx.doi.org/10.2307/2578688

García-González J., Forcén P., Jimenez-Sanchez M. (2019) Men and Women Differ in Their Perception of Gender Bias in Research Institutions. *PLOS One*, vol. 14, no 12, Article no e0225763. http://dx.doi.org/10.1371/journal.pone.0225763

Goddard E., Grant R., Tatman L., Baltzly D., de la Barra B.L., Black R. (2021) Women in Philosophy, Engineering & Theology: Gendered Disciplines and Projects of Critical Re-Imagination. *Women's Studies International Forum*, vol. 86, pp. 102479). http://dx.doi.org/10.1016/j.wsif.2021.102479

Gorshkova I.D., Miryasova O.A. (2020) Gender Inequality in Current Russian Higher Education Institutions. *Woman in Russian Society*, no 1, pp. 29–44 (In Russian). https://doi.org/10.21064/WinRS.2020.1.3

Goulden M., Mason M.A., Frasch K. (2011) Keeping Women in the Science Pipeline. *The Annals of the American Academy of Political and Social Science*, vol. 638, no 1, pp. 141–162. http://dx.doi.org/10.1177/0002716211416925

Grishina N.V. (2008) Students, Listeners, Admirers... Women in the World of "Male" Science (in the Late XIX—Early XX Centuries). *The World of a Historian* (eds

S.P. Bychkov, A.V. Sveshnikov, A.V. Yakub), Omsk: OSU, iss. 4, pp. 8–28 (In Russian).

Gunawardena C., Rasanayagam Y., Leitan T., Bulumulle K., Abeyasekera-Van Dort A. (2006) Quantitative and Qualitative Dimensions of Gender Equity in Sri Lankan Higher Education. *Women's Studies International Forum*, vol. 29, no 6, pp. 562–571. http://dx.doi.org/10.1016/j.wsif.2006.10.005

Handley I.M., Brown E.R., Moss-Racusin C.A., Smith J.L. (2015) Quality of Evidence Revealing Subtle Gender Biases in Science Is in the Eye of the Beholder. *Proceedings of the National Academy of Sciences,* vol. 112, no 43, pp. 13201–13206. http://dx.doi.org/10.1073/pnas.1510649112

Heijstra T., Bjarnason T., Rafnsdóttir G.L. (2014) Predictors of Gender Inequalities in the Rank of Full Professor. *Scandinavian Journal of Educational Research*, vol. 59, no 2, pp. 214–230. http://dx.doi.org/10.1080/00313831.2014.904417

Holman L., Stuart-Fox D., Hauser C.E. (2018) The Gender Gap in Science: How Long until Women Are Equally Represented? *PLOS Biology*, vol. 16, no 4, Article no e2004956. http://dx.doi.org/10.1371/journal.pbio.2004956

Jagsi R., Griffith K.A., Jones R., Perumalswami C.R., Ubel P., Stewart A. (2016) Sexual Harassment and Discrimination Experiences of Academic Medical Faculty. *Jama*, vol. 315, no 19, pp. 2120–2121. http://dx.doi.org/10.1001/jama.2016.2188

Kachchaf R., Ko L., Hodari A. Ong M. (2015) Career–Life Balance for Women of Color: Experiences in Science and Engineering Academia. *Journal of Diversity in Higher Education*, vol. 8, no 3, pp. 175–191. https://psycnet.apa.org/doi/10.1037/a0039068

Kataeva Z., Durrani N., Izekenova Z., Rakhimzhanova A. (2023) Evolution of Gender Research in the Social Sciences in Post-Soviet Countries: A Bibliometric Analysis. *Scientometrics*, vol. 128, no 3, pp. 1639–1666. http://dx.doi.org/10.1007/s11192-022-04619-9

Kessels U., Taconis R. (2011) Alien or Alike? How the Perceived Similarity between the Typical Science Teacher and a Student's Self-Image Correlates with Choosing Science at School. *Research in Science Education*, vol. 42, no 6, pp. 1049–1071. http://dx.doi.org/10.1007/s11165-011-9230-9

Khasbulatova O.A. (2002) Gender Policy in Higher Education in the Context of Social Transformations. *Woman in Russian Society*, no 2–3, pp. 3–7 (In Russian).

Kumar S. (2016) Effect of Gender on Collaborative Associations of Researchers in Malaysia. *The Electronic Library*, vol. 34, no 1, pp. 74–82. http://dx.doi.org/10.1108/EL-09-2014-0162

Larivière V., Ni C., Gingras Y., Cronin B., Sugimoto C.R. (2013) Bibliometrics: Global Gender Disparities in Science. *Nature*, no 504(7479), pp. 211–213. http://dx.doi.org/10.1038/504211a

Llorent-Bedmar V., Llorent-Vaquero M., Navarro-Granados M. (2017) Towards Gender Equality in Moroccan Universities: Female University Teachers from a Gender Perspective. *Women's Studies International Forum*, vol. 64, no 5, pp. 34–40. http://dx.doi.org/10.1016/j.wsif.2017.09.002

Madison G., Fahlman P. (2020) Sex Differences in the Number of Scientific Publications and Citations when Attaining the Rank of Professor in Sweden. *Studies in Higher Education*, vol. 46, no 12, pp. 1–22. http://dx.doi.org/10.1080/03075079.2020.1723533

Makarova E., Aeschlimann B., Herzog W. (2019) The Gender Gap in STEM Fields: The Impact of the Gender Stereotype of Math and Science on Secondary Students' Career Aspirations. *Frontiers in Education*, vol. 4, July, Article no 60. https://doi.org/10.3389/feduc.2019.00060

Mitchell S.M., Hesli V.L. (2013) Women Don't Ask? Women Don't Say No? Bargaining and Service in the Political Science Profession. *PS: Political Science & Politics*, vol. 46, no 2, pp. 355–369. http://dx.doi.org/10.1017/S1049096513000073

Murgia A., Poggio B. (2018) *Gender and Precarious Research Careers*. New York, NY: Routledge. http://dx.doi.org/10.4324/9781315201245

Neff K.D., Cooper C.E., Woodruff A.L. (2007) Children's and Adolescents' Developing Perceptions of Gender Inequality. *Social Development*, vol. 16, no 4, pp. 682–699. http://dx.doi.org/10.1111/j.1467-9507.2007.00411.x

Ni C., Smith E., Yuan H., Larivière V., Sugimoto C.R. (2021) The Gendered Nature of Authorship. *Science Advances*, vol. 7, no 36. Article no eabe4639. http://dx.doi.org/10.1126/sciadv.abe4639

Nielsen M.W. (2016) Limits to Meritocracy? Gender in Academic Recruitment and Promotion Processes. *Science and Public Policy*, vol. 43, no 3, pp. 386–399. https://doi.org/10.1093/scipol/scv052

O'Meara K., Kuvaeva A., Nyunt G., Waugaman C., Jackson R. (2017) Asked More Often: Gender Differences in Faculty Workload in Research Universities and the Work Interactions that Shape Them. *American Educational Research Journal*, vol. 54, no 6, pp. 1154–1186. http://dx.doi.org/10.3102/0002831217716767

Pilkina M., Lovakov A. (2022) Gender Disparities in Russian Academia: A Bibliometric Analysis. *Scientometrics*, vol. 127, no 6, pp. 3577–3591. http://dx.doi.org/10.1007/s11192-022-04383-w

Polikhina N.A., Baikov S.A., Grishakina E.G., Trostyanskaya I.B. (2022) The Issue of Gender Balance in Russian Universities Leadership and Abroad. *The Journal of Social Policy Studies*, vol. 20, no 1, pp. 67–82 (In Russian). https://doi.org/10.17323/727-0634-2022-20-1-67-82

Popp A.L., Lutz S.R., Khatami S., van Emmerik T.H., Knoben W.J. (2019) A Global Survey on the Perceptions and Impacts of Gender Inequality in the Earth and Space Sciences. *Earth and Space Science*, vol. 6, no 8, pp. 1460–1468. http://dx.doi.org/10.1029/2019EA000706

Porter S.R. (2007) A Closer Look at Faculty Service: What Affects Participation on Committees? *The Journal of Higher Education*, vol. 78, no 5, pp. 523–541. http://dx.doi.org/10.1353/jhe.2007.0027

Rosa R., Clavero S. (2021) Gender Equality in Higher Education and Research. *Journal of Gender Studies*, vol. 31, no 1, pp. 1–7. http://dx.doi.org/10.1080/09589236.2022.2007446

Rosser S.V. (2004) *The Science Glass Ceiling*: *Academic Women Scientists and the Struggle to Succeed*. New York, NY: Routledge. https://doi.org/10.4324/9780203337752

Rossiter M.W. (1993) The Matthew Matilda Effect in Science. *Social Studies of Science*, vol. 23, no 2, pp. 325–341. https://doi.org/10.1177/030631293023002004

Rowley J., Sbaffi L. (2021) Investigating Gender Differences in Journal Selection Decisions: A Survey of Academic Researchers. *Learned Publishing*, vol. 34, no 3, pp. 294–304. http://dx.doi.org/10.1002/leap.1345

Rudakov V.N., Prakhov I.A. (2021) Gender Differences in Pay among University Faculty in Russia. *Higher Education Quarterly*, vol. 75, no 2, pp. 278–301. https://doi.org/10.1111/HEQU.12277

Sağlamer G., Tan M.G., Çebi P.D., Çağlayan H., Gümüşoğlu N.K., Poyraz B. et al. (2018) Gendered Patterns of Higher Education in Turkey: Advances and Challenges. *Women's Studies International Forum,* vol. 66, January–February, pp. 33–47. https://doi.org/10.1016/j.wsif.2017.11.002

Santos J.M., Horta H., Amâncio L. (2021) Research Agendas of Female and Male Academics: A New Perspective on Gender Disparities in Academia. *Gender and Education*, vol. 33, no 5, pp. 625–643. http://dx.doi.org/10.1080/09540253.2020.1792844

Scambor E., Bergmann N., Wojnicka K., Belghiti-Mahut S., Hearn J., Holter Ø.G. et al. (2014) Men and Gender Equality. *Men and Masculinities*, vol. 17, no 5, pp. 552–577. http://dx.doi.org/10.1177/1097184x14558239.

Shen H. (2013) Inequality Quantified: Mind the Gender Gap. *Nature News*, no 495(7439), Article no 22. http://dx.doi.org/10.1038/495022a

Shepherd S. (2017) Why Are There So Few Female Leaders in Higher Education: A Case of Structure or Agency? *Management in Education*, vol. 31, no 2, pp 82–87. http://dx.doi.org/10.1177/0892020617696631

Sillaste G. (2001) Gender Asymmetry in Education and Science: A Sociologist's View, *Vysshee obrazovanie v Rossii / Higher Education in Russia,* no 2, pp. 96–106 (In Russian).

Sivak E., Yudkevich M. (2015) Academic Immobility and Inbreeding in Russian Universities. *Academic Inbreeding and Mobility in Higher Education: Global Perspectives* (eds M. Yudkevich, P.G. Altbach, L.E. Rumbley), London: Palgrave Studies in Global Higher Education. Palgrave Macmillan, pp. 130–155. https://doi.org/10.1057/9781137461254_6

Spitzer-Hanks D.T. (2016) Process-Model Feminism in the Corporate University. *Gender and Education*, vol. 28, no 3, pp. 386–400. http://dx.doi.org/10.1080/09540253.2016.1166180

Sterligov I. (2017) Gender and Income Disparities among Russian Academic CEOs. *HERB Issue Women in Academia*, no 4 (14), pp. 12–14.

Westoby C., Dyson J., Cowdell F., Buescher T. (2021) What Are the Barriers and Facilitators to Success for Female Academics in UK HEIs? A Narrative Review. *Gender and Education*, vol. 33, no 8, pp. 1033–1056. http://dx.doi.org/10.1080/09540253.2021.1884198

Williams W.M., Ceci S.J. (2015) National Hiring Experiments Reveal 2:1 Faculty Preference for Women on STEM Tenure Track. *Proceedings of the National Academy of Sciences*, vol. 112, no 17, pp. 5360–5365. http://dx.doi.org/10.1073/pnas.1418878112

Wyn J., Acker S., Richards E. (2000) Making a Difference: Women in Management in Australian and Canadian Faculties of Education. *Gender and Education*, vol. 12, no 4, pp. 435–447. http://dx.doi.org/10.1080/09540250020004081

Ysseldyk R., Greenaway K.H., Hassinger E., Zutrauen S., Lintz J., Bhatia M.P. et al. (2019) A Leak in the Academic Pipeline: Identity and Health among Postdoctoral Women. *Frontiers in Psychology*, vol. 10, Article no 1297. http://dx.doi.org/10.3389/fpsyg.2019.01297