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RESEARCH ARTICLE

The Labour Market Through The Prism of Gender: the Case of Kazakhstan

Assel Bekbossinova[1]

[1] NARXOZ University, Almaty, Kazakhstan

Corresponding author:
***** Assel S. Bekbossinova – NARXOZ University, Almaty, Kazakhstan.
Email: aselka01@mail.ru

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Abstract

This study examines the gender wage gap in Kazakhstan, highlighting persistent disparities despite some progress. In high-paying sectors, men earn up to 37% more than women. The objective is to identify key factors contributing to this gap from 2013 to 2023. Using official data from the Bureau of National Statistics of Kazakhstan, the research utilizes secondary data analysis, industry analysis, and multiple regression analysis. Factors analyzed include the ratio of female to male heads in higher education, the proportion of female research specialists, and the Gender Inequality Index. Results show that the proportion of female research specialists significantly reduces the gender wage gap, with a coefficient of -2.7286 and a p-value of 0.013. In contrast, the ratio of female heads and the Gender Inequality Index show no significant impact, with coefficients of 0.6690 (p-value: 0.160) and -0.2752 (p-value: 0.262), respectively. The wage gap, 27% in 2023, is most pronounced in high-paying sectors, influenced by differences in working hours and domestic responsibilities affecting women disproportionately. The study concludes that achieving sustainable gender equality in Kazakhstan requires targeted policies addressing economic and cultural barriers. Enhancing female participation in high-paying sectors and supporting their career advancement is crucial to reducing the gender wage gap and fostering a more equitable labor market.

Keywords*:* Gender Differences, Women's Employment, Economic Inequality, Gender Stereotypes, Sociocultural Barriers, Equality of Opportunity

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1. INTRODUCTION

In recent years, the topic of gender equality in the labor market has become one of the central issues on the global agenda. The issues of equitable distribution of opportunities, removal of barriers for women and men, as well as closing the wage gap are becoming increasingly relevant for many countries, including Kazakhstan. Despite efforts to improve the position of women in the economy, gender inequality remains a significant problem. This is especially evident in the labor market, where differences in pay, career opportunities and access to high-paying positions between men and women are still noticeable.

Kazakhstan, ranking 62nd among 146 countries in the gender equality ranking of the World Economic Forum, demonstrates moderate progress in this direction (WEF, 2023). However, despite significant achievements, such as the high level of women's education and women's involvement in the workforce, significant challenges remain. Among them are wage inequality, gender stereotypes and an imbalance in the distribution of roles in the family and in the workplace.

One of the key problems in the labor market of Kazakhstan remains the gender wage gap. At the end of 2023, this gap was 27%, which indicates significant discrimination against women in the field of labor relations. It is important to note that, despite the reduction of the gap by 9 percentage points over the past ten years, this reduction is not consistent and sustainable. Moreover, periodic fluctuations in the size of the gap indicate that progress in this direction may be unstable. The causes of the gender wage gap in Kazakhstan are diverse and complex. They include both objective factors, such as differences in educational and professional experience, and subjective aspects related to gender stereotypes and bias in hiring and promotion. Thus, women often face restrictions in access to high-paying professions and positions, especially in sectors traditionally dominated by men. In addition, women are more likely to perform childcare and household duties, which can also negatively affect their career prospects and income.

Considering the situation on the labor market through the prism of gender allows us to identify hidden mechanisms that contribute to the persistence of inequality. For example, in some sectors of the economy of Kazakhstan, the gender wage gap reaches particularly high values. In the financial and insurance sectors, men earn 37% more than women, despite the fact that women in these fields often have a higher level of education. At the same time, the gender gap is significantly smaller in sectors with lower wages, such as health and education. One of the key factors influencing gender inequality in the labor market is the cultural perception of the roles of men and women in society. Gender stereotypes, which are deeply rooted in culture, often determine career choices and opportunities for women. They can lead to job segregation, where women find themselves concentrated in lower-paid sectors of the economy or in positions requiring lower qualifications. As a result, even under equal conditions, women receive lower wages and have less chance of career growth.

In addition, the COVID-19 pandemic has had a significant impact on gender inequality in the labor market. In 2020, the reduction of the gender pay gap was due not so much to the success of gender policy, but rather to the fact that the pandemic hit the male population harder. This led to a slowdown in men's income growth, while women's salaries, on the contrary, increased more significantly. However, such a reduction in the gap was temporary and was caused by external factors, rather than sustained changes in the structure of labor relations.

In order to achieve sustainable gender equality in the labor market in Kazakhstan, it is necessary to take comprehensive measures aimed at eliminating both economic and cultural barriers. It is important to take into account international experience, develop and implement effective policies that would

promote equal access to labor resources and opportunities for all categories of the population. This is the only way to achieve a significant reduction in the gender pay gap and ensure equal conditions for the professional development of men and women in Kazakhstan.

Thus, the labor market in Kazakhstan through the prism of gender is a complex system in which various factors interact with each other, creating barriers to achieving full gender equality. Understanding these factors and developing effective strategies to overcome them is an important task for both researchers and policy makers seeking to create a more just and inclusive society.

Theoretical background

Gender inequality in the labor market has been the subject of extensive research in various disciplines, reflecting the persistent inequality that continues to affect employment outcomes. This literature covers a wide range of topics, from wage differentials to gender discrimination in hiring and promotion, as well as the impact of social norms and policies. This review summarizes key findings from original and recent research on gender discrimination, wage inequality, the role of human capital, and the impact of labor market policies.

The gender wage gap remains one of the most studied aspects of inequality in the labor market. Thus, wage differences can be partially explained by prejudice and employer bias, as confirmed by Becker's economic theories of discrimination (Becker, 1971). Blau and Kahn (2017) conducted a comprehensive analysis of the extent, trends and explanations of the gender wage gap, emphasizing that despite significant progress, differences persist. Their work highlights the role of both supply-side factors, such as differences in human capital, and demand-side factors, including discrimination and occupational segregation. In addition, the work of Kireeva and Satybaldin (2019) examines these differences in Kazakhstan in more detail, showing that the gender wage gap varies significantly in different sectors of the economy. Their analysis shows that, despite some progress in reducing wage inequality, there are still significant differences in pay between men and women in some industries, which often reflects broader social norms and expectations regarding gender roles.

Statistical theories of discrimination also offer another explanation for gender inequality in the labor market. Aigner and Cain (1977) suggest that employers may use observable characteristics such as gender as indicators of unobservable traits such as performance or commitment. This leads to a differentiated approach in hiring and remuneration, even if there are no obvious biases. Fang and Moro (2011) develop this by discussing how affirmative action policies can mitigate the effects of statistical discrimination, although they also warn of potential unintended consequences such as reinforcing stereotypes. In addition, Becker's theory of investment in human capital is crucial for understanding gender differences in income (Becker, 1962). According to Becker, differences in education, experience, and training contribute to wage differences. However, women often face interruptions in their careers due to family responsibilities, which leads to a devaluation of human capital (Gorlich & de Griep, 2009). This is especially relevant in the context of punishment for motherhood when women with children tend to earn less than their childless counterparts, as documented by Budig and England (2001). This conclusion is consistent with a study by Dechter (2014), who analyzed the impact of maternity leave on women's earnings after motherhood, emphasizing that going on maternity leave often leads to lower earnings and slower career growth.

Discrimination in employment and promotion remains a significant obstacle to gender equality in the labor market. Research by Niederle and Westerlund (2007, 2011) on gender differences in competition and risky behavior shows that men are more likely to compete, even if it is not in their best interests, while women tend to avoid competition. These behavioral differences can contribute to gender inequality in career advancement, as the competitive environment often encourages

those who are willing to take risks. The conclusions drawn from these data are essential for understanding why women are underrepresented in leadership positions and play an important role. Ceci (2023) investigated the impact of anonymous job application procedures and concluded that such policies could create a level playing field by reducing gender bias in hiring. Similarly, a Berson (2016) study on local labor markets and discrimination based on taste shows that preferences for certain gender characteristics can influence hiring decisions, perpetuating inequality.

Education is the most important determinant of labor market outcomes, and gender differences in educational level and field of study can have a long-term impact on career trajectories. Barone and Assirelli (2020) examine various explanations of gender segregation in higher education, finding that socialization processes, gender stereotypes, and expectations in the labor market play an important role. Their work highlights the need to develop policies that take these fundamental factors into account in order to promote greater gender equality in both education and employment.

Arenas and Calsamiglia (2022) study the role of gender in achieving high results and college admission policies, which believe that gender differences in academic performance can affect admission outcomes, further exacerbating inequalities in access to higher education and subsequent job market opportunities. These results are significant for understanding the pipeline problem in STEM fields where women are still underrepresented.

While much of the literature focuses exclusively on gender, intersectoral approaches examine how gender interacts with other social categories such as race, ethnicity, and class, creating unique patterns of disadvantage. Ceci et al. (2014) discusses how women in academia face complex issues related to both gender and race, affecting their career growth and representation in leadership positions. A study by Kosyakova and Kurakin (2015) on occupational gender segregation in Russia provides an insight into how institutional factors influence labor market outcomes. Their findings suggest that changes in the political and economic context can either exacerbate or mitigate gender inequality, depending on specific policies and current social norms.

Labor market policy plays a crucial role in eliminating gender inequality. Duvander and Johansson (2012) examine the effects of reforms encouraging fathers to take parental leave and conclude that such policies can contribute to a more equitable distribution of family responsibilities, potentially reducing the career difficulties faced by women. A study conducted by MacPhee et al. (2013) highlights the importance of self-efficacy in academic and professional environments, especially for underrepresented groups in STEM fields. Their findings suggest that targeted measures to increase confidence and skills can help reduce gender inequality in these areas, contributing to a more diverse and inclusive labor market. Similarly, Bennouri et al. (2020) discussed the impact of gender quotas on corporate boards in Europe, arguing that such quotas can improve gender diversity in leadership positions and help reduce the gender wage gap. In the education sector, initiatives aimed at increasing women's participation in STEM fields (science, technology, engineering and mathematics) were noted as being important for reducing gender inequality. Falco and Summers (2019) evaluated activities aimed at improving career decision-making and STEM self-efficacy among high school girls and concluded that targeted activities can positively affect girls' interest and confidence in pursuing a STEM career. The importance of eliminating gender stereotypes in education is also emphasized by Kuteesa et al. (2020), who found that women in STEM are superior to their male peers, but they are often underestimated, indicating the need for initiatives that challenge stereotypes and promote gender equality in academia.

The literature on gender inequality in the labor market highlights the multifaceted nature of this problem, covering wage differentials,

discrimination in employment and promotion, differences in human capital accumulation, and the impact of labor market policies. While significant progress has been made in understanding and addressing these differences, ongoing research is needed to explore the relationship of gender with other social categories and develop more effective interventions. As the labor market continues to evolve, especially with the rise of automation and the giant economy, ensuring gender equality will require a subtle and adaptive approach that takes into account both individual and structural factors

2. METHODOLOGY

An integrated approach was used to study the gender wage gap in Kazakhstan, including several methods of analysis. The main purpose of the methodology is to identify the key factors influencing the gender gap and assess their significance in the context of the Kazakh labor market. The following methods were used in the course of the study:

1. Secondary data analysis;
2. Industry analysis;
3. Regression analysis.

The study used official statistical data from the Bureau of National Statistics of the Republic of Kazakhstan as the primary data source. These data included information on average wages, employment levels, the distribution of workers by economic sector and the gender gap in these indicators. The analysis covered the period from 2013 to 2023, which allowed us to assess the dynamics of the gender wage gap over the decade.

The study included an analysis of the gender gap in various sectors of the economy, with particular emphasis on high-paying industries such as finance and insurance, as well as industries with minimal differences such as education and healthcare. A comparative analysis was also conducted to examine sectors with different levels of average earnings and working conditions in order to determine how the type of employment and working conditions affect the gender pay gap.

A multiple regression analysis was performed to quantify the impact of various factors on the gender wage gap. This analysis made it possible to assess the contribution of indicators such as the ratio of the proportion of female heads (rectors) of higher education institutions to the number of male heads of higher education institutions, the proportion of female researchers, and the gender inequality index. Table 1 shows the indicators used.

TABLE 1. Indicators for regression analysis

Variables		Unit
Dependent variables	Gender wage gap	%
Independent variables	The ratio of the proportion of female heads (rectors) to male heads of higher education institutions	%
	For female research specialists	%
	Gender Inequality Index	%

Note: compiled by the author

The following hypotheses were proposed in this study:

Hypothesis 1: An increase in the ratio of female heads to male heads in higher education institutions leads to a reduction in the gender wage gap.

Hypothesis 2: An increase in the proportion of female research specialists contributes to a reduction in the gender wage gap.

Hypothesis 3: A decrease in the Gender Inequality Index reduces the gender wage gap.

This approach allows us to better understand the nature of the gender wage gap in Kazakhstan and identify the key factors that shape it.

3. RESULTS AND DISCUSSION

To better understand how the gender pay gap is related to the factors highlighted by Claudia Goldin, it is necessary to study the main features of the Kazakh labor market in terms of differences between men and women, as well as analyze critical indicators of employment and wages (Goldin et al., 2022).

In Kazakhstan, the gender pay gap remains significant and stood at 27% at the end of 2023. Despite the fact that the gap has narrowed by 7 percentage points over the past 10 years, it is premature to talk about the consistency and sustainability of this trend (Figure 1).

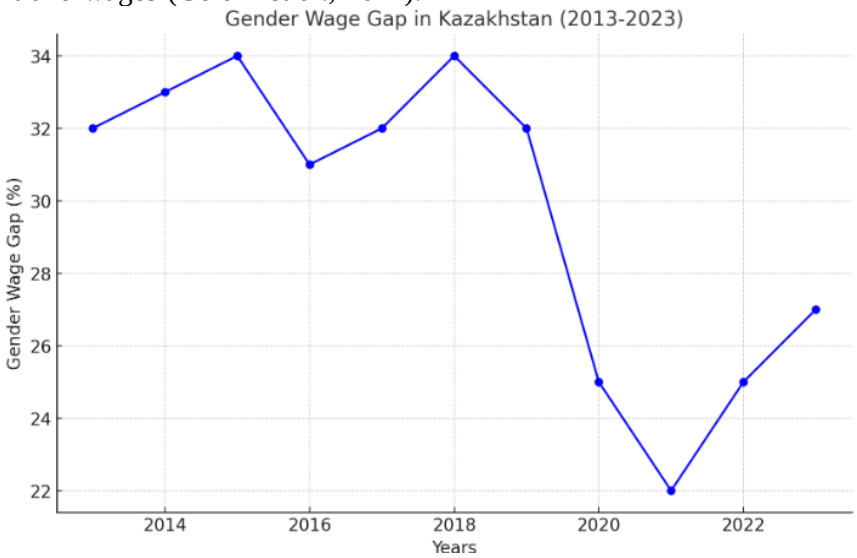

FIGURE 1. Gender wage gap in Kazakhstan at the end of 2013-2023

Note: Bureau of National Statistics (2023)

From 2013 to 2019, the wage gap between men and women alternately decreased and increased, eventually remaining at the same level. The sharp decline in 2020 raises doubts that it was the result of an effective gender policy since it should rather be associated with the consequences of the pandemic. Global research shows that the pandemic has had a stronger impact on men, reducing their incomes, which has narrowed the gap (Dui, 2022). In 2020, men's salaries increased by only 9.4% compared to 2019, almost unchanged in real terms, while women's salaries increased by 21.2%. Thus, the narrowing of the gap was due to slower wage growth for men compared to women in the context of the pandemic. However, as the economy recovers, there is a risk that the gap will return to values exceeding 30%.

As can be seen from Figure 2, the wage gap is present in almost every sector of the economy, with the exception of education, where women earn, on average, 5% more than men. Moreover, the highest income differences between men and women are observed in sectors with the highest average monthly salaries. For example, in financial and insurance activities, where men receive 37% more than women, the average salary is 560 thousand tenge, which is 80% higher than the average salary in all sectors. Men are more likely to choose higher-paying jobs that require more effort, and the lower the average pay in the industry, the smaller the wage gap between men and women. For example, in healthcare, the gap is only 4%, while salaries in the sector are almost 20% lower than the average.

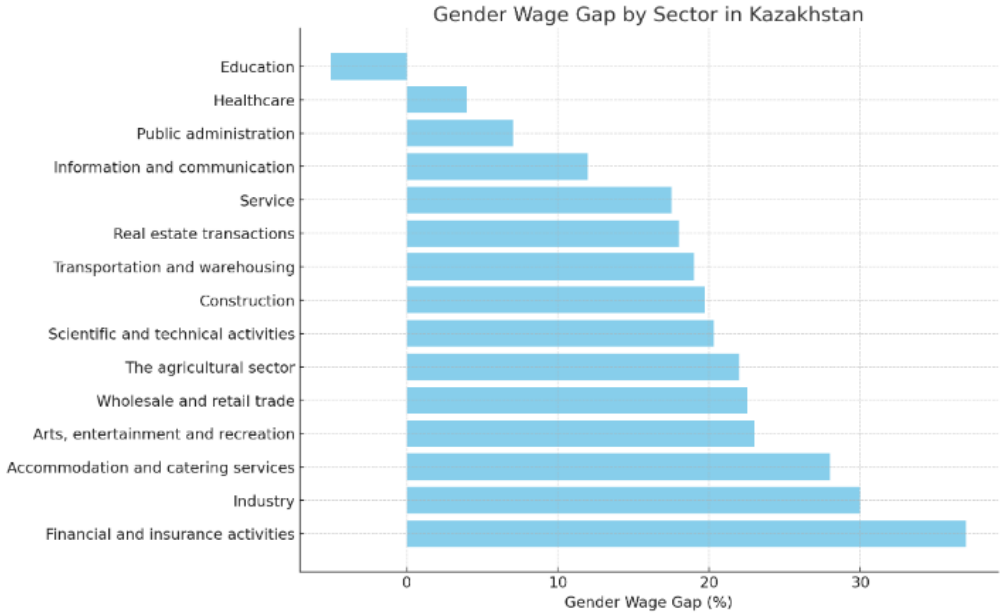

FIGURE 2. Gender gap by economic sector at the end of 2022

Note: Bureau of National Statistics (2023)

Thus, the most significant differences are observed not in sectors related to physical labor or dangerous working conditions but in sectors where gender does not play a role in work performance. At the same time, it cannot be argued that the 37% difference in the incomes of financiers and insurers is due to the level of education or intelligence of employees. According to statistics, the proportion of women with higher education (53.7%) even exceeds that of men with a similar level of education (Figure 3).

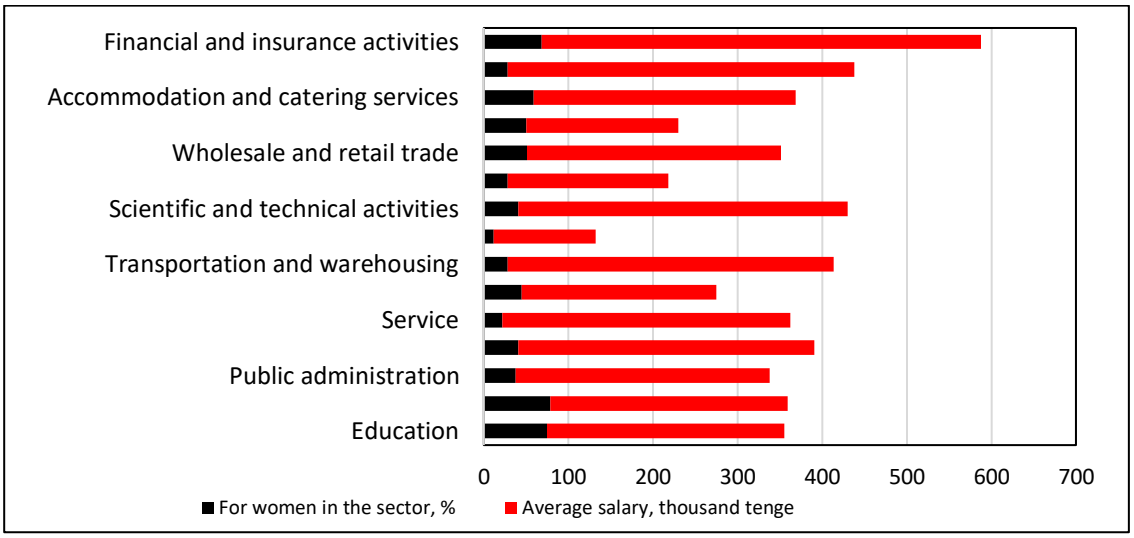

FIGURE 3. The share of women and average wages by economic sector at the end of 2022

Note: Bureau of National Statistics (2023)

The main explanation for the gender pay gap may be related to the number of working hours and the phenomenon of "greedy work" described by Claudia Goldin. An analysis of the daily fund of employed time (Figure 4) shows that women, on average, spend almost an hour less on work than men. Therefore, it is unsurprising that in highly paid sectors, men are more willing to work in an irregular schedule and receive more.

Women spend significantly more time on household management and caring for family members — an average of 4 hours and 14 minutes per day, compared with 1 hour and 28 minutes for men. While men are free to devote more time to work, even when married, women are forced to combine work with household duties, which corresponds to Goldin's theory of specialization in the family. Men tend to remain the main earners, which allows them to achieve more tremendous success in high-paying sectors where they can devote more time to work.

The employment structure by the economic sector confirms the assumption that men achieve more remarkable success when wages are higher due to more available time. At the same time, it cannot be argued that women are less likely to participate in the economy: their share in hiring is equal to that of men. Moreover, in some high—paying sectors, such as finance and insurance, women make up the majority - 67%. However, women's lower salaries may be explained by their work involving less responsibility, a more flexible schedule, and a reduced number of working hours, which allows them to combine work and family but negatively affects earnings.

Next, in Table 2, the results of the regression analysis are presented.

TABLE 2. Regression analysis results

Variable	Coefficient	Standard Error	t-Statistic	P-Value	VIF
Intercept	117.7191	71.618	1.644	0.144	-
Female Heads Ratio	0.6690	0.426	1.570	0.160	4.37
Female Research Specialists	-2.7286	0.823	-3.314	0.013	1.15
Gender Inequality Index	-0.2752	0.226	-1.220	0.262	4.45

Note: compiled by author

The regression analysis based on data regarding the gender wage gap in Kazakhstan from 2013 to 2023 revealed a significant impact of the proportion of female research specialists on the gender wage gap. The model explains 83.9% of the variation in the dependent variable, indicating a high explanatory power of the selected independent variables. The intercept has a coefficient of 117.7191 but is not statistically significant (p-value = 0.144), suggesting that the baseline level of other variables does not have a significant impact on the gender wage gap. The ratio of female heads to male heads in higher education institutions has a coefficient of 0.6690, indicating a positive, though insignificant, influence on the gender wage gap. However, the p-value (0.160) shows that this factor is not statistically significant. Additionally, the VIF value of 4.37 indicates moderate but acceptable multicollinearity. The proportion of female research specialists demonstrated a negative coefficient of -2.7286, which is statistically significant (p-value = 0.013). This indicates that an increase in the proportion of women in the research field is

associated with reducing the gender wage gap. The VIF value for this variable is 1.15, indicating no multicollinearity concerns. The Gender Inequality Index has a negative coefficient of -0.2752, but it is not statistically significant (p-value = 0.262), indicating a weak influence of this factor on the gender wage gap. The VIF value for this variable is 4.45, which also indicates an acceptable level of multicollinearity.

The results of the analysis confirm that fostering and supporting female participation in scientific and academic fields can be an important tool for reducing the gender wage gap in Kazakhstan. Although factors such as the ratio of female heads and the Gender Inequality Index did not significantly impact the wage gap, it is important to note that efforts aimed at increasing female representation in scientific circles can have a substantial effect on reducing the gender wage gap. As the number of female research specialists grows, the gender wage gap tends to decrease. This may be due to the scientific field providing women with more opportunities for career advancement and professional development, which in turn helps to equalize wages.

Next, the Figure 4 displays the regression coefficients for each independent variable in the model, illustrating their impact on the dependent variable – the gender wage gap.

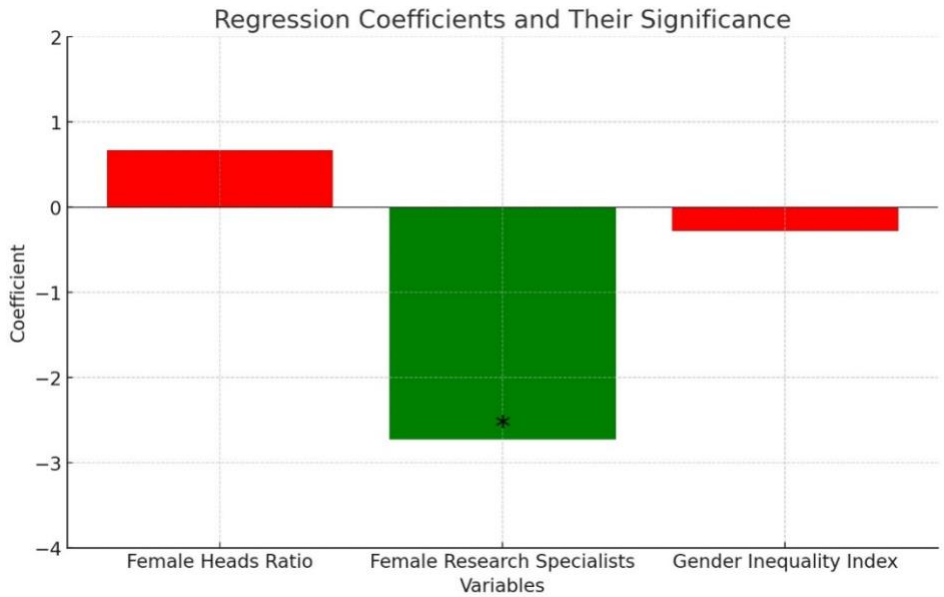

FIGURE 4. Regression coefficients significance

Note: compiled by author

For better visualization of the regression results, the bars are color-coded based on statistical significance:

Green bar. The variable “Female Research Specialists” has a statistically significant negative coefficient (-2.7286). This indicates that an increase in the proportion of female research specialists is associated with reducing the gender wage gap. The statistical significance of this coefficient is denoted by the asterisk (*).

Red bars. Represent the variables "Female Heads Ratio" and "Gender Inequality Index," which have non-significant coefficients. The "Female Heads Ratio" has a positive coefficient (0.6690), suggesting a weak and statistically insignificant positive relationship with the gender wage gap. The "Gender

Inequality Index" has a negative coefficient (-0.2752) but is also statistically insignificant.

The graph highlights that only the proportion of female research specialists significantly impacts reducing the gender wage gap. Although the other variables are included in the model, they do not show a statistically significant influence on the gender wage gap during the studied period in Kazakhstan.

Only Hypothesis 2 was confirmed as a result of the study, which suggests that an increase in the proportion of female research specialists contributes to reducing the gender wage gap. This conclusion is based on the negative and statistically significant coefficient for this variable, indicating a significant influence of this factor on reducing the wage disparity between men and women.

Hypothesis 1 was not confirmed, as the coefficient for the variable representing the ratio of female heads to male heads in higher education institutions was positive but statistically insignificant. This suggests that this factor does not substantially impact the gender wage gap.

Hypothesis 3 was also not confirmed: the coefficient for the Gender Inequality Index was negative, but it did not reach statistical significance. This leads to the conclusion that the Gender Inequality Index did not significantly impact the gender wage gap in Kazakhstan during the studied period.

The analysis yields the following conclusions regarding the nature of the gender pay gap in Kazakhstan: According to Goldin's theory, Kazakhstan has high specialization and clear gender roles in the household—women devote significantly more time to household duties and caring for family members, which reduces the number of working hours and hourly wages.

The most significant pay gap is observed in the highest-paying sectors, where high responsibility, high returns and possible overwork are required. Men, having more time, move up the career ladder, unlike women, who often choose a more flexible schedule with less responsibility in order to manage to combine work and family. At the same time, it cannot be said that men are more concentrated in high-paying sectors - the distribution of numbers by gender depends on the specifics of the job. There are more men in sectors where physical labor is required and harmful conditions exist, which affects the pay gap.

The difference in pay is not related to intellectual abilities or educational level, as in Goldin's research. There is gender parity in education in Kazakhstan, and there are even more women among people with higher education. It is worth noting that this analysis mainly concerns women who are employed, which makes it comparable to Goldin's work, but it is incomplete since there is no analysis of the self-employed. In the future, it would be interesting to study the impact of women's educational level on the wage gap.

5. CONCLUSIONS

The analysis of Kazakhstan's labor market from a gender perspective reveals significant ongoing disparities despite the country's moderate ranking in gender equality. The gender wage gap, which stood at 27% at the end of 2023, highlights persistent earnings inequality between men and women. While some progress has been made in narrowing this gap, the reduction has been inconsistent and influenced by external factors such as the COVID-19 pandemic.

Sectoral disparities further illustrate the problem, with high-paying industries like finance and insurance showing the largest gender wage gaps while lower-paying sectors exhibit more minor differences. This pattern reflects broader issues related to gendered career choices and constraints, including the impact of domestic responsibilities on women's ability to pursue high-paying, demanding roles.

Kazakhstan needs to address both economic and cultural barriers to achieve sustainable gender equality. Effective policies must reduce wage disparities, promote equal career opportunities, and challenge entrenched gender stereotypes. Continued research and tailored strategies are essential to ensuring meaningful

and consistent progress toward a more equitable labor market.

REFERENCES

Aigner, D. J. & Cain, G. G. (1977). Statistical theories of discrimination in labor markets. *ILR Review, 30*(2), 175–187. https://doi.org/10.1177/001979397703000204

Arenas, A. & Calsamiglia, C. (2022). *Gender differences in high-stakes performance and college admission policies*. IZA Discussion Paper No. 15550. Bonn, Institute of Labor Economics.

Barone, C. & Assirelli, G. (2020). Gender segregation in higher education: An empirical test of seven explanations. *Higher Education, 79*(1), 55–78. https://doi.org/10.1007/s10734-019-00396-2

Becker, G. S. (1962). Investment in human capital: A theoretical analysis. *Journal of Political Economy, 70*(5), 9–49. https://doi.org/10.1086/258724

Becker, G. S. (1971). *The economics of discrimination*. University of Chicago Press.

Bennouri, M., De Amicis, C. & Falconieri, S. (2020). Welcome on board: A note on gender quotas regulation in Europe. *Economics Letters, 190*, 109055. https://doi.org/10.1016/j.econlet.2020.109055

Berson, C. (2016). Local labor markets and taste-based discrimination. *IZA Journal of Labor Economics, 5*(1), 5. https://doi.org/10.1186/s40172-016-0045-9

Blau, F. D. & Kahn, L. M. (2017). The gender wage gap: Extent, trends, and explanations. *Journal of Economic Literature, 55*(3), 789–865. https://doi.org/10.1257/jel.20160995

Budig, M. J. & England, P. (2001). The wage penalty for motherhood. *American Sociological Review, 66*(2), 204–225. https://doi.org/10.2307/2657415

Bureau of National Statistics (2023). Bureau of National Statistics. Retrieved January 23, 2024, from http://www.stat.gov.kz

Ceci, S. J., Kahn, S. & Williams, W. M. (2023). Exploring Gender Bias in Six Key Domains of Academic Science: An Adversarial Collaboration. *Psychological Science in the Public Interest, 24*(1), 15-73. https://doi.org/10.1177/15291006231163179

Ceci, S. J., Ginther, D. K., Kahn, S. & Williams, W. M. (2014). Women in academic science: A changing landscape. *Psychological Science in the Public Interest, 15*(3), 75–141. https://doi.org/10.1177/1529100614541236

Dechter, E. K. (2014). Maternity leave, effort allocation, and postmotherhood earnings. *Journal of Human Capital, 8*(2), 97–125. https://doi.org/10.1086/677324

Dui, H. (2022). COVID-19, income and gender wage gap: Evidence from the China family panel studies (CFPS) 2014 to 2020. Frontiers in Public Health, 10, Article 1066625. https://doi.org/10.3389/fpubh.2022.1066625

Duvander, A.-Z. & Johansson, M. (2012). What are the effects of reforms promoting fathers' parental leave use? *Journal of European Social Policy, 22*(3), 319–330. https://doi.org/10.1177/0958928712440201

Falco, L. D. & Summers, J. J. (2019). Improving career decision self-efficacy and STEM self-efficacy in high school girls: Evaluation of an intervention. *Journal of Career Development, 46*(1), 62–76. https://doi.org/10.1177/0894845317721651

Fang, H. & Moro, A. (2011). Theories of statistical discrimination and affirmative action: A survey. In J. Benhabib, A. Bisin, & M. O. Jackson (Eds.), *Handbook of Social Economics 1*, 133–200. https://doi.org/10.1016/B978-0-444-53187-2.00005-X

Goldin, C., Kerr, S. P. & Olivetti, C. (2022). When the kids grow up: Women's employment and earnings across the family cycle (No. w30323). National Bureau of Economic Research. https://doi.org/10.3386/w30323

Görlich, D. & de Grip, A. (2009). Human capital depreciation during home-time. *Oxford Economic Papers, 61*(1), 98–121. https://doi.org/10.1093/oep/gpn044

Kuteesa, K. N., Akpuokwe, C. U., & Udeh, C. A. (2024). Gender equity in education: Addressing challenges and promoting opportunities for social empowerment. *International Journal of Applied Research in Social Sciences, 6*(4), 631-641. https://doi.org/10.51594/ijarss.v6i4.1034

Kireyeva, A. & Satybaldin, A. (2019). Analysis of gender pay gap in different sectors of the economy in Kazakhstan. *Journal of Asian Finance, Economics and Business, 6*(2), 231–238. https://doi.org/10.13106/jafeb.2019.vol6.no2.231

Kosyakova, Y., & Kurakin, D. (2015). Do Institutions Matter? Occupational Gender Segregation at Labor Market Entry in Soviet and Post-Soviet Russia. *Social And Political Science 2015*, 304–324. https://doi.org/10.4337/9781784715038.00024

MacPhee, D., Farro, S. & Canetto, S. S. (2013). Academic self-efficacy and performance of underrepresented STEM majors: Gender, ethnic, and social class patterns. *Analyses of Social Issues and Public Policy, 13*(1), 347–369. https://doi.org/10.1111/asap.12033

Niederle, M. & Vesterlund, L. (2007). Do women shy away from competition? Do men compete too much? *The Quarterly Journal of Economics, 122*(3), 1067–1101. https://doi.org/10.1162/qjec.122.3.1067

Niederle, M. & Vesterlund, L. (2011). Gender and competition. *Annual Review of Economics*, *3*(1), 601–630. https://doi.org/10.1146/annurev-economics-111809-125122
World Economic Forum. (2023). Global gender gap report 2023. https://www3.weforum.org/docs/WEF_GGGR_2023.pdf

AUTHOR BIOGRAPHIES

***Assel S. Bekbossinova** – NARXOZ University, Almaty, Kazakhstan. Email: aselka01@mail.ru, ORCID ID: https://orcid.org/0000-0003-1054-6640