

RESEARCH ARTICLE

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Gender Inequality in Youth Labour Market Transitions: Evidence from Kazakhstan

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Abstract

Youth unemployment remains one of the key structural problems of the transition economy, shaped by institutional, regional, and socio-economic factors. The aim of the study is to assess differences in the results of youth participation in the labor market of Kazakhstan, with an emphasis on the dynamics of unemployment and the NEET (hereinafter – youth not engaged in education, employment or training). The methodological base includes methods of descriptive statistics, comparative and correlation analysis using data from the Bureau of National Statistics of the Republic of Kazakhstan, the International Labor Organization and the World Bank for 2020-2025. The results show a steady presence of differences in labor market participation. The youth unemployment rate decreased from 7.1% to 3.1% for men and from 7.9% to 3.3–3.5% for women. At the same time, the share of NEET decreased from 5.8% to 5.5% for men and from 7.5% to 6.2% for women, but the gap persists throughout the period. Regional analysis shows higher unemployment rates in the southern regions (Turkestan: 6.9% for men and 7.8% for women; Shymkent: 6.5% and 7.3%) compared to large cities (Almaty: 4.7% and 5.4%; Astana: 4.5% and 5.2%). The results indicate that the identified differences are persistent and are due to structural factors, including the discrepancy between the education system and the requirements of the labor market, the prevalence of informal employment and regional differentiation.

Keywords: Gender, Gender Inequality, Young Women, Youth Unemployment, Unemployment, Human Capital, Labour Market, Workforce Inclusion

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1. INTRODUCTION

Youth unemployment remains one of the most critical socio-economic challenges in contemporary labour markets, particularly in transition economies where structural transformation, demographic dynamics, and institutional reforms intersect. In Kazakhstan, this issue has gained increasing importance due to the growing share of young people entering the labour force and the country's strategic objective of transitioning to a knowledge-based, diversified economy. Despite notable improvements in aggregate labour market indicators, youth unemployment continues to exhibit persistent structural characteristics that cannot be explained solely by cyclical economic fluctuations. Within this broader context, the gender dimension of youth unemployment has emerged as a particularly significant yet insufficiently explored issue. While traditional labour market analyses often treat young people as a homogeneous group, empirical evidence suggests that gender plays a crucial role in shaping employment trajectories, access to opportunities, and labour market outcomes. Young women, in particular, tend to face additional barriers that are not fully captured by standard unemployment indicators. These barriers include unequal access to quality employment, occupational segregation, limited availability of flexible work arrangements, and the disproportionate burden of unpaid care responsibilities. One of the most illustrative indicators of youth labour market exclusion is the NEET (hereinafter – youth not engaged in education, employment or training) category, which reflects not only unemployment but also broader forms of economic inactivity and social disengagement.

In Kazakhstan, the proportion of young women classified as NEET consistently exceeds that of men, indicating a deeper structural imbalance in the integration of young people into the labour market. This pattern highlights the limitations of traditional employment metrics and underscores the need for a more nuanced, gender-sensitive analytical framework. The transition from education to

employment represents a particularly critical phase where gender disparities become most visible. Although Kazakhstan has made substantial investments in expanding access to higher and vocational education, the effectiveness of these efforts in ensuring equal labour market outcomes remains uneven. Graduates frequently encounter a mismatch between acquired skills and labour market demands, and this mismatch tends to affect women and men differently. While men are more likely to enter employment through informal or physically intensive sectors, women often face constraints related to job availability, social expectations, and career interruptions, which may delay or hinder their transition into stable employment. In addition to educational factors, regional disparities significantly influence gender differences in youth unemployment. Labour markets in Kazakhstan are characterised by uneven economic development, with urban centres offering more diverse employment opportunities than rural and peripheral regions. These spatial inequalities interact with gender norms and institutional constraints, creating complex patterns of labour market participation. In certain regions, limited access to childcare services, transport infrastructure, and professional networks further restricts young women's ability to engage in formal employment. Another critical dimension of the problem is the increasing role of informal and non-standard forms of employment. For many young people, especially women, informal employment serves as an entry point into the labour market. However, such forms of employment are often associated with low wages, lack of social protection, and limited career progression. The expansion of digital and platform-based work introduces new opportunities but also raises concerns regarding job security and regulatory gaps. In this context, gender differences in access to digital skills and technological resources may further reinforce existing inequalities. Despite the growing recognition of these challenges, existing policy responses in Kazakhstan remain fragmented and insufficiently targeted

at addressing gender-specific barriers. Government programs aimed at youth employment tend to focus on aggregate indicators without adequately considering the differentiated needs of young men and women. As a result, the effectiveness of these interventions in reducing gender disparities remains limited.

Against this background, the present study seeks to contribute to the academic and policy discourse by providing a comprehensive analysis of gender disparities in youth unemployment in Kazakhstan. The research focuses on identifying structural, institutional, and socio-economic factors that shape gender differences in labour market outcomes, with particular attention to NEET dynamics and the transition from education to employment. By integrating statistical analysis with a gender-sensitive perspective, the study aims to bridge the gap between macro-level labour market indicators and the underlying mechanisms that produce and reproduce inequality.

2. LITERATURE REVIEW

The study of youth unemployment has undergone a significant transformation in recent decades, shifting from a predominantly macroeconomic perspective towards a more complex analytical framework that integrates structural, institutional, and socio-demographic determinants. Within this evolving paradigm, gender has emerged as a central dimension shaping labour market outcomes, particularly during the transition from education to employment. Contemporary research emphasises that youth unemployment cannot be adequately explained by cyclical economic fluctuations alone, but rather reflects deeper structural characteristics of labour markets, including segmentation, unequal access to opportunities, and institutional rigidities (Pastore, 2018; Bell & Blanchflower, 2011). Young people are systematically disadvantaged due to limited work experience and weaker labour market attachment, while these disadvantages are further amplified by gender-specific constraints (Card et al., 2018).

A growing body of literature highlights that gender inequalities in the labour market are not merely a result of differences in human capital, but are deeply embedded in institutional arrangements and socio-cultural norms (Blau & Kahn, 2017). Young women, in particular, face a combination of structural barriers that restrict their access to stable, high-quality employment. These barriers include occupational segregation, whereby women are concentrated in sectors with lower wages and limited career progression, as well as the unequal distribution of unpaid care responsibilities, which constrains their participation in the labour force. The concept of the “double disadvantage” is frequently used to describe the position of young women, who encounter both age-related and gender-related constraints when entering the labour market. In addition, long-term effects such as the “motherhood penalty” further exacerbate employment inequalities, reducing lifetime earnings and limiting career advancement opportunities (Cho & Honorati, 2014).

In this context, the concept of the school-to-work transition has become a key analytical lens for understanding youth employment dynamics (Furlong, 2006). Empirical studies demonstrate that this transition has become increasingly prolonged, fragmented, and uncertain, particularly in economies undergoing structural transformation. Delays in securing the first stable job are associated with long-term negative outcomes, including higher risks of recurrent unemployment and reduced labour market attachment (Scarpetta et al., 2010). Importantly, this transition process is not gender-neutral. While young men are more likely to enter employment through informal or physically intensive sectors, young women often face more limited entry opportunities due to both labour market conditions and social expectations. This divergence contributes to persistent gender gaps in employment outcomes, even among individuals with similar levels of education.

The NEET indicator has gained increasing prominence in the literature as a comprehensive measure of youth exclusion

from the labour market (Rahmani & Groot, 2023). Unlike traditional unemployment indicators, NEET captures both active job seekers and economically inactive individuals, thereby providing a more nuanced understanding of vulnerability. International evidence consistently shows that NEET rates are higher among young women, reflecting structural inequalities in access to employment and education, as well as the impact of socio-cultural factors such as early family formation and caregiving responsibilities. Furthermore, hidden forms of unemployment, where individuals are not actively seeking work due to discouragement or limited opportunities, tend to be more prevalent among women (ILO, 2023). This suggests that conventional labour market statistics may underestimate the true scale of gender inequality.

Another critical dimension widely discussed in the literature is the mismatch between education systems and labour market demand (McGuinness et al., 2018). Despite substantial investments in expanding access to higher and vocational education, many countries continue to experience discrepancies between the skills acquired by graduates and those required by employers. This mismatch encompasses not only technical competencies but also soft skills such as communication, adaptability, and problem-solving. Importantly, the effects of this mismatch are differentiated by gender. Women are often overrepresented in fields of study with lower labour market demand, which contributes to occupational segregation and limits employment opportunities. At the same time, employers frequently report a lack of practical experience among graduates, further complicating the transition to stable employment.

Informal employment represents another key factor shaping youth labour market outcomes. In many developing and transition economies, including those in Central Asia, informal employment serves as a primary entry point for young people into the labour market (Acemoglu & Restrepo, 2020). While it provides immediate income opportunities and

initial work experience, it is typically associated with low wages, limited job security, and lack of social protection. From a gender perspective, informal employment has an ambivalent role. On the one hand, it offers flexibility that may enable women to balance work and family responsibilities. On the other hand, it often traps them in precarious employment with limited prospects for upward mobility. The expansion of digital and platform-based work introduces additional complexity, as it creates new opportunities for labour market participation while simultaneously raising concerns regarding job quality, regulation, and access to digital resources. Gender differences in digital skills and access to technology may further reinforce existing inequalities (van Deursen & van Dijk, 2019).

Policy-oriented literature underscores the importance of integrated approaches to addressing youth unemployment, combining education reform, active labour market policies, and institutional coordination. Successful models typically include dual education systems, apprenticeships, structured internships, and strong career guidance mechanisms (Frey & Osborne, 2017). However, an increasing number of studies argue that such policies must incorporate a gender-sensitive perspective to be effective. Targeted interventions aimed at reducing gender disparities include expanding childcare services, promoting flexible employment arrangements, supporting female entrepreneurship, and combating discrimination in hiring practices. In Kazakhstan, existing research suggests that while policy efforts have contributed to improvements in aggregate employment indicators, they remain insufficiently tailored to address gender-specific barriers. As a result, structural inequalities persist, particularly regarding NEET rates, informal employment, and access to quality jobs. Previous empirical findings confirm that young women in Kazakhstan are more likely to experience labour market exclusion and face additional constraints during the transition from

education to employment, indicating the need for a more comprehensive and gender-oriented analytical framework (World Bank, 2025).

3. METHODOLOGY

The present study employs a mixed-method analytical approach that integrates quantitative statistical analysis with comparative and interpretive techniques to examine gender disparities in youth unemployment in Kazakhstan. The empirical framework is based on secondary data obtained from official and internationally recognised sources, including the Bureau of National Statistics of the Republic of Kazakhstan, the International Labour Organisation, and the World Bank. The analysis covers the period from 2020 to 2025, allowing for the identification of both short-term dynamics and structural trends in youth labour market outcomes.

The target population of the study consists of young people aged 18–35, a definition that reflects both national policy frameworks and international analytical practice in the context of transition economies. This age group comprises individuals at different stages of the school-to-work transition, including recent graduates, early-career entrants, and those experiencing delayed labour market integration. Particular attention is paid to gender-disaggregated indicators in order to identify differences between male and female youth across multiple dimensions of labour market participation. The analytical model is constructed around several key variables, including the youth unemployment rate, the NEET rate (Not in Employment, Education or Training), employment status (formal versus informal), level of education, and regional distribution. These variables are selected to capture both the quantitative extent of labour market participation and the qualitative characteristics of employment. Gender is treated as a core analytical variable rather than a control variable, enabling the identification of structural inequalities embedded in labour market outcomes.

The methodological procedure consists of several sequential stages. First, a comprehensive dataset was compiled by aggregating statistical indicators from the selected sources and harmonising definitions to ensure comparability across years and datasets. Data cleaning procedures were applied to eliminate inconsistencies, missing values, and duplication, thereby improving the reliability of the analysis. Second, descriptive statistical analysis was conducted to examine the dynamics of key indicators over time, including trends in youth unemployment, NEET rates, and informal employment. This stage allowed for the identification of general patterns and deviations within the observed period. Third, a comparative analysis was performed to assess differences across gender, regions, and levels of education. This approach enabled the identification of structural disparities in labour market outcomes and the interaction between gender and other socio-economic variables. Fourth, correlation analysis was applied to evaluate the relationship between educational attainment and key labour market indicators, particularly unemployment and NEET status. The results indicate a negative correlation between education and both unemployment and NEET rates, suggesting that higher levels of education are associated with improved labour market outcomes, although this relationship is not uniform across gender groups. In addition to quantitative analysis, the study incorporates an interpretative component to contextualise statistical findings within broader institutional and socio-economic frameworks. This includes an assessment of structural factors such as labour market segmentation, regional economic disparities, and the prevalence of informal employment, as well as institutional factors related to education systems, employment policies, and career transition mechanisms. Particular attention is given to gender-specific constraints, including unequal access to employment opportunities, social norms, and the distribution of unpaid care responsibilities. The use of a mixed-methods approach enables a more comprehensive

understanding of youth unemployment as a multidimensional phenomenon. While quantitative data provides measurable evidence of gender disparities, the interpretative analysis offers insights into the underlying mechanisms that produce and reproduce these inequalities. This combination enhances the explanatory power of the study and supports the development of more targeted and evidence-based policy recommendations.

4. ANALYSIS AND RESULTS

The empirical results confirm that gender disparities in youth labour market outcomes in

Kazakhstan remain stable and structurally determined across the analysed period. Despite a gradual improvement in aggregate indicators, the gender gap persists in both unemployment and broader forms of labour market exclusion.

The analysis of youth unemployment rates by gender shows a consistent gender gap in labour market access. Although the overall unemployment rate declined between 2020 and 2025, the relative gap between male and female youth remains unchanged, indicating that improvements in labour market conditions have not translated into gender equality. As shown in Table 1, young women have higher unemployment rates than men over the observed period.

Table 1. Youth unemployment rate by gender for 2020–2025, in percentage

Year	Male	Female
2020	7.1	7.9
2021	6.8	7.5
2022	6.4	7.0
2023	6.1	6.7
2024	5.8	6.6
2025	3.1	3.3-3.5

Note: compiled by the author

The persistence of this gap suggests that gender differences are not cyclical but structural. Women continue to face barriers to employment, even amid improving macroeconomic conditions. A more comprehensive perspective is provided by the NEET indicator, which captures both unemployment and economic inactivity. The

gender gap in NEET remains stable throughout the period, confirming that female youth are more likely to experience long-term exclusion from both employment and education systems. As presented in Table 2, the share of young women in the NEET category is consistently higher than that of men.

Table 2. NEET rate by gender for 2020–2025, in percentage

Year	Male	Female
2020	5.8	7.5
2021	5.5	7.2
2022	5.2	6.9
2023	5.0	6.8
2024	4.9	6.7
2025	5.5	6.2

Note: compiled by the author

The results indicate that while NEET rates decline for both groups, the relative difference remains significant. This pattern highlights that gender inequality extends beyond

unemployment and reflects deeper structural issues related to labour market participation.

The results show a strong positive relationship between educational attainment

and employment rates. However, even among individuals with higher education, gender disparities persist. Although higher education significantly increases the likelihood of

employment, it does not fully eliminate the gender gap. The role of education in shaping labour market outcomes is examined in Table 3.

Table 3. Employment rate by education level and gender for 2020–2025, in percentage

Education level	Male	Female
Higher education	80.5	75.2
Secondary education	42.3	35.8

Note: compiled by the author

These findings indicate that education improves labour market outcomes for both genders, but women remain at a disadvantage even at higher levels of qualification. This suggests the presence of structural constraints beyond human capital factors.

Regional disparities further reinforce gender inequality in youth employment. These

regions are characterised by demographic pressure, lower economic diversification, and limited availability of formal employment opportunities. Within these contexts, gender differences are particularly pronounced. As shown in Table 4, southern regions such as Turkestan and Shymkent exhibit the highest levels of youth unemployment.

Table 4. Youth unemployment by region and gender for 2020–2025, in percentage

Region	Male	Female
Turkestan	6.9	7.8
Shymkent	6.5	7.3
Almaty	4.7	5.4
Astana	4.5	5.2

Note: compiled by the author

The regional analysis for 2025 confirms the persistence of spatial and gender disparities in youth unemployment across Kazakhstan. As shown in Table 4, southern regions such as Turkestan and Shymkent continue to demonstrate the highest unemployment rates among youth, reflecting structural constraints, including demographic pressure, limited economic diversification, and lower availability of formal employment opportunities. Importantly, the gender gap remains evident across all regions. In each case, the unemployment rate among young women exceeds that of men, indicating that gender disparities are not limited to specific territories but represent a systemic feature of the labour market. However, the magnitude of this gap varies regionally and is more pronounced in economically less developed areas. In contrast, major urban centers such as Almaty and Astana exhibit lower overall unemployment rates, reflecting more

diversified labour markets and greater access to employment opportunities. Nevertheless, even in these cities, gender differences persist, suggesting that improved economic conditions alone are insufficient to eliminate structural inequality. Overall, the 2025 data support the conclusion that regional and gender factors interact in shaping youth labour market outcomes. While general improvements in employment indicators are observed, they do not translate into equal opportunities for men and women, particularly in regions with weaker economic structures.

5. DISCUSSION

The findings of this study confirm that gender disparities in youth unemployment in Kazakhstan are structural and persistent, extending beyond simple differences in unemployment rates to broader forms of labour market exclusion. Although aggregate

indicators demonstrate gradual improvement over time, gender inequality remains stable, indicating that economic growth alone does not lead to equal labour market outcomes. The figure shows a steady decline in unemployment rates for both men and women; however, the gender gap remains relatively constant throughout the entire period. This

suggests that improvements in labour market conditions benefit both groups proportionally, without addressing the underlying causes of inequality. The dynamics of youth unemployment by gender are presented in Figure 1, which illustrates trends over the period 2020–2025.

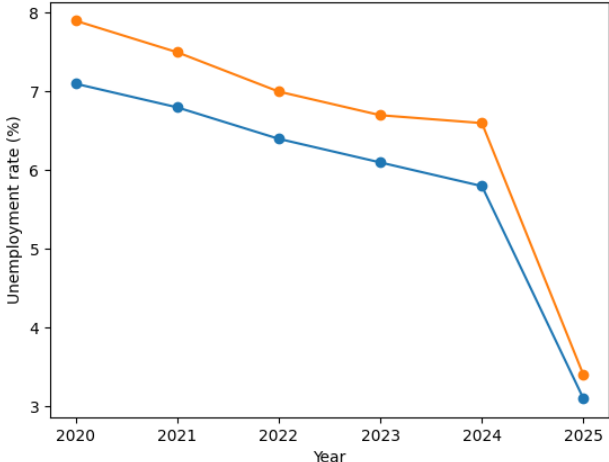


Figure 1. Dynamics of youth unemployment rate by gender in Kazakhstan for 2020–2025, in percentage

The persistence of the gap indicates that gender inequality is not cyclical but structural in nature, reflecting institutional constraints, unequal access to employment opportunities, and differences in labour market integration.

compared to men across all observed years. Although both groups show a declining trend, the gender gap remains significant. A broader perspective on labour market exclusion is provided by the NEET indicator, presented in Figure 2.

The figure demonstrates that young women consistently exhibit higher NEET rates

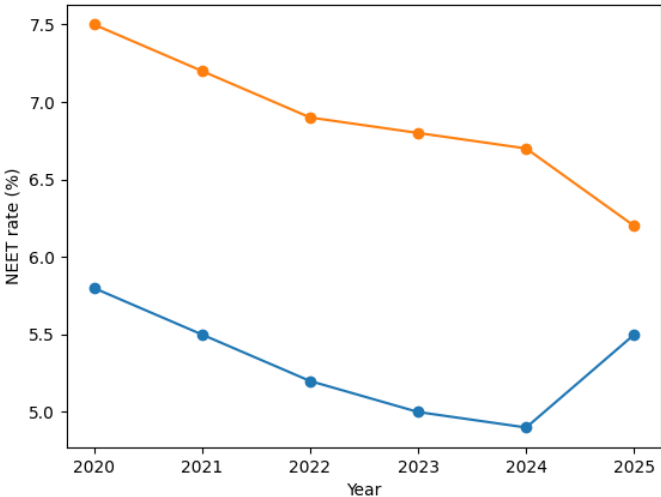


Figure 2. NEET rate among youth by gender in Kazakhstan for 2020–2025, in percentage

This pattern indicates that gender inequality extends beyond unemployment and includes hidden forms of economic inactivity. Women are more likely to remain outside both the employment and education systems, increasing the risk of long-term labour market exclusion.

Individuals with higher education demonstrate significantly higher employment

levels compared to those with secondary education. However, the figure also reveals that gender disparities persist within both groups. The relationship between education and employment outcomes is illustrated in Figure 3, which shows a strong positive association between educational attainment and employment rates.

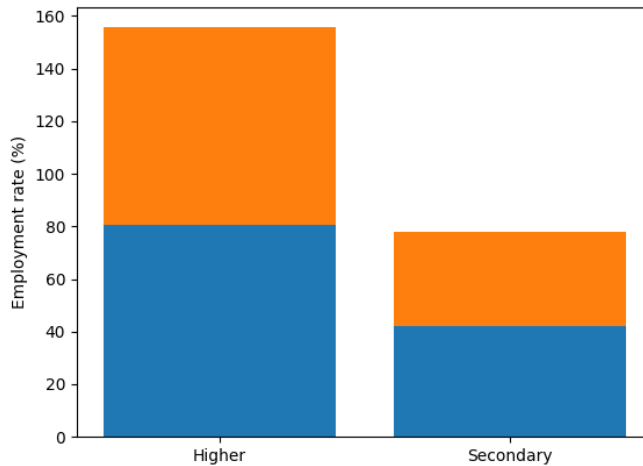


Figure 3. Employment rate by level of education and gender in Kazakhstan in 2024, in percentage

This finding suggests that while education improves labour market outcomes, it does not fully eliminate gender inequality. Structural barriers, including occupational segregation and employer preferences, continue to influence employment opportunities. The figure shows that southern regions, such as

Turkestan and Shymkent, exhibit higher unemployment rates compared to major urban centres like Almaty and Astana.

Regional disparities are presented in Figure 4, which reflects variations in youth unemployment across selected regions of Kazakhstan in 2025.

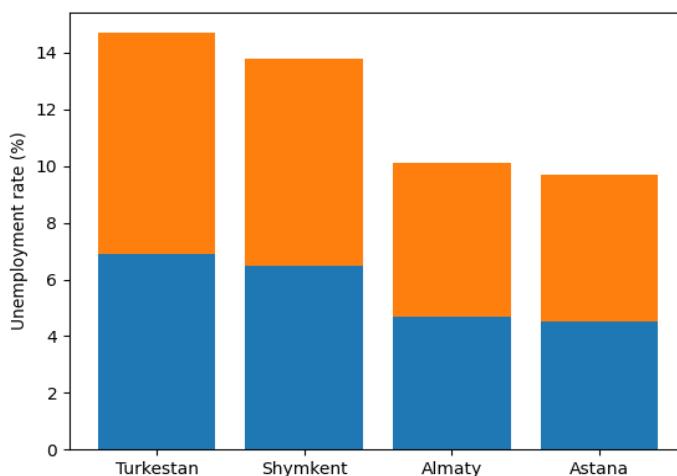


Figure 4. Youth unemployment rate by region and gender in Kazakhstan in 2025, in percentage

The figure also demonstrates that gender disparities persist across all regions, although the magnitude of the gap varies. In regions with weaker economic development, gender inequality is more pronounced, indicating that spatial and gender factors interact to produce cumulative disadvantages. The results also highlight the role of informal employment as a key structural factor influencing gender disparities. While informal employment provides entry opportunities into the labour market, it is associated with low job security, limited social protection, and restricted career mobility. Women are more likely to be concentrated in such forms of employment, which reinforces long-term inequality. Overall, the integration of graphical analysis confirms that gender disparities in youth unemployment in Kazakhstan are multidimensional and persistent. The combination of statistical evidence and visual representation strengthens the conclusion that these disparities are rooted in structural and institutional factors rather than temporary economic conditions.

6. CONCLUSION

This study provides a comprehensive analysis of gender disparities in youth unemployment in Kazakhstan, demonstrating that inequality in labour market outcomes is not incidental but structurally embedded within the socio-economic and institutional framework. The results confirm that, despite a general decline in youth unemployment between 2020 and 2025, gender differences persist across all key indicators including the unemployment rate, the NEET share and the employment structure. The analysis reveals that young women remain more vulnerable to labour market exclusion compared to men. This is particularly evident in the consistently higher NEET rates, which indicate not only difficulties in finding employment but also a greater likelihood of economic inactivity. These findings suggest that traditional labour market indicators underestimate the scale of gender inequality and highlight the importance of using broader analytical measures such as

NEET. An important contribution of this study lies in demonstrating that education, while significantly improving employment outcomes, does not fully eliminate gender disparities. Even among individuals with higher education, women remain less likely to be employed, indicating that structural barriers extend beyond differences in human capital. These barriers include occupational segregation, limited access to quality jobs, and institutional constraints related to labour market entry.

The study also highlights the interaction between regional and gender factors. Youth unemployment is higher in economically less diversified regions, where structural constraints are more pronounced. In such contexts, gender disparities are amplified, as women face additional limitations related to mobility, access to infrastructure, and socio-cultural expectations. This confirms that spatial inequality and gender inequality are interdependent and must be addressed simultaneously. Furthermore, the role of informal employment is identified as a critical factor shaping youth labour market outcomes. While informal employment provides initial opportunities for labour market entry, it is associated with instability, low wages, and limited career progression. Women are more likely to be concentrated in such forms of employment, which reinforces long-term inequality and reduces access to social protection. From a policy perspective, the findings suggest that existing youth employment strategies in Kazakhstan require a more targeted and gender-sensitive approach. First, there is a need to develop integrated employment policies that explicitly address structural barriers faced by young women. Second, strengthening school-to-work transition mechanisms, including internships, apprenticeships, and first-job programs, is essential to facilitate labour market entry.

Third, expanding access to childcare services and promoting flexible forms of employment can significantly improve female labour market participation. Fourth, enhancing digital skills and supporting women's

participation in emerging forms of employment can help reduce structural inequalities in the long term. Despite its contributions, the study has certain limitations. The analysis is based on aggregated statistical data, which may not fully capture individual-level heterogeneity and informal labour market dynamics. In addition, the use of preliminary data for 2025 requires cautious interpretation, as final figures may be subject to revision. Future research should focus on applying econometric modelling and micro-level data analysis to better understand causal relationships and evaluate the effectiveness of policy interventions. In conclusion, addressing gender disparities in youth unemployment is essential for ensuring inclusive economic development.

AUTHOR CONTRIBUTION

Writing – original draft: Akarys Torebekov.
 Conceptualization: Akarys Torebekov.
 Formal analysis and investigation: Akarys Torebekov.
 Development of research methodology: Akarys Torebekov.
 Resources: Akarys Torebekov.
 Software and supervision: Akarys Torebekov.
 Data collection, analysis, and interpretation: Akarys Torebekov.
 Visualization: Akarys Torebekov.
 Writing – review and editing: Akarys Torebekov.

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