“Labor market gender inequality in Ukraine”

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LABOR MARKET GENDER INEQUALITY IN UKRAINE

Abstract

Discriminatory distribution of professions and wages affects the workforce. This paper aims to assess gender employment and pay gaps within Ukraine's labor market, utilizing data from 2013 to 2021. Before the full-scale war, according to the Gender Employment Gap Index, female and male employment were concentrated in different occupational groups, with the list of female and male professions unchanged. While the Duncan index (0.338–0.364) confirmed pronounced gender occupational segregation, the Karmel-MacLachlan index (0.041–0.046) demonstrated that its weighted effect was moderate, as the most segregated occupations accounted for a relatively modest share of the employed population. The gender pay gap in Ukraine remained stable, with an unweighted gender pay gap of 8–12% and a weighted gender pay gap of 9–12%, and by type of economic activity, within these same limits. The most discriminatory industries did not impact the overall gender pay gap. Therefore, lowering gender gaps in Ukraine is not feasible without targeted policies in the major industries, where the largest number of people are employed. Since the full-scale war, women have become more proactive not only in registering sole proprietorships and assuming ownership in businesses but also in military employment. Yet, the results point to the structural entrenchment of women in less profitable industries that perpetuates inequality regardless of changes in the average pay gap.

Keywords labor market, pay gap, occupational segregation, employment, gender policy, inequality, women's empowerment, wages

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INTRODUCTION

Gender inequality in the labor market remains a structural problem, characterized by persistent occupational segregation, the pay gap, and the underrepresentation of women in leadership positions. Despite increasing educational attainment among women, barriers to accessing economic opportunities persist and are exacerbated by the burden of unpaid care work. These disparities not only reduce productivity but also stifle innovation, restricting inclusive economic growth.

Achieving gender equality aligns with SDG-5 (gender equality) and SDG-10 (reduced inequalities) (United Nations, 2015). Gender inequality affects national environmental, social, and governance performance (Ko & Leung, 2025), while, according to the European Institute for Gender Equality (2017) estimates, greater gender equality could boost the EU GDP per capita by 6.1–9.6% by 2050. Moreover, data from 162 countries between 1985 and 2019 indicate that countries with higher representation of women in government and better overall gender equality tend to have lower income inequality (Nelson & Goel, 2023; Sobhee, 2020).

For Ukraine, reducing gender inequality in the labor market is a prerequisite for sustainable economic recovery. According to the international commitments, the Ukrainian Government declared a goal to

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reduce the gender pay gap from 18.6% to 13.6% by 2030 (Cabinet of Ministers of Ukraine, 2022). In conjunction with wartime socio-economic factors, this analysis provides a foundation for formulating effective recommendations to address labor market gender inequality.

1. LITERATURE REVIEW

The main research areas on gender inequality in the labor market include the role of women and the factors that keep gender inequality, the economic losses resulting from gender inequality, its effects on reducing economic disparities and increasing wealth, the relationship between economic development and gender inequality, and horizontal and vertical occupational segregation. Additionally, research on gender inequality in the context of global uncertainty and challenges – such as economic crises, the COVID-19 pandemic, and armed conflicts – has become increasingly relevant.

Breakthroughs in research on gender inequality in the labor market stem from empirical evidence and sociological analysis of women's roles, as exemplified by Goldin (1984, 1989). Research on gender inequality emphasizes the causes and consequences of discrimination against women in the labor market. For instance, Goldin (1990) built upon the existing thesis regarding the positive impact of economic development on women's employment by introducing a U-shaped curve. This curve illustrates a decline in women's participation in paid work during the transition from an agrarian to an industrial economy, followed by an increase during the rise of the service sector, particularly in the 1970s and 1980s. This finding suggests that economic development does not inevitably lead to gender equality.

Reductions in the gender pay gap have often accompanied increased female labor force participation, driven by improvements in education and shifts in occupational structures. This trend is confirmed empirically: in 2018, the hourly pay ratio of women's to men's pay reached 0.83, which is 0.23 more than in 1970 (England et al., 2020).

An important component of gender inequality in the labor market is occupational gender segregation. It manifests in two forms: horizontal, which divides jobs into female and male categories, and vertical, characterized by hierarchical divisions that expose inequities in advancement opportunities. While vertical segregation is associated with inequality, horizontal segregation often appears as merely a difference rather than an inequality (Blackburn & Jarman, 2006). Froehlich et al. (2020) proved the comprehensive nature of gender segregation stereotypes, revealing that across each studied country with different levels of gender inequality, all preselected occupations were perceived in stereotypical male and female terms. Nevertheless, a general trend suggests a reduction of occupational segregation (England et al., 2020), although it remains pronounced in certain societies (Gedikli, 2020), particularly in patriarchal ones. Adisa et al. (2021) found that women in male-dominated professions were rather exceptions in these societies; they were "lone wolves", facing challenges in social, family and marital relations, alongside limited professional advancement opportunities.

Notably, welfare states with high overall gender equality frequently exhibit horizontal gender segregation. Thus, in economies with the lowest levels of formal gender inequality, women more often opt for traditionally female occupations even with broader labor market opportunities, while male occupations remain male-dominated (Stoet & Geary, 2018). This phenomenon of horizontal occupational segregation, remaining prevalent even with the formal expansion of women's access to the labor market, is typical for developed or postindustrial economies (Charles, 2003; De Gioannis, 2025), especially for Nordic countries (Melkas & Anker, 1997; Hustad et al., 2020) as a whole, and for the specific industries (Corneliussen, 2021). Hence, pay gaps and occupational segregation persist, and sometimes even grow.

Contributing to income inequality, occupational gender segregation concentrates women in lower-paid sectors and positions, thereby diminishing average earnings and limiting upward mobility within industries. Thus, women are underrepresented in highly paid occupations within the software engineering and development sector, prevail-

ing in lower-compensated roles like software quality assurance (Campero, 2020). The dominance of women in a medical specialty can lead to lower overall compensation (Pelley & Carnes, 2020). Women can be underrepresented in management and technical roles within oil and gas companies of an entire country, occupying supportive yet less-paid positions (Okosu et al., 2025).

During wartime, the employment structure transforms, leading to an increase in women's participation in the labor market and a decrease in the gender pay gap. For instance, women substantially replaced men in the workforce during WWII (Bose et al., 2022), with a subsequent decline afterward. Acemoglu et al. (2004) revealed that in the U.S. states with a higher number of mobilized men, more women worked postwar, resulting in structural shifts that lowered wages for both sexes. At the same time, the rise in female wartime employment stemmed from industrial mobilization rather than merely the absence of men. Rose (2018) found that after the war, despite newly employed women's wish to continue working, men returned to their jobs. This largely offset the reduction of the gender gap in the most affected areas until the 1950s, with only small increases in employment within the durable goods manufacturing sector. Thus, while labor market participation increased during the war, it failed to establish a long-term trend, as patterns of inequality re-emerged post-war.

Another issue is wage disparity between men and women. During WWI, this disparity was particularly evident in the banking sector in Britain, where women held significant numbers yet were often confined to clerical roles (Seltzer, 2011). Although younger women earned wages comparable to their male counterparts, inequalities arose from dismissals or interruptions in their careers due to marriage or childbirth, as also evidenced by Goldin (1990). In Italy, before WWI, women earned, on average, only half of what men made (Gómez-León & Gabbuti, 2025). During the war, this wage gap narrowed sharply due to labor shortages and the mobilization of men, which improved employment prospects for unskilled workers, predominantly women. However, the wage gap reverted to pre-war levels during the interwar period. Only after WWII did conditions for women in the labor market begin to improve, linked to wage increases and economic growth. A similar pattern was observed in Great Britain and Germany during this period. Therefore, while war temporarily narrows gender income gaps due to labor shortages, without structural reforms, the labor market reverts to pre-war inequality patterns.

Even short-term progress in reducing gender inequality shifted societal perception of women's role in the labor market. In the post-war period, women increasingly came to be viewed as capable of working and maintaining their families (Kessler-Harris, 2003). Jacobsen (2016) concluded that wartime changes in attitudes toward established gender roles enabled women to pursue and expand opportunities in the labor market afterwards. According to Webster et al. (2019), even short and medium-term shifts may affect social institutions triggered by war. Many efforts were made to encourage women's return to the labor market after WWII. Hence, war not only alters the employment structure temporarily but also changes society's perceptions of women's roles, which in the post-war period can support their integration into the labor market.

The Irish experience demonstrates how, in the aftermath of war, gender restrictions became more rigid, which had enduring economic consequences. Up to 1973, Ireland had a legal rule that forced women to leave public sector jobs after marriage and prevented married women from working in the permanent civil service (Government of Ireland, 1973). Additionally, the Conditions of Employment Act (Government of Ireland, 1936) allowed the government to limit women's employment in certain industry sectors to protect the employment of men. As a result, the development of childcare in Ireland was delayed, and the high cost of childcare and the limited availability of places create a major barrier for mothers, forcing them to either cut down their working hours or leave the labor market altogether, which widens the gender pay gap. This case shows that even after gender-unfair norms have been abolished, the country still faces lasting structural economic inequalities.

In Britain, the hourly wage gap narrowed by 11 percentage points (p.p.) during WWII, remaining stable until the introduction of the Equal Pay Act

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in the 1970s, which further reduced the gap by an additional 10 p.p. (Bryson et al., 2020). Efforts to narrow the gender pay gap yielded more success in critical wartime industries facing high demand for labor substitution (Gazeley, 2008). In contrast, progress lagged in other industries predominantly employing women. Seltzer (2011) highlighted the restrictions women faced in achieving career advancement, as exemplified by Williams Deacon's bank. By forcing women to leave the workforce after marriage, the state entrenched pay and employment inequalities. Traditionally, men were expected to earn a "family wage", while women were often expected to maintain only themselves. Nevertheless, changes triggered by WWI and WWII led to expanded women's participation in banking. Although women began entering clerical and permanent positions after 1920, no female bank branch managers were appointed in the United Kingdom until 1958. Other researchers have argued that the militarization of the economy exacerbated gender inequality and impacted women's employment (Elveren et al., 2022). For instance, in wartime Ukraine in 2023, some estimates suggest that the gender pay gap increased to 41% following the inclusion of the male-saturated defense sector (Skurativska, 2025). Although war can stimulate a reduction in the gender pay gap by increasing women's participation in essential sectors, it can also reproduce barriers related to unequal career advancement and cultural expectations. Another challenge is data reliability and comprehensiveness.

The analysis of the impact of the Balkan wars on gender inequality reveals several important insights. The war in Bosnia and Herzegovina during the early 1990s displaced 1.3 million individuals, resulting in heightened unemployment levels for displaced men and a greater tendency for displaced women to exit the labor force (Kondylis, 2010). A study focusing on Bosnian women who became forced migrants indicates that nearly all refugee women entered the black labor market due to restrictive employment policies (Franz, 2003). Unlike men, women were more nonselective, accepting any available job. At the same time, Stavrevska (2019) showed that efforts to enhance women's employment and entrepreneurial opportunities in the post-war economy may yield contradictory outcomes. A comparison of the two goals of microfinance for women in post-conflict Bosnia and Herzegovina – namely, improving family well-being and advancing gender equality – illustrates how neoliberal narratives surrounding women's economic empowerment can simultaneously constrain individual agency within households and limit women's agency in public spheres.

The growing debate on gender roles in wartime labor markets underscores the need to examine how gendered labor patterns affect economic performance. O. Alimenko and O-M. Alimenko (2024) highlighted legal mechanisms that facilitate the social and labor integration of women compelled to work in critical sectors during wartime. They pointed out a contradiction between the need for social protection for women often compelled to take on harmful roles, night shifts, and heavy work, and the goal of achieving gender equality in employment. In particular, the Law of Ukraine permits women's involvement in night and heavy work with their consent, excluding pregnant women and those with infants (The Verkhovna Rada of Ukraine, 2022). While this law appears to overcome gender discrimination, it raises important questions regarding the balance between economic needs and worker welfare. Therefore, ensuring worker social protection necessitates measures that ensure workplace safety, fair and decent wages, and access to social services for all genders.

In ongoing wartime, the increasing asymmetry in the distribution of unpaid labor sees women disproportionately bear more domestic responsibilities, while men serve in the military. According to UN Women (2023), as a large number of men join the military, women increasingly assume the role of household heads, dedicating more time to childcare and community service, often at the expense of their own employment. This is a huge economic loss, constraining women's professional development and reducing their competitiveness in the labor market. The undervaluation of female-dominated occupations poses risks to society, especially during wartime and post-war recovery. Professions in caregiving and teaching, which possess substantial social importance, often receive lower pay than technical or managerial roles.

The gender gap persists in the economic sphere – evident in employment, labor market participation, wages, and managerial positions – while there is no gender gap in education. This discrep-

ancy echoes the findings of Bertrand et al. (2010), who emphasized parenthood's significant impact on gender inequality, particularly regarding earnings. The study concluded that, depending on the relevance of this factor compared to others, policies aimed at addressing gender inequality will vary. Some initiatives will focus on enhancing women's awareness, education, and skills, while others will support already qualified women. For these women, increasing men's involvement in household duties and childcare (England et al., 2020), along with flexible working hours and accessible childcare, can help them balance parental responsibilities. To effectively mitigate gender inequality and evaluate outcomes, it is essential to consider the potential long-term effects of specific measures. The impact of concrete measures can take decades to materialize in changes in social behavior, particularly women's self-perception (Goldin, 1990), while not being detected in a short period of time (Sookram & Strobl, 2009).

This study adds to the examination of gender inequality in wages and employment during wartime. The Ukrainian context requires consideration due to the ongoing war, which has caused significant population displacement, military mobilization, and labor shortages. In July 2025, more than 1.93 million (out of a total of 4.34 million) Ukrainian adult women had been granted temporary protection in the EU (Eurostat, 2025); 1.8 million women are IDPs (IOM, 2025). Additionally, women's workloads and responsibilities in domestic labor also increased (UN Women – Ukraine, 2025). Although women are often consigned to low-paid jobs, labor shortages present opportunities for them to assume non-traditional roles. If post-war policies embrace and support these transitions, they could lead to a sustainable reduction in gender inequality (Figure 1). Thus, by learning from historical legacies of gender inequality in wartime, Ukraine can transform short-term improvements into enduring changes that address gender disparities.

The goal of this paper is to examine gender inequality in Ukraine's labor market, focusing on pay gaps and occupational segregation from 2013 to 2021, and generalizing wartime gender-related shifts.

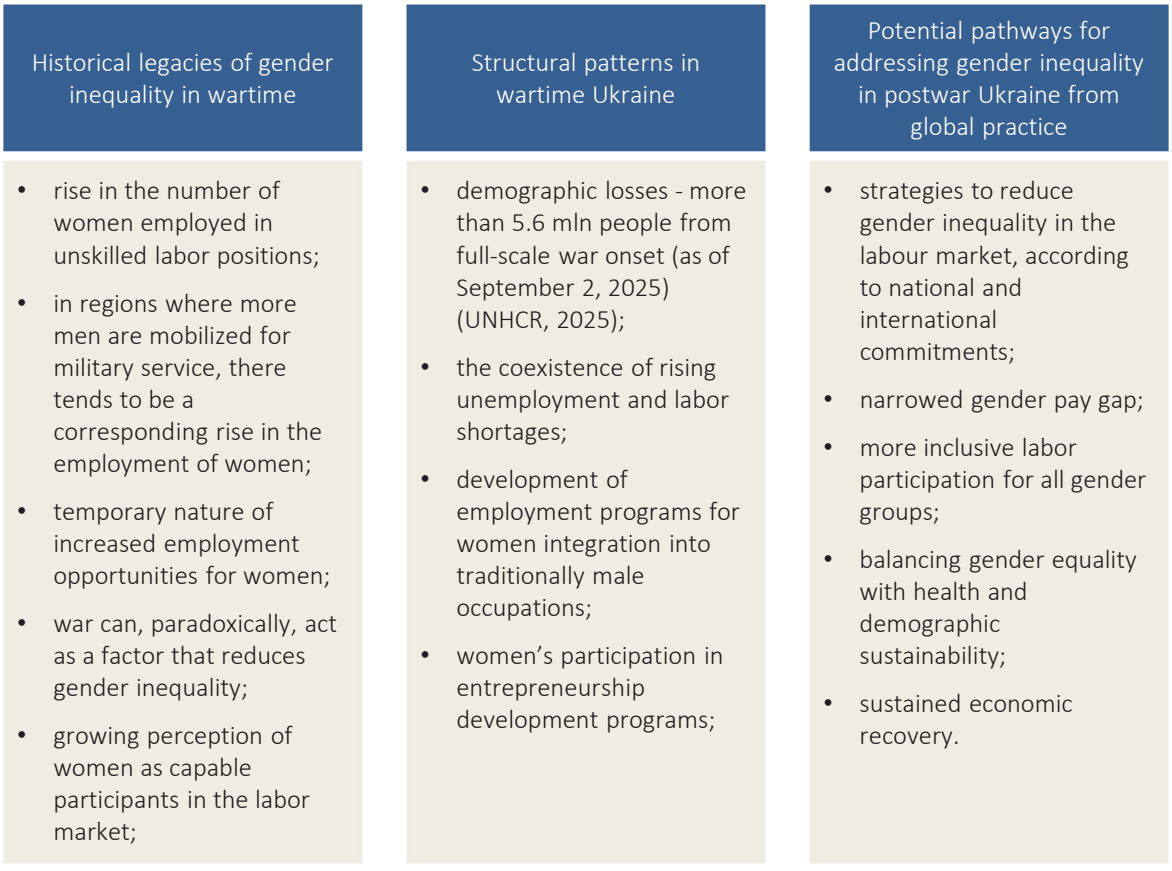

Figure 1. Structural patterns shaping gender inequality in Ukraine

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2. METHODOLOGY

The study applies a quantitative descriptive approach to test the hypothesis that horizontal occupational segregation persists under conditions of formal expansion of women's access to the labor market. Data processing involved a two-step approach.

First, official annual aggregated statistical data from the State Statistics Service of Ukraine (SSSU) on the numbers of employed population aged 15–70 by occupational group and by type of economic activity and average monthly wage by type of economic activity for 2013–2021 were used to estimate gender indices (GEGI, GPG, D_t and KML_t).

The gender employment gap index (GEGI, the size of the employment gap relative to total employment) is calculated following Pennings (2022), as

$$GEGI_t = \frac{\left(L_{\{M,t\}} - L_{\{F,t\}}\right)}{L_t} \cdot 100\%, \quad (1)$$

where $L_{\{M,t\}ma}L_{\{F,t\}}$ – number of employed men and women respectively in the year t; $L_t = L_{\{M,t\}} + L_{\{F,t\}}$.

Occupational segregation is measured by:

a) Duncan index (O. Duncan & B. Duncan, 1955) (the share of women/men who need to be redistributed to achieve equality):

$$D_t = \frac{1}{2} \cdot \sum_{\{i=1\}}^{I} \left| f_{\{it\}} - m_{\{it\}} \right|, \quad (2)$$

where $f_{\{it\}}$ and $m_{\{it\}}$ are the shares of women and men employed in occupation i and in the year t; I – number of occupational groups.

b) Karmel–MacLachlan index (Karmel & Maclachlan, 1988) (weighted occupational segregation):

$$KML_t = \frac{1}{2} \cdot \sum_{\{i=1\}}^{I} s_{\{it\}} \left| f_{\{it\}} - m_{\{it\}} \right|. \quad (3)$$

To maintain consistency with the symmetric logic of calculated GEGI, the gender pay (wage) gap (GPG) by type of economic activity is defined as:

$$GPG_{\{sym\}} = \frac{\left(P_{\{M,it\}} - P_{\{F,it\}}\right)}{\left(P_{\{M,it\}} + P_{\{F,it\}}\right)} \cdot 100\%, \quad (4)$$

where $P_{\{M,it\}ma}P_{\{F,it\}}$ – average wage of men and women across type of economic activity i in the year t.

Unweighted average gender pay (wage) gap (a simple average of the gender gap across types of economic activity):

$$\overline{Y}_{GPG_t^{\{unw\}}} = \left(\frac{1}{N_t}\right) \Sigma_i gpg_{\{it\}}, \quad (5)$$

where N_t. – numberof economic activities in the year t.

Weighted average gender pay (wage) gap (the wage gap taking into account the weight of type of economic activity):

$$\overline{Y}_{GPG_t^{\{w\}}} = \Sigma_i s_{\{it\}} gpg_{\{it\}}, \quad s_{\{it\}} = \frac{E_{\{it\}}}{\Sigma_j E_{\{jt\}}}, \quad (6)$$

where $E_{\{it\}}$ – total number of employees in type of economic activity i in year t.

Contributions of economic activities to the total GPG have been calculated as:

$$Contr_{\{i,t\}} = s_{\{i,t\}} \cdot GPG_{\{i,t\}}, \quad (7)$$

where $s_{\{it\}}$ is the occupation's share in total employment.

Second, this paper utilizes aggregated indicators from international assessments by t UNDP as of 2023 and the WEF for 2006–2025, data from Opendatabot for 2017 to April 2025, and data from the State Employment Service of Ukraine's survey and database as of 2025 for comparative analysis of the dynamics of other gender indicators in Ukraine's labor market. These data were used solely for the purpose of the discussion framework.

3. RESULTS

With the benefit of hindsight, from 2013 to 2021, the share of women in occupational groups reflected a stable gender horizontal segregation (Table 1). In eight out of nine occupation-

al groups, the proportion of women remains stable from year to year. More than 60% of women are employed in four feminized occupational groups. Male-dominated occupational groups do not show a trend toward an increase in the share of women. Specifically, professionals, experts, clerical support workers, services, and sales workers fell into female occupations (women's share exceeded 60%). Legislators, senior officials, and managers generally fell near the lower bound of the mixed category (40–45% women), indicating moderate male predominance. Skilled agriculture, forestry, fishery, and fish farming workers, and the elementary occupations were mostly male-leaning, with women's share below or close to 40–50%. Finally, the most male-dominated occupations were skilled workers using specific tools, plant and machine operators, and assemblers, where women's share was always below 40%.

Throughout 2013–2021, occupational segregation, as measured by the total Gender Employment Gap Index (GEGI), increased from 3.4% to 5.1%, indicating a lack of convergence, rather than a decrease in differences in the employment structure of women and men by professional groups. When the gender employment gap index is calculated separately for each occupational group, the values range from –60% to 75%, signaling pronounced horizontal gender segregation (Table 2). Professionals, experts, clerical support workers, and service and sales workers consistently display large negative GEGI, indicating a stable predominance of female employment. In contrast, the highest positive GEGI is observed among skilled workers using specific tools and plant and machine operators, where the gender gap remains strongly in favor of men. Skilled agricultural workers show moderate male dominance in earlier years, followed by a near-parity shift by 2021.

Table 1. Share of employed women, by occupational group, 2013–2021, %

Source: Our calculations based on the State Statistics Service of Ukraine (n.d.).

Occupational group	2013	2014	2015	2016	2017	2018	2019	2020	2021
Legislators, senior officials, and managers	38	38	40	41	41	40	41	41	41
Professionals	62	61	61	61	61	61	60	61	61
Experts	66	68	65	65	65	65	65	64	64
Clerical support workers	87	85	83	83	85	85	81	82	83
Services and sales workers	67	69	68	67	67	68	67	68	68
Skilled agriculture, forestry, fishery, and fish farming workers	42	37	38	36	41	40	42	47	51
Skilled workers using specific tools	12	13	14	14	14	15	15	16	16
Plant and machine operators, and assemblers	19	18	16	16	16	15	16	15	14
Elementary occupations	50	48	47	47	47	47	46	45	44

Note: Darker green – higher female share, lighter green – lower female share.

Table 2. Gender employment gap by occupational group in Ukraine, 2013–2021, %

Source: Our calculations based on the State Statistics Service of Ukraine (n.d.).

Occupational group	2013	2014	2015	2016	2017	2018	2019	2020	2021
Legislators, senior officials, and managers	23	24	21	18	18	19	17	19	18
Professionals	–23	–23	–22	–21	–22	–23	–21	–22	–21
Experts	–33	–35	–29	–30	–30	–30	–30	–29	–28
Clerical support workers	–74	–70	–67	–66	–71	–69	–63	–65	–66
Services and sales workers	–35	–38	–35	–34	–33	–37	–34	–36	–36
Skilled agriculture, forestry, fishery, and fish farming workers	16	25	24	27	18	20	15	6	–2
Skilled workers using specific tools	75	75	73	71	71	69	69	69	69
Plant and machine operators, and assemblers	63	64	68	68	69	71	68	70	72
Elementary occupations	1	5	6	6	7	7	8	10	12
Total GEGI	3.4	3.5	4.2	3.8	3.8	3.3	4.4	4.4	5.1

Note: Green color – male-dominated occupations, red color – female-dominated occupations, yellow color – almost parity employment levels.

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Elementary occupations remain the most gender-balanced category.

From 2013 to 2021, the Duncan index fluctuated between 0.338 and 0.364, reflecting a consistent occupational segregation (Figure 2). Low values of the Karmel-McLachlan index (ranging from 0.041 to 0.046) suggest that the most significant gender imbalances happen in occupations with relatively small employment shares, while the largest occupational groups show more moderate gender disparities. The overall pattern of these indices indicates no substantial long-term reduction in occupational segregation, although minor year-to-year variation is present.

Before the full-scale war, the most significant gender pay gaps were observed in arts, sports, entertainment, and recreation (around 18–33%) and in financial and insurance activities (around 19–23%). High gaps were also recorded in industry (14–19%), transport, warehousing, postal and courier activities (13–15%), and wholesale and retail trade (typically 11–14%). In contrast, the most minor gaps were found in education (1–7%, declining to 1% after 2018), administrative and support service activities (around zero, with some years showing even a slight advantage for women), as well as in real estate operations and public administration and defense, where the gap did not generally exceed 5–9% (Table 3). Unweighted gender pay gap (GPG) indicates that the average economic activity had a gap of approximately 8–12% during 2013–2021, with a slight decline after 2015. Weighted GPG shows that the overall gender gap, considering the employment structure, remained steady at 9–12% without significant fluctuations from 2013 to 2021, and was very similar in size to the unweighted GPG (Figure 2). This suggests that large industries do not exhibit either very low or very high GPGs; instead, the gaps are relatively evenly distributed across the range.

The contributions of economic activities to the total GPG indicate that from 2013 to 2021, the largest share was made up of: a) wholesale and retail trade; repair of motor vehicles – averaging 2.55 p.p.; b) industry – 2.37 p.p.; c) agriculture, forestry, and fishing – 1.77 p.p.; d) transport, warehousing, and postal activities – 0.83 p.p. These sectors combined a significant GPG with a large employment share, making their contribution to the overall gender gap particularly important. Conversely, sectors with the highest GPG values – such as financial and insurance activities (average 20.2%) and arts, sports, entertainment, and recreation (23.3%) – contributed relatively little (0.28 p.p. each), mainly due to their low employment share (1–1.4%). Large sectors with low GPG, such as education and healthcare, did not significantly contribute to the total GPG but rather narrowed the overall gap, offsetting the high GPGs of other activities. Thus, the gender pay gap is more a result of a mix of moderate but stable gaps across the largest economic sectors rather than extremely high gaps in high-skilled fields.

In general, although Ukraine lags behind the leaders in gender equality (Northern Europe), it is not an outsider in the regional context (Central and

Source: Our calculations based on the State Statistics Service of Ukraine (n.d.).

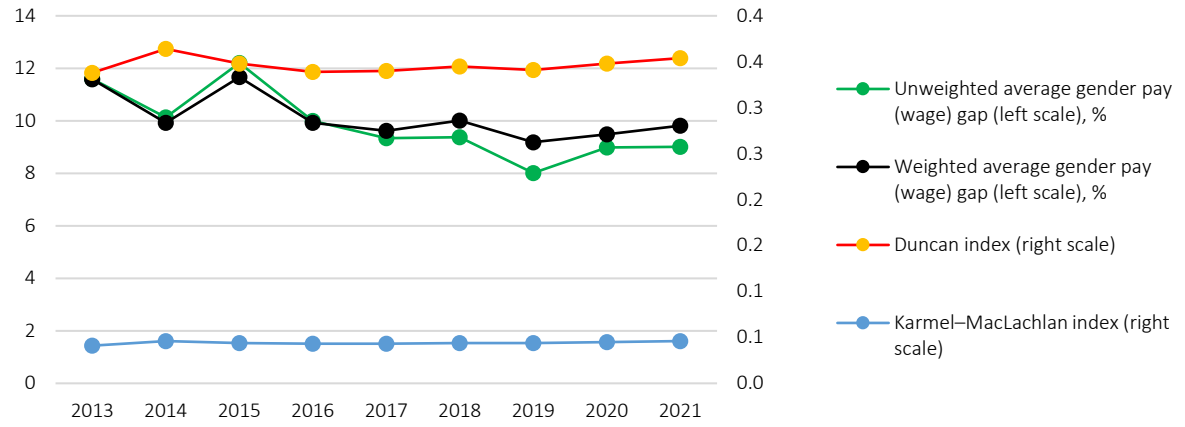

Figure 2. Gender pay (wage) gap and occupational segregation in Ukraine, 2013–2021

Table 3. Gender pay gap by average monthly wage per full-time employee, by type of economic activity, in Ukraine, 2013–2021, %

Source: Our calculations based on the State Statistics Service of Ukraine (n.d.).

Type of economic activity	2013	2014	2015	2016	2017	2018	2019	2020	2021
Agriculture, forestry, and fishing	9	8	10	10	10	11	11	10	12
Industry	19	17	17	14	14	15	14	14	14
Construction	15	8	6	4	4	5	2	2	7
Wholesale and retail trade; repair of motor vehicles and motorcycles	11	7	14	12	13	13	11	11	11
Transport, warehousing, postal, and courier activities	13	14	13	13	14	13	13	15	13
Temporary accommodation and catering	10	8	8	7	8	7	4	4	7
Information and telecommunications	7	8	13	13	11	11	10	13	12
Financial and insurance activities	21	19	23	20	21	21	20	19	19
Real estate operations	7	8	9	3	5	6	5	3	5
Professional, scientific, and technical activities	8	13	13	9	7	11	12	12	12
Administrative and support service activities	3	2	10	-1	0	1	-1	-2	-1
Public administration and defense; compulsory social insurance	11	9	5	3	3	2	2	5	7
Education	5	4	7	3	2	1	1	1	1
Healthcare and social assistance	7	11	7	6	5	5	5	9	6
Arts, sports, entertainment, and recreation	25	9	33	33	26	21	18	27	19
Provision of other types of services	14	17	8	10	9	6	1	1	0

Note: Green color – the gap is smaller (women earn more than men), red color – gap is bigger (men earn more than women), yellow color – parity wage levels.

Eastern Europe). According to the UNDP Gender Inequality Index (UNDP, n.d.), in 2023, the female labor force participation rate (% of those aged 15 and over) in Ukraine was only 47.4%, significantly lower than in countries with the highest levels of gender equality, such as Iceland (70.5%), Sweden (64.4%), Norway (62.1%), Switzerland (62.6%), and Denmark (59.7%). Notably, the gender gap between female and male labor force participation in Ukraine was 14.9 p.p., compared to 8.8 in Iceland, 8.0 in Denmark, 7.1 in Norway, 8.3 in Switzerland, and 6.2 in Sweden. Ukraine's gender gap is similar to Poland's, slightly worse than Bulgaria's, but better than Romania's. Female labor participation rates are 52.0% in Poland, 49.8% in Bulgaria, and 41.9% in Romania, with gender gaps of 14.3 p.p., 12.4 p.p., and 20.0 p.p., respectively.

The dynamics of the share of women among the registered unemployed in Ukraine during 2017–April 2025 (Figure 3) reveal a persistent gender imbalance in the labor market, considerably worsened during the full-scale war. Although the share of unemployed women fluctuated between 55–65% since the mid-2000s, after the full-scale war began, it rose beyond 70–80% (National Bank of Ukraine, n.d.). Not only does this reflect the structural characteristics of employment, but also the impact of men's mobilization. That is, since the start of the full-scale war, women have remained the primary job seekers through official channels. Such a shift emphasizes the need to adapt government employment policies to better support women's employment.

Given the rise in official female unemployment, the recruitment of women in traditionally male-dominated areas remains limited in scope. In particular, according to the Survey of Ukrainian employers (54,677 firms), more than half of the 17,570 firms that planned to hire in 2025 (57.1% or 10,033 firms) expressed their intention to employ women in traditionally male-dominated professions. However, only 18.4% of the entire sample fell into this category. The largest numbers of firms planning to hire were in the processing industry (1,987), education (1,578), healthcare and social assistance (1,308), agriculture (1,104), and trade (1,045) (State Employment Service of Ukraine, 2025). Furthermore, gender inequality within the military has gained increasing importance since, as of January 1, 2025, over 5,500 female service members are on the front lines, and more than 70,000 women serve in the Armed Forces of Ukraine, representing a 20% increase from 2022 (Ministry of Defence of Ukraine, 2025).

At the same time, since the full-scale war, the dynamic of newly registered individual entrepreneurs (sole proprietors, FOPs) in Ukraine in-

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Source: Our calculations based on National Bank of Ukraine (n.d.), Opendatabot (n.d.), and State Employment Service of Ukraine (2025).

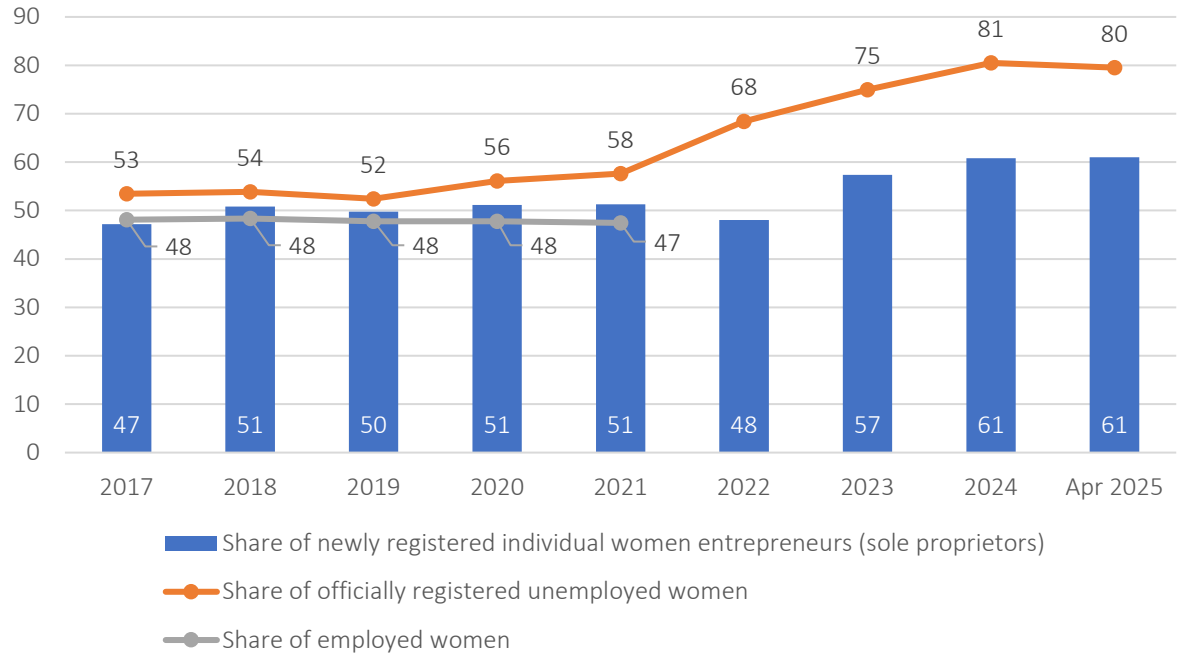

Figure 3. Female share in entrepreneurship, unemployment, and employment in Ukraine, %

dicates a rise in female participation in entrepreneurship. During 2017–2021, while men registered more individual entrepreneurs than women, the gap gradually narrowed (the proportion of women among newly registered individual entrepreneurs rose from 47.2% in 2017 to 51.3% in 2021) (Figure 3). In 2022, despite an overall decline in entrepreneurial activity, the share of women remained considerable at 48.1%. Starting from 2023, the number of newly registered female individual entrepreneurs consistently surpassed that of men, accounting for 57.4% in 2023, 60.8% in 2024, and 61.0% from January to April 2025 (Opendatabot, n.d.). In parallel, the presence of women as sole owners of businesses in the form of legal entities modestly increased, rising from 18.2% in 2024 (173.5 thousand out of 954 thousand businesses) to nearly 20% as of January 2025. However, the decline in mixed businesses (from 14.6% to approximately 9.7%) and the rise in the share of solely male-owned businesses (from 58% to about 63%) suggest a growing gender imbalance in the ownership structure (YC.Market, 2025). Therefore, after the onset of the full-scale war, women have dominated new FOPs, reflecting both their economic adaptation to wartime conditions and the structural demographic effect linked to the mass mobilization of men.

The spillovers of russia's full-scale invasion of Ukraine on gender inequality include an increase in the proportion of women among newly registered sole proprietors and the rise in the share of women owning businesses as legal entities. This can be partially attributed to men going off to war, thereby making women more visible in entrepreneurship and business ownership. The takeaway is that the inclusion of women in the informal economy and non-traditional roles within formal sectors alters perceptions of workforce composition during wartime.

4. DISCUSSION

The results partially confirm the hypothesis that horizontal segregation persists and the pay gap remains, even under conditions of relatively high formal equality in the labor market. Ukraine's labor market is near-balanced in overall employment levels but highly segregated in its internal structure. Specifically, before the onset of the full-scale war, although the total GEGI was relatively small (1–5%), the occupational structure demonstrated patterns of horizontal segregation. Men tended to cluster in technical and manual occupations (+60–75%), while women were concentrated in clerical, professional, and service occupations (–40–70%).

In addition, before the full-scale war, there was no persistent downward trend in occupational segregation. According to the Duncan index, approximately one-third of employed individuals would need to shift occupations for the gender distribution to become balanced. The Karmel-McLachlan index demonstrates that occupational segregation is intensified precisely in mass professional groups, and not only in small or peripheral ones. That emphasizes the institutional inertia of Ukraine's labor market, where gender stereotypes and established employment patterns continue to sustain gender inequality. This pattern aligns with the fact that, although women were notably present in banking during WWI and WWII, they did not occupy management roles until the mid-1950s, mainly remaining in lower-paid positions with limited prospects for career progression (Seltzer, 2011).

Before the full-scale war, women in Ukraine in 2013–2021 received an average of 9–12% lower wages than men. The gender pay gaps are not driven by the most discriminatory industries; rather, pay gaps result from the cumulative effect of small to medium disparities across large industries. A high gender pay gap (GPG) in finance or culture has minimal impact on total inequality because few people are employed there. Policies targeting only high-skill, high-paying sectors will not significantly reduce the total GPG, as their impact is nearly negligible. Notably, industries with a high proportion of women (like education and healthcare) tend to decrease the overall GPG, offsetting high gaps in other areas. Therefore, to effectively lower the total gender pay gap, reforms should focus specifically on large sectors such as trade, industry, agriculture, and transport. This result agrees with Acemoglu et al. (2004) and Nunes et al. (2025), who confirmed that wage equalization was achieved by reducing wages for both men and women. This trend was also evident in industries where there was a significant replacement of men's jobs by women during the war (Acemoglu et al., 2004).

Between 2021 and 2023, survey results revealed an increase in the proportion of respondents perceiving equal pay opportunities, rising from 43% to 61% (Rating Group, 2021, 2023). This indicates a slight improvement in the perception of pay equality within Ukrainian society, as both women and men increasingly believed that the pay gap is less substantial or that women earn considerably less. Likewise, working women became common after WWII, which particularly influenced how later generations viewed women (Kessler-Harris, 2003).

Acknowledging that gender inequality in the Ukrainian labor market manifests through occupational segregation and wage gap, policies should seek to address structural barriers that reinforce gendered professions. That requires a dual approach: short-term measures to address immediate needs, particularly in wartime and post-war conditions, and a long-term strategy for sustainable equality and women's empowerment. These measures should be comprehensive, involving changes in legislation, education, corporate culture, and the remuneration system. Specific measures should include developing laws that recognize and enforce the concept of "work of equal value," and promoting wage transparency to uphold equal pay for equal work. Second is introducing gender audits and certifications for enterprises to combat gender-based horizontal segregation and ensure equal access to job opportunities, and to dismantle stereotypes about male and female occupations. Third is implementing educational programs aimed at challenging gender stereotypes, with a particular focus on encouraging women's participation in STEM fields, where they remain underrepresented. Fourth is enhancing social services and infrastructure to support women in balancing professional and family responsibilities and promote equitable distribution of caregiving duties. Fifth is encouraging businesses to adopt family-friendly policies that align with the European concept of a "non-hostile work environment", enabling parents to work while managing childcare.

In turn, short-term measures for the time of war should involve establishing norms to protect the physical and mental health of women engaged in demanding jobs during wartime, addressing their unique challenges. Second is promoting remote and flexible work opportunities to expand employment prospects for women in a shifting economy that requires flexibility in labor legislation. Third is engaging businesses and public organizations in developing and promoting initiatives, and involving local governments in implementing measures to overcome gender inequality at the local level, to

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establish gender-sensitive employment policies. Fourth is promoting women's entrepreneurship as a resilience factor through targeted support mechanisms, including access to financing, training programs, and consultations for women starting and developing their own businesses. In short, these measures would address gender inequality by targeting both objective (gender pay gap, occupational segregation, gaps in policy and institutions, labor shortages) and subjective factors (gender stereotypes, the perception of women as unreliable or unstable workers or job applicants, as well as discrimination and undervaluation of their qualifications compared to men).

CONCLUSION

This study examines gender inequality in the Ukrainian labor market with a particular focus on occupational segregation and pay disparities. Before the full-scale war, firstly, occupational gender segregation in Ukraine was high and stable. Women consistently dominated among professionals, experts, clerks, and service and sales workers, while men were prevalent among managers, skilled workers, tool workers, and machine and equipment operators. The total Gender Employment Gap Index increased from 3.4% to 5.1%, indicating a lack of convergence in male and female occupational structures. Secondly, although segregation was substantial in absolute terms (as shown by the Duncan index), its impact on the employed population was attenuated by the fact that highly segregated occupations represented a smaller proportion of total employment (as shown by the Karmel-MacLachlan index). Hence, the employment structure was changing, leaving large occupational groups gender imbalanced. Thirdly, the gender pay gap consistently remained in the range of approximately 9–12%, as evidenced by the unweighted gender pay gap, weighted gender pay gap, and the average gender pay gap by type of economic activity. The most significant gender pay gaps were formed in a limited group of industries (arts, finance, industry, transport, trade), and the smallest ones are constantly in the same sectors (education, administrative services, public administration, real estate, healthcare). Gender pay gaps were not driven by sectors with the largest gender pay gap but were formed by large sectors with a moderate but stable gap. This underscores that wage equalization policies should be targeted at mass sectors of the labor market, not just high-skilled or niche industries.

The results highlight the peculiarities of the labor market amid full-scale war, including the exacerbation of labor shortages, increased participation by women in both traditional male and female occupations, expansion of women's entry into entrepreneurship, and a rise in official women's unemployment, accompanied by an increase in female employment in the military sector.

Addressing gender inequality in Ukraine calls for several measures. First is regulation (legal support for implementing the principle of "equal pay for equal work", gender audits and certification of enterprises, educational policy to expand women's participation in STEM fields). Second is social infrastructure (development of social services to combine professional and family responsibilities). Third is enterprise-level management (compliance with standards for the protection of women in harmful work, promotion of flexible employment). Finally, local initiatives (supporting women's entrepreneurship and encouraging women's leadership in communities) are necessary.

AUTHOR CONTRIBUTIONS

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REFERENCES

1. Acemoglu, D., Autor, D. H., & Lyle, D. (2004). Women, war and wages: The effect of female labor supply on the wage structure at midcentury. *Journal of Political Economy, 112*(3), 497-551. https://doi.org/10.1086/383100
2. Adisa, T. A., Gbadamosi, G., & Adekoya, O. D. (2021). Gender apartheid: The challenges of breaking into "man's world". *Gender, Work & Organization, 28*(6), 2216-2234. https://doi.org/10.1111/gwao.12736
3. Alimenko, O. Yu., & Alimenko, O.-M. I. (2024). Pravovi aspekty hendernoho zamishchennia trudovykh resursiv pid chas viiny [The legal aspects of gender substitution workforce during the war]. *Law and Society, 5,* 171-179. (In Ukrainian). https://doi.org/10.32842/2078-3736/2024.5.25
4. Bertrand, M., Goldin, C., & Katz, L. F. (2010). Dynamics of the gender gap for young professionals in the financial and corporate sectors. *American Economic Journal: Applied Economics, 2*(3), 228-255. https://doi.org/10.1257/app.2.3.228
5. Blackburn, R. M., & Jarman, J. (2006). Gendered occupations: Exploring the relationship between gender segregation and inequality. *International Sociology, 21*(2), 289-315. https://doi.org/10.1177/0268580906061380
6. Bose, G., Jain, T., & Walker, S. (2022). Women's labor force participation and household technology adoption. *European Economic Review, 147,* Article 104181. https://doi.org/10.1016/j.euroecorev.2022.104181
7. Bryson, A., Joshi, H., Wielgoszewska, B., & Wilkinson, D. (2020). A short history of the gender wage gap in Britain. *Oxford Review of Economic Policy, 36*(4), 836-854. https://doi.org/10.1093/oxrep/graa046
8. Cabinet of Ministers of Ukraine. (2022, August 12). *Uriadom skhvaleno Derzhavnu stratehiiu zabezpechennia rivnykh prav ta mozhlyvostei zhinok i cholovikiv na period do 2030 roku [The Government has approved the state strategy for ensuring equal rights and opportunities of women and men for the period up to 2030].* (In Ukrainian). Retrieved from https://www.kmu.gov.ua/news/uriadom-skhvaleno-derzhavnu-stratehiiu-zabezpechennia-rivnykh-prav-ta-mozhlyvostei-zhinok-i-cholovikiv-na-period-do-2030-roku
9. Campero, S. (2020). Hiring and intra-occupational gender segregation in software engineering. *American Sociological Review, 86*(1), 60-92. https://doi.org/10.1177/0003122420971805
10. Charles, M. (2003). Deciphering sex segregation: Vertical and horizontal inequalities in ten national labor markets. *Acta Sociologica, 46*(4), 267-287. https://doi.org/10.1177/0001699303464001
11. Corneliussen, H. G. (2021). Unpacking the Nordic gender equality paradox in ICT research and innovation. *Feminist Encounters, 5*(2). https://doi.org/10.20897/femenc/11162
12. De Gioannis, E. (2025). Gender-essentialist beliefs and the gender gap in STEM: Evidence on the gender-essentialism theory. *Quality & Quantity, 59*(2), 1229-1251. https://doi.org/10.1007/s11135-025-02057-2
13. Duncan, O. D., & Duncan, B. (1955). A methodological analysis of segregation indexes. *American Sociological Review, 20*(2), 210-217. https://doi.org/10.2307/2088328
14. Elveren, A. Y., Moghadam, V. M., & Dudu, S. (2022). Militarization, women's labor force participation, and gender inequality: Evidence from global data. *Women's Studies International Forum, 94,* Article 102621. https://doi.org/10.1016/j.wsif.2022.102621
15. England, P., Levine, A., & Mishel, E. (2020). Progress toward gender equality in the United States has slowed or stalled. *Proceedings of the National Academy of Sciences of the United States of America, 117*(13), 6990-6997. https://doi.org/10.1073/pnas.1918891117
16. European Institute for Gender Equality. (2017, March 8). *Economic benefits of gender equality in the European Union: Overall economic*

http://dx.doi.org/10.21511/ppm.23(4).2025.44

impacts of gender equality. Retrieved from https://eige.europa.eu/publications-resources/publications/economic-benefits-gender-equality-european-union-overall-economic-impacts-gender-equality?language_content_entity=en

17. Eurostat. (2025, September 10). *4.34 million under temporary protection in July*. Retrieved from https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20250910-1
18. Franz, B. (2003). Bosnian refugee women in (re)settlement: Gender relations and social mobility. *Feminist Review, 73*(1), 86-103. https://doi.org/10.1057/palgrave.fr.9400077
19. Froehlich, L., Olsson, M. I. T., Dorrough, A. R., & Martiny, S. E. (2020). Gender at work across nations: Men and women working in male-dominated and female-dominated occupations are differentially associated with agency and communion. *Journal of Social Issues, 76*(3), 484-511. https://doi.org/10.1111/josi.12390
20. Gazeley, I. (2008). Women's pay in British industry during the Second World War. *Economic History Review, 61*(3), 651-671. https://doi.org/10.1111/j.1468-0289.2007.00412.x
21. Gedikli, C. (2020). Occupational gender segregation in Turkey: The vertical and horizontal dimensions. *Journal of Family and Economic Issues, 41*(1), 121-139. https://doi.org/10.1007/s10834-019-09656-w
22. Goldin, C. (1984). The historical evolution of female earnings functions and occupations. *Explorations in Economic History, 21*(1), 1-27. https://doi.org/10.1016/0014-4983(84)90014-7
23. Goldin, C. (1989). Life-cycle labor-force participation of married women: Historical evidence and implications. *Journal of Labor Economics, 7*(1), 20-47. https://doi.org/10.1086/298197
24. Goldin, C. (1990). *Understanding the gender gap: An Economic History of American women*. Oxford University Press.
25. Gómez-León, M., & Gabbuti, G. (2025). Wars, depression, and fascism: Income inequality in Italy, 1901–1950. *Explorations in Economic History, 98,* Article 101715. https://doi.org/10.1016/j.eeh.2025.101715
26. Government of Ireland. (1936). *Conditions of Employment Act, No. 2, 1936.* Retrieved from https://www.irishstatutebook.ie/eli/1936/act/2/enacted/en/print.html
27. Government of Ireland. (1973). *Civil Service (Employment of Married Women) Act, No. 17, 1973.* Retrieved from https://www.irishstatutebook.ie/eli/1973/act/17/enacted/en/html?q=married+women
28. Hustad, I. B., Bandholtz, J., Herlitz, A., & Dekhtyar, S. (2020). Occupational attributes and occupational gender segregation in Sweden: Does it change over time? *Frontiers in Psychology, 11*. https://doi.org/10.3389/fpsyg.2020.00554
29. IOM. (2025). *Ukraine Internal Displacement Report. General Population Survey Round 20 (April 2025).* Retrieved from https://dtm.iom.int/sites/g/files/tmzbdl1461/files/reports/IOM_UKR_Internal%20Displacement%20Report_GPS%20R20_April%202025_0.pdf?iframe=true
30. Jacobsen, J. P. (2016). Gender and the economic impacts of war. In *Handbook on Gender and War* (pp. 232-248). Edgar Elgar Publishing. Retrieved from https://www.elgaronline.com/edcollchap/edcoll/9781849808910/9781849808910.00021.xml
31. Karmel, T., & Maclachlan, M. (1988). Occupational sex segregation – Increasing or decreasing? *Economic Record, 64*(3), 187-195. https://doi.org/10.1111/j.1475-4932.1988.tb02057.x
32. Kessler-Harris, A. (2003). *Out to work: A history of wage-earning women in the United States: 20th Anniversary Edition*. Oxford University Press. https://doi.org/10.1093/oso/9780195157093.001.0001
33. Ko, J., & Leung, C. K. (2025). Gender inequality and ESG performance: A global analysis of governance, environmental, and social outcomes in 97 countries. *Innovation and Green Development, 4*(4). https://doi.org/10.1016/j.igd.2025.100272
34. Kondylis, F. (2010). Conflict displacement and labor market outcomes in post-war Bosnia and Herzegovina. *Journal of Development Economics, 93*(2), 235-248. https://doi.org/10.1016/j.jdeveco.2009.10.004
35. Melkas, H., & Anker, R. (1997). Occupational segregation by sex in Nordic countries: An empirical investigation. *International Labour Review, 136*(3), 341-363. Retrieved from https://researchrepository.ilo.org/esploro/outputs/journalArticle/Occupational-segregation-by-sex-in-Nordic/995274669902676
36. Ministry of Defence of Ukraine. (2025, March 8). *Serhii Melnyk: Over 5,500 women are currently serving on the front line.* Retrieved from https://mod.gov.ua/en/news/serhii-melnyk-over-5-500-women-are-currently-serving-on-the-front-line
37. National Bank of Ukraine. (n.d.). *Macroeconomic Indicators. Unemployment*. Retrieved from https://bank.gov.ua/en/statistic/macro-indicators
38. Nelson, M. A., & Goel, R. K. (2023). Spillovers from gender equality onto economic equality: Evidence from 162 nations. *Journal of International Development, 35*(6), 1365-1388. https://doi.org/10.1002/jid.3731
39. Nunes, D., Arora, D., & Braunstein, E. (2025). Real effective exchange rate shocks and job quality by gender in Latin America. *Structural Change and Economic Dynamics, 74,* 262-273. https://doi.org/10.1016/j.strueco.2025.03.010
40. Okosu, A. P., Ablo, A. D., & Wrigley-Asante, C. (2025). Local participation beyond the law: Gendered employment in Ghanaian oil and gas companies. *Extractive Industries and Society, 23*. https://doi.org/10.1016/j.exis.2025.101663
41. Opendatabot. (n.d.). *Foponomika: Ekonomika ukrainskykh fopiv v realnomu chasi [Foponomics: Real-time analytics about sole proprietors in Ukraine]*. (In Ukrainian). Retrieved from https://opendatabot.ua/open/foponomics
42. Pelley, E., & Carnes, M. (2020). When a specialty becomes "women's work": Trends in and

implications of specialty gender segregation in medicine. *Academic Medicine, 95*(10), 1499-1506. https://doi.org/10.1097/ACM.0000000000003555

43. Pennings, S. (2022). *A Gender Employment Gap Index (GEGI). A simple measure of the economic gains from closing gender employment gaps, with an application to the Pacific Islands* (World Bank Working Paper 9942). Retrieved from https://documents1.worldbank.org/curated/en/190541645548827307/pdf/A-Gender-Employment-Gap-Index-GEGI-A-Simple-Measure-of-the-Economic-Gains-from-Closing-Gender-Employment-Gaps-with-an-Application-to-the-Pacific-Islands.pdf?utm_source=chatgpt.com

44. Rating Group. (2021, March 4). *Henderni roli i stereotypy [Gender roles and stereotypes]*. Rating Group. (In Ukrainian). Retrieved from https://www.ratinggroup.ua/news/gendernye-roli-i-stereotipy

45. Rating Group. (2023, June 13). *Mozhlyvosti zhinok v Ukraini (1–2 chervnia 2023) [Women's opportunities in Ukraine (June 1–2, 2023)]*. Rating Group. (In Ukrainian). Retrieved from https://www.ratinggroup.ua/news/mozhlivost-zh-nok-v-ukra-n

46. Rose, E. K. (2018). The rise and fall of female labor force participation during World War II in the United States. *Journal of Economic History, 78*(3), 673-711. https://doi.org/10.1017/S0022050718000323

47. Seltzer, A. J. (2011). Female salaries and careers in British banking, 1915–41. *Explorations in Economic History, 48*(4), 461-477. https://doi.org/10.1016/j.eeh.2011.03.001

48. Skurativska, Y. (2025, June 19). *Zhinky, robota i viina: Shcho zminiuietsia na rynku pratsi v Ukraini [Women, work and war: What is changing in the labor market in Ukraine]*. Ukrinform. (In Ukrainian). Retrieved from https://www.ukrinform.ua/rubric-society/4005811-zinki-robota-i-vijna-so-zminuetsa-na-rinku-praci-v-ukraini.html

49. Sobhee, S. K. (2020). Greater female employment participation as a catalyst to reducing income inequality in developing countries – The case of Latin American and Sub-Saharan African countries. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3741992

50. Sookram, S., & Strobl, E. (2009). The role of educational choice in occupational gender segregation: Evidence from Trinidad and Tobago. *Economics of Education Review, 28*(1), 1-10. https://doi.org/10.1016/j.econedurev.2008.04.002

51. State Employment Service of Ukraine. (2025). *Opytuvannia robotodavtsiv Ukrainy za 2024 rik (dani stanom na 01.01.2025 roku) [Survey of employers of Ukraine for 2024 (data as of 01.01.2025)]*. (In Ukrainian). Retrieved from https://dcz.gov.ua/stat/statsurvey

52. State Statistics Service of Ukraine. (n.d.). *Demographic and social statistics: Labor market*. Retrieved from https://www.ukrstat.gov.ua/operativ/menu/menu_e/dem_e/r_pr_e.htm

53. Stavrevska, E. B. (2019). The mother, the wife, the entrepreneur?: Women's agency and microfinance in a disappearing post-conflict welfare state context. In *Economies of Peace* (1st ed.). Routledge. Retrieved from https://www.taylorfrancis.com/chapters/edit/10.4324/9780429264269-4/mother-wife-entrepreneur-elena-stavrevska?context=ubx

54. Stoet, G., & Geary, D. C. (2018). The gender-equality paradox in science, technology, engineering, and mathematics education. *Psychological Science, 29*(4), 581-593. https://doi.org/10.1177/0956797617741719

55. The Verkhovna Rada of Ukraine. (2022). *Zakon Ukrainy 'Pro orhanizatsiiu trudovykh vidnosyn v umovakh voiennoho stanu' [Law of Ukraine "On the Organization of Labor Relations under Martial Law"]*. (In Ukrainian). Retrieved from https://zakon.rada.gov.ua/go/2136-20

56. UN Women – Ukraine. (2025, February 19). *Three years of Russia's full-scale war in Ukraine roll back decades of progress for women's rights, safety and economic opportunities*. Retrieved from https://ukraine.unwomen.org/en/stories/pres-reliz/2025/02/try-roky-povnomasshtabnoyi-viyny-rosiyi-v-ukrayini-zahrozhuyut-nadbannyam-dosyahnutym-za-desyatylittya-borotby-za-prava-zhinok-ikhniy-bezpetsi-ta-znachno-pohirshuyut-dostup-do-ekonomichnykh-mozhlyvostey

57. UN Women. (2023). *Zvit za rezultatamy analizu naikrashchykh praktyk biznesu z ekonomichnoho upovnovazhennia zhinok pid chas povnomasshtabnoi rosiiskoi viiny proty Ukrainy [Report on the analysis of best business practices for women's economic empowerment during Russia's full-scale war against Ukraine]*. (In Ukrainian). Retrieved from https://ukraine.unwomen.org/uk/digital-library/publications/2023/08/zvit-za-rezultatamy-analizu-naykrashchykh-praktyk-biznesu-z-ekonomichnoho-upovnovazhennya-zhinok-pid-chas-povnomasshtabnoyi-rosiyskoyi-viyny-proty-ukrayiny

58. UNDP. (n.d.). *Gender Inequality Index (GII)*. Human Development Reports. Human Development Data Center. Retrieved from https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index

59. UNHCR. (n.d.). *Ukraine Refugee Situation*. Operational Data Portal. Retrieved from https://data.unhcr.org/en/situations/ukraine

60. United Nations. (2015). *Transforming our World: The 2030 Agenda for Sustainable Development*. Retrieved from https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981

61. Webster, K., Chen, C., & Beardsley, K. (2019). Conflict, peace, and the evolution of women's empowerment. *International Organization, 73*(2), 255-289. https://doi.org/10.1017/S0020818319000055

62. YC.Market. (2025, March 31). *Zhinky u velykomu biznesi: Tendentsii, tsyfry ta vidkryttia 2024 roku [Women in big business: Trends, figures, and discoveries for 2024]*. YC.Market Blog. (In Ukrainian). Retrieved from https://blog.youcontrol.market/zhinki-u-vielikomu-biznesi-tiendientsiyi-tsifri-ta-vidkrittia-2024-roku/

http://dx.doi.org/10.21511/ppm.23(4).2025.44