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DEMOGRAPHIC RESILIENCE IN TIMES OF CATASTROPHE: WHAT THE GLOBAL COMMUNITY CAN LEARN FROM THE UKRAINIAN EXPERIENCE

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Abstract. *The Russian invasion of Ukraine has caused one of Europe's largest demographic shocks since World War II. Over 5.6 million Ukrainians live abroad as refugees, and more than 3.3 million are internally displaced (UNHCR, IOM, 2025). The population has dropped by almost 25%, threatening human capital, labor markets, and long-term sustainability. This study analyzes Ukraine's demographic resilience under war, focusing on demographic losses, adaptive policies, and recovery scenarios to 2050. Despite severe declines, Ukraine shows resilience through community support, innovative health and social measures, and gradual adoption of European family and migration policies, offering lessons for global crises.*

Keywords: *demographic resilience, Ukraine, war, migration, human capital.*

Introduction. The concept of demographic resilience has gained particular importance in the context of global instability manifested in wars, pandemics, and climate-related disasters. Ukraine represents a unique case where war has directly shaped demographic processes, leading to a sharp population decline, mass forced migration, and increased risks for long-term sustainability. At the same time, adaptive mechanisms have emerged, making the Ukrainian experience essential for understanding resilience in times of catastrophe.

Literature review. Previous studies on wars and disasters highlight the importance of demographic stability for economic recovery and state viability (Lane & Catling, 2016). Resilience studies (Clarke, 2014) stress community initiatives and the integration of social and health policies, while UN and UNFPA extend the concept to human rights and inclusiveness. Ukrainian scholars define demographic resilience as the capacity to maintain generational replacement, preserve balance, and minimize the negative effects of shocks (Gladun and ect., 2024).

Research methodology. The methodology is based on demographic forecasting to assess the size and structure of Ukraine’s population up to 2040, taking into account wartime mortality, fertility decline, and large-scale migration flows. Scenario modeling is combined with comparative analysis of EU policies in migration management, social protection, and family support. The empirical base includes data from UNHCR, IOM, the Ministry of Justice of Ukraine, and the Ptukha Institute for Demography and Quality of Life Research of the National Academy of Sciences of Ukraine.

Main results. The findings reveal the scale and multidimensional nature of Ukraine’s demographic crisis. Over the last three decades, the country has lost more than 20 million people: from 54 million in 1991 to about 34 million by July 2025 (around 30 million on government-controlled territory). Projections suggest only 28 million inhabitants by 2040 in the optimistic scenario and 22 million in the pessimistic one. Such a decline is unprecedented in Europe and signals the risk of a “demographic winter,” when the ratio of working-age to dependent population becomes critically adverse.

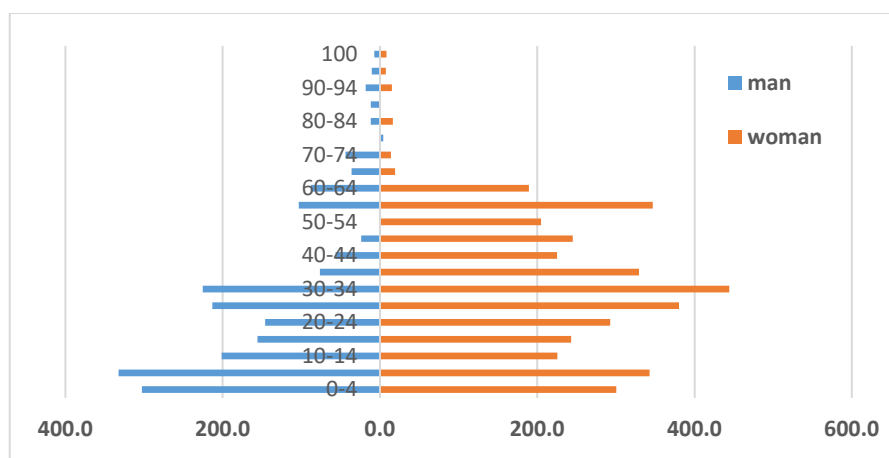
The war has severely aggravated the fragile situation of generational replacement. The total fertility rate fell from 1.13 children per woman before 2022 to a historic low of 0.8–0.9, largely due to the emigration of women of reproductive age, delayed marriages, and growing uncertainty. Mortality has risen both from direct combat losses and indirect causes — reduced access to healthcare, shortages of medicines, and worsening chronic illnesses. Men aged 20–50, the elderly, and people with chronic diseases are the most affected, reshaping the age-sex structure.

Migration adds further strain: by August 2025 nearly 5.7 million Ukrainians were abroad (excluding incomplete data on Russia) and over 3.3 million were internally displaced. This has caused substantial human capital losses and structural imbalances: a shortage of working-age men alongside a deficit of young women of childbearing age (*Figure 1*).

Despite these challenges, elements of demographic resilience are evident. As highlighted in the joint publication of Ukrainian scholars, resilience is not confined to statistics but shaped by adaptive social and institutional mechanisms. These include local community support for internally displaced persons, innovative socio-medical programs, and gradual alignment of state policies with European standards in family and migration management. In the long term, controlled immigration may also serve as a compensatory resource to restore the working-age population.

Thus, while Ukraine has endured dramatic demographic losses, its experience demonstrates the possibility of resilience through a combination of demographic policy, institutional reform, and social adaptation. This underscores the need to integrate traditional demographic analysis with broader resilience concepts that encompass social solidarity, international assistance, and prospects for the return of human capital.

Figure 1. Losses in the age-sex structure of Ukraine's population



Source: Assessment by the Institute of Demography and Quality of Life Research of the National Academy of Sciences of Ukraine

Discussion and conclusions. The Ukrainian experience shows both the destructive impact of war on demographic sustainability and the potential for recovery through social solidarity and targeted policies. Despite heavy losses, innovative measures in social protection, family support, and migrant integration demonstrate that resilience is possible even during catastrophe. For the global community, this case highlights the need for a comprehensive approach combining demographic projections with proactive interventions in migration, healthcare, and human capital.

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