



WAR-TORN TERRITORIES AND SOCIETY: MIGRATION PROCESSES, CASES, CONTEXTS OF UKRAINE

Daria Malchykova 

Department of Geography and Ecology, Kherson State University
Kherson State University, 27 Universytets'ka St., Kherson, 73003: Ukraine
darina1378@gmail.com

Ihor Pylypenko 

Department of Geography and Ecology, Kherson State University
Kherson State University, 27 Universytets'ka St., Kherson, 73003: Ukraine

Abstract. Large-scale population displacement is one of the key consequences of the Russian-Ukrainian war. It has been determined that Ukraine has abnormal demographic patterns at all levels. The aim of the research was to identify the general features of new patterns in the demographic space of Ukraine at different levels and to present case studies of migration processes in the de-occupied communities of Kherson region. An analysis of demographic history and the dramatic changes of the last ten years have revealed a restructuring of the demographic space that has changed the dominant trends of previous periods. The authors differentiate the regions of Ukraine by population concentration, which demonstrates a catastrophic drop in the demographic weight of the regions that became the battlefield. At a national level, there have been catastrophic demographic losses due to refugees, deaths, and natural decline. At a regional level, there has been a significant shift in population distribution, resulting in the rapid growth of the relative demographic importance of Ukraine's western and central regions. There have been predictable and unexpected migration cases at the local level, where emotional and psychological factors such as strengthening identity and regional belonging have become more essential alongside rational choices and decisions.

Keywords: migration, demographic space, internally displaced persons, community, Russian-Ukrainian war.

Introduction

Russia's military aggression in Ukraine began in 2014, but in 2022, it took on the character of a large-scale intervention. Internal displacement of the population, refugees, and changes in everyday practices of the population during hostilities and occupation are singular social 'responses' that have the most diverse dimensions, cases, and contexts. The main threat to the hope of return for millions of Ukrainian emigrants and the precarious economic situation is the development of the Russian-Ukrainian war into a protracted conflict (Razumkov, 2023). It also means

that large-scale population movement will remain one of the key demographic features of Ukraine for many years to come and will form the background of all social and spatial processes.

The question of population migrations caused by war can be studied in several main contexts. First, the scale, causes, and geography of the phenomenon are explored. The scale of war-related refugees from Ukraine to other countries is extraordinary: there are more than 6.3 million refugees from Ukraine worldwide, including 5.9 million in Europe, with women and children making up more than 80% of the refugee population (UNHCR, 2024). Internal displacement within Ukraine has also reached catastrophic levels. The International Organization for Migration estimates (2024) that 3 689 000 de facto IDPs and 4 455 000 returnees reside in Ukraine. Actually, one in four Ukrainians has been displaced from their previous place of residence and moved either abroad or to another region of Ukraine. This scale is impressive even compared to global statistics: by the end of 2017 (Braithwaite et al., 2018), due to violent conflicts, famine, natural disasters or persecution, about 1 in 110 people on the planet were forced to leave their homes and eventually became internally displaced persons (IDPs).. The primary reason people in Ukraine seek new residences (temporary or permanent) is due to military urbicide in its various dimensions (Malchykova & Pylypenko, 2022; Mezentsev & Mezentsev, 2022). The scale and direction of migration activity among internally displaced persons is becoming a litmus test for fundamental changes at the local, regional, and national levels.

Secondly, the humanitarian, security, economic, and social consequences of forced displacement. Research on the impact of internal displacement on the increase in the risk of conflict spread in African war zones (Bohnet et al., 2018) suggests that internal displacement, if not adequately addressed, may lead to conflict spread. It also has humanitarian consequences in a severe humanitarian crisis (Koroutchev, 2023), impacts on social stability in the country (Yasukawa, 2020), implications for economic development, and wider societal consequences. Bohra-Mishra and Massey (2011) suggest that violence has a non-linear effect on migration, low and moderate levels of violence do not cause large waves of movement, but it is reaching a point where violence rises to intolerably high levels that forces people to move. When we consider the influence of violence on micro-level decision-making, the authors explain that the effects of individual and household-level determinants were mostly consistent with hypotheses derived from contemporary theories of voluntary migration, and socio-economic impacts remain the leading effects.

Thirdly, the social contexts of refugeeism, internal displacement, and narratives of (non return. Forced displacement can seriously affect social cohesion between displaced persons, host communities and communities to which displaced persons return. The social cohesion between displaced persons, host communities and communities to which displaced persons return can potentially undergo coordinate changes due to a forced displacement. (IBRD, 2022). Also, previous research (Ivashchenko-Stadnik, 2017) explains that the social contexts of internal displacement should not be understood in terms of a simplified model of positive and negative attitudes towards IDPs in host communities. Important aspects of the problem are the contexts of adaptation and integration in the new community, as well as the migration attitudes of internally displaced persons. Forced displacement can have both positive and negative effects on social cohesion through various mechanisms. These effects may result from the displacement experience, such as trauma or mobilisation, the impact on social connections, as well as economic and human capital accumulation. Additionally, the perception or reality of the effects of population inflows on goods, services, markets, jobs, and the environment can also have a significant contribution. It is the *ritournelle* refrain: *ritournelle* miss as a disrupted adaptation and return, or the return achieved when the displaced newcomers become new local residents in the host communities (Balinchenko, 2021) that is central to considering the integration of internally displaced persons

into communities in the long term. 'Locality' can be perceived as a dynamic feature that can be changed by giving equal rights to displaced persons: sharing benefits and burdens, giving them access to the decision-making process and integrating them into the community. We consider that this framework can also be adapted to predict the processes of adaptation/integration or return of people displaced by violence.

Today, we lack answers regarding the duration of the war and the feasibility of displaced persons returning. Social practices for integrating displaced persons during the large-scale Russian aggression in 2022 have yielded new dimensions and results. The situation in areas affected by military actions and those that have been de-occupied is particularly challenging. Several contentious questions arise concerning their demographic future:

- How have migration processes in historical and modern contexts determined the transformation of the demographic potential of Ukrainian regions?
- What determinants will influence people's decisions to return or not, and how might their expectations shape their migration intentions?
- What lessons can be gleaned from local cases of de-occupied communities?

Therefore, this article is primarily focused on the third context. **The aim of the research** was to identify the general features of new patterns in the demographic space of Ukraine at different levels and to present case studies of migration processes in the de-occupied communities of Kherston region. The study was based on data from open sources, reports from international organizations, and the results of sociological research.

Methodological background, methods, and data

The methodological basis for our work was significantly influenced by the research findings of certain publications on Ukrainian contemporary migration under the influence of war (2014–2024). The spatial differentiation of Ukrainian migration during the war is presented in a series of works that have identified certain patterns and features of migration flows. The research on internal migration in the period from 2014 to 2022 (including the first migration consequences of the full-scale invasion) is presented by Mykhnenko et al. (2022).

The authors have identified four important patterns of migration behaviour and response that are still important today. We note the main theses of the authors, which are important for the interpretation of our results: 1. Individual characteristics significantly determine the nature of migration behavior and have gender and age specificities in the context of war, which are often crucial in making decisions about migration and choosing a destination. 2. The return of migrants to their place of residence is possible only after the recovery of state power in the occupied territories and the coming of peace. 3. In general, it sounds like 'the further away from the war, the calmer it is.' In a prolonged war, migrants decide to move as far away from the war zone as possible. 4. The authors note the low activity of the state and regional authorities in solving the problems of migrants. At the same time, we should note that, on the basis of the experience of 2014–2022, the mass volunteer movement and assistance from countries around the world have increased significantly since 2022. It should be noted that, unlike in 2014, during the full-scale invasion and until the beginning of 2024, the government provided financial assistance to all IDPs, which was automatically accrued upon registration of the status of 'internally displaced person' in the Diia application (official website of the Ministry of Social Policy of Ukraine, MSP Ukraine, 2024).

At the global, international, and planetary levels, Karimi and Byelikova (2024) demonstrate how the war has intensified and boosted the implementation of previous or postponed individual migration plans. The authors note that Ukrainians realized the opportunity to emigrate as follows: migrants with high ambitions and wealth chose Canada. Migrants with an intermediate level of migration aspirations and medium incomes chose Germany. At the same time, Ukrainians with low migration ambitions either did not change their place of residence or moved to other regions of Ukraine.

Havryliuk (2022), in his research paper, identified the patterns of location of forced migrants in the period 2014–2022, in large cities in Ukraine. One of the results of the work is the identification of the hidden urban geography of internal displacement in large cities. The author determined the impact of IDPs on the sustainable development of urban hosting communities. The analysis at the level of large cities has already demonstrated the factors of spatial differentiation and specific features of the migration distribution within large cities in Ukraine.

We used quantitative methods of descriptive statistics, among which we would consider it appropriate to use index indicators to analyse the intensity of demographic change. We used the indicator of population concentration, which is defined as the ratio of the share of the population living in a region of Ukraine to the share of that region in the country's area. With the area share (denominator) unchanged, changes in the population share will demonstrate trends in the region's share. In addition, the coefficient allows comparing regions with each other and the conditional average for Ukraine, which is equal to 1.00. The cartographic method allows us to show the spatial features of the processes identified by the statistical method. The spatial features of population concentration processes have been analysed.

The source data were the results of population censuses (1979, 1989, and 2001), operational official data of the State Statistics Committee of Ukraine (2014–2022), and estimates of statistical authorities based on population balance calculations. In general, it is important to note the relative high accuracy of the data from the period after the 2001 Census in terms of population size. At the same time, there has been a deterioration in the quality of statistical data at the lower levels (community, administrative district), including due to the fact that new registration is not required when people change their place of residence.

Theoretical discourse of migration processes: national and regional demographic patterns

The total nature of the war is characterized by the comprehensive coverage of all spheres of human activity and regions of Ukraine. The destructive forms of military violence are spreading to all components of society and at all spatial levels, causing the restructuring of the entire social system. Destructive forms of military aggression include (Palekha et al., 2023):

- economic, spatial, demographic, social, and aesthetic damage to the original, historical character of the public landscape through physical destruction
- genocide and crimes against humanity, urbicide, ecocide, etc.
- loss of regional identity and changes in collective experience due to political, informational, socio-economic, and cultural violence.

It is quite clear that the greatest impact has been and is taking place in the territories where ground military operations and occupation are taking place. Each situation in Ukraine's regions and territorial communities has its own specific and unique features. In both the spatial and demographic dimensions, the key in the contemporary discourse on the results of the war in Ukraine is recognized as urbicide and ecocide. Urbicide is the destruction of urban living space, a tool to destroy the viability of urban civilization and erode its collective values. Ecocide is the deliberate destruction of the natural environment and ecosystems through pollution and other forms of environmental degradation and military efforts aimed at undermining the resilience of the population and livelihoods (Sample, 2022). It is urbicide and ecocide that today globally determine changes in the functionality of space and its further suitability for social life.

Based on existing research, Ukraine has already formed a systematic understanding of the components of urban violence, its signs, forms, and consequences (Malchykova & Pylypenko, 2022; Mezentsev & Mezentsev, 2022). At the same time, in the context of this study, we analyse military urbicide as a specific violent practice of the occupiers that causes powerful demographic processes, especially migration. Indeed, current hostilities demonstrate the most obvious consequences for people and their environment.

According to the results of IOM research (IOM, 2024), several specific features of migration processes in Ukraine at the national level have been identified: a) 39% of IDPs changed their place of residence, primarily due to limited employment opportunities in the previous place of resettlement, as well as relatively safer conditions in the current place of displacement; b) more than 80% of IDPs were displaced for more than one year, and the average duration of displacement of IDPs is 510 days; c) the majority of IDPs (60%) intend to stay in the current place of relocation, while 25% are considering further relocation.

Drawing from the experiences of countries (del Pinal, 2008; Reher & Silvestre, 2009) where mass migration flows have played a significant role in shaping modern demographic patterns, it can be expected that the mass migration of Ukrainians resulting from the Russian-Ukrainian war will become a major factor in shaping a new demographic situation not only in Ukraine but also in Europe. Prognostic assessments conducted by Kulu et al. (2023) suggest that pre-war demographic trends could lead to a one-sixth reduction in Ukraine's population over the next two decades. However, considering the casualties of war and the significant number of refugees, it is anticipated that the country's population will decrease by one-third. The decline will be particularly pronounced among the working-age population and children. The findings underscore the significance of refugee repatriation to Ukraine for both the size and structure of its population. Should 90% of the refugees return to Ukraine, the reduction and aging of the population will closely mirror the pre-war demographic development pattern. However, if only 35% or 10% of refugees return to Ukraine, the population is projected to decrease by 30% or 40% by 2040, respectively. This highlights the imperative of post-war reconstruction in Ukraine aimed at incentivizing refugee return.

Furthermore, it is plausible that mass migration will not be confined to the duration of the war alone. One estimate (Yaroshenko et al., 2023) suggests that the prolonged nature of military operations and their expansion to other regions of Ukraine may lead a substantial number of emigrants, particularly those of working age, to opt not to return. Ukrainians are acutely aware of the risks posed by the country's proximity to an aggressive neighbour, which could result in continued mass internal displacement – primarily to the western and central regions of the country – following the cessation of hostilities. This is likely to give rise to challenges related to employment, housing, social infrastructure, and labour shortages for reconstruction efforts in these areas.

Given that the number of forcibly displaced persons worldwide is increasing annually and surpasses the number of refugees, internal displacement has gained particular prominence on the international agenda over the past two decades (Kuznetsova & Mikheieva, 2020), particularly with the adoption of the UN Guiding Principles on Internal Displacement. In Ukraine, internal displacements are driving rapid shifts in the relative demographic importance of individual regions and yielding unpredictable consequences for further regional development. Regionally, there is already a discernible east-west shift in logistics, certain industries, and services within Ukraine (Maruniak et al., 2023). In the context of a protracted war, it is the Western regions, considered conditionally 'safe,' along with several central ones, which have the potential to drive the country's GDP, shape its international relations, and serve as a 'space for recovery and resettlement.'

According to research data (Libanova et al., 2022), 96% of IDPs express a desire to return home, with 22% indicating a desire to do so soon. The authors categorize IDPs into four main groups based on their social characteristics and migration intentions:

1. Individuals who relocated with a certain level of financial stability retained their previous employment through remote work or shift arrangements and resided with relatives or acquaintances. A significant portion of this group is either already returning home or awaiting the opportunity to do so, with no intention of integrating into the communities of their temporary residence.
2. Women with prior work experience abroad who aspire to migrate abroad benefit from favourable conditions for legal status acquisition in developed countries. The majority of this group is unlikely to return, and it is anticipated that their husbands, once restrictions on border crossing by conscription-age men are lifted, will join them.
3. Urban immigrants come from cities with well-developed labour markets and infrastructure, possess higher education, and are accustomed to relatively high living standards. The proportion of individuals willing to settle permanently in small towns and engage in agriculture, construction, or even industry appears to be minimal, primarily among families whose homes have been destroyed.
4. Individuals who have lost their homes or are profoundly affected by the experience of being in active zones of hostilities express a reluctance to return. For them, employment opportunities in western regions are closely linked to securing permanent housing, with relatively modest housing and job requirements. Many have already made the decision to establish permanent residency in the western regions of the country.

Transformations of the demographic potential across regions of Ukraine: historical and recent contexts

To demonstrate and spatially analyse these changes, we employed a system of relative indicators designed to facilitate comparisons among various social processes occurring within Ukraine and its constituent regions.

Specifically, we calculated the population concentration ratio, which represents the ratio of the population residing in a particular administrative unit to the corresponding unit's share of Ukraine's total land area. This approach allows us to assess the temporal evolution of demographic weight across Ukraine's regions (see Table 1).

Table 1. Dynamics of population concentration ratios in the regions of Ukraine, 1979–2023

Region	Population concentration ratio						Changes of concentration ratio		
	1979	1989	2001	2014	01 Jan 2022	01 Jun 2023	2014 to 1979	2022 to 2014	2023 to 2022
Autonomous Republic of Crimea (with Sevastopol city)	0.98	1.06	1.11	1.16	–	–	0.18	–	–
Vinnitsia	0.94	0.85	0.83	0.81	0.80	1.07	-0.13	-0.01	0.27
Volyn	0.61	0.62	0.66	0.69	0.71	0.93	0.08	0.02	0.22
Dnipropetrovsk	1.38	1.42	1.39	1.37	1.36	1.90	-0.01	-0.01	0.54
Donetsk	2.36	2.35	2.28	2.18	2.15	0.34	-0.18	-0.03	-1.80
Zhytomyr	0.65	0.61	0.58	0.56	0.55	0.63	-0.09	-0.01	0.08
Zakarpattia	1.09	1.14	1.22	1.30	1.36	1.13	0.21	0.06	-0.24
Zaporizhzhya	0.87	0.89	0.88	0.87	0.84	0.56	0.00	-0.03	-0.28
Ivano - Frankivsk	1.16	1.20	1.26	1.32	1.36	1.46	0.16	0.04	0.10
Kyiv region (without Kyiv)	0.82	0.81	0.81	0.82	0.90	1.17	-0.01	0.08	0.27
Kyiv city	32.81	37.97	40.65	47.64	51.70	46.68	14.83	4.06	-5.02
Kirovohrad	0.62	0.59	0.57	0.53	0.51	0.73	-0.08	-0.02	0.22
Luhansk	1.27	1.25	1.19	1.11	1.10	-	-0.15	-0.01	-1.10
Lviv	1.44	1.47	1.50	1.55	1.59	1.89	0.11	0.04	0.30
Mykolaiv	0.61	0.63	0.64	0.63	0.62	0.68	0.02	-0.01	0.06
Odesa	0.93	0.93	0.92	0.96	0.99	1.13	0.03	0.03	0.14
Poltava	0.73	0.71	0.70	0.67	0.66	0.89	-0.06	-0.01	0.24
Rivne	0.68	0.68	0.73	0.77	0.80	0.91	0.09	0.03	0.11
Sumy	0.75	0.70	0.68	0.63	0.61	0.68	-0.11	-0.02	0.07
Ternopil	1.02	0.99	1.03	1.03	1.04	1.03	0.01	0.01	-0.01
Kharkiv	1.18	1.19	1.16	1.16	1.16	0.95	-0.02	0	-0.21
Kherson	0.50	0.51	0.51	0.50	0.49	0.21	0.00	-0.01	-0.28
Khmelnitsky	0.92	0.87	0.87	0.84	0.84	0.95	-0.07	0	0.12
Cherkasy	0.90	0.86	0.84	0.80	0.78	1.01	-0.10	-0.02	0.23
Chernivtsi	1.33	1.35	1.42	1.49	1.54	1.64	0.16	0.05	0.10
Chernihiv	0.57	0.52	0.49	0.44	0.42	0.50	-0.13	-0.02	0.08

Source: estimated by the authors using data from (Isupov et al., 1984; Osaulenko, 2003; Pylypenko, 2009; SSS Ukraine, 2014; IOM, 2024).

The long-term trend analysis of changes in population concentration ratios from the 1979 population census to pre-war January 2014 reveals a gradual transformation in the demographic potential of Ukraine's regions. Eastern regions such as Donetsk and Luhansk experienced a notable decline in demographic weight, with both exhibiting negative natural population growth by the late 1980s (0.18 and -0.15, respectively). Similar trends were observed in certain northern and central regions of Ukraine. Conversely, western Ukrainian regions, historically characterized by slightly better birth rates, as well as the Autonomous Republic of Crimea and Sevastopol, saw significant increases in their demographic weight. Kyiv, buoyed by its status as the capital of an independent state, experienced accelerated growth in population concentration ratios.

The spatial features of population concentration and long-term trends in this process are demonstrated in Figure 1.

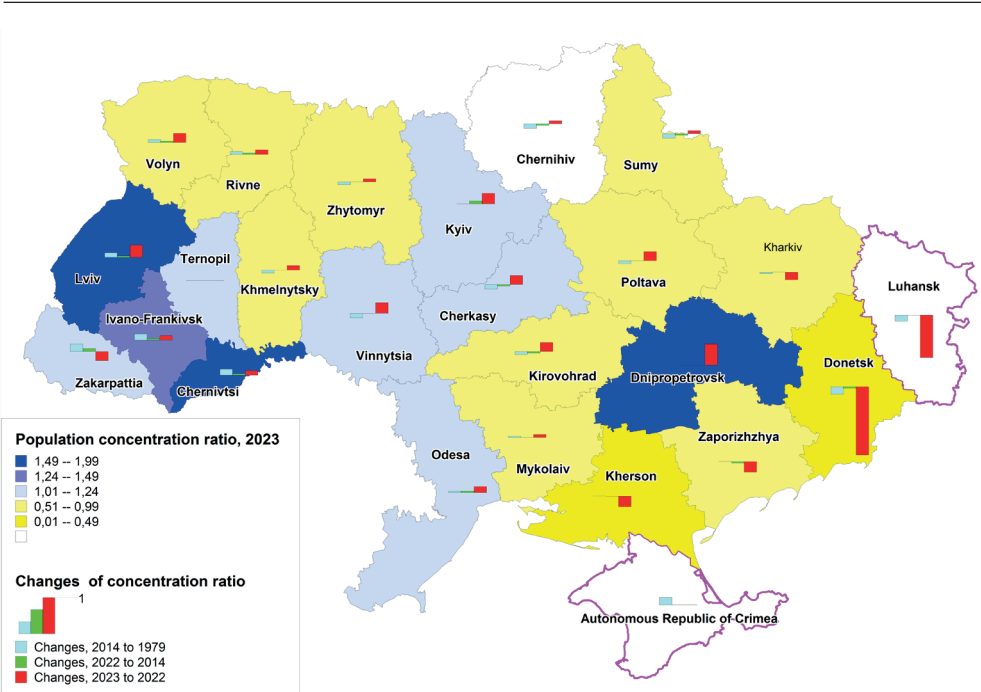


Figure 1. Population concentration rates in the regions of Ukraine and their long-term changes

During the hybrid stage of Russia’s war against Ukraine (February 2014 to February 2022), the demographic weight of Ukraine’s regions remained largely unaffected, with most continuing pre-existing trends of population concentration or deconcentration. Occupied Crimea and parts of the Donetsk and Luhansk regions were excluded from the analysis. Kyiv’s importance surged during this period, serving as a new home for many residents displaced from Crimea and Donbass. Consequently, the relative indicators of population concentration and distribution across Ukraine’s regions remained relatively stable between 2014 and early 2022.

The subsequent stage of demographic changes witnessed a profound restructuring of population localization in Ukraine’s regions. From February 24, 2022, to mid-2023, massive population movements occurred due to both internal and external migrations. Front-line regions and Kyiv experienced the most significant reductions in population localization. For instance, Kyiv’s population localization indicator decreased by 5.02, reversing the trend of its population share growth in Ukraine observed in the early 2010s. The fully occupied territory of the Luhansk region ceased to contribute to population accounting. Donetsk region suffered a substantial loss in population share and, along with front-line regions like Zaporizhzhya and Kherson regions, became sparsely populated. Consequently, the rear regions experienced a notable increase in demographic weight.

The Dnipropetrovsk region, situated adjacent to front-line regions such as Kherson, Zaporizhzhya, and Kharkiv, witnessed a significant boost in demographic importance. Despite facing regular shelling, cities along the right bank of the destroyed Kakhovsky reservoir in the Dnipropetrovsk region received a large influx of internally displaced persons, elevating their demographic role to levels approaching those of the Donetsk region before 2014. Moreover, rear regions like Poltava, Cherkasy, Vinnytsia, and even Kyiv (partially occupied from February to April 2022) experienced substantial growth in population concentration ratios.

Overall, a significant increase in population concentration ratios is anticipated in western Ukraine, with the Lviv region exhibiting the highest relative growth rate at 0.3. However, the Zakarpattia region presents a contrasting trend, with a decline in both absolute and relative demographic value due to mass migration abroad. Despite a high relative number of internally displaced persons, the demographic role of the Zakarpattia region among Ukraine's regions continued to diminish.

Migration attitudes and motivational contexts: in dimensions from rational considerations to expectations

Key factors driving population movement include the pursuit of security, opportunities for self-employment, self-actualization, and employment, as well as access to basic social infrastructure. Social and economic stability rank among the primary needs of migrants. Analysis by Cantor and Apollo (2020) suggests potentially distinct social profiles for individuals who become IDPs and refugees, respectively. For certain groups of citizens, particularly those able to cross borders without impediment, the cost of rental housing in relatively safe western regions of Ukraine emerged as a significant factor influencing decisions regarding emigration or internal displacement. In the initial weeks of the conflict, rental prices surged by an average of 10-80% compared to pre-war levels in regions like Lviv, Zakarpattia, Chernivtsi, Ivano-Frankivsk, Volyn, and Khmelnytskyi (Shtuka & Hrazhdan, 2022).

Research conducted by Lozova (2023) highlighted the importance of 'neighbourhood' (geographical proximity of regions) and family/friend ties in determining the place of internal displacement for Ukrainians. The primary material needs for IDPs include access to rental housing and provisions for household necessities, underscoring the urgent demand for employment opportunities. Consequently, migrants prioritize safety and financial feasibility when selecting relocation destinations. Employability emerges as a crucial aspect of achieving financial stability and realizing one's potential in a new environment. Despite possessing higher education qualifications and work experience, securing employment remains challenging for migrants due to factors such as job availability, difficulties with processing documents, and the lack of social networks in their new place of residence (Yaroshenko et al., 2023). For individuals previously engaged in key industries (or the agricultural sector) in their home regions or private businesses, finding suitable employment in a new city proves arduous, exacerbated by local labour market competition. This prompts considerations about relocating in pursuit of job opportunities, or alternatively, exploring career shifts and avenues for self-realization.

The study on migration attitudes of internally displaced persons (IDPs) and regional relocation preferences (Molikevych, 2023) reveals clear regional disparities in migration attitudes and preferences across Ukraine. Western regions consistently record the highest search volumes for internal relocations. However, distinct psychological dimensions characterize different phases of forced migration: the initial wave (February – March 2022) is described as a 'wave of panic flight,' while the subsequent phase is marked by 'unjustified expectations and deliberate choices.' Presently, widespread destruction of homes and infrastructure contributes to a diminishing consideration among IDPs and refugees abroad for a swift return home (Lozova, 2023).

Furthermore, separate findings (Maidanik, 2023) indicate fluctuations in cross-border movements and migration intensity due to increased rocket attacks targeting civilians. However, the same study highlights other motivational factors, such as refugees' visits to Ukraine during

Easter and heightened border crossings during peak holiday seasons. Additionally, the significance of real estate perspectives is underscored as a critical determinant in understanding migration dynamics in Ukraine.

The restoration of Ukraine's human capital stands as a primary objective of post-war reconstruction efforts. However, the return of displaced persons to Ukraine or their former places of residence following the cessation of hostilities presents challenges to the socio-economic stability of the state (Yaroshenko et al., 2023). A multiscale examination of the transformative effects of war and displacement on individuals' sense of belonging highlights the significant role of managing IDPs in shaping new patterns of social integration or alienation (Sereda, 2023). IDPs navigate multidimensional and intricate connections between their past, current residence, and prospects for reintegration upon returning home.

Therefore, investigating the population's expectations regarding the ongoing development and reconstruction of territories affected by occupation, hostilities, and various forms of uricide and ecocide becomes crucial. For instance, the survey 'Kherson in the future: what Kherson residents think about the city's recovery,' conducted by the Kherson Community Foundation 'Zakhyst' (Homanyuk & Danylenko, 2023), revealed the following expectations of the community residents concerning the recovery of their native city and region:

1. The majority of Kherson residents (60%) envision a different city in the future, with 71% favouring the idea of creating a fundamentally new city over restoring it to its pre-war state. Respondents emphasized the importance of preserving the historical character of Kherson alongside the development of a new, flourishing city. However, one-third of respondents believe that the post-reconstruction city will resemble its pre-war counterpart. Despite challenges, 88% of respondents remain optimistic, believing that Kherson will improve after restoration, particularly among those currently residing in the city.
2. Kherson residents prioritize the development of tourism, recreation, and industry for the city's future. A significant majority (88%) expresses the need for more green spaces, advocating for the creation of new parks and squares, even in industrial and abandoned areas. Additionally, 99% emphasize the importance of the reconstruction of the Antonovsky Bridge, highlighting its crucial role in restoring mobility and transport accessibility in the region. The unanimous support underscores the bridge's significance for the demographic recovery of communities in the left-bank part of the Kherson region.
3. Residents currently outside Kherson lean towards supporting the reconstruction of a 'new city' by a margin of 10%. This disparity between expectations and reality may significantly influence the motivational context and migration attitudes of this population cohort regarding their potential return to the city.

Local cases of de-occupied communities: expected trends and unexpected results of migration processes

The rapid occupation of the southern and eastern regions of Ukraine in 2022 was accompanied by various forms of physical violence, economic expansion, and social pressure. Occupation uricide (Malchykova & Pylypenko, 2022) demonstrated a specific violent policy with direct and indirect destructive consequences, reshaping the physical, spatial, and social structure of settlements as well as regional identity.

Occupation tactics, including physical threats, abductions, and persecution, were employed to impose a new social, political, and informational landscape under the guise of 'denazification' (Wolfe et al., 2023). Russian occupation envisages changes in the cultural, political, social, and linguistic landscapes of the regions. However, the experience of the occupied Donetsk region after 2014 has shown (Gnatiuk et al., 2022) that it was the invasion of the Russians into the eastern regions of the country that prompted the rethinking and rediscovery of regional identity.

Local cases of de-occupied communities in the Kherson region reveal that, despite pressure from occupying forces, there has been an increase in active citizenship, national consciousness, and regional identity. A failed attempt to impose control over emotions ('occupation of feelings') (Shalhoub-Kevorkian, 2017), intimidation, and physical violence ultimately resulted in severe post-occupation uricide. Nonetheless, specific instances of migration processes at the local level demonstrate a return of the population to de-occupied territories, despite the ongoing military aggression, the horrific consequences of the dam explosion at the Kakhovka reservoir (Pylypenko & Malchykova, 2023), and proximity to the front line.

Case of the Velyka Oleksandrivka Territorial Community

Russia's military aggression within the borders of the Velyka Oleksandrivka territorial community caused large-scale destruction of housing and infrastructure, significant human casualties, and extensive social losses. The scale of the damage caused by the war within the territory of the Velyka Oleksandrivka community was unprecedented, as the front line traversed the community's territory for an extended period, with vital transport hubs and infrastructure facilities located within it. In total, 1793 objects in 18 settlements were damaged within the community, including 1554 private residential buildings, 84 apartment buildings, and 155 objects of communal, social, transport, and industrial infrastructure (Ostapenko & Malchykova, 2023b). Among the affected objects were healthcare institutions, social service centres, preschool education institutions, schools, art and sports schools, cultural centres and libraries, a post office, a printing house, the National History and Local History Museum, etc.

Almost a third (32.9%) of the damaged objects are located in Velyka Oleksandrivka, the administrative centre of the community. Velyka Oleksandrivka bore the brunt of the damage, experiencing extensive destruction not only of private residences but also of multi-apartment buildings and critical infrastructure, particularly social facilities. When analysing the concentration of damage to residential objects (on average for the settlements that were destroyed, these are 17 objects per 100 residents of the existing population as of 09.01.23), settlements like Tverdodomedove (44 damaged objects/100 residents), Davydiv Brid (42 damaged objects/100 residents), Trifonivka (41 damaged objects/100 residents), Starosillya, and Chkalove (39 and 37 damaged objects/100 residents) stood out with the highest proportion of damaged objects per 100 residents. In total, 90% of damaged objects are concentrated in 8 out of 18 settlements of the community, namely Velyka Oleksandrivka, Davydiv Brid, Starosillia, Trifonivka, Chkalove, Bila Krynytsia, Mala Oleksandrivka, and Tverdodomedove.

In general, the repercussions of the war have encompassed not only the destruction and impairment of infrastructure, production facilities, and public institutions but, above all, the loss of human capital. The full-scale invasion and the intensity of hostilities within the territory of the Great Oleksandrivka community led to a significant reduction in the population, with the total decrease reaching almost 40% as of April 1, 2023. Moreover, four settlements have already witnessed a complete loss of population (the village of Zaporizhzhia, in addition to the villages of Vesele, Krynychanka, and Nova Kaluga Druha). One of the outcomes has been an increase in population

concentration in the most populous settlements of the community, despite an overall decline in population across all settlements. Consequently, the share of the population residing in the top three settlements increased from 55.12% to 59.64%, and the share of the population residing in the top five settlements increased from 65.63% to 69.37%, or nearly 70%. As of September 1, 2023, the population density stands at almost 13 people per square kilometre, with the average population of a settlement being 370 people.

The war and population displacement have hurt the age and gender structure of the population. The most significant threat to post-war reconstruction and recovery is the skewed age structure of the population. In general, the proportion of children and adolescents in the community is 17.7%, while those of working age account for 49.5%, and individuals older than working age constitute 32.8%. In 12 settlements with populations of up to 200 people, the proportion of individuals over working age ranges from 45% to 85%. Additionally, in 16 out of 31 settlements, there are no children aged 0-2 years. These demographic indicators, combined with the absence of children in certain settlements, underscore crisis trends and a limited capacity to replenish the population.

However, in 2023, certain positive trends can be observed in the demographic situation of the Velyka Oleksandrivka community, despite large-scale destruction and a challenging security situation. While in April 2023, the population of the community was only 60% of the pre-war population, by September 2023, it had already risen to 68.3%. During this period, the population of the community increased by 1,337 people. Remarkably, in some settlements, including those that endured significant destruction, the population growth from April to September 2023 ranged from 16% to 22% (these are the settlements of Karierne, Davydiv Brid, Dovhove, Tverdome-dove, Bilousove, and Bila Krynytsia).

The case of the Vysokopillia territorial community

The line of contact with the aggressor's troops traversed the territory of the community, resulting in substantial losses in both territory and population. The community experienced significant devastation in housing and infrastructure, as well as demographic losses. The scale of damage inflicted by the war within the Vysokopillia community is staggering, with nearly 2,000 damaged objects recorded in the community. This accounts for 12.5% of the total number of registered damages in the de-occupied territories of the Kherson region. Notably, a railway passes through the territory of the community, which was the object of increased aggression by the occupiers.

In total, 1,951 objects in 19 settlements were damaged within the community. Destruction was recorded in almost all settlements, except for two villages, one of which was depopulated before the war. Among the damaged properties were 1786 private households, 35 apartment buildings, and 130 objects of communal, social, transport, and industrial infrastructure, including health care facilities, educational institutions, administrative buildings, cultural centres and libraries, bus stations, etc. In particular, 16 primary and secondary medical care facilities, 16 educational institutions, 32 cultural and tourism sector institutions, and 11 administrative facilities were among those damaged (Ostapenko & Malchykova, 2023a).

The settlements of the community, such as Arkhangelske, Knyazivka, and Ivanivka, were among the most heavily affected, with 50% of the damaged objects concentrated in these areas. Arkhangelsk, in particular, bore the brunt of the damage, as one of the offensive lines of the occupiers passed through the settlement, resulting in numerous damages to residential buildings, communal infrastructure, and industrial facilities. In particular, almost all production and service facilities of PJSC 'ArcelorMittal Beryslav' a leading enterprise in Ukraine for limestone production,

were destroyed, operating on the Arkhangelsk limestone deposit. The highest concentration of damage to residential objects, averaging 16 objects per 100 people of the existing population as of September 1, 2023, exceeded 50 per 100 people in villages such as Knyazivka, Potemkyne, Olhyne, Zarichne, Ivanivka, Novopetrivka, and Topolyne.

The territory of the Visokopilya community became one of the main directions for the liberation of the Right Bank part of the Kherson region, resulting in extremely high demographic losses. Thus, the total population decrease amounted to almost 66% as of April 1, 2023. As of April 1, 2023, 18 out of 22 settlements in the community had less than 50% of the pre-war population, with 11 of them having a population share of 30% or less. As of September 1, 2023, the population density was 11 people per km², and the average population of the settlement was 268 people. The significant deformation of the age structure is also evident, with children and adolescents in the community comprising 15.8% on average, the working-age population at 53%, and those older than working age at 31%. Additionally, in 6 settlements out of 21, there are no children aged 0-2 years, which, together with the above demographic indicators, demonstrates crisis trends and low capacity for population restoration. Indeed, the situation described indicates not only the direct losses of human capital but also demographic losses resulting from military actions. The full extent of these losses remains challenging to assess comprehensively.

However, despite the large-scale destruction and challenging security situation, positive demographic trends are observed in the Visokopillia community. In April 2023, the population of the community was only 34% of the pre-war population; by September 2023, it had increased to 51%, with demographic growth ranging from 10% to 25% in 12 settlements from April to September 2023. Concurrently, settlements such as Knyazivka, Visokopillya, Novovoznesenske, and Marine experienced population growth exceeding 20%. This means that the presence or absence of war damage does not significantly affect the dynamics of return or non-return and overall demographic losses.

The situation gives rise to a discussion on the factors influencing people's migration attitudes regarding return and post-war reconstruction. Rational choices will play a role, but psychological and emotional components, along with identity strengthening and regional belonging, may be primary determinants.

Conclusion

The war and forced population migration have led to abnormal demographic patterns in Ukraine at various levels.

At the national level, there are catastrophic demographic losses due to refugees, deaths, and natural reduction (in fact, depopulation), caused by the lowest birth rates and the highest mortality rates in the history of independence. Approximately 15% of the population has left the country, while nearly 25% have been forced to relocate within Ukraine or to another country; in fact, it is every fourth citizen of Ukraine.

At the regional level, there is a regional redistribution of the population and a shift in the population centre of Ukraine, with the internal movement of about 10% of the country's population to safer western and central regions of Ukraine. This has led to a rapid increase in the relative demographic importance of these regions and unpredictable consequences for further regional development.

In the local context, migration activity is influenced by numerous factors, including psychological and emotional components, the strengthening of identity and regional belonging, and rational choices and decisions. The migration processes of de-occupied communities highlight both expected and unexpected results:

- significant demographic losses comprising more than 50% of the population, with some settlements experiencing complete depopulation;
- increased population concentration in larger settlements, despite overall population reduction;
- deformed gender and age structure with a catastrophic decrease in the share of children and adolescents and an increase in the share of people older than working age;
- the presence or absence of damage caused by hostilities does not significantly affect the dynamics of the return or non-return of people or overall demographic losses within communities. Larger settlements, even with significant damage, show better population recovery after de-occupation.
- small settlements (with a population of less than 200 people) with minimal or no destruction due to hostilities tend to show worse population recovery trends compared to more affected settlements, often experiencing low or zero population growth.

This situation threatens to exacerbate regional and local disparities, leading to the depopulation of smaller settlements and challenges in restoring or establishing new social and infrastructure services. However, it also prompts discussions about the factors influencing people's migration attitudes in the context of post-war reconstruction and return.

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