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Ukraine: The Demographic Cost Of War

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Abstract

Population losses are the most severe of all those suffered by Ukraine in the war. History shows that occupied territories are eventually returned, destroyed infrastructure and settlements are rebuilt, natural resources are restored, and in time the economy resumes and grows. Only human losses are irreparable. The paper provides insights into challenges related to the demographic losses caused by the war, and attempts to answer two major questions: what are Ukraine's demographic losses caused by the war, and how we can separate the impact of the war from general trends in natural population movement and emigration.

Keywords

Population, demographic, war, Ukraine, migration, birth rate, mortality, depopulation

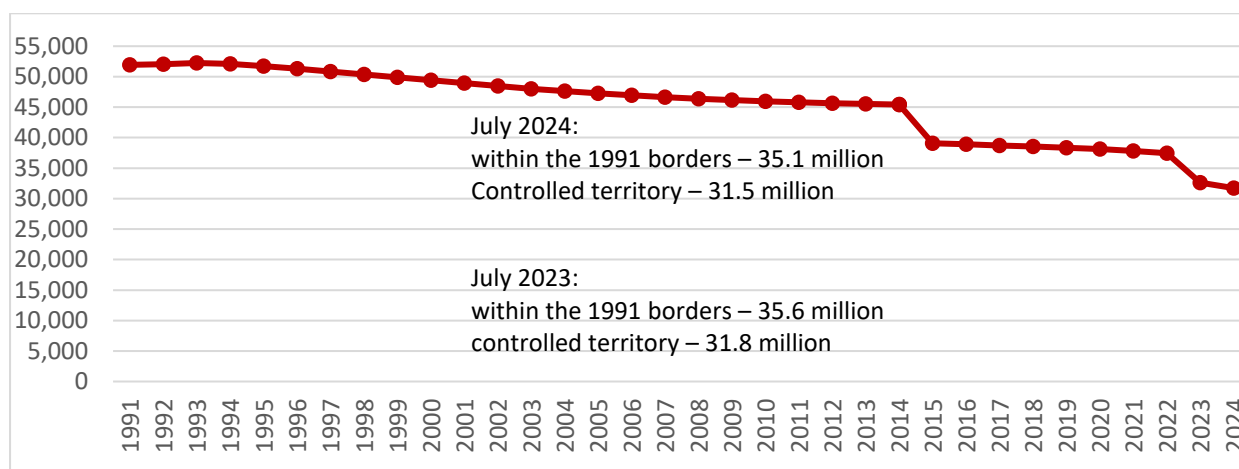
Introduction

Population losses are the most severe of all those suffered by Ukraine in the war. Historical experience shows that occupied territories are returned in one way or another, destroyed infrastructure and even entire settlements are rebuilt, natural resources are restored, and sooner or later the economy begins to function and grow. Only human losses — the dead, the unborn, and the emigrants who did not return — are irreparable. Without even mentioning the absolute value of each life, it is worth emphasizing that it is people who are the foundation of existence and the driving force behind the development of any country. So what are Ukraine's demographic losses caused by the war? How can we separate the impact of the war from general trends in natural population movement and emigration?

Changes In The Size And Sex-Age Composition Of The Population

The process of demographic aging that began in Ukraine in the 1960s naturally led to depopulation several decades later, and in 1991, for the first time since World War II, the number of deaths exceeded the number of births. Over the course of two years, this was offset by a powerful influx of migrants caused by the collapse of the USSR and the desire of a significant portion of the population of other republics (primarily Central Asian and Caucasian) with Ukrainian roots to move to Ukraine. Thus, the natural population decline in 1991-1992 (by 39,000 and 100,000 people) was offset by migration (the net external migration was 124,000 and 263,000 people, respectively). However, since 1993, the so-called ethnic migration resource has been exhausted, and since then Ukraine has seen a steady decline in population. There are many reasons for such prolonged depopulation: low birth rates, which not only fail to compensate for mortality but also cause aging; high mortality rates, especially among men of working age, and finally, the mass exodus of Ukrainians abroad in search of decent wages and a better life in general, combined with the transformation of temporary labour migration into permanent migration. As a result, between 1993 and 2013, the total population of Ukraine decreased by 6.8 million people (from 52.2 to 35.4 million), i.e., on average, the annual decrease was about 620,000 people (Fig. 1).

Fig. 1. Population of Ukraine, million people at the beginning of the year.



Source: 1991-2021 – State Statistics Service of Ukraine, 2022-2024 – Mykhailo Ptukha Institute for Demography and Quality of Life Studies of the National Academy of Sciences of Ukraine

In 2014, this undoubtedly negative trend, which is common to many developed countries, was compounded by the catastrophic impact of Russia's annexation of Crimea and parts of Donetsk and Luhansk regions. As a result, the population decreased by 6.4 million people in that year alone. Over the next seven years, despite the increase in mortality due to COVID-19, the scale of depopulation decreased significantly to 230,000 people per year (over seven years, the population of the territory controlled by the legitimate authorities of Ukraine decreased by 1.6 million people)¹. The next catastrophic decline in population occurred in

¹ A significant part of the population of the occupied territories moved to the territory controlled by the legitimate Ukrainian authorities.

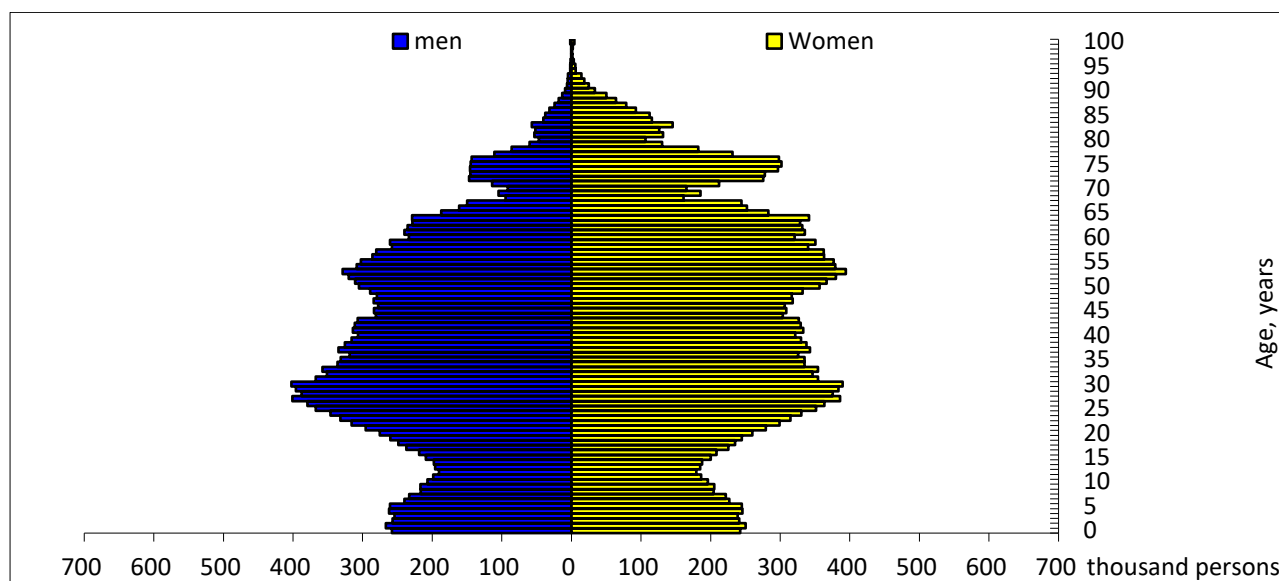
2022 with the start of full-scale aggression by the Russian Federation, accompanied by the annexation of a significant part of southern Ukraine and the departure of millions of Ukrainians abroad in search of safe living conditions for themselves and their children. Over the course of a year, the population of the territory controlled by the legitimate government of Ukraine decreased by 4.8 million people². However, unlike the first phase of the war, the extreme depopulation was not limited to one year – in 2023, the decline amounted to 875,000 people, which significantly exceeded the figures for any other year (except, of course, 2014). The results of dynamic series modelling show that if the trends of 1993-2013 had continued, the population of Ukraine as of January 1, 2024, would have been approximately 41.5 million people, while estimates based on data from three leading mobile operators (Kyivstar, Vodafone, Lifecell) and available departmental registers, give a population of 31.5 million. Thus, the total demographic losses of Ukraine as a result of Russian aggression as of January 1, 2026, are estimated at 10 million people. These losses consist of: an additional decline in the birth rate (number of unborn children), a large-scale increase in mortality (mainly military personnel, but also civilians – direct deaths as a result of shelling, deaths related to deteriorating health, primarily due to constant stress, and the inaccessibility of quality medical care in frontline territories), mass emigration, and the occupation of approximately 20% of Ukraine's territory, where many people have remained for various reasons.

In addition to the overall decline in population, there have been significant changes in the sex and age composition of the population. It should be emphasized that the construction of the sex and age pyramid in Ukraine is associated with the need to overcome a number of information barriers, which, in particular, requires the use of a combination of expert estimates of average life expectancy and total fertility rate with models of their relationship to the sex and age composition of the population. The result is undoubtedly not entirely relevant, but it is as acceptable as possible under the existing conditions. The degree of relevance and, accordingly, the need for adjustments will only become clear after a full census of the population of Ukraine, which will be possible no earlier than 2-3 years after the end of the war (or, at least, its hot phase) and the stabilization of the places of residence of most Ukrainians.

The above-trend decline in fertility and the increase in mortality, mainly among men of mobilization age, as well as the departure of young women with children and adolescents, have led to a significant increase in demographic aging, the level of which was already very high in Ukraine (Fig. 2). A new narrowing of the sex-age pyramid has also formed, associated with the decline in fertility in 2022-2023 (Fig. 3).

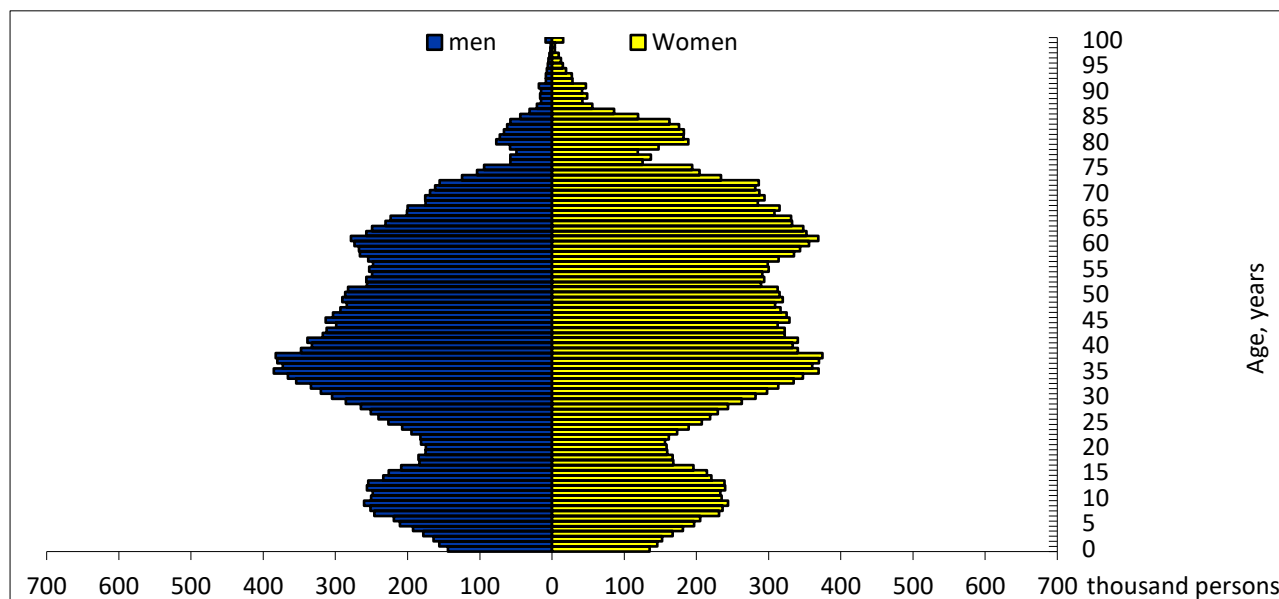
Fig. 2. Sex and age composition of the population, 2014.

² The main factors were external migration and the occupation of parts of the Kherson and Zaporizhzhya regions.



Source: State Statistics Service of Ukraine, Mykhailo Ptukha Institute for Demography and Quality of Life Studies of the National Academy of Sciences of Ukraine

Fig. 3. Gender and age composition of the population, 2023.



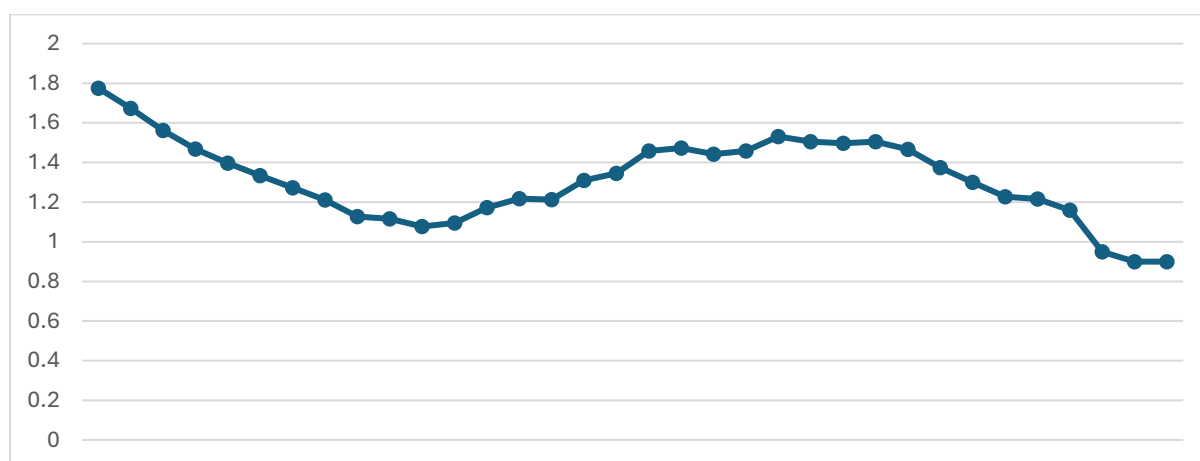
Source: Mykhailo Ptukha Institute for Demography and Quality of Life Studies, National Academy of Sciences of Ukraine

Birth Rate

A decline in fertility to a level that does not even ensure simple population replacement has been observed in Ukraine since the 1960s, initially among the urban population and, since 1993, among rural residents as well. Overall, the total fertility rate fell from 1.8 in 1991 to 1.5 in 2013, 1.2 in 2021, and 0.9 in 2023-2024. The dynamics of the total fertility rate during wartime is due to a very contradictory combination of factors: the danger of living in most of

Ukraine, the decline in the standard of living and quality of life, uncertainty about the future, the actual breakup of families on the one hand, and the birth of a third child to avoid mobilization on the other. At least the proportion of firstborns among newborns, according to calculations made by the Public Health Centre of the Ministry of Health of Ukraine, has decreased during the war from 42.6% in 2020 to 38.8% in 2024³. It is currently difficult to predict the dynamics of the total fertility rate in post-war Ukraine, but most likely, after the end of the hot phase of the war, this indicator will gradually increase to 1.5-1.6. A higher level is possible if a bunch of incentives are put in place: child benefits, more preschools, flexible work schedules, including remote work, etc. But in any case, a noticeable impact on overcoming depopulation trends is only possible with a total fertility rate of 2.5-2.6, which seems completely unattainable in the medium term.

Fig. 4. Total fertility rate.



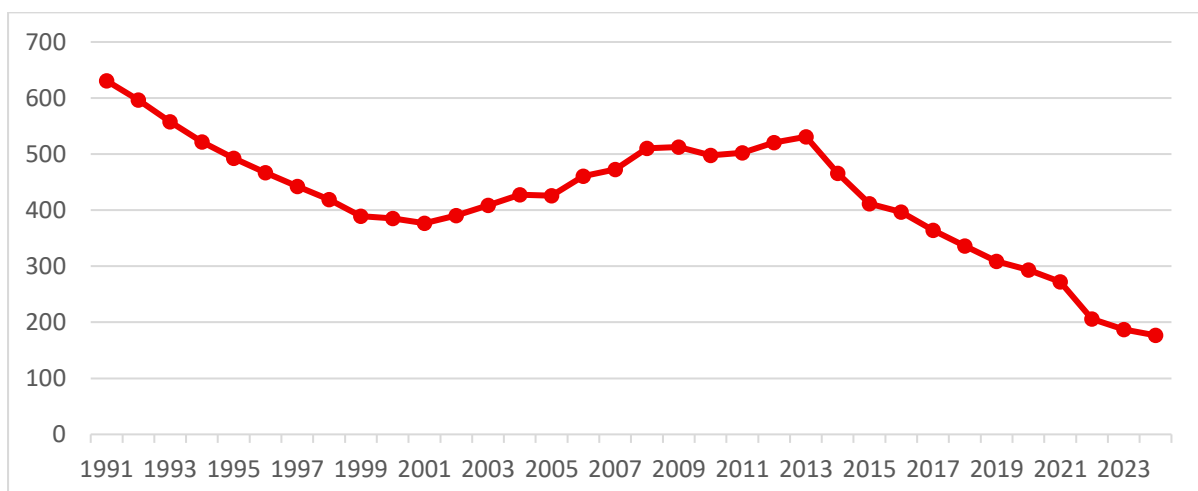
Source: 1991-2021 – State Statistics Service of Ukraine, 2022-2024 – Mykhailo Ptukha Institute of Demography and Quality of Life Studies of the National Academy of Sciences of Ukraine

Given the rapid decline in the population of reproductive age, it is natural that the number of newborns in Ukraine has been steadily declining since 2013⁴. While 630,800 children were born in Ukraine in 1991, only 503,700 were born in 2013, 272,000 in 2021, and 176,700 in 2024, according to estimates by the Mykhailo Ptukha Institute for Demography and Quality of Life Studies of the National Academy of Sciences of Ukraine. Most likely, the decline in the number of births would have occurred even without the war, but a decrease of almost 70,000 in just one year will affect the age structure of the population for a long period of time, meaning that we will inevitably see more than one echo of the Russian-Ukrainian war, similar to those reflected in the current sex and age pyramid of Ukraine's population due to the Holodomor of 1933-1934, World War II, the socio-economic problems of the 1990s, etc.

Fig. 5. Number of newborns, thousands.

³ <https://phc.org.ua/monitoring-i-statistika/meddata>

⁴ Russia's temporary occupation of Crimea and parts of Donetsk and Luhansk regions took place in 2014



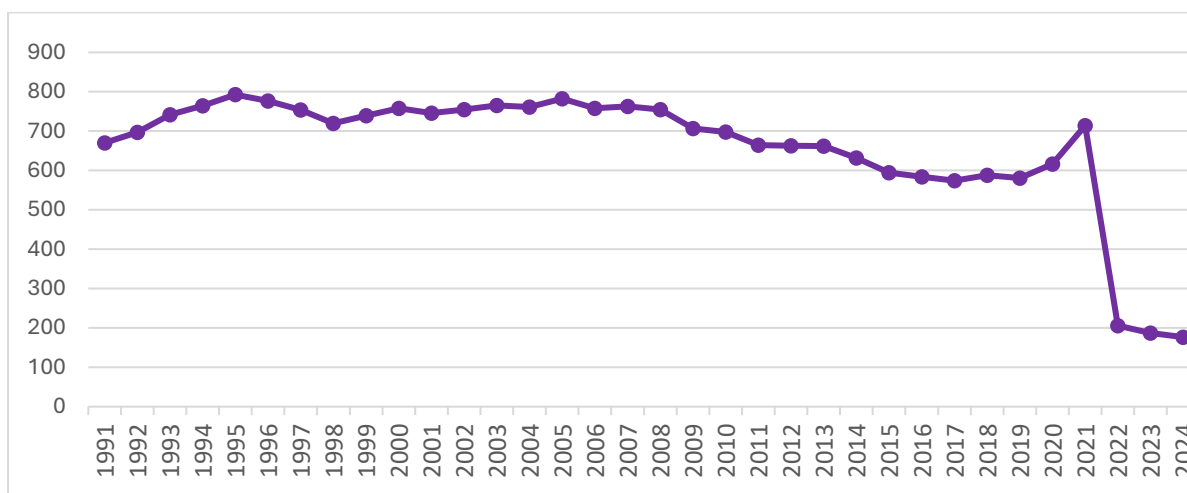
Source: 1991-2021 – State Statistics Service of Ukraine, 2022-2024 – Mykhailo Ptukha Institute of Demography and Quality of Life Studies of the National Academy of Sciences of Ukraine

Mortality

The war has undoubtedly affected the mortality rate of the Ukrainian population. Although the gender gap in average life expectancy (for example, 10.1 years in 2019, the most prosperous year in terms of mortality) significantly exceeded European counterparts, and the probability of death for men aged 20-64 in the same year reached 32.1%, the war has made additional adjustments. At present, we do not know the total number and, even more so, the gender and age distribution of those killed at the front, nor do we know the number of above-trend deaths among the civilian population, so we cannot measure these additional losses, either in terms of a decrease in average life expectancy, an increase in the probability of death in specific age groups, or an increase in the total number of deaths. We have to limit ourselves to estimates based on indirect data (Fig. 6).

The reduction of several million in the population of the territory controlled by the legitimate Ukrainian authorities was also reflected in a decrease in the number of deaths (among the civilian population). For example, while 581,100 people died in 2019, and 616,800 and 714,300 died in 2020 and 2021, respectively, only 541,300 died in 2022 (Fig. 6). This figure, of course, only applies to some of the deaths this year, and after the war ends, when information about military losses on the front lines becomes available, the dynamic series will take on a different form.

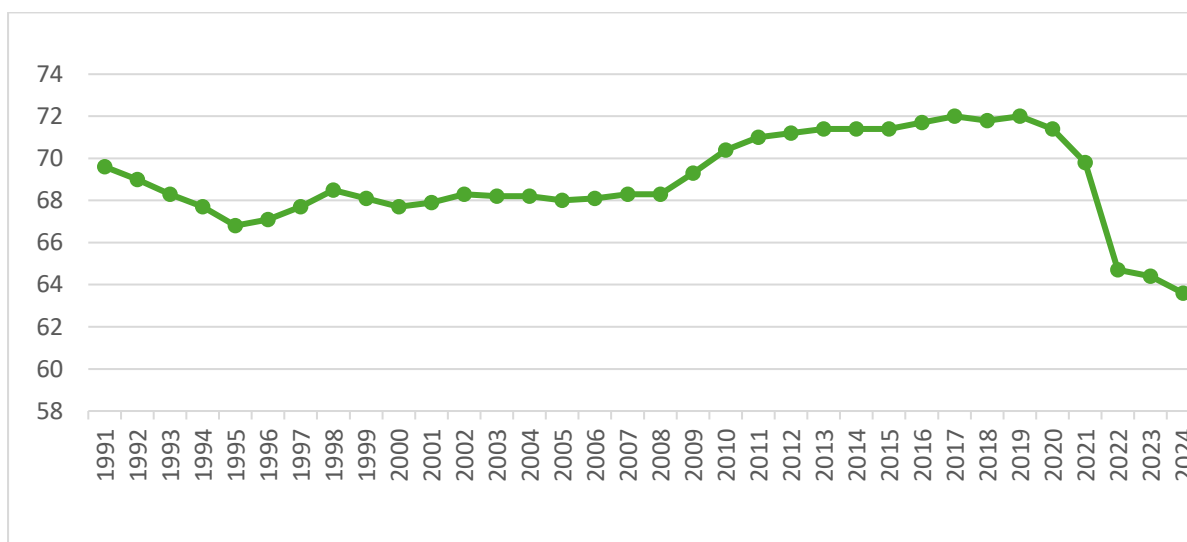
Fig. 6. Number of deaths, thousand people.



Source: 1991-2021 – State Statistics Service of Ukraine, 2022-2024 – Mykhailo Ptukha Institute for Demography and Quality of Life Studies of the National Academy of Sciences of Ukraine

More relevant are estimates of mortality dynamics using average life expectancy, based on expert estimates of civilian mortality and additional modelling using information on military casualties at the front obtained from open sources. The most rapid decline in life expectancy occurred in 2022, when densely populated areas of Kyiv, Kharkiv, Chernihiv, and Sumy regions and the fairly large city of Kherson were captured and then recaptured. It was then that the greatest losses were observed – those killed by the aggressor and those who died prematurely due to the exacerbation of diseases as a result of excessive stress and the inability to receive timely medical care.

Fig. 7. Average life expectancy of the Ukrainian population, both sexes, years.



Source: 1991-2021 – State Statistics Service of Ukraine, 2022-2024 – Mykhailo Ptukha Institute for Demography and Quality of Life Studies of the National Academy of Sciences of Ukraine

In general, it is possible to predict what the adjustments to the mortality parameters of the Ukrainian population will be after receiving data on military casualties, not only in terms of numbers, but also in terms of gender and age distribution.

The second necessary condition for obtaining complete information on natural movement during and as a result of the war is the availability of relevant data on the gender and age composition of the population. Estimates, eliminated from structural influences (total fertility rate, average life expectancy, probability of dying at a certain age, etc.), are based on the corresponding age-specific fertility and mortality rates. Unfortunately, information gaps related to the excessively long period that has passed since the last census (2001), the inability to record certain processes in temporarily occupied and frontline territories, and, ultimately, a manifold increase in population displacement, make it impossible to calculate the sex and age composition of the population using the classic method of age group movement. This, in turn, necessitates the use of expert estimates to calculate these indicators, and only then to develop sex and age structures using models.

Migration

The main driver of demographic dynamics in Ukraine over several decades, including the war period, is external migration. The scale of the outflow of population abroad exceeds the natural decline many times over.

In general, Ukraine has been a donor of population and labour for several centuries: initially, it was the departure of residents of territories that were part of Austria-Hungary and/or Poland to the New World in search of a better life, and those who were part of the Russian Empire to Siberia; after the formation of the USSR, it was Ukrainians who played a significant role in the "conquest of the virgin lands," the construction of Komsomolsk-on-Amur, the Baikal-Amur Mainline, etc., and it was Moscow that attracted the most promising and intelligent young people, engineers, scientists, and managers with its opportunities. Yes, a certain part, especially those who worked in difficult conditions, for example, in the North, returned after reaching retirement age, and the total population sometimes even increased, but at the same time, migration constantly exacerbated the aging of the population. After the collapse of the USSR and the lifting of the Iron Curtain, Ukrainians began to leave not only for Russia but also for other countries, and Poland gradually took over as the centre of gravity for migrants. Since a significant proportion of labour migrants to virtually all countries were not registered, we do not have an accurate estimate of their numbers, but the range is estimated at 1.5-3.0 million people before the start of the COVID-19 pandemic⁵.

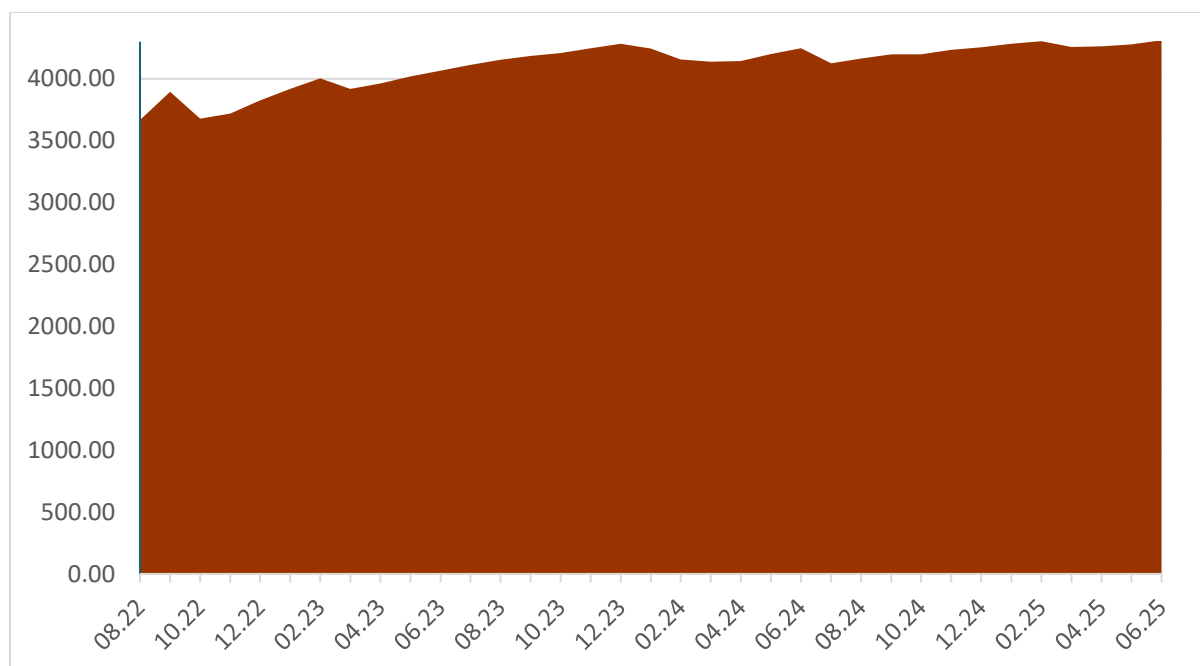
The situation changed radically on February 24, 2022, when hundreds of thousands of Ukrainians rushed to seek safety in economically developed countries, primarily Poland. In

⁵ People left to work on work or tourist visas, and after the introduction of a visa-free regime, for three months, after which they either became illegal immigrants or obtained a residence permit. The next step was for some migrants to obtain citizenship of their country of residence (illegal under Ukrainian law until 2025, but currently legal in Germany, Poland, the Czech Republic, Canada, and the United States). For various reasons, these movements were not recorded in Ukrainian statistics.

just the first two weeks, more than 1.5 million people left Ukraine across the borders with Moldova, Poland, Romania, Slovakia, and Hungary⁶.

The dynamics of the number of Ukrainian war migrants in EU countries indicate that the process has stabilised – at least over the last 12 months (from 30 June 2024 to 30 June 2025), it has fluctuated between 4.2 and 4.3 million people⁷. In total, outside Ukraine (including non-EU countries such as the UK, Canada, the US, *etc.*, but excluding Russia and Belarus), there were 5,115,100 people as of July 31, 2025⁸.

Fig. 6. Number of Ukrainian war migrants in EU countries at the end of the month, thousand persons⁹.



Source:

https://ec.europa.eu/eurostat/databrowser/view/migr_asytpsm_custom_10559172/default/table?lang=en

As of June 30, 2025, the largest number of Ukrainian war migrants are concentrated in Germany (1,196,600), Poland (992,500), the Czech Republic (378,400), and Spain (239,900), accounting for more than 65% of the total number¹⁰. After a fairly long period of redistribution of Ukrainian war migrants among EU countries and their predominant concentration in countries where it is easier to find a decent job and/or obtain permanent resident status, where the amount of assistance and wages are higher, and wages, particularly in jobs that do not require qualifications and are most often available to immigrants, where it is easier to

⁶ <https://www.facebook.com/zahidnuy.kordon>

⁷ https://ec.europa.eu/eurostat/databrowser/view/migr_asytpsm_custom_10559172/default/table?lang=en

⁸ <https://data2.unhcr.org/en/situations/ukraine>

⁹ Germany began publishing information on the number of Ukrainian military migrants only in August 2022, and accordingly, aggregate data for the EU is only available from that period onwards.

¹⁰

https://ec.europa.eu/eurostat/databrowser/view/migr_asytpsm_custom_10559172/default/table?lang=en

learn the language, where the Ukrainian diaspora is stronger, etc., the number of this contingent in countries neighbouring Ukraine, particularly Poland, began to increase again. It should be emphasized that a person who has obtained a permanent residence permit loses the right to temporary protection and is accordingly removed from the register, and therefore the actual number of Ukrainian migrants who have left due to the war in neighbouring countries is slightly higher. It is important to note that the concentration of migrants in countries that are more developed, more affluent, and more geographically distant from Ukraine reduces the likelihood of their return, as clearly demonstrated by the experience of re-emigration during COVID-19, when our citizens returned almost exclusively from Poland.

It is clear that the most significant threat to the preservation of Ukraine's population and, accordingly, to meeting the needs of the post-war economy for labour is the large-scale outflow of young people. In this context, the forced departure of 1,327,900 children and adolescents from Ukraine (Table 1) is a cause for concern. For various reasons, children and young people (up to 35 years of age) At the same time, the greater concentration of young people in Poland offers certain chances for a larger number of young people to return to Ukraine than if they were concentrated in Germany or Spain.

Table 1. Persons with refugee and/or temporary protection status in EU countries, by age and gender, as of June 30, 2025.

		Under 18	including 14-17 years old	Up to 35	including 18-34 years old	35-64	65 years and older	Total	Share in total population
EU countries as a whole	Both sexes, thousand persons	1,327.9	342.1	2,465.2	1,137.3	1,573.4	273.3	4,311.9	100.0
	Men, thousand persons	678.0	196.0	1,133.7	455.7	511	76.7	1,721.4	39.9
	Women, thousand persons	629.3	145.9	1,310.5	681.2	1,061.7	196.4	2,568.6	59.6
Germany	Both sexes, thousand persons	326.8	92.8	615.7	288.9	474.8	106.2	1196.7	100.0
	Men, thousand persons	169.6	49.5	296.4	126.8	166.2	39.0	501.6	41.9
	Women, thousand persons	156.6	43.1	318.1	161.5	308.0	75.0	701.1	58.6
Poland	Both sexes, thousand persons	452.9	113.1	688.8	235.9	269.7	34.0	992.5	100.0
	Men, thousand persons	244.7	72.2	319.9	75.2	69.1	7.5	396.5	39.9

	Women, thousand persons	208.2	41	368.9	160.7	200.7	26.5	596.1	60.1
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Calculated based on data from:

https://ec.europa.eu/eurostat/databrowser/view/migr_asytpsm_custom_10559172/default/table?lang=en
and <https://data2.unhcr.org/en/situations/ukraine>

In general, the gender and age composition of Ukrainian war migrants has clearly defined characteristics in almost every country of temporary refuge (Table 2). Firstly, the exceptionally high concentration of children and young people in Poland is striking – the share of people under 35 years of age accounts for 69.5% of all Ukrainian war migrants, while, for example, in Germany this figure is 51.4% and in Italy – 52.1%. And while in Italy this is largely due to the peculiarities of labour migration, in particular the traditionally high employment of older Ukrainian women in domestic work¹¹, the situation in Germany requires separate research. Presumably, the peculiarities of social policy, in particular support for the disabled and medical care, are having an impact. People of working age (35-64 years) make up a significantly higher proportion of Ukrainian war migrants in Germany (39.7%) and the Czech Republic (40.2%), while in Poland this figure is 27.0%. The variation in the proportion of migrants aged 65+ is significant but fairly similar: from 3.4% in Poland to 8.5% in Germany and 9.5% in Italy.

Table 2. Gender and age structure of Ukrainian war migrants in EU countries, %, as of July 31, 2025.

EU countries that have taken in the most migrants from Ukraine	Share of Ukrainian migrants in the country/group of countries in their total number in EU countries	Share of individual age groups among Ukrainian migrants in the country				Share of men
		0-17	18-34	35-64	65+	
EU-27	100	30.8	26.4	36.4	6.3	40.5
Germany	27.7	27.2	24.2	39.7	8.5	41.3
Poland	22.9	45.8	23.7	27	3.4	40
Czech Republic	8.8	22.9	32.3	40.2	4.7	43.4
Spain	5.6	29.5	28.0	36.6	5.9	40.9
Romania	4.4	27	32	36.0	4.9	49.3
Italy	3.9	29.1	23	38.4	9.5	29.9
Slovakia	3.1	27.3	29.5	38.1	5	36.8
Netherlands	2.9	25.5	31.5	38.7	4.3	40.6
Ireland	2.6	30.8	26.3	38.7	7	41.5
Total for 9 countries	81.9	32.2	26.1	35.6	6	40.8

Calculated based on data from:

https://ec.europa.eu/eurostat/databrowser/view/migr_asytpsm_custom_10559172/default/table?lang=en
and <https://data2.unhcr.org/en/situations/ukraine>

A common belief in society (Ukrainian and beyond) is that there is an excessively high proportion of men, especially those of military age, among Ukrainian war migrants, which

¹¹ The specific nature of employment in the federal states is also reflected in the labor orientations and employment structure of military migrants.

supports the hypothesis of mass evasion of mobilization. In fact, only among children and adolescents do young men predominate (52.6%), which is explained by the objective sex ratio of newborns. Among persons aged 18-34, men account for 40.1%, aged 35-64 – 22.5%, aged 65+ – 28.1%. It should be emphasized that some of the men aged 18-21 (i.e., from the 18-34 age group) left Ukraine before reaching the age of 18. And it is precisely the desire for justice that explains the decision to allow young men aged 18-22 to leave Ukraine freely. It should not be ignored that some Ukrainian military migrants came to the EU from temporarily occupied territories or even from Russia, where quite a large number of Ukrainian citizens lived (in particular, this applies to Tyumen, where oil workers were traditionally trained en masse at the Ivano-Frankivsk National Technical University of Oil and Gas, founded in 1967). However, the traditional characteristics of Ukrainian migrants' employment, particularly in terms of industry, are evident in every country (Table 2).

It can be stated that there has been at least a twofold increase in migration losses of the economically active population compared to the pre-war period, i.e., currently, almost 20% of 18-64-year-old residents of territories controlled by the Ukrainian authorities are abroad¹². During the same period, more than 2.1 million children and adolescents left Ukraine, and less than 5.5 million live in the territory controlled by the legitimate Ukrainian authorities. Of course, such changes in the age structure of the population cannot be overestimated, especially given the prospects for reproductive and economic activity, and thus the demographic and labour balance of Ukraine.

The prospects for the return of war migrants, especially those abroad, are directly related to the length of their stay in another country, which, in turn, is a function of the duration of the so-called "hot phase of the war" — the longer it lasts, the more destruction there is in Ukraine, and, accordingly, the more families lose the opportunity to have housing and work. On the other hand, more and more migrants find work abroad and generally adapt to life there. The destruction in Ukraine increases, and accordingly, more and more families lose the opportunity to have housing and work, and on the other hand, more and more migrants find work abroad and generally adapt to a new life in a new society.

Determining the current and future losses of Ukraine's population due to external migration caused by the war requires proper consideration of the fact that 70% of Ukrainian women have higher education. Without overestimating the significance of quantitative parameters of education, it is worth considering the skills of acquiring new information, analysis, assessment of prospects, formulation of one's own position, communication, etc., which are more or less related to education. In addition, women who were not afraid to take responsibility for their own fate and that of their children, who were willing to take risks in seeking work in another country, who were able to learn another language and adapt to different living conditions, including communication, were more likely to go abroad. More than half of these women are already working, and a small number have started their own businesses. In total, about 260,000 unemployed Ukrainian war migrants over the age of 25 are registered in EU countries each month. Considering the number of people of this age, this is not a large number.

¹² Taking into account labor migrants

However, not all of them work in their field of expertise, profession, level of education, or, ultimately, their usual social status. Although job satisfaction, earnings, and the assessment of their prospects on the Ukrainian labour market are important, the availability of work in the country of temporary residence does not encourage them to return. It is obvious that the likely mass non-return of Ukrainian migrants working abroad will cause enormous damage to Ukraine's human capital.

Another risk is associated with the likelihood of a so-called second wave of war migration: if living conditions, primarily security, decent work, and housing, prevent female war migrants from returning, a significant portion of their husbands will leave Ukraine after the martial law is lifted and the ban on leaving Ukraine without valid reasons is lifted, i.e., families will reunite, but not in Ukraine. The risk is exacerbated by the fact that men usually have at least the same level of education as their wives, and the age of modern spouses is approximately the same. Of course, not all of the more than 1 million young (18-34-year-old) women will be joined by their husbands, but the additional departure of even 300,000 young men with higher education will be a significant component of Ukraine's demographic, social, and economic losses.

It should be emphasized that the decision to return will ultimately be made based on a comparison of the standard of living and quality of life in Ukraine and abroad, taking into account not only the current situation, but also the prospects—real or imagined—for one's own life and the lives (education, career, income, etc.) of one's children.

What factors encourage migrants to return to Ukraine? Although many women have found work, in most cases their qualifications significantly exceed those required for the jobs they have obtained; a significant proportion have had to change profession; most have lost the social status they had in Ukraine; there are problems with communication with the local population and social adaptation, even in cases where they know the language of the host country; the level of support is gradually decreasing (in some cases, the amount of financial assistance or compensation for the cost of rented housing is being reduced, and in some cases the conditions for receiving assistance are becoming more stringent), and it is expected to be abolished in the near future; in quite a few cases, mothers are dissatisfied with the quality of education and the attitude towards their children (not on the part of teachers, but of peers), and children want to return to their friends in Ukraine.

What is preventing a large-scale return of migrants today and, most likely, will prevent it in the future? Quite logically: the danger and certainty of further armed incursions by Russia; the lack of decent work and housing (not only because of its destruction, but also because a significant number of families were forced to live with their parents even before the war); the opportunity to earn significantly more abroad; confidence that, at least for children, life abroad offers significantly better prospects; the presence of a sick person in the family, the cost of medical care for whom is covered by medical insurance abroad, but not in Ukraine; partially justified, but more often unfounded fears of condemnation by those who have remained in Ukraine all this time; difficulties in finding employment due to a long break in work, even a certain marginalization (the grounds for this are quite numerous cases of hostility

towards internal migrants from Donbas after 2014 and the spread of negative attitudes towards today's war migrants on social networks).

Table 3. Main factors influencing the decision of military migrants from Ukraine to return or not to return

Arguments <i>for</i>	Arguments <i>against</i>
Incompatibility of work in the country of temporary residence with social status, profession, qualifications	Danger of living in Ukraine – Current – Expected, due to uncertainty about the possibility of long-term peace with the Russian Federation
Problems communicating with the local population and adapting to society	Lack of decent work and income in Ukraine
Decrease (actual and expected) in the level of support in the country of temporary residence	The lack of housing in Ukraine is due not only to its destruction during the war, but also to forced renting or living with relatives before the war.
Dissatisfaction with the quality of education and the attitude of peers towards migrant children	Confidence in better prospects for children abroad
Having close friends and relatives in Ukraine	Having a chronically ill person in the family who receives free medical care in the country of temporary residence, but not in Ukraine
Possession of property and/or business in Ukraine	Fear – of condemnation/marginalization of war migrants by those who spent the entire war in Ukraine – Responsibility for leaving via the Russian Federation, which is not entirely legal – difficulties in finding employment due to a long break in – mobilization

Source: author's own research

When assessing the chances of military migrants returning, one cannot ignore the differences in the assessment of the situation, the prospects for its change, and their own life prospects between those who remain in Ukraine and military migrants. Those who live in Ukraine all the time sometimes find it very difficult to understand the psychology of those who have left, and vice versa. In fact, there are two different groups with different assessments and forecasts. Military migrants largely do not have access to objective information about the security situation in Ukraine, about destruction, injuries, and deaths among the civilian population — they rely on what is posted on social networks and in the media, which, in pursuit of readers and subscribers, very often do not shy away from sensational headlines (even if they do not correspond to the content of the message) or from focusing exclusively on "hot topics": cases of human deaths, destruction of civilian buildings, etc. To this should be added the widespread dissemination of Russian propaganda aimed at the Russian-speaking population of European

countries. As a result, Ukrainian war migrants are often convinced that it is impossible to return not only to Kharkiv or Odesa, but also to the relatively safe cities of Lviv or Ternopil. These differences in assessments often provoke discrepancies in determining the motives for future migration behaviour, contradictions in the conclusions of experts in Ukraine, and the results of surveys of migrants abroad. In turn, this inevitably affects the understanding of the necessary actions and expectations from central and local authorities, businesses, and local communities in general.

Demographic Prospects

Thus, the expectations for the size and composition of Ukraine's population are as follows.

1. Depopulation, at least in the foreseeable future, is inevitable, and the war has significantly accelerated its pace. Even if all military migrants are returned, the level of demographic aging of Ukraine's population is too high, making even simple generational reproduction impossible. Accordingly, the only way to avoid this undesirable trend is to change the age composition of the population through a large-scale influx of immigrants from other countries, which will create a whole range of problems with their adaptation. Usually, international migration occurs from poorer countries to wealthier ones, which accordingly determines the circle of potential donors for Ukraine. However, it is precisely the post-war situation, in particular the need for large-scale construction of various infrastructure facilities, the prospects for gaining professional experience and career growth, that can create attractive employment conditions for residents of developed countries. In addition, Ukraine's poverty, primarily the limited budget funds, practically excludes the mass arrival of refugees who expect broad social support comparable to that provided by wealthy countries—those who are willing to work will be the first to come to Ukraine. This could become an extremely important source of compensation for the labour shortage.
2. When assessing the prospects and consequences of depopulation, attention should be paid to the decline in population density, especially in certain areas. Even before the war, the population density in Ukraine was not very high – slightly more than 75 people per square kilometre as of January 1, 2014, while in EU countries, as of January 1, 2022, it was 109. Of course, this indicator varies greatly – from 1,646 in Malta and 510 in the Netherlands to 25 in Sweden and 17 in Norway,¹³ but it is not uniform in Ukraine either: 164 people per square kilometre in Donetsk Oblast and 116 people in Lviv Oblast are very different from 33 in Chernihiv Oblast and 37 in Kherson Oblast¹⁴. However, regional differences within the country are not the same as international

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https://ec.europa.eu/eurostat/databrowser/view/tps00003/default/table?lang=en&category=t_demo.t_demo_ind

¹⁴

https://vue.gov.ua/%D0%9D%D0%B0%D1%81%D0%B5%D0%BB%D0%B5%D0%BD%D0%BD%D1%8F_%D0%A3%D0%BA%D1%80%D0%B0%D1%97%D0%BD%D0%B8

diversity. Low population density, all other things being equal, significantly hinders economic development.

3. Unfortunately, qualitative losses in demographic potential also seem inevitable. This is due to a reduction in the number of highly educated people (about 70% of women who have left the country have higher education) and a corresponding decline in the overall level of education of the population, a deterioration in the health of a significant part of Ukrainians due to systematic stress and psychological exhaustion, problems with timely access to quality medical care, at least in the frontline territories, and a decrease in the number of active (not only economically) contingents who were the first to go to the front, risked radically changing their lives by moving to another country, etc.
4. Most likely, mainly due to external migration (only 6% of Ukrainian war migrants are over 65 years old), the aging process will intensify, which in turn will cause additional problems with pensions, healthcare, social security, and increase the burden on the working population (taxes, etc.). Indirect but extremely important losses include a decline in development potential (a decrease in the number of young people means fewer opportunities to acquire new knowledge, new professions, mobility, etc.) and a simultaneous strengthening of paternalistic attitudes, which are more common among older contingents who are objectively more dependent on state social support.

The consequences of the decline in fertility during and as a result of the war will be observed for several more generations, just as the current sex-age pyramid reflects the echoes of the Holodomor of 1933-1934, World War II, the economic collapse of the 1990s, etc. In particular, after a certain period of time, there will be a reduction in the most reproductive population, which threatens to reduce the number of children in subsequent childbearing populations.

Is this assessment of demographic losses final? Definitely not. There may be changes in the territory controlled by the legitimate Ukrainian government, which will be reflected in the size and composition of its population. It is quite likely that some of the residents of the temporarily occupied territories who cooperate with the occupiers will not remain in Ukraine. Some of those who left Ukraine in search of safety will return after the war ends, and the gender and age composition of those who return will be no less, if not more, important. At the same time, if the predictions about a post-war wave of male emigration come true, Ukraine's population will decrease by several hundred more young and middle-aged men. When complete information about those killed at the front becomes available, including data on their age and gender, as well as the number, age, and gender of those killed and died in frontline and temporarily occupied territories, estimates of losses will also increase. One way or another, the reproductive intentions of Ukrainians will be realized. Thus, it is practically impossible to make final estimates today. Accordingly, the outlines of the pyramid and estimates of the population and demographic losses due to the war are also likely to change.

Of course, these forecasts may not come true, as most socio-demographic forecasts do not come true. However, they outline the range of options that should be taken into account in both state policy and the expectations of every Ukrainian.



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