

UKRAINE'S RESILIENCE TO CRISES: HUMAN CAPITAL



AUTHORS:

Oleksandra Kolomiets, Senior Economist at CES

Maksym Samoiliuk, Junior Economist at CES

DATE:

10 February 2022

CONTENTS

1. Demographic threats to human capital	4
1.1. Depopulation	4
1.2. External migration	7
1.3. Population ageing	11
1.4. The government's response to demographic threats	14
2. Increasing labour force resilience to labour market transformations: the role of education	16
2.1. Urgent issues concerning vocational training and the need to modernise higher education	16
2.2. Lifelong learning	18
2.3. Retraining and intersectoral labour mobility	20
2.4. Educational perspectives for human capital development in ukraine	22
3. Labour market sustainability threats.....	25
3.1. Employment structure	25
3.2. Low level of economic activity.....	29
3.3. Informal employment.....	31
3.4. Automation and digitalisation	32
3.5. Policies for Labour market sustainability	33
4. Recommendations on enhancing national resilience in human capital	35
4.1. Socio-demographic policy implementation.....	35
4.2. Education reform	39
4.3. Changes in employment policy.....	42

The Centre for Economic Strategy is an independent research agency on public policy issues. The mission of the CES is to support reforms in Ukraine in order to achieve sustainable economic growth. The Centre contributes to the development of Ukraine's economic growth strategy, performs an independent analysis of the most important aspects of national policy, and works on strengthening public support for reforms. It was established in May 2015

Our principles:

- Economic freedom (liberalization, deregulation, privatization)
- Free and fair competition
- Reducing the role of the state due to improving its effectiveness
- Information transparency and freedom of speech
- The rule of law and the protection of private property
- Healthy and stable public finances
- Knowledge-based economy.

For more information on the CES, please contact Viacheslav Nozdrin, Communications Director (tel.:(044) 492-7970, office@ces.org.ua).

Please visit our website www.ces.org.ua and follow the link on the social media facebook.com/cesukraine or twitter.com/ces_ukraine.

This research was presented by the CES in the framework of the "Get Involved!" Community Engagement Promotion Programme, funded by the United States Agency for International Development (USAID) and implemented by Pact in Ukraine.

The content of the research is the sole responsibility of Pact and its partners and does not necessarily reflect the views of USAID or the US government.

1. DEMOGRAPHIC THREATS TO HUMAN CAPITAL

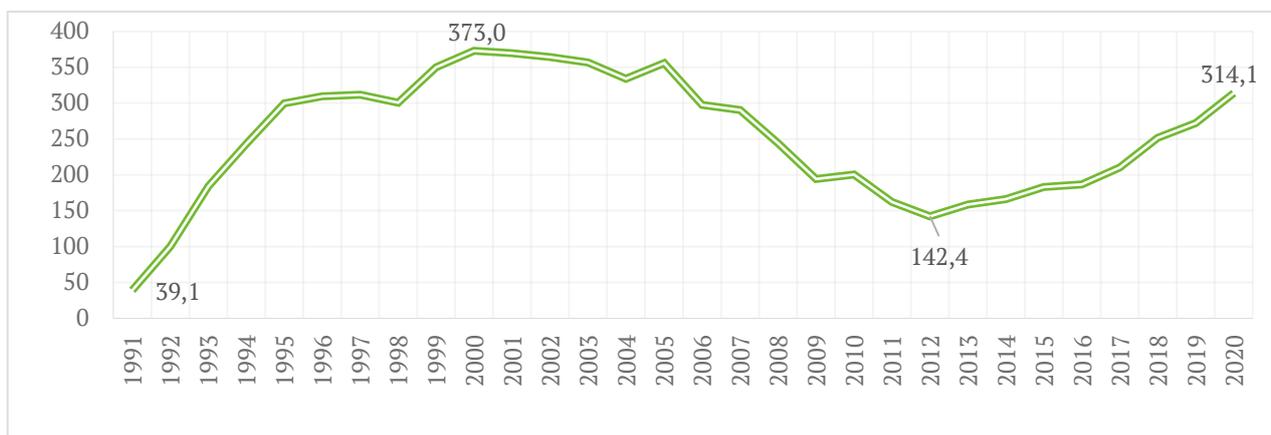
Positive influence on the demographic processes that ensure the physical reproduction of human capital is one of the most challenging tasks for a state. These processes set not only quantitative, but also qualitative (gender and age composition, general wellbeing) limits to the formation of human resources. The natural population change¹ and migration patterns determine the population growth and, at the same time, its age-gender structure. Fertility, mortality and migration rates determine both how many of us there will be and our capacity to achieve a sustainable development path. A population decline per se would be less threatening if it did not lead to changes in the age-gender structure of the population. The low number of children born today will reduce the potential for economic growth and undermine the social insurance and solidarity principle in 20-25 years.

Government policy on the formation and development of human capital should be based on identifying and assessing the threats posed by current demographic development. Although it is important to increase the quality of human resources, it is also necessary to ensure that their quantity is sufficient. Only then will the effectiveness of public investment in human capital be maximised.

1.1. DEPOPULATION

In Ukraine the population has declined from 51.8 million to 41.6 million² between 1991 and 2021, primarily because of a high rate of natural decline. During the different periods of independence, the main indicators of the natural population changes, fertility and mortality rates have varied in value. However, the overall natural decline dynamics (Figure 1) were driven primarily by changes in the birth rate, which varied much more than changes in the mortality rate.

Figure 1: Natural decline of Ukraine's population between 1991 and 2020, thousand people per year



Source: Based on State Statistics Service data³

¹ Changes in the size and composition of the population as a result of fertility and mortality.

² As of the beginning of the year, excluding the temporarily occupied territory of the Autonomous Republic of Crimea and the city of Sevastopol.

³ Since 2014, excluding the temporarily occupied territory of the Autonomous Republic of Crimea, the city of Sevastopol and part of the temporarily occupied territories in Donetsk and Luhansk regions.

At the beginning of independence, in 1991 and 1992, Ukraine still had high birth rates (12.6-12.1 live births per 1000 population), but they declined rapidly thereafter and reached a historic low in 2001 (7.7 live births per 1000 population). Since 2002, **as the economic situation stabilized and economic growth recovered, fertility rates have been rising as a result of a large contingent of young women born in the 1980s gradually reaching their highest childbearing years.** An active demographic policy (in particular, a significant increase in payments for the birth of the second and third child and subsequent) has also contributed to the birth rate growth.

The reduction of payments for the birth of the second and subsequent children in 2014 and the separation of the birth allowance from the subsistence minimum, **together with the reduction in the number of women of the most active childbearing age, the socio-economic crisis** and the deployment of Russian aggression have formed a negative trend in the birth rate. In 2020, the number of live births per 1,000 population was 7.8 children (compared to 11.1 in 2013).

The dynamics of mortality rates are much more stable, primarily due to the lack of radical changes in the factors shaping this demographic process. Thus, from 1991 to 2005, the mortality rate increased (from 12.1 to 16.2 deaths per 1000 population), and has been gradually declining thereafter, to 14.7 deaths per 1000 population in 2019. In 2020, due to excess mortality caused by COVID-19, the rate rose again to 15.9 deaths per 1,000 population.

The most important mortality indicator in Ukraine during the whole period of independence remains the excess of male over female mortality, especially in the working age. Thus, in 2005 the male mortality rate was 1,853.2 per 100,000 population and the female mortality rate was 1,494.1. In 2019, these figures decreased slightly: 1,560.6 and 1,384.4 respectively. The biggest differences were in mortality from tuberculosis (5.7 times higher for men in 2020) and external causes (4.6 times higher in the same year).

Although the longer female life expectancy compared to that of men is due to a number of biological and social factors, in the EU countries the difference between male and female life expectancy is on average 5.5-6 years (about 10 in Ukraine). **Reducing this difference to an objectively determined level in Ukraine could be a tangible resource for the preservation of human capital.**

Current demographic trends threaten:

- to narrow the reproductive demographic base (which will worsen the long-term demographic prospects of the country);
- to deepen demographic development disproportions between regions and localities;
- to reduce the labour supply (which threatens the development of sectors of employment that are less attractive to workers).

Narrowing the reproductive demographic base

Most demographers consider low fertility when its cumulative rate is less than 1.5 children per woman. This is the boundary beyond which the demographic mechanism of fertility decline comes into play, which has the property of reinforcing itself. This phenomenon is called the "low fertility trap".⁴ **As the number of children in the family declines, each successive generation's perception of the desired and ideal number of**

⁴ Lutz W., Skirbekk V. Policies addressing the tempo effect in low-fertility countries // Population and Development Review. – 2005. – No. 31 (4). – P. 699–720.
<https://www.jstor.org/stable/3401522>

children changes towards a lower number. Over time, the number of people of reproductive age becomes so low that it is difficult to reduce the disparities in the age structure even if the number of children in the families increases.

In Ukraine, the total fertility rate became below 1.5 children per woman after 1993 and was only briefly in the range of 1.498-1.531 children in 2012-2015. Falling below the "marginal low" fertility rate⁵ to 1.217 children per woman in 2020 **makes it challenging and very costly for the country to escape the "low fertility trap"**.

Deepening demographic development disproportions between regions and localities

Regional demographic development in Ukraine is uneven. For example, in Kyiv in 2020 the natural decline was 1.9 persons per 1000 population,⁶ and 2.6 in the Transcarpathian region. At the same time, in the Chernihiv oblast this indicator was equal to -13.8, in the Sumy oblast - 12.2. While Chernihiv Oblast had the highest mortality rate in the country (19.8), Sumy Oblast had the lowest birth rate (5.7), although the mortality rate was much higher than the national average (17.9 vs. 15.9).

The gender and age structure is somewhat better in regions with high fertility rates, as well as in cities where there is a migratory increase due to internal migration.

Thus, the highest shares of children aged 0-17⁷ are in Rivne (24% vs. 18% average in Ukraine), Transcarpathian region (23.3%), Volyn (23.1%), Chernivtsi (20.4%) and Kyiv (20.3%) oblasts. The centre of gravity for migrants is Kyiv, where in 2020 the migration rate was 18.1 persons per 1000 population. Positive, but not very high, migration rates in the same year were distinguished by the Odesa (0.4), Poltava (0.3) and Lviv (0.2) oblasts. In the respective oblast centres these indicators were higher than the oblast average.

In rural areas, the natural decline rate visibly dropped during the period of increasing fertility (2006-2012), but from 2013 to 2020 increased from -5.1 to -9.6 persons per 1,000 population. In 2018-2020, the trend of migratory decline in the rural population resumed. The highest migration decline in 2020 was in the age groups 15-19 years (6,245 people), 25-29 years (5,596 people) and 30-34 years (4,147 people), i.e. young people in the working and reproductive age groups. School graduates leave for education, persons between 25 and 34 for employment in cities with a high demand for work. This migration pattern further reduces the reproduction demographic base in rural areas.

The worst demographic situation is in rural areas of regions with low birth rates: Donetsk, Luhansk, Sumy, Cherkasy, Poltava and Zaporizhzhia. In the first two regions, mortality rates significantly exceeded birth rates even before the Russian aggression, but since 2014 the rate of natural decline has significantly increased.

The rural population structure in the regions with the highest aging burden in Ukraine has a significant influence on the formation of this trend. Thus, in Chernihivska oblast as of January 1, 2021, the demographic burden of the elderly was 617 (with 413 for the urban population of that region)⁸, in Khmel'nitska oblast 502 (358 for the urban population), in Sumska oblast 521 (415 for the urban population), in Cherkasy oblast 497 (333 for the urban population).

⁵ 1.3 children per woman.

⁶ Hereinafter according to the State Statistics Service, number of people per 1,000 of existing population.

⁷ As of 1 January 2021.

⁸ Individuals per 1,000 people aged 16-59 years.

The same areas have the highest rates of natural decline in Ukraine. Thus, in rural areas of Chernihivska oblast the natural decline in 2020 was -20.3 persons per 1000 population (while the value is -9.6 for the entire rural population of Ukraine), in Sumska oblast -16.5, in Cherkaska oblast -14.5, in Poltava and Khmelnytskyi oblast -14.4.

Unfavourable demographic development of rural areas is constantly reproduced: population decrease makes it impractical to maintain an extensive social infrastructure there and slows down their economic development due to labour shortages and reduced demand for goods and services. Consequently, living conditions worsen, which leads to a further decline in the birth rate, an increase in mortality and a migration outflow of people of working (and at the same time reproductive) age. As a result, the stagnation of development in these territories is exacerbated.

The human capital decrease in some territories compromises their socio-economic self-sufficiency, as envisaged by the decentralisation concept.

Labour supply decline

According to demographic projections⁹ by the Ptoukha Institute for Demography and Social Studies, the number of people of working age (15-75 years old) will decrease from 27.8 million in 2021 to 26.6 million in 2030 and 24.4 million in 2040. If the current economic activity by age groups continues¹⁰, the labour supply will be 16.1 million people in 2030 and 14.7 million people in 2040 (compared to 17.6 million in 2021).

By 2031, the number of people aged 65 (the age at which economic activity begins to decline markedly) will substantially outnumber the number of people aged 25 (the age at which economic activity begins to rise markedly) by 60,000 to 100,000 annually. This will lead to **labour replacement problems, which will affect jobs that are less attractive** (in terms of wages and working conditions) **on the labour market**. At present, these include working professions, jobs in agriculture and low-paid jobs in the public employment sector (cultural workers, lower-level roles in public administration, nursing staff, teachers with no work experience or category, etc.).

1.2. EXTERNAL MIGRATION

For the last two decades, labour migration abroad has remained the main type of external migration from Ukraine, mostly of a short-term nature. The results of a study on the scale of migration carried out by the Centre for Economic Strategy in 2018 showed that 2.6-2.7 million Ukrainians were abroad at one point in time.¹¹ The International Organization for Migration (IOM) estimates that 1 million 167 thousand Ukrainians were abroad in 2021, 11% more than in 2019 prior to COVID-19.¹² The largest labour losses from external labour migration last year were incurred by the Transcarpathian region (87 thousand people, or 7% of the

⁹ Hereinafter according to an average scenario of the demographic projection.

¹⁰ In 2020, according to the State Statistics Service.

¹¹ How Many Ukrainians Have Gone Abroad and What the State is Doing About It, Centre for Economic Strategy. <https://ces.org.ua/migration/>

¹² Hereinafter, based on the National Survey on Migration, Trafficking and Other Forms of Exploitation of Migrants, conducted by Info Sapiens, commissioned by the International Organization for Migration (IOM) - United Nations Agency for Migration in Ukraine and funded by the United States Agency for International Development (USAID) in September-October 2021. URL:

https://iom.org.ua/sites/default/files/human_trafficking_and_migration_survey_2021_ukr.pdf

total population¹³), Ivano-Frankivsk region (91 thousand or 6.7% of population), Rivne (63 thousand or 5.5% of population), Kherson (51 thousand or 4.9% of population) and Lviv region (122 thousand or 4.8% of population).

Last year Ukrainians resorted to labour migration mainly in order to earn money abroad and spend it in Ukraine (66%), due to the lack of opportunities to find a job at home with sufficient pay (37%), due to inability to find a job in the desired field with sufficient pay (25%). More than a fifth of labour migrants (22%) wanted to gain new experience, and 9% said they wanted to emigrate permanently.

According to Eurostat, Ukrainians had 1 088 539 residence permits in EU countries at the end of 2020, most of them in Poland (343 775), Italy (223 478) and the Czech Republic (165 572)¹⁴. Most of the permits are documents which give the right to stay in the country for a short period of time under a work contract.

Given the territorial proximity and active targeted labour recruitment policies with Ukraine, the main destination country for domestic labour migrants has been and remains Poland. According to preliminary estimates by Polish economists, workers from Ukraine increased the effective labour supply in Poland by 0.8% annually between 2013 and 2018 and contributed 13% to the country's GDP growth in that period.

From the second half of January 2022, citizens of Ukraine and five other countries can work in Poland for two years (instead of six months) without a work permit on the basis of a declaration of work assignment. The procedure for obtaining a temporary or permanent residence permit has also been simplified. It can be obtained based on an employment contract, where the specified wage is not lower than the minimum wage stipulated by the Polish law, without documented place of residence. A change of position and an increase in salary are no longer grounds for reissuing a residence and work permit.¹⁵

Part of the temporary labour migrants becoming permanent

Facilitation of employment procedures for foreigners, creation of conditions for longer stays of labour migrants, migration amnesties: these migration policy measures of host countries increase migration flows and “anchor” migrants to the host country, stimulating the transformation of some temporary labour migration into permanent migration.

Additional ground for permanent migration are long-lasting social and economic problems in the country of origin. Thus, the results of the survey of Ukrainians' migration moods conducted by Research and Branding Group within the framework of the regular Omnibus Social, July 10-21, 2021, show that the percentage of Ukrainians who would move to another country for permanent residence, if they had such an opportunity, increased from 32% in February 2020 to 40% in July 2021.¹⁶ The most important reasons that would make respondents permanently leave Ukraine include an interesting and lucrative job offer (28% of respondents), an armed conflict (war) (27%), economic problems in the country (22%), family circumstances (21%) and lack of conditions for personal fulfilment (14%).

¹³ Hereinafter estimated, based on survey results.

¹⁴ All valid permits by age, gender and citizenship on 31 December of each year [MIGR_RESVAS_custom_1853940]. <https://ec.europa.eu/eurostat/databrowser/bookmark/82da1be5-1e93-484d-ae32-09388a8ae8cb?lang=en>

¹⁵ Ustawy z podpisem Prezydenta (04 stycznia 2022).

<https://www.prezydent.pl/aktualnosci/wydarzenia/ustawy-z-podpisem-prezydenta,47350>.

¹⁶ Migration attitudes of Ukrainians (2015-2021), RB Group.

<https://rb.com.ua/uk/blog-uk/omnibus-uk/migracijni-nastroi-ukrainciv-2015-2021-rr/>

The most alarming in terms of potential losses of human capital are the attitudes of Ukrainians in Poland. According to the survey of adaptation and intentions for further integration of Ukrainian labour migrants working in Poland, conducted by the Analytical Centre of Gremi Personal in February 2021, 46.4% of Ukrainian workers intend to stay in Poland (30% would "rather stay", 16.4% would "definitely stay").¹⁷

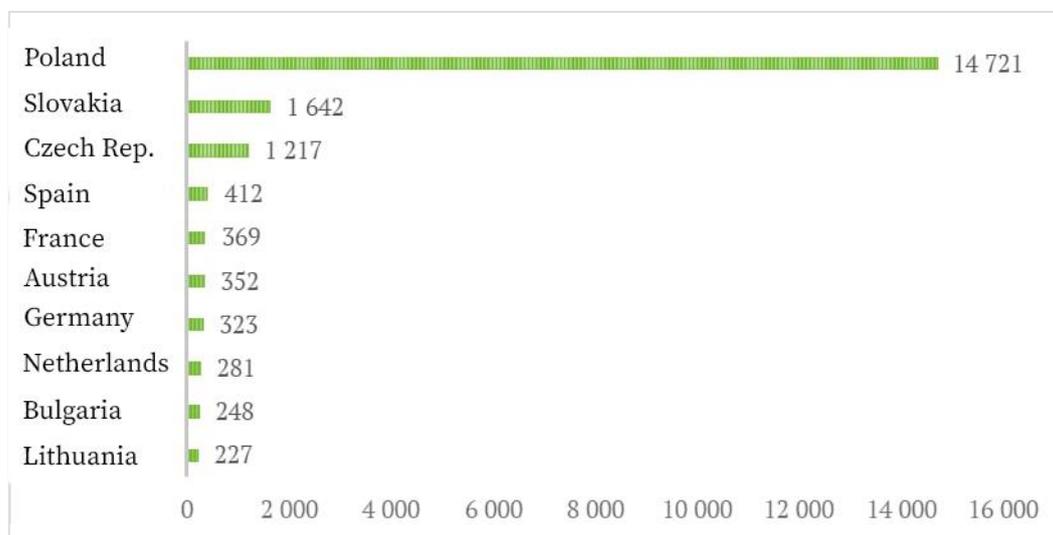
At the same time, 66.5% of respondents (compared to 60% in 2020) have already obtained or intend to obtain a permanent residence permit. In 2021, 51.7% of those surveyed intended to move their family to Poland, whereas in 2020 there were only 41%. During the same period, there was a significant increase in the percentage of workers who considered settling in Poland by purchasing real estate, from 34% to 55.5%. The share of Ukrainian labour migrants wishing to open their own business in the hosting country increased to 39.8% (from 25% in 2020).

It is clear from the data that **the COVID-19 pandemic has not only prevented the emergence of a reverse migration flow, but has also fuelled the emigration mood of Ukrainians, reinforcing their desire to live in a more stable and financially prosperous environment.**

Permanent educational migration on the rise

In recent years, the EU countries have been the main destination for Ukrainian students in terms of educational migration. The number of residence permits for educational purposes issued to Ukrainian citizens has increased from 8 955 (including permits issued by the UK) in 2012 to 20 754 (without permits issued by the UK) in 2020. Poland, Slovakia, the Czech Republic, Spain, France, Austria and Germany issued the largest number of such permits (Figure 2).

Figure 2: Number of initial residence permits for educational purposes issued to Ukrainian citizens by selected EU countries in 2020, units



Source: based on Eurostat data

EU countries, most of which are experiencing a natural population decline, have policies to attract foreign students to their labour markets. Young people educated in the country of destination are the most desirable category of migrants, as they have already undergone initial socio-cultural adaptation and have made their

¹⁷ The pulse of labour migration. Integration intentions of Ukrainian labour migrants in Poland, Gremi Personal. <https://gremi-personal.com.ua/backend/wp-content/uploads/2021/03/puls-trudovoi-migracii.pdf>

efforts to integrate into society. Their birth and growth have been financed (by public and private investments) by the country of origin, and by the time they receive their retirement benefits, such migrants are potentially able to benefit the economy of the destination country by paying taxes for their entire professional lives.

Ukrainian students often expect to find a job in the local labour market and to stay in the country of destination after completing their foreign degree. The results of the survey of Ukrainians' migration attitudes¹⁸ show that among respondents aged 18-29 years old 54% were ready to move from Ukraine to another country for permanent residence. In the age group 30-39 years there were 50% of such respondents, 44% among respondents aged 40-49, among respondents aged 50-59 years every third was willing to move, and in the age over 60 years only 22%. Consequently, the younger the age of Ukrainians, the more they are inclined to emigrate. Ukrainian students educated abroad have the most favourable opportunities for this (in terms of migration policy of the receiving countries).

Labour force skill downgrading

Labour migration affects the development of human capital due to a skill downgrading within the national workforce. This occurs when educated workers engage in unskilled labour while working abroad. Simple jobs and unskilled labour are traditional migrant niches in foreign labour markets and therefore the corresponding jobs remain the most accessible for employment.

Almost half (48%) of Ukrainian workers in Poland in 2021 had a vocational education, more than a quarter (28%) had higher education, 16% were in intellectual occupations (education, medicine, engineering, IT) and 10% were from managerial occupations.¹⁹

The State Statistics Service data show that the average educational level of migrants is lower than that of professionals employed in the national economy. However, those educated migrants work abroad mostly in non-specialised occupations. Thus, in Poland, over half (59.8%) of Ukrainian migrants were involved in manufacturing, every tenth (10.8%) worked in the service sector, 8.5% worked in construction, 5.5% in agriculture, 5.4% in logistics, and 4.8% were engaged in repair work. The qualifications obtained by migrants in their home country are lost without any application and it is much more difficult to return to work in their profession in the future.

At the same time, due to special programmes for attracting qualified specialists (e.g. recruiting medical workers from Ukraine to work in Poland) there is a loss of specialists needed in the national labour market. The accessibility of international Master's and Doctoral programmes for Ukrainians often results in the permanent emigration of talented young people, which entails another wave of "brain drain".

At the same time, migrants can still make use of practical experience gained while working abroad when returning home. Even if it is not a question of a new profession or professional skills, there are useful worldview gains: regarding effective work interaction, attitudes towards work, responsibility for results, the importance of social connections and mutual support in the team and the community, etc.

¹⁸ Migration attitudes of Ukrainians (2015-2021) , RB Group.

<https://rb.com.ua/uk/blog-uk/omnibus-uk/migracijni-nastroi-ukrainciv-2015-2021-rr/>

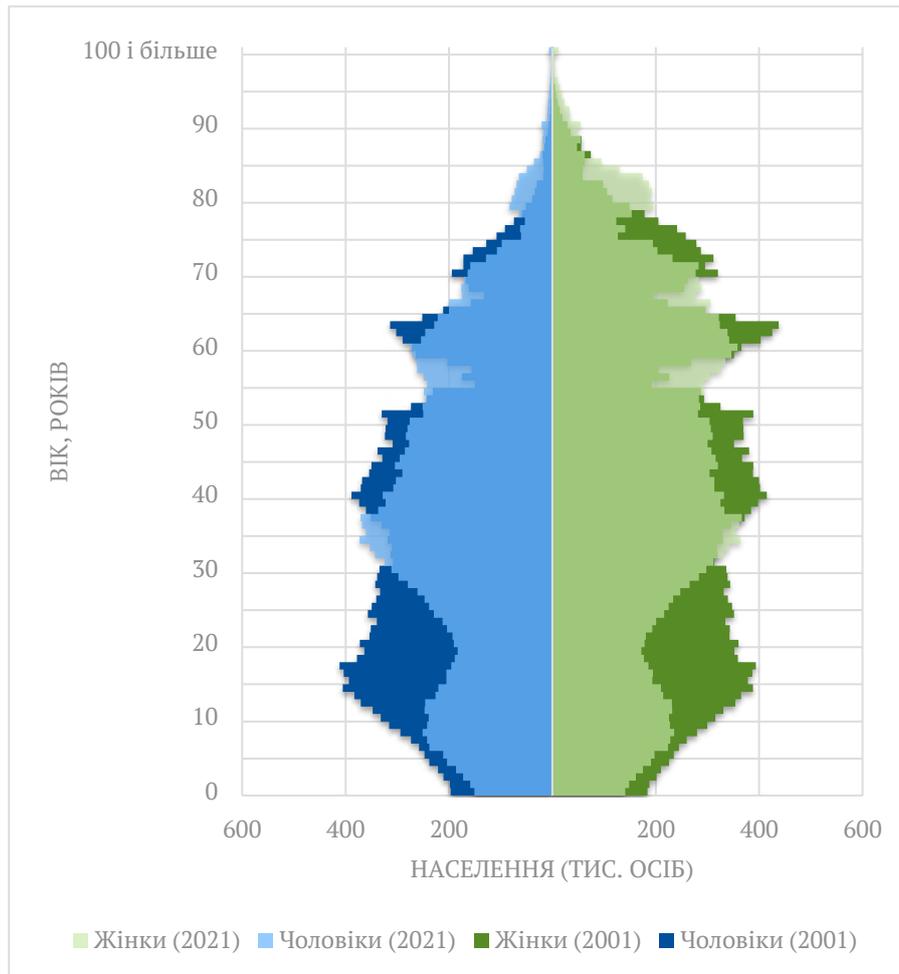
¹⁹ The pulse of labour migration. Integration intentions of Ukrainian labour migrants in Poland, Gremi Personal.

<https://gremi-personal.com.ua/backend/wp-content/uploads/2021/03/puls-trudovoi-migracii.pdf>

1.3. POPULATION AGEING

Population ageing, which has taken place throughout the period of independence, is the result of a constant excess of deaths over births. At the same time, the nature and speed of ageing are conditioned by waves of fertility: periods in which the number of births increased. Thus, the current acceleration of ageing is due to the transition of the large generation of persons born in the 1980s to middle age (Figure 3).

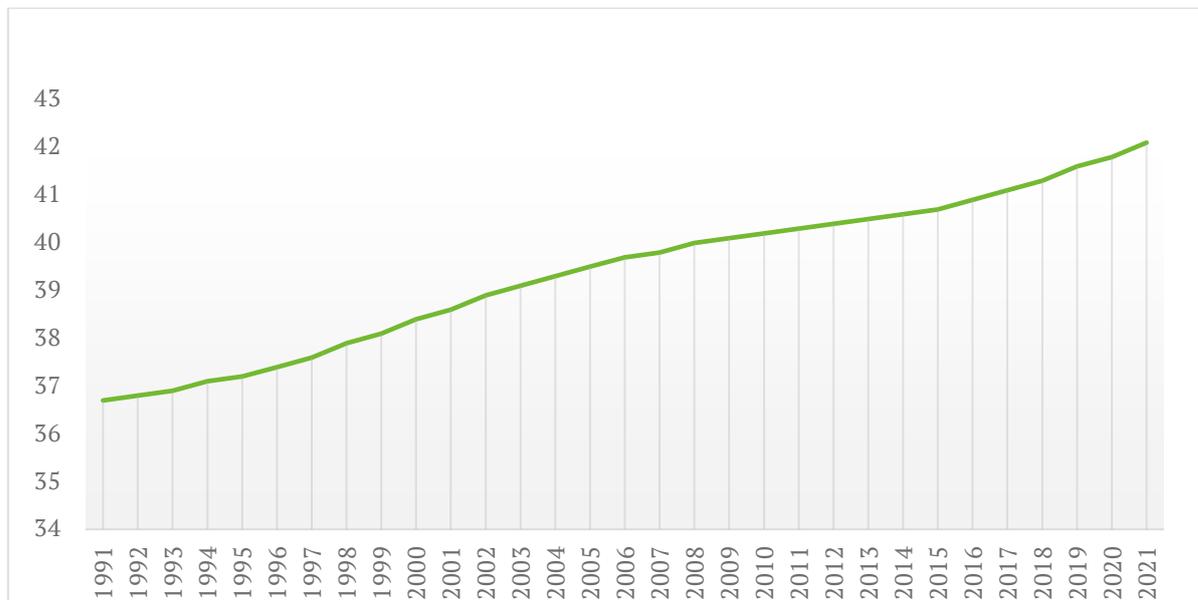
Figure 3: Gender and age pyramid of Ukraine's population at the beginning of 2001 and 2021



Source: Based on State Statistics Service data

Between 1989 and 2020, the median age of the population increased from 36.5 years (33.6 for men and 38.9 for women) to 41.8 years (39 for men and 44.3 for women) (Figure 4). The difference of 5.3 years between the average age of women and the average age of men, observed at the beginning of independence, remained unchanged.

Figure 4: Average age of Ukraine's population between 1991 and 2021, years



Source: Based on State Statistics Service data

Ageing because of natural and migration flows occurs unevenly in different regions of Ukraine. The oldest population²⁰ is in Luhansk (average age 47.3 years), Donetsk (46.2 years), Chernihiv (44.1 years), Sumy (43.7 years) and Cherkasy (43.4 years) oblasts. A higher average age is formed in these regions due to the highest share of the population aged 60 years and older. Thus, in Luhansk oblast they account for 31.8% of the total population²¹ while the average indicator in Ukraine is 24.4%, in Donetsk oblast 30.5%, in Chernihiv oblast 27.7%, in Sumy oblast 26.6%. %.

Before 2014, Donetsk and Luhansk oblasts also belonged to the regions with a population older than the Ukrainian average, but the further outflow of the working-age population because of Russian aggression made this region the leader in terms of population ageing in Ukraine.

Transcarpathian region (average age 37.7 years), Rivne (37.8 years) and Volyn (38.4 years) oblasts have the youngest population. These oblasts have the largest shares of children aged 0-17 in Ukraine. In Rivne oblast 24% of the total population (while the average indicator for all regions is 18%), in Transcarpathian oblast 23.3% and in Volyn oblast 23.1%.

Population ageing not only reduces the quality of human capital but also has other negative socio-economic consequences.

Greater demographic and economic burden

The increase in the share of people above the working age in the population structure causes problems when it comes to financing the social funds. First, it is a matter of covering part of the expenses for the Pension Fund, the vast majority of which is intended for the payment of retirement pensions, by the State Budget (205 billion UAH are planned for this purpose in 2022).

This situation creates a conflict of interest in the allocation of public resources between the younger and the older generations. While the former is interested in increasing public investment in human capital (in the

²⁰ As of 1 January 2021.

²¹ As of 1 January 2021.

development, education, welfare and health care of children), the latter wish that the priority of social policy should be the improvement of pension security.

The low share of workers in the overall population structure also creates obstacles to increasing personal income tax (PIT) payments, which constitute a significant part of contributions to local budgets.

A demographic forecast for the medium and even more so in the long term does not propose any improvement in the age and gender structure of the population, so the task is now to un-shadow the labour market and increase the revenue of the social funds by reducing informal employment and transferring workers to the formal sector.

Declining labour productivity, technological development slowed down

Ukraine still has a high proportion of workers in the sectors where individual labour productivity declines with increasing age²²: in construction (4.2%²³) and industry.

At the macro level, an ageing population **reduces productivity by reducing the average number of hours worked per worker**. This decline is most rapid for workers over 60. However, the service sector, for example, suffers more from slower growth than the manufacturing sector where automation compensates for an ageing workforce.²⁴

Younger workers are better adapted to changes in production technology and are oriented towards the up-and-coming and dynamic industries²⁵, so if the **share of younger workers**, who are the main drivers of structural employment change, **is low, that slows innovation development**. In addition, young citizens are the main consumers of new technologies and new technological products, and the increased demand stimulates the development of the respective industries.

Rapid technological change reduces the value of practical experience compared to the ability to absorb new information. Some of the human capital accumulated in previous periods becomes obsolete, while the urgency to quickly acquire the latest knowledge and skills increases. Age imbalances in the workforce hinder the mass development of in-demand professional competences among workers.

Reduced occupational, social and territorial mobility of the workforce

Research shows that older workers exhibit lower levels of territorial, occupational and cross-sectoral mobility than younger workers²⁶. As the proportion of the former in the labour force increases, **labour market flexibility decreases**.

²² Classification according to: Veen S. Demographischer Wandel, alternde Belegschaften und Betriebsproduktivität. Munich, Rainer Hampp Verlag, 2008.

²³ In 2020.

²⁴ The Impact of Ageing on the Labour Force and Productivity: Six of One, Half a Dozen of the Other, CaixaBank <https://www.caixabankresearch.com/en/economics-markets/labour-market-demographics/impact-ageing-labour-force-and-productivity-six-one>

²⁵ Minetaki, Kazunori, Kiyohiko G. Nishimura, and Masato Shirai. "Effects of Information Technology on Labor Demand and Technological Progress in Japanese Manufacturing: 1980-1998." *The Economics of an Ageing Population*, Cheltenham: Elgar (2004). <https://www.oecd.org/japan/24726789.pdf>

²⁶ Aiyar, Mr Shekhar, and Mr Christian H. Ebeke. *The impact of workforce aging on European productivity*. International Monetary Fund, 2016.

Territorial mobility declines after the age of twenty.²⁷ At the same time, its high level among workers allows it to quickly meet increased demand in regional labour markets as well as in the industries that are rapidly growing. **Successful adaptation to structural shifts in employment is not possible without active labour force relocation.** As a rule, young workers who do not yet have their own homes and children are more likely to relocate. When their labour supply is limited, **regional labour shortages can become permanent.**

Older workers, having achieved a high degree of kinship with their current job, **are less likely to change it, reducing inter-organisational mobility.** In the late 1990s, for example, the voluntary mobility between jobs for twenty-five-year-old workers in Britain was double that for those aged 50 and over.²⁸ On the one hand, high turnover leads to higher recruitment and training costs; on the other hand, long working periods in one place limit the professional development of individuals and prevent them from expanding the scope of their own knowledge and skills.

There is even **less incentive for older workers to change employment field.** For example, once a worker reaches the peak of his or her career, his or her pay often exceeds productivity and there is less and less time to gain economic benefit from a change in employment.

A higher share of older workers is an inevitable result of population ageing and a lower share of older workers in the workforce will only increase demographic threats to the economy; however, middle-aged workers should already be oriented towards more flexible and mobile employment models which not only deepen, but also expand the professional competences of specialists.

1.4. THE GOVERNMENT'S RESPONSE TO DEMOGRAPHIC THREATS

Demographic processes are very difficult to regulate by the state and are shaped to a greater extent by the socio-economic living conditions in each country and general patterns of demographic development. State policy instruments can mitigate negative demographic trends but are highly ineffective if the overall socio-economic situation deteriorates.

The factors influencing mortality are the most unambiguous. These include the lifestyle of the population, the prevalence of bad habits and socially dangerous diseases, the accessibility and quality of medical care, the level of social tension, and the openness and friendliness of society.

No comprehensive mortality reduction policy has ever been implemented in Ukraine. The decline in mortality observed in 2009-2019 was due to the stabilisation of the socio-economic situation, the partial exhaustion of the mortality potential among the working age population during the most unfavourable economic period.

In addition, the reduction in mortality was facilitated by the deaths of a large contingent of people born in the second half of the 1930s. The gender and age structure of the population is a slightly greater determinant of the annual number of deaths (determines 55%) than the other factors (45% all together).²⁹

²⁷ Ibid.

²⁸ Dixon, Sylvia. "Implications of population ageing for the labour market." *Labour Market Trends* 111, no. 2 (2003): 67-76. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.460.6815&rep=rep1&type=pdf>

²⁹ Population of Ukraine. Encyclopaedia of Modern Ukraine.

https://esu.com.ua/search_articles.php?id=71298

Only infant mortality has been reduced by public policy measures (improving technologies for the care of prematurely born children).⁵⁰

Regarding the birth rate, the state policy has indeed contributed to its increase since 2006. The increase in the number of births was primarily due to the increase in the number of women who are in the most active reproductive age. However, due to monetary incentives given by the state for second, third and subsequent births, it is this generation of women born in the 1980s that will have higher average numbers of children than women of other generations.

The decline in the birth rate after 2014 has been happening due not only to objective demographic factors and the deteriorating socio-economic situation, but also due to the phasing out of active pro-natalist policies (reduced payments at the birth of the second, third and subsequent children).

In Ukraine, families with children have historically been subject to a higher risk of poverty, and so require special support during financially hard times. High payments at the birth of a child (especially the second and subsequent ones) have been a significant element of demographic policy, aimed at helping families with children in their most difficult period, when the dependency burden on the household has risen sharply. Hence, when pro-natalist policies were favourable, women often chose giving birth as an alternative to employment in times of labour market strain. If appropriate incentives were maintained, the fall in fertility after 2014 might have been less drastic and dramatic. Fertility incentives have been one of the few public spheres where trust between the population and the state has been established, which has been destroyed by inconsistent government measures.

The reduction of labour migration caused by economic factors remains a challenge for the state. Wages in Ukraine are significantly lower than in neighbouring countries where Ukrainians have access to labour markets. The most popular destination countries, experiencing a shortage of their labour force, pursue a targeted policy of attracting workers from abroad. First and foremost, we are talking about Poland, which suffers from a significant migration outflow of its own working-age population.

It is doubtful that economic development in Ukraine will accelerate at a pace that will ensure that in the near to medium future wages will rise to the level of those in migrant destination countries. Labour migration from Ukraine will continue. But it will diminish if real wages grow, and new jobs are created in labour-scarce regions thanks to an improved investment climate. In addition, it is important to implement policies to facilitate the repatriation and reintegration of labour migrants wishing to return to Ukraine. A large part of them would like to spend their earnings to start a business in Ukraine and this should be facilitated.

Given the (probably temporary) loss to European countries in the fight for their own human capital, Ukraine should consider developing tools to attract foreign workers to the national labour market. The current policy on labour immigration needs to be updated, in particular through substantial liberalisation. State-defined rules on work permits for foreigners, the lack of legal employment opportunities for foreign students as well as the requirement to set wages for workers from other countries significantly higher than the average wage⁵¹ shadow the immigrants' employment. Under these conditions, foreign workers in the formal sector can be employed only in high-paying jobs, while the demand for unskilled and simple jobs in the domestic labour market remains the most unsatisfied.

⁵⁰ Children up to age 1.

⁵¹ Currently at 10 minimum wages as defined by Ukrainian law.

2. INCREASING LABOUR FORCE RESILIENCE TO LABOUR MARKET TRANSFORMATIONS: THE ROLE OF EDUCATION

Education plays a decisive role in human capital formation if there is no prospect of favourable demographic development. It is through quality education and an efficient system of retraining and professional development that labour supply shortages can be partially compensated. With this in mind, Ukraine cannot afford to waste resources inefficiently on education. Unfortunately, state efforts to improve the quality of education and enhance its relevance at all levels, especially at those most connected to the labour market, such as technical-vocational, higher, and adult education, are insufficient.

Although there is a shortage of blue-collar workers on the labour market, vocational education and training institutions are recruiting fewer trainees and producing fewer specialists every year. This is due both to insufficient quality of educational services and to the low prestige of blue-collar jobs, which, however, are no longer based on low wages. To provide the economy with the workers it needs, the state must reform vocational education by involving the main stakeholder, business, in the process.

In contrast to vocational education, higher education does not suffer from the number of applicants. However, the employment rate of graduates of higher education institutions (HEIs) shows that the market does not feel a real need for specialists in the specialities they have acquired to the extent that preparation at this educational level functions. According to a study by the MES, the employment rate among graduates of HEIs trained on state or regional order is only 59%.³²

Higher education institutions need to become more flexible and open to innovation. Their personnel and infrastructural capacities are crucial to the development of adult education and retraining in the fields set by the labour market. Adult education is becoming increasingly popular in the world, but Ukraine has one of the lowest enrolment rates in Europe.

2.1. URGENT ISSUES CONCERNING VOCATIONAL TRAINING AND THE NEED TO MODERNISE HIGHER EDUCATION

The biggest demand by employers in Ukraine is for personnel in blue-collar occupations^{33,34}. Despite this, the number of vocational education and training institutions and the number of enrolments is constantly decreasing. According to the MES, about 80% of school leavers choose HEIs for further education, while only 20% enrol in vocational schools; since 2012, the number of applicants choosing vocational education has

³² First monitoring of the employability of graduates of higher and vocational education institutions, Ministry of Education and Science of Ukraine.

<https://mon.gov.ua/ua/news/pidvedeno-pidsumki-pershogo-monitoringu-pracevlashtuvannya-vipusknikiv-zakladiv-vishoyi-ta-fahovoyi-peredvishoyi-osviti>

³³ According to Jooble.

<https://ua.jooble.org/>

³⁴ Labour market results: Who was sought and how much was paid in 2021, OLX Blogs

<https://blog.olx.ua/27684/pidsumki-rinku-praci-kogo-shukali-ta-skilki-platili-u-2021-roci/>

fallen by two-thirds, also for demographic reasons - a decrease in the youth population.³⁵ Between 2014 and 2020, 103 vocational education and training institutions closed in Ukraine, and the number of students starting their studies each year dropped by 50,000, from 178,000 to 127,800 (Figure 5).

Figure 5. Number of vocational education institutions (Units) and students enrolled in them (thousand people), 2014 - 2020.



Source: State Statistics Service

Vocational education institutions in their present state cannot provide an adequate level of teaching disciplines and vocational training for students. Most vocational schools have worn-out and obsolete equipment, which does not meet modern requirements and cannot be used to teach students the skills they need for further work. Outdated teaching methods and insufficient professional qualifications of teachers are also not facilitating improvement in the quality of training.

One of the key problems in vocational education is that the structure of vocational training does not meet the needs of the labour market. The situation has been widespread, when the regional order for training workers was formed using regional budgetary funds, only the staffing needs of communal enterprises were taken into account, while the broad needs of the labour market were ignored.³⁶

As regards the organisation of the teaching process in higher education institutions, it is generally better than in vocational education institutions, but HEIs also have problems in attracting highly qualified and motivated teachers. An insufficient level of financial and academic autonomy prevents higher education institutions from implementing their projects to bring their curricula closer to the current requirements of the labour market.

Higher education as a public institution is undergoing a global crisis, which is leading to a rethinking of its role in personal development. It is not enough for a graduate of higher education to "know how to study";

³⁵ Will Ukraine have enough skilled workers? Ministry of Education and Science of Ukraine.

<https://mon.gov.ua/ua/news/chi-vistachit-ukrayini-kvalifikovanih-robotnikiv>

³⁶ The patient is more alive than dead. Can vocational education and training be resuscitated? Holos Ukrainy. <http://www.golos.com.ua/article/333253>

according to modern standards, a high school student should have these skills. Modern higher education should provide the student with guidelines for professional and personal orientation in a complex globalized world and teach the tools of interaction in a socio-culturally diverse environment.

Both vocational education and training and higher education do not teach the skills needed in the labour market. The World Bank research report *Skills for a Modern Ukraine* (2017) notes that around 70% of firms surveyed reported that graduates of general, higher and vocational education institutions lack practical skills or up-to-date knowledge; over 58% reported a lack of the types and levels of skills employers require; and 55% reported a lack of relevant knowledge.³⁷ This forces employer to spend their own resources on additional training for graduates.

2.2. LIFELONG LEARNING

One of the key trends in the world is the increase in the popularity of lifelong learning. According to the concept of "half-life" of skills, half of the professional knowledge acquired by a worker in many professions becomes obsolete within five years, which in the Ukrainian context is less than the duration of higher education.^{38, 39}

Consequently, to maintain their competitiveness in the labour market, workers must constantly, continuously, throughout their lives update their knowledge and professional skills. Adult education can be formal (with training in licensed institutions), and informal, obtained in courses, trainings, educational programs. Thanks to Massive Open Online Courses (MOOCs), self-education is becoming more and more widespread.

At the same time, statistics show that the involvement of Ukrainian adults in formal and non-formal education is not growing. The share of Ukrainians aged 25-64 involved in any form of education decreased from 0.8% in 2015 to 0.5% in 2020 (Figure 6).

Figure 6. Participation rates of the population aged 25-64 in formal and non-formal education and training in 2015-2020, %

³⁷ Del Carpio, Ximena, Olga Kupets, Noël Muller, and Anna Olefir. 2017. *Skills for a Modern Ukraine*. Overview booklet. World Bank, Washington, DC.

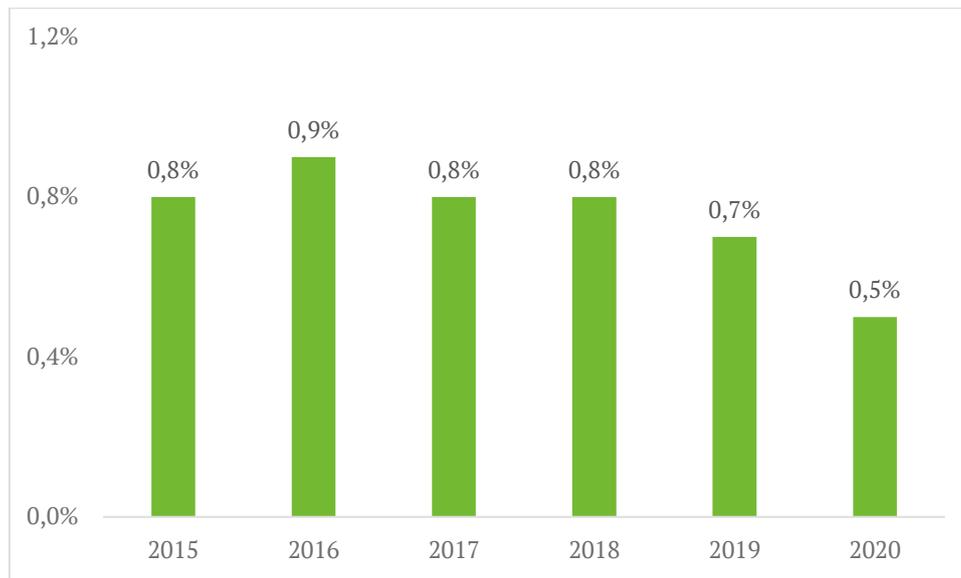
<https://openknowledge.worldbank.org/handle/10986/25741>

³⁸ Lifelong Learning: International Experience and Practice, National Institute for Strategic Studies.

<https://niss.gov.ua/doslidzhennya/gumanitarniy-rozvitok/osvita-protyagom-zhittya-svitoviy-dosvid-i-ukrainska-praktika>

³⁹ Skill, Re-skill and Re-skill again. How to Keep Up with the Future of Work, World Economic Forum.

<https://www.weforum.org/agenda/2017/07/skill-reskill-prepare-for-future-of-work/>



Source: State Statistics Service⁴⁰

This can be explained primarily by the low level of motivation of Ukrainian adults to invest resources in their own education, self-development or professional development. This low level of involvement in their own professional development contrasts with the challenges facing the labour market. According to the World Economic Forum, 94% of employers expected their employees to learn new professional skills on their own in 2020, a proportion that has risen rapidly from 65% in 2018.⁴¹

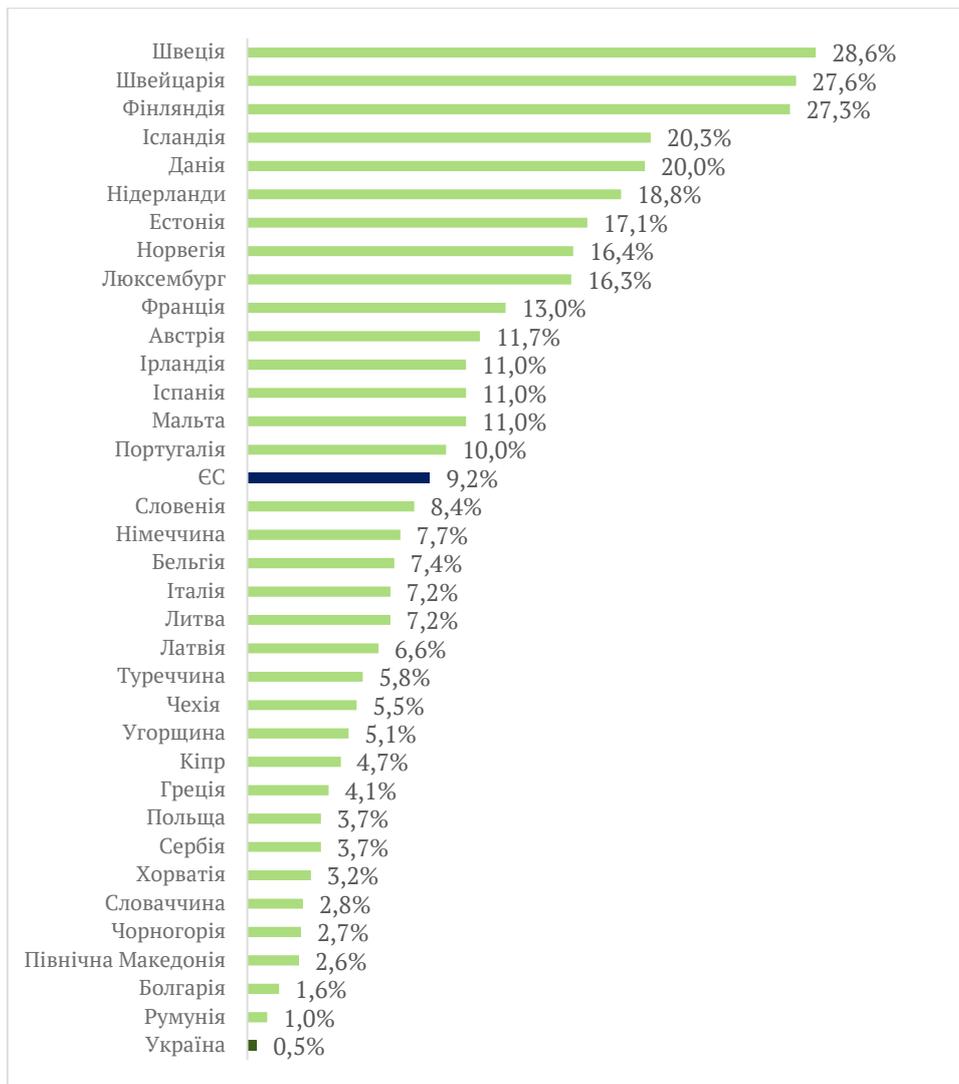
Compared to other European countries, the situation with lifelong learning in Ukraine is disastrous. Ukraine has one of the lowest levels of adult learning participation of any country in the European Union and one of the lowest in Europe as a whole: while the average participation rate in the EU countries in 2020 was at least 9.2%, in Ukraine the figure is only 0.5% (Figure 7).

Figure 7. Participation rates in formal and non-formal education and training in Ukraine, EU countries and some other European countries in 2020 for the population aged 25-64, %

⁴⁰ The ratio of the number of people aged 25-64 years who have received any training (formal or informal) in the last four weeks before the time of the survey to the total population of the relevant age group.

⁴¹ The Future of Jobs Report 2020, World Economic Forum.

<https://www.weforum.org/reports/the-future-of-jobs-report-2020>



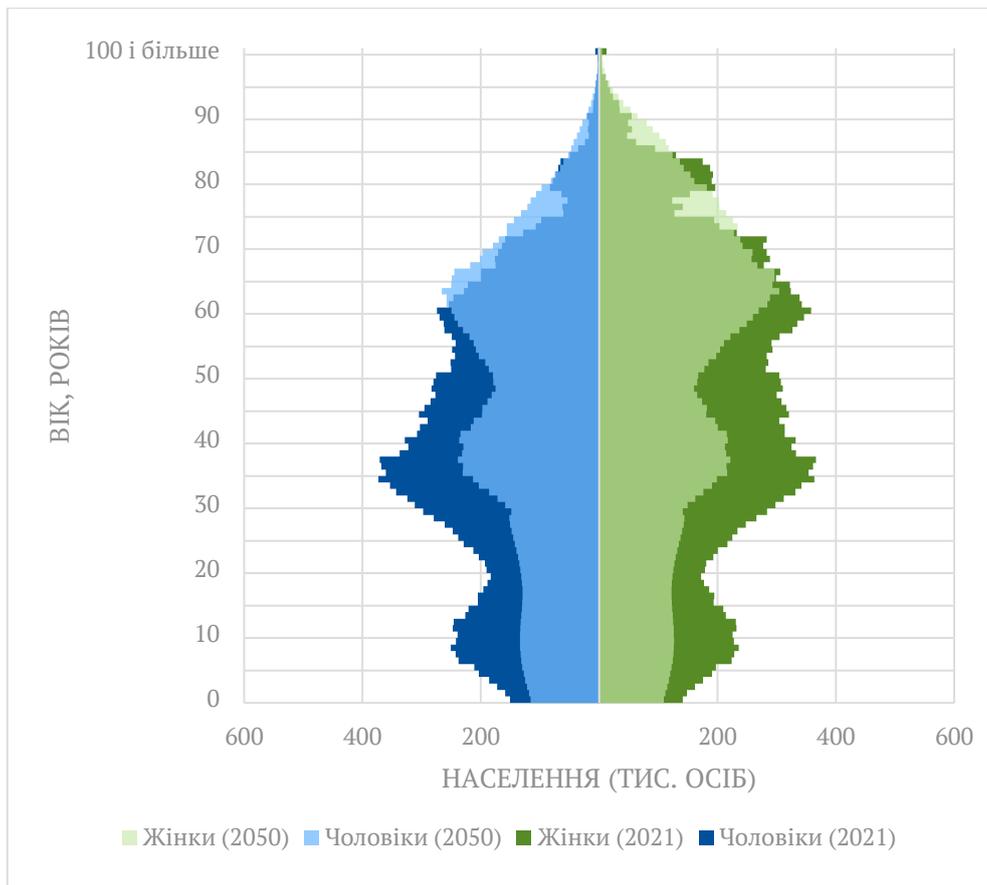
Source: Eurostat, State Statistics Service

Every worker should take personal responsibility for building his or her own career path. The unwillingness of Ukrainian adults to study primarily threatens their opportunities for self-sufficiency. However, the state is also interested in stable economic development, so it should stimulate the promotion of adult education on a national scale. Above all, it should take on an educational and advisory role, increasing the number of those wishing to study and providing them with appropriate opportunities. It is this aspect of human capital accumulation that is most critical for maintaining the competitiveness of the national economy in the international labour division.

2.3. RETRAINING AND INTERSECTORAL LABOUR MOBILITY

The State Statistics Service predicts that in 2050 a significant proportion of Ukraine's population will be over 50 years old (Figure 8). The declining youth participation in the labour force means that retrained professionals will be an important source of labour demand.

Figure 8. Gender and age pyramid of Ukraine's population at the beginning of 2021 and 2050 (based on the average forecast)



Source: Based on data from the State Statistics Service and demographic projections from the Ptoukha Institute for Demography and Social Studies⁴²

The future labour market will be very different from present day. According to a PricewaterhouseCoopers (PwC) study, about a third of jobs in developed countries could disappear as a result of automation.⁴³ This means that some workers will have to retrain and move to other sectors of employment, which is currently complicated due to a number of institutional barriers.

The domestic labour market is characterised by low levels of mobility, both territorial and intersectoral (which are often linked). The low cost of the national labour force makes internal mobility less feasible compared to labour migration abroad. At the same time, an underdeveloped real estate market (including rental housing in large cities) "raises the bar" for wage levels, which makes relocation to centres of high labour demand economically unjustified. Consequently, changing the field of employment (and in some regions even the place of employment) becomes extremely difficult for most Ukrainian workers.

Another reason for low intersectoral mobility is the persistence (mainly in the public sector) of Soviet-era job stabilisation schemes for individuals. These are wage systems in which a significant part of the wage is made up of a wage supplement for professional experience. On the one hand, this prevents an influx of young and middle-aged specialists and workers from other employment sectors (education, civil service, research and

⁴² National demographic forecasts, Ptoukha Institute for Demography and Social Studies of the National Academy of Sciences of Ukraine.

https://idss.org.ua/forecasts/nation_pop_proj

⁴³ Workforce of the Future, PwC.

<https://www.pwc.com/ua/uk/survey/2018/workforce-of-the-future-ukr.pdf>

development). On the other hand, it retains those who are not key specialists but are paid more than their productivity due to their long working experience.

This reinforces the segregation of the labour market into public and private sectors, each with its own advantages. While a job in the public sector guarantees job stability and social security, the private sector offers higher wages, a modern business culture, flexible business relationships, and better career prospects.

The last 5-7 years have seen a slight increase in the transition of employees into the category of economically independent contractors. Each year, more and more professionals work as independent professionals and are paid for the result of their own work rather than for the time spent doing it. This activity is the most flexible in terms of both the conditions of employment and the employee's management of his or her own professional development. Independent professionals are precisely the category of workers who, because of the need to constantly ensure their employability in the labour market, have to constantly develop and, if necessary, retrain.

A proactive labour market policy is therefore not possible without removing obstacles to the intersectoral labour mobility and creating conditions for more flexible employment.

2.4. EDUCATIONAL PERSPECTIVES FOR HUMAN CAPITAL DEVELOPMENT IN UKRAINE

Of all the spheres of social life, the education sector has been the most actively reformed in the last 10 years. The changes have affected every level of education, but not all levels have progressed at the same speed.

In recent years, preschool education has become a compulsory part of the domestic education system, in accordance with the practices of developed countries. This helps the social and cognitive adaptation of older preschool-age children to future schooling. **The main problems in preschool education remain the relatively low enrolment rate (especially in rural areas) and the shortage of available places in preschool institutions (especially in big cities).** The Law of Ukraine on preschool education, which aims to introduce the "money follows the child" approach to preschool funding, is still not adopted.

To update the content of education, a number of educational standards were approved: the State Standard for Primary Education, the State Standard for Basic Secondary Education, 29 new standards for vocational education on a competency basis were approved, 303 of 354 standards for all levels of higher education were developed in fall 2021, 187 standards for higher education for bachelor's and master's degrees were approved.

To update the qualification skills of teaching staff, the professional standards "Elementary school teacher of general secondary education institution", "Teacher of general secondary education institution", "Elementary education teacher (with associate diploma)", as well as the professional standard for the group of professions "Lecturers of higher education institutions" were approved.

There is an ongoing work on modernization of the system of professional development of pedagogical workers : regional methodological centres have been reorganized, standard professional development programmes for pedagogical workers have been approved, a pilot programme for the certification of pedagogical workers is underway.

The most challenging issue in reforming secondary education remains the establishment of a network of core schools to improve the quality of education for children living in rural areas. As of the beginning of 2021, about 40% of students enrolled in the core schools have travelled to and from school. Consequently,

accessibility of education in these institutions directly depends on the technical and material ability of the united territorial communities to provide transportation to students.

The process of reforming vocational education and training is facing major challenges. Regarding the concept of such reform ("Modern Vocational (Technical and Vocational) Education until 2027"), it has already been approved by the Government and a pilot project to test a new decentralisation mechanism for financing vocational education was launched back in 2020.

At the same time, Ukraine still has a Law on vocational education, adopted back in 1998. The Law is now obsolete and cannot serve as a basis for the development of modern vocational education. Although the Verkhovna Rada has registered a number of draft laws on the development of vocational education, none of them foresee all aspects of its development, dictated both by the needs of educational institutions and employers, and all of them have received critical comments from the Main Scientific and Expert Department of the Verkhovna Rada.

The modernisation of the training and production and social infrastructure of vocational education institutions remains at an early stage and the involvement of business representatives in the development of curricula and the dissemination of dual education needs to be intensified (in the academic year 2020-2021, 12,395 trainees in vocational education institutions, or 5% of all students, studied in a dual mode). At the same time, **the first communication campaign to raise the prestige of professional (vocational) education and working professions achieved a modest result** - the ratio of applicants to the total number of places in professional (vocational) education institutions increased from 85% in 2019 to 88% in 2020.⁴⁴

The main priorities of state policy on the development of higher education are **to ensure transparent and fair competitive conditions for entry into HEIs and to increase the financial and academic autonomy** of the latter.

The introduction of a ranking system among graduates based on External Independent Evaluation (EIE) is the most popularly supported state reform. The results of a survey on education under pandemic conditions conducted in July 2020 show that 67% of Ukrainians supported EIE even as secondary education became more difficult to obtain due to pandemic restrictions, with only 14% opposing it. Almost three quarters (70%) of respondents said that EIE has created a more equal environment for all applicants and 60% agreed with the statement that EIE has reduced the level of corruption during enrolment.⁴⁵

Following the elimination in 2020 of "waves for admission" with the full automation of the allocation of non-quota budgetary places according to the applicants' chosen priorities, it became impossible to influence this process manually, which further reduced the possibilities for abuse. This year, thanks to the increase of special quotas, admission opportunities to Ukrainian HEIs for graduates from the temporarily occupied territories have been extended.

⁴⁴ According to MES.

⁴⁵ Education and Pandemic: What Ukrainians Think of Distance Learning and How they Evaluate EIE, ILKO Kucheriv Democratic Initiatives Foundation.
<https://dif.org.ua/en/article/osvita-i-pandemiya-shcho-ukraintsi-dumayut-pro-distantsiyne-navchannya-ta-yak-otsinyuyut-zno>

The Bologna Process, which Ukraine joined back in 2005, is a powerful tool for improving the quality of higher education and the value of graduates in the labour market. However, the results of the implementation of the Bologna Declaration provisions in Ukrainian HEI cause significant concerns. Thus, the principle of students' self-determination of their educational path based on the choice of disciplines and lecturers who teach them has not yet been implemented.

In recent years, the state's efforts have also focused **on improving the system of competitive admission to HEIs for the Master's degree on the basis of a single entrance examination**. Institutions of higher education have been granted the right to set their own entrance examination weights for the Master's degree, provided that the weight of the foreign language examination is at least 25%.

In July 2020, the CEENQA General Assembly granted the National Agency for Quality Assurance in Higher Education (Ukraine) full membership in the Central and Eastern European Network of Quality Assurance Agencies for Higher Education (CEENQA).

One of the most painful problems of higher education has already been identified in the early years of the implementation of unified qualification examinations which is **the low level of knowledge of graduates from HEIs**.⁴⁶

This has an impact on their employment opportunities. In 2020, 9.3% of all unemployed (according to ILO methodology) were graduates of educational institutions who could not find a job after completing their studies.⁴⁷ Among those registered as unemployed by the State Employment Service in 2021, the largest share (50%) had higher education, only 33% had vocational education and 17% had general secondary education.⁴⁸

Low enrolment rates are a serious threat to Ukraine's future economic sustainability. The state needs to stimulate professionals to continue learning. An advisory centre could be a tool to support them with information, providing assistance to workers who want to upgrade their qualifications or change their sector of employment but do not know how best to do so. Such centres could be implemented on the basis of the portals "Diia.Digital Education" and "Diia.Business", which already provide advisory services on education and support for small and medium-sized businesses.

The provision of lifelong learning opportunities for citizens implies not only the implementation of the traditional concept of adult education (within the framework of formal, non-formal and informal education), but also the creation of conditions **for improving the skills of workers in all areas of employment, increasing their professional and occupational mobility**. The Draft Law "On Adult Education" defines the priority areas of adult education, in particular on the formation of key competences, recommended by the European Union for lifelong learning. It also defines the principles of cooperation between the state, local authorities and providers of adult education. However, this document is only a framework, whereas the practical implementation of lifelong learning implies the development of an employment culture in which workers are personally interested in lifelong learning and development of their own qualifications.

⁴⁶ Why a National Agency for Higher Education Quality Assurance is needed, Sudebno-yurydychna Hazeta v Ukraini. <https://sud.ua/ru/news/ukraine/135661-navischo-neobkhidne-natsionalne-agentstvo-zabezpechennya-yakosti-vischovi-osviti>

⁴⁷ According to the State Statistics Service

⁴⁸ Labour market situation and activities of the State Employment Service in 2021. <https://www.dcz.gov.ua/analitics/67>

3. LABOUR MARKET SUSTAINABILITY THREATS

The labour market is the place where accumulated human capital generates profits (both for its bearers and for the economy as a whole). On the one hand, a labour market forecast describes the areas of training, retraining and skills development of the existing workforce. On the other hand, the educational and qualification characteristics of the labour force set limits to the development of individual industries, which slows economic growth.

Labour market sustainability is critical for sustainable economic development. Above all, **the elimination of imbalances between supply and demand in the labour market** is necessary for entrepreneurs to benefit economically from the existing workforce, and for workers to provide for themselves and their families.

An adequate labour supply is a resource for accelerated economic growth. There may be situations in which one of the most important obstacles to growth in a sector is the lack of qualified labour. Radical increases in sectoral wages then lead to a "brain drain" of workers from related sectors, and the shortage of qualified personnel extends to them as well. A positive consequence of this is an increase in wages and improved employment conditions.

The past two years under pandemic conditions have revealed **the need for labour market resilience to the physical mobility limitations**. Both the structure of the labour market, which determines the number of workers whose work can be carried out remotely, and the state regulation that enables such work to be organised on legal grounds are important in shaping such resilience. The latter factor is crucial for the conversion to telecommuting of workers in public sector industries, which are major national employers.

3.1. EMPLOYMENT STRUCTURE

The domestic employment structure **does not provide conditions for the country's transition to post-industrial development**. Self-employment, characterised by high levels of involvement in low-productive individual farm work, and a large number of individual entrepreneurs, a considerable share of them employed in trade, remain outside the statistics on the distribution of workers by sector of employment.

An analysis of the distribution of full-time employees by employment sector shows that industry absorbs most of the labour force, while the largest sectors of the public sector together (education, health care, public administration, professional, scientific and technical activities) employ only 1.4 times as many workers as industry itself (Figure 9). However, developed countries have a much higher share of financial and consulting services, professional activities, information and telecommunications.

Figure 9. Distribution of full-time employees by employment sector in Ukraine in the second quarter of 2021, thousand persons



Source: State Statistics Service

Most Ukrainian enterprises, especially in the primary sector of the economy, are technologically lagging behind, preserving the demand for low-skilled labour. This not only contributes to the preservation of the existing professional and qualification structure, but also reduces the chances for those employed in low-paid jobs to change careers, because as workers become older, it becomes increasingly difficult for them to engage in production innovations.

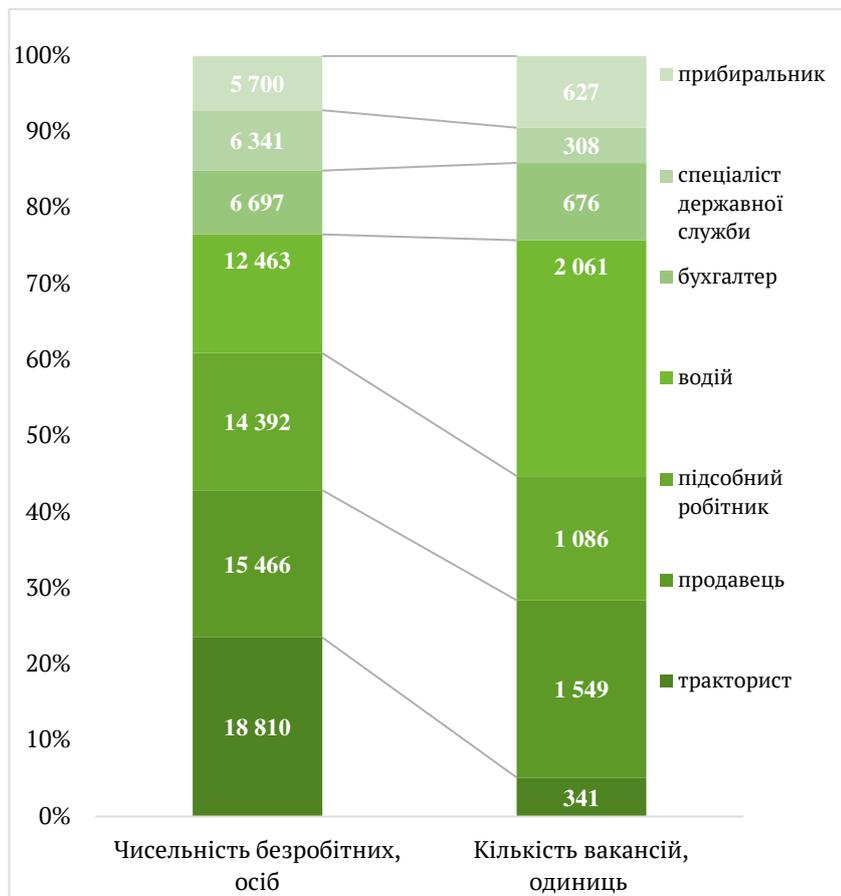
The current employment structure is **one of the reasons for low productivity** in Ukraine, as a large share of the population is employed in low value-added manufacturing. At the same time, a notable proportion of professionals (including those in IT, creative industries, design, etc.) have the skills that enable them to enter the global labour market and obtain high remuneration for their work. This leads to cross-sectoral differentiation in remuneration.

Professional and skill imbalances

The domestic labour market is characterised by many imbalances, the most significant of which is the **mismatch between supply and demand in the labour market for professions** and the **mismatch between the skills and competences** possessed by university graduates and **the labour market needs**.

When the COVID-19 restrictions were lifted, official data from the State Employment Service (SES) showed a significant (sometimes more than 10 times) prevalence of unemployment over the number of vacancies (Figure 10). This is true for both specialists and representatives of working professions.

Figure 10. Ratio of unemployed to the number of vacancies in professions with the highest labour supply⁴⁹, persons



Source: Based on data from the State Employment Service

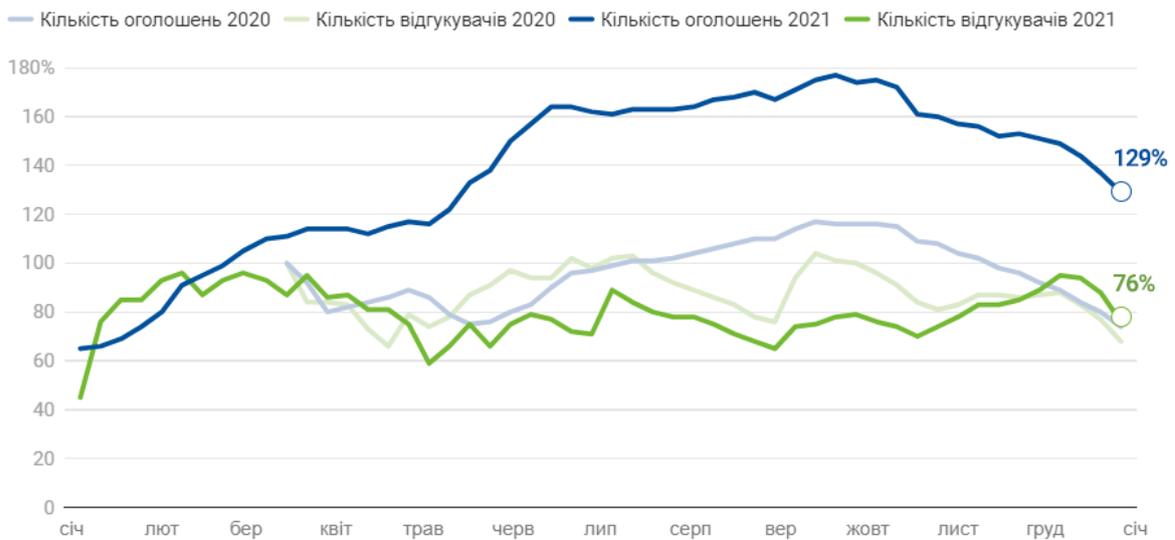
Since the SES is responsible for both finding employment and granting unemployment benefits, users of its services constantly turn to it only to receive the corresponding benefits, without counting on actual employment, often even outright sabotaging its offers. Therefore, employers are not interested in approaching the SES.

At the same time specialized databases of private advertisements show a stable excess of demand for job specialties over the number of people responding to the vacancy announcement starting from March 2021 (Figure 11).

One of the reasons for the shortage of such workers is the decline in vocational education and young people's ignorance of the professions for which there is the greatest staff shortage, due to stereotyped perceptions about the prestige of certain professions.

Figure 11. Number of vacancy announcements and responses to those offers in 2020 – 2021.

⁴⁹ As of 1 January 2022.



Source: private classifieds website OLX Jobs, Opendatabot calculations ⁵⁰

The mismatch between the knowledge, skills and abilities of workers who enter the labour market, and its needs is evident from employer feedback in special education quality surveys. The results of one of the most recent⁵¹ showed that Ukrainian business representatives prefer to see young workers as innovative with analytical thinking skills. Creativity and out-of-the-box thinking are in high demand in industry, stress resistance and endurance in services, and analytical skills in IT. Domestic education is quite competitive in terms of knowledge provision and fundamental learning, but **the organisation of the educational process does not allow students to gain soft skills, teamwork skills, show initiative, out-of-the-box thinking and take more responsibility for the learning outcomes.**

Limited opportunities for remote work

The employment structure described above, in which the nature of work for the vast majority of workers does not allow for off-site work, reduces the opportunities for remote employment. In a special survey on workers' attitudes towards remote employment, 53.6% of respondents stated that they had a job that could not be done remotely.⁵²

The possibility of working remotely depends on the area of employment. Traditionally in Ukraine, even before the pandemic, remote or partially remote employment was practised by international IT companies whose project work is built on the formation of international teams with specialists. Among the spheres where companies have a successful experience of telecommuting in recent years and are ready to stay in this mode after the pandemic is over are legal services (50% of companies are ready to implement a remote work mode), accounting and finance (42%), marketing (42%), analytical work (40%) and HR services (31%) (31%).⁵³

⁵⁰ Published on the website of the Centre for Economic Strategy in the Ukrainian Economic Recovery Tracker.

<https://ces.org.ua/ukraine-economic-recovery-tracker/>

⁵¹ Future of Work 2030: How to Prepare for Change in Ukraine, Centre for Corporate Social Responsibility Development, Career Hub .

<https://careerhub.in.ua/wp-content/uploads/2021/07/Future-of-Work-research-Ukr.pdf>

⁵² The Socio-economic Impact of the COVID-19 Crisis. Information and Analysis report, Razumkov Centre.

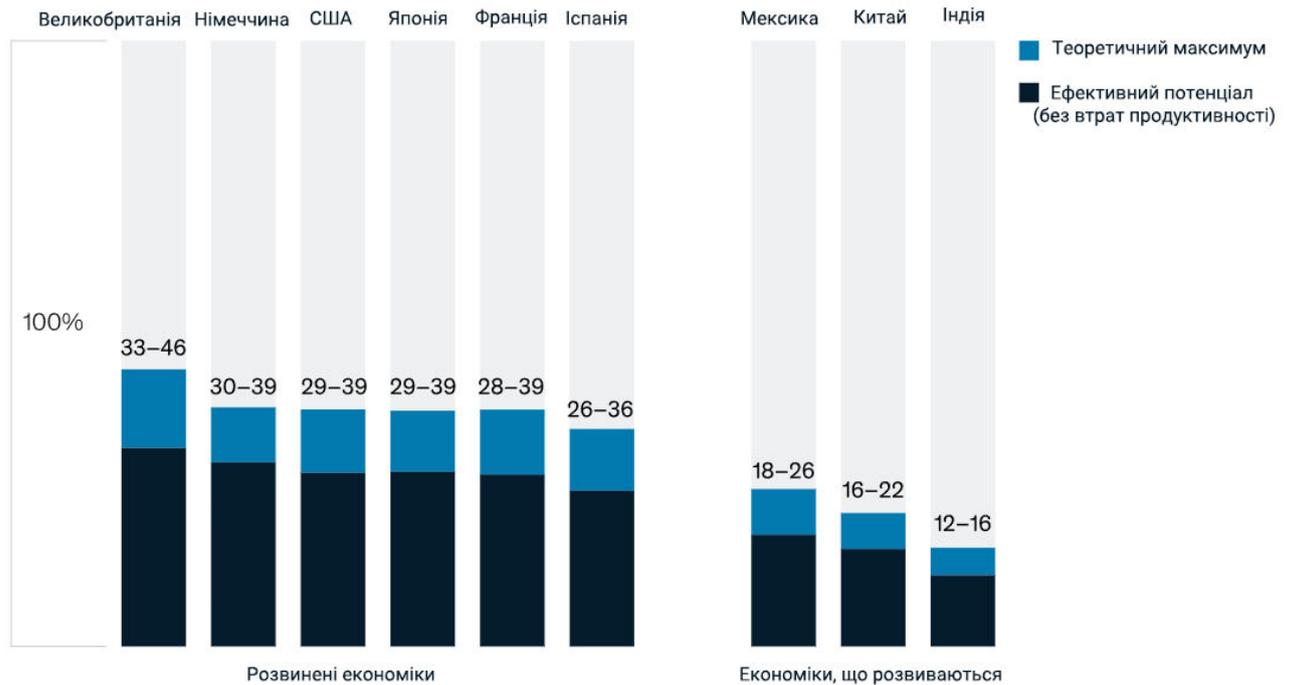
https://razumkov.org.ua/uploads/article/2021_Socialno-Ekonomichni_naslidky_koronakrzyzy.pdf

⁵³ Reduced Rental Space and Partially Remote Working: How Will Companies Work in Ukraine after the Quarantine Ends (survey of 50 companies from 14 business sectors), CBRE Ukraine.

<https://cbre-expandia.com/skorochennya-orendnih-ploshh-ta-chastkova-viddalena-robota-yakoyu-bude-robota-kompanij-v-ukra%1%97ni-pislya-zakinchennya-karantinu/>

Using data on employment structure in developed and developing countries, analysts at consultancy firm McKinsey have demonstrated how the proportion of working time in the economy that could potentially be used for telecommuting differs from country to country (Figure 12). They note that the opportunity to move to telecommuting for a significant proportion of workers in developed economies (highest in the UK) is driven by the strength of the financial services sector, which has the greatest potential to move to telecommuting. In developing economies, however, the potential for developing newer forms of work organization is limited by the large share of jobs that require a physical presence and manual work.⁵⁴

Figure 12. Proportion of working time potentially available for telecommuting



Source: McKinsey research⁵⁵.

Consequently, the domestic employment structure imposes constraints on most employers in terms of the adoption of telecommuting and the hybrid employment models.

3.2. LOW LEVEL OF ECONOMIC ACTIVITY

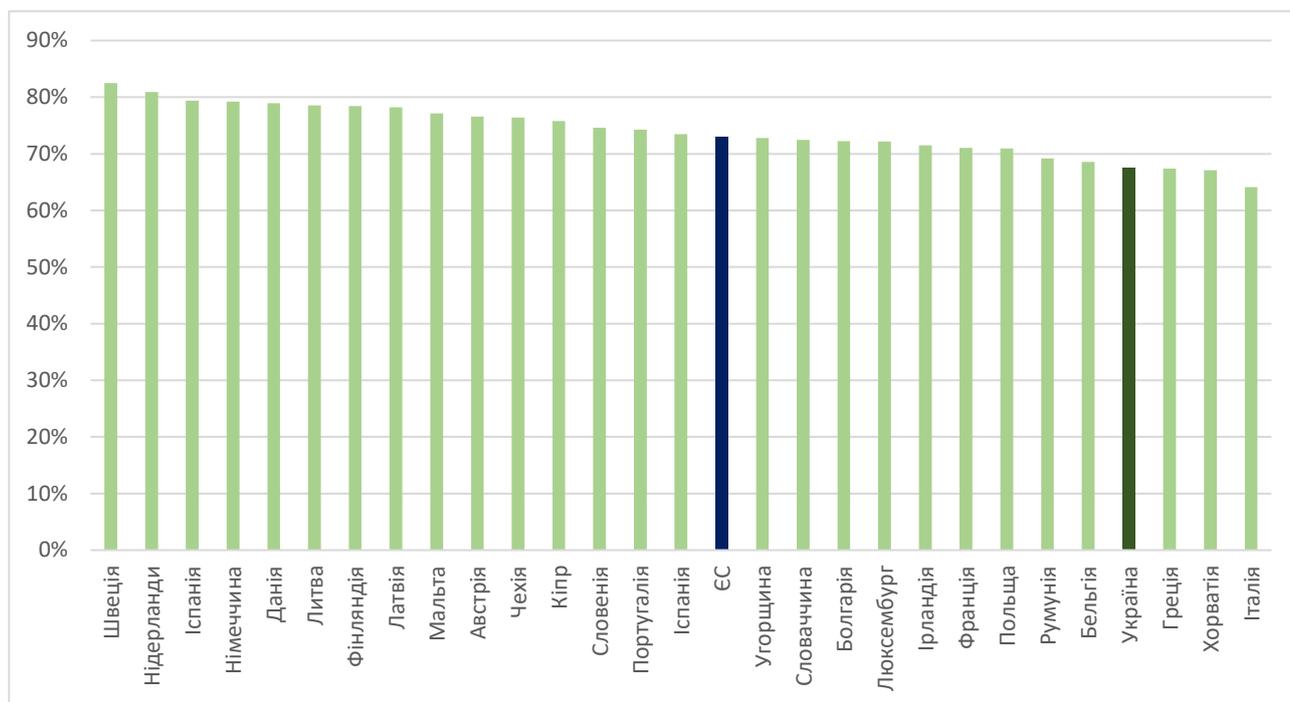
Ukraine has one of the lowest levels of labour force participation in Europe (Figure 13). Compared to other socio-demographic groups, economic activity is low among young people aged 15-24 (31.9% of the total

⁵⁴ What's Next for Remote Work: An Analysis of 2,000 Tasks, 800 Jobs, and Nine Countries, McKinsey. <https://www.mckinsey.com/featured-insights/future-of-work/whats-next-for-remote-work-an-analysis-of-2000-tasks-800-jobs-and-nine-countries>

⁵⁵ What's Next for Remote Work: An Analysis of 2,000 Tasks, 800 Jobs, and Nine Countries, McKinsey. <https://www.mckinsey.com/featured-insights/future-of-work/whats-next-for-remote-work-an-analysis-of-2000-tasks-800-jobs-and-nine-countries>

population of the respective age group, and 29.4% for urban youth) and women (48.1% of the total population of the respective gender aged 15 and over)⁵⁶.

Figure 13. Labour force participation rate of population aged 15-64 in 2020, % of total population of relevant age group



Source: Eurostat, State Statistics Service

The population outside the labour force includes more **pensioners** (65.3%), **full-time students** (15.2%), and **those with household responsibilities** (on average 15.7% for both sexes, 21.2% for women, and 6.4% for men).

It is noteworthy that **the loss of human capital from non-participation in the labour force is higher for women**. For example, only 67% of women with a complete higher education were economically active, compared with 78% of men with the same level of education. The biggest gender difference in the activity rates is among highly educated people in the 15-34 age group (76.4% for women compared to 95% for men), which can be explained by the fact **that women leave the labour market to take care of young children**.

The fact that **labour force participation increases with the level of education** (economic activity rates in 2020: 71.8% for those with complete higher education, 62.4% with basic higher education, 64.1% with vocational-technical education, 42.7% with complete general secondary education, 11.9% with basic education, general secondary education or no education) shows **the unwillingness of young Ukrainians to enter the labour market as long as their labour costs remain low**.

Despite an increase in the retirement age and work experience requirements, as well as some progress in the health and well-being of older employees, **the economic activity rate of Ukrainians after age 60 declines significantly**: from 72.3% in the 50-59 age group to 11.2% in the 60-70 for women and from 77.4% to 16.2% for men.

⁵⁶ Hereinafter in 2020 according to the State Statistics Service.

The fact that the labour market is pushing out elderly workers (as well as pre-retirement age) due to the lack of sufficient vacancies with good employment conditions proves the largest shares of the potential labour force⁵⁷ **among pre-retirement age** (as compared to other age groups). Thus, of all women in the potential workforce in 2020, 22.1% were aged 40-49 years and 27.1% were aged 50-70 years; in the potential workforce of men, the highest proportion was of those aged 40-49 years: 24.1%.

A higher level of economic activity is the immediate potential for expanding the workforce, so attracting representatives of these socio-demographic groups to the labour market should be a separate objective of an active employment policy.

3.3. INFORMAL EMPLOYMENT

The significant prevalence of informal employment is one of the biggest institutional problems of the domestic labour market. Official statistics show that in January-September 2021 there were 3,122,800 people employed informally, or 19.8% of all employed people.⁵⁸ The largest sectors of informal employment are agriculture (46.6% of all workers), construction (16.9%), wholesale and retail trade, and repair of motor vehicles and motorbikes (15.1%).

The vast majority (83.4%) of the informally employed were hired workers and only 15% were self-employed, although the prevailing opinion in society is that individual professional services (such as tutoring, hairdressing, cosmetology, psychological counselling, etc.) have significant potential to de-shadow the labour market. This stereotype was formed because self-employed people were more likely to deliberately informalize their employment status (68.5% of respondents in this category worked informally). However, in absolute terms, there are many more hired workers in the shadow sector, so the main state policy measures aimed at deshadowing the labour market should influence employers.

Low level of employees' social protection and restriction of their economic rights

The most negative aspect of shadow employment for employees is social insecurity. The lack of formalised employment prevents employees from realising their basic labour rights: to rest, have safe working conditions and timely payment, be lawfully laid off, keep their job during pregnancy and childbirth, and care for a child under 3, receive social protection during illness or involuntary unemployment, have their employment record accrued for retirement benefits, and so on.

The lack of an official income also limits a person's economic rights by reducing his or her chances of obtaining a bank loan, making it impossible to obtain tax exemptions and deductions, and putting into question the legality of making large purchases.

The risk of labour exploitation, violence and other forms of abuse increases when the most vulnerable categories of workers (women, young workers, migrants, elderly) are involved in informal employment.

Consequently, the large-scale spread of informal employment worsens the environment for labour relations and affects their overall quality. On the one hand, the large amount of informal employment allows economic entities that are not exposed to violations of the law to lower thresholds for social protection of workers. On

⁵⁷ According to the methodology used by the State Statistics Service, it includes persons who want to work but are not ready to start work in the near future or are not looking for work at the time of the survey.

⁵⁸ Hereinafter data on informal employment published by the State Statistics Service in the collection "Labour Force of Ukraine" for the year 2020.

the other hand, employers who fully comply with all legal requirements find themselves in worse economic conditions than violators. This leads to the shadowing of entire employment sectors.

Reduced social fund payments

The main risk of informal employment for the state is underpayment of social funds. Most employers do not declare an employment contract with their employees because they avoid paying taxes on labour, which is often the main reason for not doing so. Employees are presented with the situation in such a way that ostensibly by saving on mandatory deductions, they can get a higher wage "in hand".

The state's ability to fulfil its social obligations, in particular to support those over working age, is reduced. This politicises the issue of welfare reform, increases social tensions and undermines the foundations of social solidarity.

Constantly, when the issue of low pensions is raised, the authorities tend to describe the situation as "a fatal consequence of demographic trends", but the easiest and most effective way to increase social security contributions is to de-shadow employment.

Skill downgrading and income losses

Informal employment has a negative impact on workers' incomes, both in the short term (through non-adherence to social insurance) and in the long term. Informal labour is "trapped" in the informal sector through skill downgrade, failure to certify work experience and skills to move into formal employment.

Any employment that does not meet the criteria of merit creates economic "traps" for the worker. Employers who do not care about the social protection of workers are not inclined to invest in their professional development either. Employees who do not have a decent chance to change jobs find it very difficult to assess the current demands of the labour market and their ability to meet these demands. This ties them even more to their current job. It is difficult for undervalued human capital to regain its original value, and even more difficult to increase it.

3.4. AUTOMATION AND DIGITALISATION

In the twentieth century, the reduced role of humans in production was achieved by increasing automation. This process continues, but today, the optimization of business processes (including by using fewer human resources) is mainly driven by digitalization. While digitalization affects all spheres of life, its impact on the service sector is the most important for labour market development in the fields of education, health care, banking and insurance services, consulting services, tourism business, recruiting services, etc.

In Ukraine, digitalisation is the backbone of government policy, so the traditionally inert public sector is keeping up the pace as well as business, and in some respects is leading. This is particularly true for social and administrative services, where there has been notable progress.

Reduced job demand

The most popular concepts of structural change in the labour market caused by technological developments suggest that:

- 1) demand for high-skilled workers with creative tasks will increase, while low-skilled workers will risk losing their jobs⁵⁹;
- 2) declining labour market demand will primarily affect medium-skilled office workers, for whom the risk of job loss will be higher than for low-skilled workers.⁶⁰

Recent practice shows that these are not alternative developments, but parallel processes. For example, drones are already being used for courier delivery, and the number of office workers in non-core business units can be reduced thanks to electronic document management and modern software.

However, replacing cheap manual labour with expensive equipment is still not always economically feasible, and working with modern software still requires human involvement, albeit to a lesser extent. Consequently, the reduction in demand for work in the first phase is likely to be "pinpointed" and will affect individual professions in individual companies rather than entire industries.

Given automation and digitalisation, the most likely scenario of change in the labour market is a gradual change in demands for the specific professional skills. For example, the demand for accounting, warehousing and recruitment professionals is not likely to disappear completely, but they will perform other functions and tasks, so those who do not want to change careers will have to upgrade their qualifications and learn new skills.

Development of sectors with skills shortages will be slowed down

Skills development will be viable in those sectors where the cost of human capital accumulation will be justified for both employers and employees. In others, innovative development will be less dynamic.

At the same time, there are many employment sectors in Ukraine where the workforce is ageing (healthcare, education, research, and development). Therefore, their pace of transformation is objectively limited by the number of young workers who create demand for innovation and apply technologically breakthrough work methods. At the same time, the industry can evolve as a result of increased demand for new products, working methods and ways of providing services, as well as increased competition in the market.

3.5. POLICIES FOR LABOUR MARKET SUSTAINABILITY

The labour market is developing amidst increasing competition for labour, the emergence of new technologies, production and managerial innovations, and the changing employment modes and nature of work. However, government approaches to employment regulation have hardly changed over the whole period of independence. Therefore, legal regulation of labour relations has been ineffective in improving their quality. The labour market is seen as a self-regulating mechanism, where the cost of labour is set based on the interaction of supply and demand.

Although the state in declarative terms promotes employment, in reality the main function of the authority responsible for this task is the administration of social insurance payments in case of unemployment. The

⁵⁹Krusell, Per, Lee E. Ohanian, José-Víctor Ríos-Rull, and Giovanni L. Violante. "Capital-skill complementarity and inequality: A macroeconomic analysis." *Econometrica* 68, no. 5 (2000): 1029-1053. <https://doi.org/10.1111/1468-0262.00150> .

⁶⁰Goos, Maarten, Alan Manning, and Anna Salomons. "Explaining job polarization: Routine-biased technological change and offshoring." *American economic review* 104, no. 8 (2014): 2509-26. <https://www.aeaweb.org/articles?id=10.1257/aer.104.8.2509>

legal regulation of labour relations does not work effectively to improve their quality, and collective bargaining still prevails over the application of individual employment agreements and contracts.

Meanwhile, while developed countries are trying to modernise their employment structures, constantly monitoring changes in the demand for professions and specific skills and using effective instruments of labour supply expansion and legal regulation of employment, in Ukraine state policy on the labour market remains largely reactive. And in some cases, negative phenomena do not even get the slightest reaction from the state.

The most sensitive problems on the labour market have persisted for many years. First and foremost, these are:

1. **Low labour costs.** Ukraine is one of the few countries where it is not the involuntarily disabled or uneducated or marginalised people who are at risk of poverty, but rather qualified professionals employed in the economy (whether employed in their profession or not). The result of low labour costs is poverty for families with children and high rates of labour migration. An increase in labour costs has never been a priority for the state, and the implementation of the low-cost labour model has been presented as Ukraine's competitive advantage. But the only significant economic consequence of the 30-year implementation of this model has been the loss of human capital, both qualitative and quantitative.
2. **Intersectoral, regional and inter-settlement wage differentiation** leads to the brain drain of human capital from low-paid sectors of employment, regions with low demand for highly skilled workers, and rural settlements. Even if this brainwashing is not absolute, the existing human capital that is not financially stimulated to develop is losing quality due to the lack of conditions for reproduction.
3. **Low level of economic activity** is one of the consequences of low labour costs. The current level of wages does not encourage people to join paid employment. Social transfers and passive income still play a significant role in household incomes, where the share of wages has only exceeded 50% since 2017 (58.3% in 2020⁶¹). The female employment rate still lags far behind that of men (in January-September 2021 only 48% of women over 15 years of age were in the labour force, compared to 63.1% for men⁶²). This is the result of wage gaps between men and women, as well as the high cost of private household services and the low availability and quality of out-of-home childcare.
4. **High share of shadow employment** remains one of the most painful issues on the labour market. The state loses from this and so do employees and conscientious taxpayers, but the government's sporadic efforts to de-shadow. The drastic reduction of the unified social contribution (UST) rate to 22% in 2016 has in no way contributed to the wage de-shadowing.⁶³ This case confirms once again that entrepreneurs will minimise their tax payments as long as gaps in legislation allow them to do so, and that the only guarantee of compliance with the law is the severity and inevitability of punishment for its violation.
5. **Adult enrolment in all types of formal and non-formal learning is extremely low, and state policy on professional development does not reflect recent global** trends in the development of

⁶¹ According to the State Statistics Service

⁶² According to the State Statistics Service

⁶³ Melnichuk, G., Rainova, L., & Koshchuk, T. (2020). Analysis of the Effectiveness of Single Social Contribution Reform in Ukraine in 2016. *Financial and Credit Activity: Problems of Theory and Practice*, 4(35), 137–143. http://ir.nusta.edu.ua/jspui/bitstream/123456789/6623/1/6767_IR.pdf

the employment sectors in which it is applied. For example, pedagogical and medical staff undergo professional development followed by certification to obtain a higher qualification category (which is relevant for payroll). However, the professional development process itself is often formal and training programmes are not changed often enough to respond to professionals' needs for skills development in a timely manner.

The unresolved problems will not satisfy the demands of society for decent work, which is a prerequisite for the economic self-realisation of the individual in modern society. The thesis that the acquisition of up-to-date knowledge is a condition for decent self-sufficiency is nowadays questioned by few, but society wants to see a more obvious and indisputable connection between the quality of education of employees and their level of well-being.

The more opportunities for the realisation of human capital are created by the state, the greater will be the economic benefit of public investment in its formation and development.

4. RECOMMENDATIONS ON ENHANCING NATIONAL RESILIENCE IN HUMAN CAPITAL

4.1. SOCIO-DEMOGRAPHIC POLICY IMPLEMENTATION

Institutional support for demographic policy

"I had a proposal to create a Demographic Agency under the Cabinet of Ministers by 2025, which could have a coordinating role in relation to demographic policy. In order for it [demographic policy] to emerge as a policy, there should be a body, a central body of executive power and politicians should have an understanding of who creates it and on what grounds".

Halyna Tretiakova, Chair of the Verkhovna Rada Committee on Social Policy and Protection of Veterans' Rights

The implementation of individual demographic policy tasks is distributed among different authorities, which prioritise functions that only indirectly affect the key demographic indicators. At the same time, the citizens of the state are not aware of the state's qualitative assessment of current levels of fertility, mortality and migration, and the goals and tasks for state influence on them.

To implement demographic policies at the institutional level, its design and comprehensive implementation should be handled either by a separate body of executive power, or by a large unit within one of the existing ministries, or by an inter-agency commission with a special mandate.

Improving access to high-cost health services

"The state is working to develop mechanisms to help infertile couples. The Draft Law on Assisted Reproductive Technologies has been registered with the Verkhovna Rada of Ukraine. It is very important - we enable women to choose an institution and get help from the state for having children free of charge".

Given the complexity of the socio-economic factors that influence the fertility trend, at the current stage the state can concentrate its efforts on those aspects of activating human resource replenishment reserves which are easier than others. First and foremost, it concerns assistance to persons who, for medical reasons, cannot give birth to a child, and the preservation of the lives and health of children whose treatment requires significant resources.

The use of assisted reproductive technologies for medical reasons is becoming increasingly common throughout the world, but these technologies remain financially inaccessible for most childless couples in Ukraine. At the same time, many national systems all over the world, both voluntary and compulsory, consider the failure to achieve the desired pregnancy within a certain period of time (which may depend on the woman's age) as an insured event, providing for full or partial coverage of the cost of artificial insemination.

The Ukrainian government provides tax discounts for those who have already incurred private costs for the use of assisted reproductive technologies but does not yet provide **a reduction in financial barriers** for those who cannot afford it.

The urgent issues of increasing access to high-cost medical care include **the expansion of the list of diseases subject to mandatory, state-funded neonatal screening and the increase in funding of programs to provide medical care to children with orphan diseases**. The implementation of these measures will not only help to save the lives of those children who can be treated with the help of modern medical science but will also significantly improve their quality of life.

Mortality and disability reduction

"The medicine alone affects from 7 to 15% of how long a person will live. If we talk about why Ukrainians live less than Europeans (for example, Poles), it is a question of a lifestyle".

Matviy Khrenov, co-founder of the Ukrainian Health Center

Increasing life expectancy is a significant means for improving the efficiency of human capital use. The quality and availability of medical care has a limited impact on average life expectancy, but the economic losses from mortality and disability in the working age can be reduced by implementing measures such as **promoting healthy lifestyles and improving the quality of physical rehabilitation**.

"The quality of determining the cause of death is indicative of the quality of medical care in previous periods when the person was alive."

Oleksiy Sukhoviyy, expert at the Ukrainian Centre for Social Data

To prioritise the improvement of medical care, **the quality of information on mortality for individual causes must be improved**. Several studies state that the current mortality statistics are significantly distorted, which is due both to objective shortcomings of the registration system itself, the negligence of doctors, and their fear of bearing personal responsibility for the fact that particular deaths could (and should)

have been prevented by the healthcare system.⁶⁴ This brings up to date the issues of **insuring professional activities of doctors**.

"We don't have both a regulatory framework to protect the patient as well as the unprotected doctor. There should be insurance for medical activity, which we also do not have."

Matviy Khrenov, co-founder of the Ukrainian Health Centre

Modern rehabilitation technologies and methods make it possible to restore health and ability to work for people who 20-30 years ago were condemned to a life-long disability. However, the high cost of rehabilitation services and modern prosthetics, as well as outdated state and social attitudes to the economic role of persons with disabilities are obstacles to the inclusion of persons with disabilities in meaningful life.

"One of my professional priorities is to build a rehabilitation system in Ukraine, which I believe does not exist in its current form. It's about reducing disability, getting people back into the labour market."

Yuliya Sokolovska, Deputy Head of the Office of the President of Ukraine

The quality and quantity of physical rehabilitation services available free of charge in Ukraine cannot bring someone who has suffered a serious injury back to a full life. Physical rehabilitation work is usually difficult (both for medical professionals and patients themselves) and time-consuming, so it is expensive. Even in countries with the best medical systems, such services are not fully covered by the state or insurance companies, but the right of patients to be informed about their physical rehabilitation options (and the costs thereof) is always exercised.

It is not uncommon in Ukraine that patients in traumatology or orthopaedics departments are discharged from hospital without any consultation with a rehabilitator, although the medical package for the respective care provides coverage of medical rehabilitation services in the acute period. Consequently, rehabilitation services, the quality of which is as important to full recovery as the quality of surgery, are not given the necessary level of attention.

"Having received a rehabilitation care package, the person regains his or her ability to work. He or she can go to work, earn an income for the state, and, accordingly, the benefits that were provided to him or her become irrelevant."

Oleksandra Mashkevych, Head of the Medical Directorate of the Ministry of Health of Ukraine

Current legislation provides for periodic review of the status of a person with disability by the medical and social expert commission (MSEC), but persons with disabilities are for the most part interested in having it confirmed to retain state benefits (including allowances). This increases the risk of corruption in the assignment of disability groups. At the same time, the shortcomings of the system for providing persons with

⁶⁴ Noted in a speech at the forum by Oleksiy Sukhoviyy, an expert at the Ukrainian Center for Social Data.

disabilities with technical means of rehabilitation are not conducive to the most efficient use of the state funds allocated for this purpose in the interests of patients⁶⁵.

A revised system needs to be built in such a way that **all the medical specialists involved in the treatment of injuries** (traumatologists, orthopaedists, rehabilitation specialists, physiotherapists, and so on) are interested in helping all patients fully recover , **so that the proportion of such recoveries becomes a criterion for the quality of their work.**

Already in hospital, patients should be encouraged to make the most of the rehabilitation process. The benefits of **receiving full quality rehabilitation services should be explained on the condition that the person returns to paid employment afterwards.**

The quality of other health services should also **be evaluated** (both by objective statistical criteria and by patient satisfaction levels) and **taken into account when signing contracts with health care providers.**

Realising the migration potential

We see migration not as a bad thing, nor as a good one, but as an objective process. Migration management can be bad or good".

Kateryna Ardanyan, Migration and Development Specialist, International Organization for Migration in Ukraine

In most cases, migration has objective economic (less often humanitarian) causes and therefore management policies can only be effective if the economic interests of those involved and the countries of origin and destination of migrants are taken into account.

"It is absolutely impossible for a foreign student, who is here legally and wants to work as a Ukrainian student during his or her studies, to find a legal job in Ukraine".

Olena Malynovska, PhD, chief researcher, National Institute for Strategic Studies

The lack of legal employment opportunities for foreign students legally residing in Ukraine is an old mechanism to protect the interests of Ukrainian workers, but its persistence **in the context of a shortage of unskilled labour is unjustified.** Another urgent step in liberalizing the employment of foreigners should be **the legislative establishment of a time limit within which foreign students can be employed after completing their higher education.** The competition between receiving countries for foreign students as the most desirable category of immigrants is growing, but Ukraine is not included even through the implementation of migration policy measures that do not require significant funding.

The norm that the wages of foreign workers should not be lower than the ten minimum wages stipulated by Ukrainian legislation needs to be reconsidered. This level of wages for foreign workers prevents the attraction of migrants in low- and medium-skilled areas of employment, which are hampered by

⁶⁵ Top 10 corruption schemes. Providing persons with disabilities with technical means of rehabilitation, National Agency on Corruption Prevention, 2021.

https://nazk.gov.ua/wp-content/uploads/2021/10/top-10-TZR_final-2.pdf

the low supply of labour. As a result, the foreign labour is shadowed, and the state receives less taxes and other obligatory deductions.

"These legislative novels [on the need to confirm the sources of origin of funds when buying real estate] are a concrete signal to our migrants: "Please, guys, there is no need to buy flats in Ukraine, there is no need to bring money here, it makes no sense. Settle abroad, move your families there, settle down, open businesses there, etc."

Olena Malynovska, PhD, chief researcher, National Institute for Strategic Studies

The fact that remittances from labour migrants are a significant source of foreign exchange earnings has been established at the state level.⁶⁶ At the same time, the economists' speculations that any attempt to tax them in Ukraine will lead to a reduction in the flow of these funds have gone unheeded by lawmakers.

Current legal norms on capital amnesty do not provide for special procedures to confirm the origin of funds earned by Ukrainians abroad, while the relevant practices are widely used by banking institutions in the world to assess the solvency of migrant borrowers. If Ukrainian migrant workers are not able to use their foreign earnings freely in Ukraine, this will be an additional incentive for them to invest these resources in business and real estate abroad.

The use of the investment potential of funds earned by labour migrants abroad should become one of the official objectives of economic policy (especially in the context of regional development), ensuring that economic measures envisaged by government initiatives are subject to its implementation.

4.2. EDUCATION REFORM

Rethinking the role of higher education

"Educational programmes will stimulate the development of human capital. They will ensure grants for education abroad and in Ukraine, internships abroad, and the arrival of foreign lecturers and trainers to Ukraine".

Yuliya Sokolovska, Deputy Head of the Office of the President of Ukraine

Until recently, graduates of higher education institutions were expected to be able to learn (i.e. to successfully adapt in the workplace), to have a sufficient level of fundamental knowledge of the spheres where their work would be applied, and to successfully practice self-organisation skills.

Nowadays, with the deepening economic integration of countries and the elimination of national borders in many areas of employment, young people are entering the labour market with **the ability to work in a multicultural environment**. Given the pace at which international business relationships are developing and deepening, the need to build workers' communicative mobility in a foreign language environment is increasing every year. They must not only use their language skills to communicate effectively in a foreign language but also be able to reproduce typical and atypical business situations in that language.

⁶⁶ Remittances from labour migrants: current situation and future outlook, National Bank of Ukraine, 2020. https://bank.gov.ua/admin_uploads/article/Transfers_from_migrant_workers_Tokarchuk_2020-06-03.pdf?v=4

It is especially important for **workers to have a communicative tolerance**, which is an additional advantage when solving work tasks in a foreign-language professional environment.

The mastery of 'soft' (or universal) skills becomes one of the conditions for higher education graduates to ensure their own competitiveness in the labour market. **Higher education institutions should offer learning that develop these skills:** teamwork, extensive involvement in creative and social activities, interaction with the 'real world' outside the student campus both in the form of internships and practical projects.

Nowadays, the period of higher education is **the initial stage of a young person's adaptation to the global world**. International student exchange programmes, open online courses on educational platforms, international volunteer programmes, internships abroad, etc. are the instruments of such adaptation. Enriching individual experiences by participating in such programmes is an important prerequisite for students **to develop an open mindset**, which will further enable them to adapt to the constant changes in management and work organisation technologies.

Modern educational training programmes should not only provide students with a certain amount of knowledge, **but also address the challenges of increasing the overall adaptability of higher education graduates and their ability to work and develop in an uncertain environment.**

Vocational education and training: solving the problem of student engagement

"It is not enough to know what kind of professionals are needed in the labour market, you really need to know what kind of skills and competencies they need to be successful".

Iryna Shumik, Director General of the Directorate of Vocational Education, Ministry of Education and Science

The main aim of vocational education and training is to provide practical skills that can be applied to work as early as tomorrow. It is predominantly practice-oriented, so **training should be firmly linked to short- and medium-term labour market needs**, both in terms of the number of graduates in certain occupations and the range of skills they are expected to possess.

Therefore, **continuous monitoring of labour markets** (both national and regional) and **communication with employers** are important elements in the development of vocational education and training. The involvement of employers in the training of workers is also an indispensable element of the material and technical provision of the educational process. Appropriate training is not possible without many hours of **practical training or the introduction of a dual form of education.**

The relevance of the content of vocational education and training should be ensured **by updating vocational standards for blue-collar occupations on a regular basis** in accordance with current production needs and the level of production automation.

The promotion of vocational education and training institutions among school graduates is addressed **by establishing higher scholarships for students at this educational level.** If vocational students understand the advantages of their vocational choices already at the training stage, this will be the best argument for attracting young people into working professions.

Overcoming mental barriers to adult education

"People are used to getting education for free, and when we talk about career development, additional programmes, further training courses, re-training, everyone also expects that someone has to pay for it."

Iryna Shumik, Director General of the Directorate of Vocational Education, Ministry of Education and Science

One of the greatest challenges of modern public education policy is to increase the participation of adults in formal and non-formal learning. Easily accessible learning resources open up opportunities for professional development and requalification for people of all incomes, but widespread negative stereotypes hamper the mass involvement of adults in training programmes and courses, e.g:

- ✓ the employer must pay for the employee's training, as he/she has the greatest interest in the employee's mastering new knowledge and skills;
 - ✓ training programmes for adults are of a theoretical nature, and mastering them does not give any advantages on the labour market;
 - ✓ training requires a lot of effort that is not economically justified.
-

"Before, in order to survive, you had to work. Now you have to work and learn".

Natalia Yemchenko, Director of Public Relations and Communications, SCM

Due to the obsolescence of professional knowledge that accelerates every year, the gap between employers' demand for certain skills and the level of employees' mastery of these skills is constantly growing. Nowadays, the professional qualification of in-demand specialists goes beyond the ability to perform functional duties in a quality manner. The key to the competitiveness of both young and experienced professionals is the **ability to adjust their own career paths** according to major trends in employment or even the labour market as a whole.

The state needs to promote at all levels the thesis that the professional development of a specialist is his/her own responsibility - innovations (and with them the demands on the labour market) are changing so rapidly that some employers themselves are not prepared to offer the most technological employment options for certain professions.

At the same time, being free to determine the directions of his/her own professional development, a specialist can master the segments of his/her own profession that interest him/her, envisage promising directions of development of the industry in which he/she is engaged, increase professional mobility by acquiring useful competences that are not yet widely spread in the domestic labour market. If necessary, a specialist should be prepared to move into related, better-paid occupations and, in some cases, radically change the direction of professional training.

A positive perception of professional development programmes for adults will be formed along with the modernisation and practical content of those training courses that are most common in our country: for workers in the public sector, who are required to upgrade their skills (health workers, teachers, civil servants).

Expanding the forms and increasing the flexibility of these courses, together with the **introduction of the possibility for public sector employees themselves to independently choose the direction of**

advanced training, will help **to overcome the negative perception of adult training as an onerous obligation**, which makes it difficult to perform basic work.

"The main task of the state is to create a system where adult education and training is a market. And a market where there is not only a state operator, but a flexible market... Adult education should be a structure that the state constructs in a certain way, but it is a market with many operators".

Natalia Yemchenko, Director of Public Relations and Communications, SCM

In addition to the ideological component, the state's adult education policy should also contain a number of practical measures aimed at

- ✓ creating favourable conditions for the development of the sector;
- ✓ providing strategically important "niche" areas of professional development and retraining at the expense of public funds;
- ✓ establishing rules for the provision of adult education services, in which the labour market will accept and welcome certificates and other documents on the successful completion of training courses.

4.3. CHANGES IN EMPLOYMENT POLICY

Increasing labour market flexibility

Ukraine has seen a marked structural change in the labour market as a result of young workers moving into sectors where flexible employment can be applied. The same tendencies are emerging on the domestic labour market that are also spreading in developed countries. The main one is the **introduction**, where possible, of **hybrid forms of employment** that best suit all sides of the employment relationship.

The state can contribute to this process in two ways:

- ✓ **expanding the legal framework for non-standard forms of employment;**
- ✓ establishing processes for the transition to telecommuting in the public employment sector.

In particular, the Ministry of Economic Development, Trade and Agriculture **should compile and submit for approval to the Cabinet of Ministers a list of positions and professions for which work can be done remotely**. Regulations should also **be developed for enterprises, institutions and organizations to switch to telecommuting in case of unpredictable situations**.

Incentives for labour mobility

"The quality-of-life spheres [of employment] are growing extremely fast. "

Natalia Yemchenko, Director of Public Relations and Communications, SCM

Due to the large differences in working conditions and pay between the public and private employment sectors, labour market heterogeneity is a significant factor for low intersectoral mobility. **Wage systems in the public sector**, where seniority and length of service bonuses form a significant part of the wages, **pose economic barriers to the transfer of workers from other sectors**. They make employment in education, health care and public administration unattractive to young specialists with specialized training. **Remuneration systems in these sectors need to be reformed by raising wage shares**.

Deficits in sectoral and regional labour markets lead to spontaneous market-based wage increases, which stimulate spatial and intersectoral mobility. However, when wages are above the market average before there is a noticeable deficit in the market, the employer has the opportunity to make a better selection of candidates and ensure a gradual replacement of the workforce.

The creation of a centralised system for monitoring labour demand and wages on regional and sectoral labour markets will allow employers to plan human capital development and staff flows in their own enterprises and organisations in a qualitative manner. The same system can provide data for information campaigns on vocational guidance and retraining. Employees should also be interested in training and changing their area of employment before the labour market becomes overcrowded with redundant workers with similar qualifications.

The growing role of competencies

"We predict very rapid changes in the labour market. This also applies to vocational competences. Qualifications are changing, professions are changing, their content is changing."

Halyna Tretiakova, Chair of the Verkhovna Rada Committee on Social Policy and Protection of Veterans' Rights

One of the consequences of automation and digitalisation **is a change in the qualification requirements for professionals and their job responsibilities**. Innovations more often lead to a change in the nature of work than to the complete disappearance of occupations.

For example, as a result of automation, there has been an improvement in employment conditions in industry. The ability of a worker to operate an automatic machine becomes more important than the ability to perform manual operations. By acquiring this skill, the worker is able to apply it in another industry, so that the possibilities for the application of his labour are widened.

Likewise, for office workers, mastering advanced software often plays a more important role than basic education. Consequently, **the chances of a successful employment increase with the expansion of a range of competences** that he or she can acquire relatively quickly by combining work and training.

In order to stimulate professional development of workers and increase their competitiveness, the state should **establish a system of recognition of learning outcomes obtained through non-formal and/or informal education**.