

Human Capital and Ukraine's Reconstruction

Global Lessons for Recovery

Understanding the Challenge

Russia's 2022 full-scale invasion of Ukraine, which has resulted in widespread displacement and refugee flows, severe civilian and military casualties, the mobilization of hundreds of thousands of soldiers and a still-reeling economy, has severely affected the country's human capital stock. Despite a highly educated population, even before the 2022 invasion Ukraine was facing challenges of emigration, a declining labor force and growing skills mismatch between job vacancies and candidates. All these factors have been exacerbated by the ongoing conflict.

Pre-war patterns of population decline, as well as emigration, conscription, and economic disruption have compromised Ukraine's labor force and add to pre-existing human capital challenges. While Ukraine has a highly educated human capital pool, even prior to the war the country experienced a labor force decline, imbalances and skills gaps. Between 2008 and 2021, the labor force declined by 18.4 percent and employment declined by 18.8 percent. Roughly 40 percent of employers report "significant skills gaps in the labor market that harm their businesses," while university graduates must take jobs that do not require a degree.¹

These issues have continued during the war but are further complicated by the conflict's dynamics and the demands of reconstruction. Structural disparities in the economy mean that there are many more job seekers than vacancies, but at the same time some sectors—including construction, education and healthcare—have significant labor shortages. The reconstruction effort will also require a skilled workforce to support Ukraine's energy, construction and transport sectors, as well as technical specialists and highly capacitated local government officials who can manage reconstruction planning and execution.

Safely and systematically incentivizing the return of displaced populations is perhaps Ukraine's most daunting task for rebuilding its human capital. According to a survey conducted by

the United Nations High Commissioner for Refugees (UNHCR), 80 percent of Ukrainian refugees "hope to return to Ukraine one day, however, just 14 percent plan to do so in the near future."² Several push and pull factors impact Ukrainians' plans. Family reunification, a perception of increased safety in certain areas and "pushing out of EU factors," such as difficulty integrating into host countries due to bureaucratic hurdles, lack of financial resources and challenges finding employment constitute the top pull factors.³ Push factors that influence Ukrainian's decisions to remain abroad include safety concerns, fear of repeated displacement, psychological trauma from the war, loss of homes and jobs and a lack of basic services and resources in Ukraine.⁴ The extension of the EU's Temporary Protection Directive until March 2025, which allows Ukrainian refugees to legally reside and work in the EU, will likely incentivize many to remain in the host countries in the short term. Furthermore, while Ukrainians face barriers to employment similar to other refugee populations, initial analysis suggests Ukrainians are participating at a relatively high rate in the labor market and have benefited from EU and host nation job matching and employment schemes.⁵

Moving Forward: Recovery with Ukrainian Human Capital

Recognizing the enormity of this challenge, in October 2023 the Ukrainian stakeholder held the Human Capital UA forum, an all-Ukrainian discussion on the topic of human capital development, organized in collaboration with domestic and global economic and labor experts and international donors.⁶ The discussion focused on research, reporting and recommendations related to the financial costing of and institutional framework for human capital development, the human impact of the war and a vision for the future of work in Ukraine. A primary conclusion was that Ukraine's human capital development approach will need to focus both on attracting specialists from the domestic market and motivating professionals from other countries to work in Ukraine.

1. "Future of Work: Development of Human Capital in Ukraine," EasyBusiness, 2023, <https://www.humancapitalua.com/research/>; See also: Oleksandra Kolomiiets and Maksym Samoiliuk, "Ukraine's Resilience to Crisis: Human Capital," The Centre for Economic Strategy, Feb 10, 2022, <https://ces.org.ua/wp-content/uploads/2022/04/UKRAINES-RESILIENCE-TO-CRISES-HUMAN-CAPITAL-.pdf>.

2. "Ukraine situation," United Nations High Commissioner for Refugees, <https://reporting.unhcr.org/operational/situations/ukraine-situation>.

3. Anastasiya Ryabchuk, "Who Will Stay and Who Will Return? Divergent Trajectories of Ukrainian War Refugees in the EU," *Lefteast*, January 17, 2023, https://lefteast.org/divergent-trajectories-of-ukrainian-war-refugees-in-the-eu/#_ftnref9.

4. "Voices in Europe: Experiences, hopes and aspirations of forcibly displaced persons from Ukraine," EUAA and OECD, March 8, 2024, https://www.oecd-ilibrary.org/social-issues-migration-health/voices-in-europe_ae33637c-en.

5. "What we know about the skills and early labour market outcomes of refugees from Ukraine," OECD, January 2023, <https://www.oecd.org/ukraine-hub/policy-responses/what-we-know-about-the-skills-and-early-labour-market-outcomes-of-refugees-from-ukraine-c7e694aa/>.

6. Human Capital UA, <https://www.humancapitalua.com/about/>.

Ukraine has subsequently detailed a vision for human capital development in the Ukraine Plan, a requirement of the EU's Ukraine Facility that lays out steps for implementing reforms necessary for EU accession, including in the area of human capital.⁷ The Plan focuses on four main topics: education and skills, access to healthcare and rehabilitation services, reintegration of Ukrainians into the labor market and recovery from the social and economic impacts of the war and “increasing the quantity of the physically, economically, and socially active population.” The Plan also emphasizes the importance of women’s equality and minorities’ rights, and the improvement of social infrastructure, especially for children and people with disabilities living in institutional care.

While these strategies highlight the complexities and significance of Ukraine’s human capital development challenge—which is arguably the crux of Ukraine’s overall reconstruction journey—there is reason to be optimistic about the future. Addressing human capital loss represents an opportunity for Ukrainians to shape a new path and advance creative policy interventions, international collaboration, community building and innovation across sectors. Amid the war, Ukraine has continued to invest in the development of its human capital, and many Ukrainians, including Ukrainian youth, express a strong desire to return to their home country and assist with reconstruction. Lessons from international contexts demonstrate that there a range of strategies and tools available to Ukraine as it looks to rebuild its greatest asset: its people.

To rebuild and recover, Ukraine will need to pursue a renewed human capital agenda while simultaneously leaning on this human capital in managing and implementing a national-scale recovery and reconstruction process. Navigating structural changes to the economy brought on by war and recovery, responsibly incentivizing the return of communities, improving civil service recruitment, and rebuilding and reforming the education system are only some of the issues facing policymakers. While the challenge is significant, there is also room for hope: the disruption of the war and the promise of future EU membership provide chance for Ukraine to chart a new path by reimagining its systems and policies that deliver education, training, services and livelihoods for its communities who have stepped up in solidarity amid conflict.

Recommendations & Lessons Learned

Based on global lessons in human capital development as well as the identified priorities of Ukrainian stakeholders, there are nine tenets that should broadly inform Ukraine’s investment and strategy

in its people to boost near-term resilience and support long-term recovery. More detailed case studies and stocktaking of current human capital initiatives in Ukraine are included in a broader ISE working paper on this topic, available upon request.

1) Understand and map assets and needs for human capital restoration and development. Human capital reconstruction and development in Ukraine should begin with an understanding of the current context. Tools such as asset mapping and human-focused SWOT analyses can help determine the availability and distribution of Ukraine’s human capital assets. Workforce-based target industry analyses similar to those used by many US cities can also provide a more contextualized policy approach that examines occupational distributions and labor supply and demand patterns while identifying competitive local industries.⁸

2) Align workforce development, reskilling initiatives and reconstruction needs. The mismatch between supply and demand in Ukraine’s labor market was an issue even before the war, and there is a risk reconstruction will exacerbate this issue. Activities across the human capital agenda—from reskilling to financial incentive structures—should account for this context. Tools for catalyzing this alignment include sector-based training and transitional employment schemes (such as in construction and other high-demand sectors), financial incentives for reskilling like those deployed in Estonia, Belgium, France and other European countries, and regional skills fora for supporting SMEs, similar to the model developed by Ireland.⁹

3) Continue reforms in the education sector to meet market needs and attract talent. The rollout of planned education reforms, such as the New Ukrainian School model, has continued during the conflict and will need to be continued into recovery. A key step for improving human capital development is adopting a hybrid funding model for education (which is already in development), similar to the UK’s “money follows student” approach, that would improve the effectiveness and targeting of human capital investments.¹⁰ These reforms will also need to incorporate new activities to account for the effects of the war, such as building regional partners for R&D and promoting flexible learning opportunities for necessary distanced and remedial education, where lessons and platforms from the height of the COVID-19 pandemic may be instructive.

4) Treat youth and women as specific policy categories. Lessons from other reconstruction contexts show that the

7. Ukraine Plan 2024-2027, <https://www.ukrainefacility.me.gov.ua/wp-content/uploads/2024/03/ukraine-facility-plan.pdf>.

8. “2018 Comprehensive Economic Development Strategy (CEDS),” West Michigan Shoreline Regional Development Commission, <https://wmsrdc.org/?s=SWOT>.

9. “Good practices in Europe for supporting employers to promote skills development,” OECD, 2022, <https://www.oecd.org/skills/Good-practices-in-Europe-for-supporting-employers-to-promote-skills-development.pdf>.

10. “The government is preparing to move to a new form of education funding: what will change,” *Komercant*, Mar 26, 2024, <https://www.komersant.info/en/uriad-hotuietsia-pereyty-do-novoi-formy-finansuvannia-osvity-shcho-zminytsia/>.

perspectives of youth are often overlooked in human capital strategies and that women's socio-economic conditions are at risk of decline during reconstruction despite an overall increase in economic activity. It is important the government and its partners provide women and young people with targeted support, including housing, childcare, and financial support for housing, among others. It is vital that these policies and projects are built on robust dialogues at the local level to understand the interests and needs of these communities. For young people, state-sponsored job-matching programs, like those used in Singapore and Vietnam, can harness data and online assessments to quickly assess skills and connect job candidates with employers.¹¹ Policymakers can also look to programs in Croatia and Hungary on how to provide trainings for youth on project planning and accessing EU funding.¹² For women, human capital development programs will need to combine social and educational support schemes—like those provided to single mothers following the Great East Japan Earthquake and Tsunami in 2011—with incentive structures for labor force participation such as flexible work arrangements and targeted financial assistance.¹³

5) Create an enabling environment for entrepreneurship paired with mechanisms to ease industry transitions and build social capital. Ukraine's past success in promoting entrepreneurship will be an essential building block for boosting resiliency and managing human capital during recovery. Additional schemes to promote entrepreneurship could include peer-to-peer learning exchanges, international partnerships to boost productivity in key industries similar to the “productivity study tours”¹⁴ under the Marshall Plan and platforms for SME industry transition, where the case of South Korea following the Asian Financial Crisis provides a successful model.¹⁵ Expanding remote work opportunities, such as Estonia's e-residency program¹⁶ (a similar “uResidency” program is currently being tested in Ukraine),¹⁷ and providing increasingly common “digital

nomad” visas can also increase the flexibility for entrepreneurs to establish and scale their businesses and networks in Ukraine.¹⁸ At the same time, however, leaders will also need to balance the difficult tasks of managing a changing economy and encouraging the strategic transition of some industries on the one hand with building and maintaining social capital between communities, public institutions and the private sector on the other.

6) Ensure adequate resources and institutional capacity in the public sector. The influx of recovery funding and reconstruction activities will require a significant boost in public sector capacity, and it is incumbent that government leaders work to attract and retain an effective workforce by leveraging the country's high levels of national solidarity. This should start with collecting and maintaining more granular data on the public sector to identify talent gaps and pinpoint barriers to entry. Human capital policymakers can look to how civil service surveys and data collection are fed into decision-making processes in Australia, Canada, Colombia, and the US, among others, as examples.¹⁹ Leaders should pair this data with reforms to merit-based recruitment—potentially similar to Japan's Civil Service “pay comparator surveys” for salary adjustments and reforms in the Western Balkans—as well as targeted compensation schemes and a comprehensive narrative campaign.²⁰ During the reconstruction process, technical assistance provided to the Ukrainian government should also be carefully designed and targeted to ensure that key public sector personnel are not inadvertently hired away to consultancies or advisory positions—a counterproductive effect common in reconstruction environments.

7) Align human capital development with EU accession and consider opportunities for regional cooperation. Human capital loss is not a new issue for Ukraine, and countries across Europe are facing similar challenges as their populations age

11. Helen Osborne and Paul Vandenberg, “Job Matching for Youth in Asia and the Pacific: A Transitions Approach for Positive Labor Market Pathways,” Asian Development Bank, ADB, 2023, <https://www.adb.org/sites/default/files/publication/923096/job-matching-youth-asia-pacific.pdf>.

12. Simona Cavallini, et al., “Addressing brain drain: The local and regional dimension,” European Committee of the Regions Commission for Social Policy, Education, Employment, Research and Culture, 2018, <https://cor.europa.eu/en/engage/studies/Documents/addressing-brain-drain/addressing-brain-drain.pdf>.

13. Y. Meguro and Asako Osaki, “Good Practices on Economic Empowerment of Women in Post-Disaster Reconstruction in Tohoku and the Asia-Pacific,” Asia-Pacific Economic Cooperation Policy Partnership on Women and the Economy, July 2015, <https://www.mofa.go.jp/mofaj/files/000088221.pdf>.

14. James M. Silberman, Charles Weiss, and Mark Dutz, “Marshall Plan Productivity Assistance: A Unique Program of Mass Technology Transfer and a Precedent for the Former Soviet Union,” *Technology in Society* 4:18 (1996), <https://www.sciencedirect.com/science/article/pii/S0160791X96000231>.

15. Gary Gregory, Charles Harvie, and Hyun-Hoon Lee, “Korean SMEs in the Wake of the Financial Crisis: Strategies, Constraints, and Performance in a Global Economy,” University of Wollongong Department of Economics Working Paper Series, 2022, <https://ideas.repec.org/p/uow/depec1/wp02-12.html>.

16. E-residency, Republic of Estonia, <https://www.e-resident.gov.ee/>.

17. “Ukraine's Ministry of Digital Transformation has launched a beta test of uResidency,” Ukraine Invest, <https://ukraineinvest.gov.ua/en/news/28-12-2023/>.

18. “Updated List of Europe Digital Nomad Visas [2024],” *Nomad Embassy*, May 16, 2024, <https://nomadsembassy.com/digital-nomad-visas-europe/>.

19. Ayesha Khurshid and Christian Schuster, “Surveys of Public Servants” in *The Government Analytics Handbook*, World Bank (2023), <https://thedocs.worldbank.org/en/doc/df7e61a26cc2ed0870317b7068f7cf9-0050042023/original/GAH-CHAPTER-18.pdf>.

20. Aleksandra Rabrenovic, “Main Principles and Approaches to Civil Service Pay Reform: Example of Western Balkan Countries,” Institute of Comparative Law, Belgrade, Serbia, 2013, https://www.nispa.org/files/conferences/2013/papers/201305070652020_paper_Rabrenovic.pdf.

and decline. Ongoing recovery and economic partnerships between Estonia,²¹ Denmark²² and Ukrainian cities could be scaled to other regions. Formalized Ukrainian regional diaspora initiatives, similar to those implemented in the Western Balkans, could also help direct skills and capital to the country and increase engagement with nearby displaced populations.

8) Harness public narratives. It is easy for policymakers, citizens, educators, and business owners to become paralyzed in the face of the massive human capital challenge facing Ukraine. Leaders at all levels must sustain a clear public narrative on the topic that balances optimism with realism. Highlighting opportunities for economic growth and skills development within the human capital agenda, especially for potential returnees, and reframing the issues as a policy challenge with policy-based solutions, rather than as a foregone conclusion, will help the development of multisectoral coalitions for reform and development.

9) Consider the effects of sequencing to maximize investments. Policymakers will need to be judicious with how and when they implement reforms in Ukraine due to the knock-on economic and social effects of human capital development, as well as resource constraints caused by the war. Global data from ISE's Reform Sequencing Tracker shows that early investments in improving education quality and access can set the stage for later complex and interdependent activities like structural market reforms and reskilling.²³ Due to the geographic complexity of Ukraine's human capital challenge, including the need for targeted policies and engagement of displaced Ukrainians living abroad, it is also incumbent that leaders think about sequencing human capital reforms across regions and populations. Human capital investments must also be closely aligned with other priority co-dependent reforms, especially those focused on the economy and public services. This question of co-dependency also includes "invisible work" that underpins a human capital agenda, such as the capacity of national and local public institutions to implement and monitor human capital reforms and, perhaps even more importantly, investments in developing a robust cohort of educators and trainers.²⁴

This series forms part of ISE's program on lessons learned from past reform and reconstruction experiences. This includes the [Reform Sequencing Tracker](#), which codifies the sequence and performance of government reforms after periods of transition, featuring over 30,000 reform actions in 50 countries, a series on [Successful Transformations](#) and a set of how-to sourcebooks on each of the Ten Functions of the State.

This analysis was originally submitted as a background paper for the Friedrich-Ebert-Stiftung's [side event](#) at the 2024 Ukraine Recovery Conference in Berlin, Germany.

21. Helen Wright, "Never alone again: How Estonia is helping rebuild Ukraine," ERR, November 19, 2023, <https://news.err.ee/1609157695/never-alone-again-how-estonia-is-helping-to-rebuild-ukraine>.

22. Vladyslav Faraponov, "Denmark's Support in Restoring Mykolaiv Is a Model for Ukraine's Postwar Recovery," Kennan Institute, The Wilson Center, November 2, 2023, <https://www.wilsoncenter.org/blog-post/denmarks-support-restoring-mykolaiv-model-ukraines-postwar-recovery>.

23. Reform Sequencing Tracker, ISE, <https://reformtracker.effectivestates.org/>.

24. "Sequencing & Prioritization for Ukraine's Recovery," ISE, <https://effectivestates.org/publication/ukraine-sequencing/>.