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In their own words: Ukrainian scientists reflect on migration during the Russian–Ukrainian war – an oral history study

[Własnymi słowami: refleksje ukraińskich naukowców o migracji w czasie wojny rosyjsko-ukraińskiej – badania historii mówionej]

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Abstract
This article examines the impact of forced migration resulting from Russia's full-scale invasion of Ukraine on the careers of displaced Ukrainian researchers. Drawing on semi-structured interviews with nine scholars, it analyses their choices of destination, experiences of integration abroad, and continuing links with Ukrainian academia. The findings highlight the risk of academic fragmentation and underscore the need for targeted support to sustain professional networks and facilitate the future reintegration of these researchers into Ukraine's academic environment.

Abstrakt
Artykuł analizuje wpływ przymusowej migracji spowodowanej pełnoskalową inwazją Rosji na Ukrainę, na kariery ukraińskich naukowców zmuszonych do opuszczenia kraju. Na podstawie półustrukturyzowanych wywiadów z dziewięcioma badaczami omówiono ich wybory dotyczące kraju docelowego, doświadczenia związane z integracją za granicą oraz utrzymywanie więzi z ukraińskim środowiskiem akademickim. Wyniki badania wskazują na ryzyko fragmentacji środowiska naukowego i podkreślają potrzebę ukierunkowanego wsparcia w celu podtrzymania sieci zawodowych oraz umożliwienia przyszłej reintegracji tych badaczy z ukraińskim systemem naukowym.

Keywords
Ukrainian researchers, Russian–Ukrainian war, brain drain, forced migration, interview, oral history

Słowa kluczowe
ukraińscy badacze, wojna rosyjsko-ukraińska, drenaż mózgów, przymusowa migracja, wywiad, historia mówiona

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Introduction

> Just one day earlier, I thought that the threat of invasion was simply a distant but threatening nightmare. It was the first time in my life that I had woken up like that. Kyiv also woke up at five o'clock in the morning under bombardment. The strikes were very loud; it was obvious that the war had intensified in a virulent way.[1]

This excerpt from an interview with Professor Konstantin Sigov conveys a powerful emotional contrast between the final day of peace and the first day of full-scale war in Ukraine in February 2022. His words – "a distant but threatening nightmare" – highlight how sudden and absurd the onset of the invasion appeared, despite earlier ominous signs. Particularly striking is his reflection that it was "the first time in [his] life" he had woken up like that, a phrase that underscores the traumatic nature of this awakening not only for him but for an entire generation of Ukrainians. The early-morning bombardment of Kyiv at five o'clock becomes a symbol of the abrupt transition from peaceful existence to wartime reality, in which even the capital itself came under attack. This testimony speaks not only to the factual course of events but also to the profound existential shock experienced by the people of Ukraine in those first hours of the war.

The full-scale war in Ukraine has brought profound changes to the lives of ordinary citizens, disrupting routines, separating families, and leaving many without employment. Scientists, too, have been deeply affected by these circumstances. Numerous researchers endeavoured to continue their work under extreme conditions, only to be confronted with the necessity of evacuation due to threats to personal safety, the destruction of infrastructure, or the suspension of academic institutions. This study examines the reflections of scholars who were professionally active in Ukraine at the time of Russia's full-scale invasion in February 2022 and who were subsequently displaced in search of safety for themselves and their families.

Due to Russia's aggression, a significant number of Ukrainian scientists were forced to leave their research positions. Some joined the defence forces, while many others migrated abroad, contributing to approximately six million documented departures from the country. Although precise figures are difficult to

1 *Eyewitness to the Russian Invasion: Interview with Ukrainian Scholar Constantin Sigov. Dignity and The Courage of Resistance*, https://www.umcjustice.org/latest/eyewitness-to--the-russian-invasion-interview-with-ukrainian-scholar-constantin-sigov-1533 (accessed: 13.07.2024).

establish amidst the ongoing conflict, reports from the Council of Young Scientists at the Ministry of Education and Science of Ukraine, as of 4 April 2022, indicated that between four and six thousand scientists had left Ukraine as a result of the invasion. Recent estimates suggest that this figure could reach 22,000, representing roughly a quarter of the country's researchers.[2] The forced displacement of Ukrainian scientists has had a profound impact on the scientific community and research landscape within the country, and the loss of such a substantial number of talented individuals threatens the continuity and development of scientific activity in Ukraine.

Research on the forced displacement of Ukrainian scientists is of considerable societal and scientific significance. Unlike voluntary migration, such movements are driven by war-related disruptions and form part of a broader phenomenon of forced migration. The loss of researchers as a result of the war may contribute to a critical depletion of the country's intellectual capital. Scholars working abroad often build new networks, gain access to advanced resources, and enhance their academic skills – benefits that do not necessarily translate back to Ukraine, thereby exacerbating the so-called "brain drain."

This issue is particularly concerning given the pre-war shortage of scientists in Ukraine – especially among young and early-career researchers.[3] In 2019, 2,270 young scientists were employed in research institutions of the National Academy of Sciences of Ukraine, representing a 15 per cent decrease compared with 2018. The number of young scientists holding a PhD fell by five per cent. Compared with 2013, these figures indicate declines of 32 per cent and 24 per cent, respectively.[4] Such trends threaten the continuity of scientific development, slow innovation, and weaken the country's capacity for research and technological advancement. Moreover, the displacement of highly skilled professionals may impede Ukraine's long-term economic recovery and diminish its competitiveness within the global knowledge economy.[5]

2 *The future of science in Ukraine: Actions now will affect post-war recovery*, https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/11/the-future-of-science-in-ukraine_a23a9918/afbd05df-en.pdf (accessed: 20.10.2023).

3 *The State of Scientific and Innovative Activity of Ukraine – 2020: scientific-analytical note,* http://www.uintei.kiev.ua/sites/default/files/inov-diyal-2020.pdf.; https://ukrstat.gov.ua/ (accessed: 20.10.2023).

4 M. Kryhel, *President of the NASU Anatolii Zahorodnii: If the Brain Drain Is Not Stopped, Science in Ukraine Will Die Before the Middle of the 21st Century*, https://www.pravda.com.ua/articles/2020/12/16/7276754/ (accessed: 20.10.2024).

5 T. Karmadonova, *The long way home: Migration trends of Ukrainian researchers in the modern world (1991–2023)*, "History of Science and Technology," vol. 13, no. 2 (2023), pp. 263—279, https://doi.org/10.32703/2415-7422-2023-13-2-263-279.

Literature review

A wide range of issues concerning the forced migration of Ukrainian scientists during the period of full-scale war have been examined by Ukrainian researchers. In their chapter *Mobilization of International Academic Networks*,[6] Tamara Martsenyuk and Tetiana Kostiuchenko discuss their personal experiences and the challenges faced during Russia's full-scale invasion of Ukraine in February 2022. They recount their time in Kyiv under shelling, the decision to evacuate, and the support they received from international academic networks, which actively provided assistance and opportunities to continue their scholarly work. The chapter underscores the importance of academic solidarity and support in times of war, as well as the role of professional and personal connections in facilitating the evacuation and adaptation of scholars in other countries, such as Germany.

Authors Marta Jaroszewicz, Tetiana Shkoda, and Olena Ovchynnikova[7] examine the experiences of Ukrainian academics who were compelled to leave the country following Russia's invasion in 2022, analysing their academic mobility, which encompasses both voluntary and forced migration. They identify two main trajectories: continuing remote work for Ukrainian universities or seeking academic positions abroad. The study argues that the traditional view of academic mobility as a pathway to research success fails to reflect the challenges faced by displaced scholars, including uncertainty, gender-related inequalities and family responsibilities. The authors call for further research into the experiences of academics in situations of forced migration – particularly early-career researchers – and advocate for longitudinal studies to trace their long-term professional trajectories.

In her research, Natalia Tsybuliak, addresses the significant mental health challenges faced by Ukrainian academics during the war[8]. The article highlights the widespread prevalence of burnout and anxiety among scholars, many of whom are considering career changes due to the combined pressures of war and forced migration. As a considerable proportion of academics have emigrated or are working remotely, their mental health has been further strained, resulting in isolation and professional instability. These difficulties pose a serious threat to Ukraine's intellectual potential, risking an intensified brain drain and long-term disruption within the academic sector.

6 T. Martsenyuk, T. Kostiuchenko, *Personal experiences of displaced scholars: Mobilization of international academic networks*, in T. Martsenyuk, T. Kostiuchenko (eds.), *Russia's War in Ukraine 2022: Personal Experiences of Ukrainian Scholars*, Stuttgart 2024, pp. 15–28.

7 M. Jaroszewicz, T. Shkoda, O. Ovchynnikova, *Migration trajectories of Ukrainian scholars abroad: Forced academic mobility*, "*Population, Space and Place*," February 13, 2025, https://doi.org/10.1002/psp.70011 (accessed: 20.10.2024).

8 N. Tsybuliak, *Mental Health and Migration: Wartime Challenges for Ukrainian Academics*, December 17, 2024, https://www.zois-berlin.de/en/publications/zois-spotlight/mental-health-and-migration-wartime-challenges-for-ukrainian-academics (accessed: 20.10.2024).

In a study conducted by Oksana Lytvynchuk and Oleksandr Yurkivskyi, aspects of the contemporary migration crisis arising from the Russian–Ukrainian war are examined. The authors note that the arrival of qualified immigrants contributes to increased labour productivity. Specifically, they argue that skilled immigrants often possess the requisite education and professional experience, enabling them to integrate into the labour force rapidly without additional investment in training or education. This process can generate economic benefits for the host country, as skilled workers help to address labour shortages, stimulate innovation, and support economic growth. Moreover, such immigration contributes to mitigating demographic challenges, including the ageing of the population.[9]

S. Fialka[10] examines the consequences of the war for Ukrainian researchers, focusing on their attitudes and motivations concerning scientific activity and the publication of research results. The findings reveal the profound impact of the conflict on Ukraine's scientific landscape. According to the survey, 15.5 per cent of respondents suspended their scientific research as a direct result of the war, and half of these expressed no intention to resume it in the future. These outcomes indicate a widespread sense of hopelessness and disillusionment among Ukrainian scholars in the face of ongoing aggression. The decline in scientific productivity and diminishing interest in research underscore the detrimental effects of the conflict on the academic community. Challenges arising from the war – such as resource shortages, institutional instability, and concerns for personal safety – have further exacerbated this decline in research engagement.

In December 2022, Polish and Ukrainian scholars, in collaboration with the Scholars at Risk Network, Simon Fraser University (SFU), and other research institutions, conducted a survey of more than 600 Ukrainian scientists who had left the country following the invasion. The findings indicate that approximately one-third of respondents continue to engage in scientific work remotely in Ukraine. However, 30 per cent reported concerns regarding their relationships with home institutions, as some universities have required absent staff to return or face dismissal. When inquired about the prospect of returning to Ukraine should the war end within several months, 42 per cent expressed willingness to do so, while an equal proportion stated that they either did not intend to return or had not yet decided on their future professional plans.[11]

9 O.V. Lytvynchuk, O.Y. Yurkivs'kyy, *Migration processes in Ukraine: threats in the conditions of the russian-ukrainian war*, "Ekonomika, upravlinnya ta administruvannya," vol. 104, no. 2 (2023), pp. 71–78, https://doi.org/10.26642/ema-2023-2(104)-71-78.

10 S. Fiialka, *Assessment of war effects on the publishing activity and scientific interests of Ukrainian scholars*, "Knowledge and Performance Management," vol. 6, no. 1 (2022), pp. 27–37, doi.org/10.21511/kpm.06(1).2022.03.

11 A. Irwin, *The fight to keep Ukrainian science alive through a year of war*, "Nature," vol. 614, no. 7949 (2023), pp. 608–612.

Y. Suchykova, N. Tsybuliak, and H. Lopatina[12] examine strategies for preventing the loss of scientific potential as a consequence of the full-scale war. The authors establish a link between the place of residence of Ukrainian researchers and their capacity to engage in scientific activity, identifying key factors that have diminished research effectiveness during the conflict. Their study investigates the impact of the war on the productivity and output of Ukrainian scientists, revealing that geographical location plays a decisive role in shaping research performance. Specifically, 40.8 per cent of scientists who relocated from temporarily occupied territories to areas under Ukrainian control reported a decline in research effectiveness, while 33.8 per cent indicated that they were unable to continue their research altogether. These findings underscore the severe disruptive effects of the war on Ukraine's scientific community. The displacement of researchers from their original institutional environments, combined with the logistical and psychological challenges of relocation, has significantly constrained their productivity and capacity to participate fully in scientific work.

Nataliia Harashchenko and co-authors[13] investigate the needs of Ukrainian scientists, both those who have remained in the country and those who have left as a result of the war. Among the most pressing personal needs identified are financial assistance, the establishment of new social networks, and reliable access to the Internet. With regard to professional needs, the researchers emphasise the importance of opportunities to undertake immediate research projects, as well as access to scientific literature, information and data, and mobility programmes for scholars.

The challenges faced by displaced scholars, situated within the broader framework of refugee studies, are examined in the research of Seçkin Sertdemir.[14] The author analyses the impact of humanitarian aid and compassion-based policies on Turkish academics who were compelled to leave their country as a result of political repression under Erdoğan's authoritarian regime. Since the failed coup attempt of 2016, thousands of academics have been dismissed from their positions and have sought refuge in Europe. Sertdemir critically assesses how humanitarian discourses approach the construct these scholars primarily perceived as "victims"

12 Y. Suchikova, N. Tsybuliak, H. Lopatina, L. Shevchenko, A. Popov, *Science in times of crisis: How does the war affect the efficiency of Ukrainian scientists?*, "Problems and Perspectives in Management," vol. 2, no. 1 (2023), pp. 408–424, http://dx.doi.org/10.21511/ppm.21(1).2023.35.

13 N. Harashchenko, Hladchenko L., Korytnikova N., Lutsenko A., Moskotina R., Pravdyva O., *The Results of The Survey on The Needs of Ukrainian Scientists (First Wave Report)*, January 19, 2023, "Max Planck Institute for Innovation & Competition Research Paper," no. 23-03, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4335098 (accessed: 20.10.2023).

14 S. Sertdemir, *Pity the Exiled: Turkish academics in exile, the problem of compassion in politics, and the promise of dis-exile*, "*Journal of Refugee Studies*," vol. 34, no. 1 (2019), pp. 936–952, https://doi.org/10.1093/jrs/fey076.

contribute to their marginalisation and anonymisation within host societies. The study underscore the need to move from a paradigm of victimhood towards one of solidarity with politically exiled scholars, while questioning whether compassion and pity can adequately address the political and social conditions that precipitated their exile.

The research conducted by Tom Parkinson, Kevin McDonald, and Kathleen M. Quinlan[15] extends the conceptual and contextual boundaries of academic development by examining its application to Syrian academics in exile, particularly those residing in Turkey. The paper explores the barriers faced by these scholars, including uncertain legal status, linguistic challenges, and psychological trauma, alongside their academic development needs. By analysing these barriers and needs, the study interrogates the conceptualisation of academic development itself, emphasising the necessity of reconsidering its scope to encompass practices beyond formal institutional settings. The authors propose a model of academic development aimed at supporting exiled and marginalised academic communities.

Beyond the Ukrainian case, recent scholarship on the forced migration of academics in other conflict-affected contexts provides valuable comparative and theoretical insights. The longstanding debate over brain drain and brain circulation highlights the dual nature of the risks and opportunities associated with academic displacement. While early literature often portrayed the emigration of highly skilled professionals as a permanent loss for countries of origin, more recent research emphasises the potential for circulation through transnational collaborations, temporary mobility, and return migration, which can mitigate the adverse effects of exile.[16] Applying this framework to the Ukrainian case enables a shift away from the narrative of irreversible loss towards an understanding of how displaced scholars may maintain research ties and contribute to the reconstruction of Ukraine's academic landscape.

Another important strand of literature focuses on academic solidarity networks. Studies of initiatives such as Scholars at Risk, the Philipp Schwartz Initiative, and other European and global rescue programmes demonstrate how institutional support mechanisms provide temporary positions, funding opportunities, and advocacy platforms for threatened scholars. Ioan Voicu[17] emphasises that academic solidarity constitutes both a moral and practical framework, enabling scholars to contribute

15 T. Parkinson, K. McDonald, M.K. Quinlan, *Reconceptualising academic development as community development: Lessons from working with Syrian academics in exile*, "*Higher Education,*" vol. 79, no. 2 (2019), pp. 183–201, https://doi.org/10.1007/s10734-019-00404-5.

16 D. Bartram, M. Poros, P. Monforte, *Key Concepts in Migration*, London 2014, pp. 563.

17 I. Voicu, *Academic solidarity and peace*, "ABAC Journal," vol. 38, no. 1 (2018), pp. 1–14, https://auojs.au.edu/index.php/abacjournal/article/view/616 (accessed: 11.09.2025).

to conflict resolution, peacebuilding, and global cooperation, while maintaining professional support networks for displaced academics. These findings resonate strongly with the Ukrainian experience, where professional survival has frequently relied on transnational networks and personal contacts.

At the same time, displaced scholars face persistent structural barriers within their respective host countries. Evidence from studies of Syrian academics in Turkey and Europe, as well as Turkish scholars fleeing political repression, demonstrates that restrictive legal status, lack of recognition of qualifications, language barriers, and precarious employment arrangements impede professional reintegration.[18] Similar challenges are emerging in the Ukrainian context, where many displaced researchers contend with temporary contracts, uncertain career trajectories, and pressures to accept positions outside academia. These structural constraints underscore the significance of analysing forced academic migration not solely through the lens of individual resilience, but also in relation to broader institutional and policy frameworks.

In recent years, the phenomenon of forced academic migration has attracted growing scholarly attention, particularly in the context of armed conflicts such as those in Syria and Ukraine. Nonetheless, there remains a notable paucity of systematic research that integrates individual narratives with structural analyses of mobility trajectories and the professional reintegration of displaced academics. This study seeks to address this lacuna by examining the processes through which displaced scholars reconstruct their professional careers, the structural constraints they face, and the role of international academic networks in facilitating these processes.

The salience of this topic within contemporary scientific discourse highlights a range of complex theoretical and practical challenges. These include examining the professional trajectories of Ukrainian scholars compelled to migrate, the systemic obstacles they encounter in host countries, and the broader implications for science and innovation policy in Ukraine. Despite a growing body of literature, critical dimensions – such as labour market integration, the continuity of scientific productivity in exile, and the prospects for revitalising the Ukrainian scientific landscape under conditions of protracted crisis – remain underexplored. Moreover, the conceptual frameworks and empirical methodologies necessary for a comprehensive analysis of these phenomena require further refinement. In response to these gaps, the present study – conducted in September 2023 – employs qualitative case studies based on interviews with Ukrainian scientists displaced following the full-scale Russian invasion.

18 N. Acac, *Professional development for academics in exile: A case study of Syrian academics in the city of Gaziantep, Turkey*, "University of Kent," May 20, 2024, https://doi.org/10.22024/UniKent%2F01.02.107444.

Building on these contributions, the present study situates itself within this literature while addressing several of its gaps. Although existing research provides valuable insights into the experiences of Ukrainian researchers during the full-scale Russian invasion, important limitations remain. Martsenyuk and Kostiuchenko highlight personal testimonies and the role of international academic solidarity, yet their chapter primarily presents insider perspectives rather than offering a systematic analysis of professional reintegration. Jaroszewicz, Shkoda, and Ovchynnikova provide a significant account of academic mobility trajectories, distinguishing between remote work in Ukraine and the search for positions abroad, but their approach is largely quantitative and does not capture the depth of individual experiences. Tsybuliak's research addresses mental health challenges, drawing attention to burnout and professional instability, while Lytvynchuk and Yurkivskyi examine migration in terms of macroeconomic implications for host countries rather than from the standpoint of displaced scholars themselves.

Survey-based studies, including those by Harashchenko et al. and Suchykova et al., provide broad statistical overviews of the needs, intentions, and productivity of Ukrainian scientists. However, such approaches are limited in their ability to capture the nuanced strategies and meanings that emerge from individual life stories. Similarly, Fialka's findings highlight declining motivation and productivity but remain confined to general trends. Comparative research on exiled academics from other contexts – such as Sertdemir's study on Turkish scholars and Parkinson, McDonald, and Quinlan's analysis of Syrian academics – offer valuable theoretical frameworks concerning exile, marginalisation, and academic development. Nonetheless, these frameworks have seldom been systematically applied to the Ukrainian context.

The present study seeks to address these gaps by employing an oral history approach that foregrounds the voices of displaced Ukrainian scientists. Unlike survey-based or policy-oriented analyses, this research emphasises micro-level narratives, tracing how individual scholars experience and interpret their displacement, negotiate professional identities, and envision future trajectories. Simultaneously, it situates these personal testimonies within broader structural contexts, including labour markets, institutional support, and academic networks. In doing so, the study offers a perspective that integrates agency and structure, complementing existing scholarship with an account of how displaced academics themselves construct their life strategies in conditions of forced migration.

Research methodology

This study employs an oral history methodology to examine the experiences of scientists forcibly displaced from Ukraine as a result of the full-scale Russian–Ukrainian war. Oral history was chosen as it enables the exploration of personal

narratives offering a deeper understanding of the emotional, professional, and social dimensions of migration – particularly under the extraordinary conditions of armed conflict. In this research, semi-structured interviews were conducted in accordance with oral history principles, with particular emphasis on chronology, personal voice, and reflection on memory.

In September 2023, semi-structured interviews were carried out with nine scientists who had been based in Ukraine but were compelled to relocate due to the ongoing war. To accommodate participants' geographic dispersion and ensure accessibility, interviews were conducted via online video calls or telephone conversations. Participants were located across seven European countries, providing a broad – albeit anonymised – perspective on displacement experiences.

Participants were recruited using the snowball sampling technique, initiated through existing professional networks. The relatively small number of participants reflects both the specificity of the target population and the practical challenges of engaging displaced scientists willing to share their experiences. While this sample size allows for in-depth qualitative exploration, it naturally limits the generalisability of findings.

The transcription process involved converting audio recordings into textual form, followed by thematic analysis combining both inductive and deductive approaches. Coding was conducted manually, with analytical categories developed to capture recurring patterns and salient themes across participants' narratives. This process led to the identification of key themes, including the disruption of professional and personal life, the search for stability and safety, and the challenges of integration into new academic environments.

To ensure ethical integrity, particular attention was given to data protection and anonymisation. All participants were fully informed about the study's purpose and provided informed consent. Pseudonyms were used in place of real names, and any identifying details – such as institutional affiliations, geographic locations, or personal references – were altered during transcription and presentation. Direct quotations were carefully reviewed to protect participants' anonymity while preserving the authenticity of their perspectives.

The study sought to explore the participants' reflections on displacement, the emotional and psychological impact of migration, the professional challenges encountered, and their aspirations for the future. By adopting a multi-perspective approach, the research examines not only the unfulfilled hopes and disrupted life trajectories of displaced scientists but also the meanings they attach to their experiences of forced migration.

This study is limited by its small sample size, which constrains the potential for broad generalisation or systematic cross-national comparison. Although participants

were based in several different European countries, the sample does not allow for detailed comparative analysis. These limitations should be borne in mind when interpreting the findings, which are intended to provide rich qualitative insights rather than statistically representative conclusions.

Results and discussion

In this study, several key themes were identified that capture the experiences of scientists who were forced to evacuate from Ukraine. These themes emerged from the interviews and encompass both the individual narratives of participants and the broader structural factors shaping their experiences. For clarity and coherence, the themes are summarised in the Table 1 below.

Table 1. Overview of the themes capturing experiences of scientists forced to evacuate from Ukraine

Theme	Description	Connection to theory and structural factors
Choice of destination country	Decisions concerning which country to relocate to, considering professional opportunities, safety, and political situation.	Corresponds to studies on forced academic mobility – such as Syria and Turkey. External factors such as political stability and access to research funding strongly influence relocation choices.
Finding employment	Challenges in securing academic positions and maintaining professional identity within the host country.	Relates to literature on labour market integration of migrants. While the European Union Temporary Protection Directive provides basic work rights, bureaucratic constraints and limited academic openings significantly affect career trajectories.
Collaboration with Ukraine	Continuation of scientific collaboration with Ukrainian institutions despite geographical distance.	Demonstrates how institutional ties and access to research resources sustain ongoing projects. Highlights the importance of digital collaboration and transnational academic networks.
Assessment of support	Evaluation of support mechanisms in the host countries, including research infrastructure, funding opportunities, and social services.	A comparative perspective indicates that differences in national support systems shape productivity and professional development. Connects individual experiences with broader institutional and policy frameworks.
Recommendations for promoting science in Ukraine	Suggestions for improving conditions for scientific work in Ukraine.	Links personal experiences to systemic reforms, highlighting potential policy interventions to better support displaced and returning scientists.

These themes were not predetermined but emerged inductively from the interview analysis. They capture both personal strategies and structural constraints shaping the forced migration experience of scientists. For example, the first theme, *Choice of destination country*, is influenced not only by individual preferences but also by external factors such as research opportunities, safety considerations, and national legislation – particularly temporary protection policies in the European Union. This analytical approach allows the study to highlight the interplay between agency and structure, providing a comprehensive understanding of the adaptation process among displaced scholars.

Choice of destination country. Participants' relocation decisions were guided by a combination of professional opportunities, political stability, and safety concerns. Similar patterns have been observed in studies of forced academic mobility among Syrian and Turkish scholars, where external circumstances strongly determine migration choices.

Finding employment. Many respondents encountered obstacles when entering host-country labour markets. Despite possessing high qualifications, bureaucratic barriers and limited academic openings often hindered career advancement. The European Union Temporary Protection Directive ensures basic work rights, it does not guarantee access to competitive research funding, underscoring the structural constraints shaping personal trajectories.

Collaboration with Ukraine. Several participants continued to cooperate with Ukrainian institutions through online platforms and remote research projects. The feasibility of these collaborations depended largely on access to institutional resources and funding, illustrating how structural factors mediate individual agency.

Assessment of support. The level of institutional and governmental support varied significantly across host countries—from comprehensive assistance with housing and research infrastructure to minimal administrative or academic guidance. These discrepancies demonstrate how national policies directly influence scientific productivity and integration outcomes.

Recommendations for promoting science in Ukraine. Drawing on their lived experiences, participants proposed policy reforms to improve the conditions for scientific work in Ukraine. Their suggestions link personal perspectives to broader structural interventions, emphasising the need for sustainable mechanisms to support displaced and returning researchers.

Theme 1: Choice of destination country

Participants were asked to describe the factors that influenced their decision to migrate and to choose a particular destination country. The interviews revealed

that the primary catalyst for leaving Ukraine was the full-scale war. Participants also noted that the war affected the implementation of scholarship and grant programmes for Ukrainian scientists. In many cases, these initiatives postponed their start dates and created new opportunities that enabled immediate relocation to countries offering academic placements. Oksana, a postdoctoral researcher, described her experience as follows: "It so happened that in 2021, we were negotiating my internship here in Slovakia. However, the full-scale invasion accelerated the start of the contract."[19]

Many scientists remained in frontline regions with their families, unable to leave due to health conditions, conscription restrictions affecting men of certain ages, and various other circumstances. Some participants even mentioned that they would not have considered relocation during the war had they not received invitations or institutional support from foreign colleagues.

> Before the full-scale war began, I regularly visited Germany, so the country was already familiar to me. Still, my decision to relocate there was significantly influenced by my existing academic connections and invitations from international colleagues. Another factor was a research scholarship I had received from a European institute specialising in East European studies [name anonymised for confidentiality], which I had been awarded approximately a year and a half prior to the interview [conducted in September 2023]. However, due to the COVID-19 pandemic and travel restrictions for individuals from red-zone countries, I was initially unable to take up the scholarship. Had it not been for this opportunity in Germany, I likely would have remained in Kharkiv, adhering to what we call the 'two walls' rule.[20]

The choice of a relocation country for scientists is often influenced by the professional opportunities available. Oleh, a researcher from Kharkiv, was facing a deeply personal challenge – his mother was gravely ill, and he aspired to contribute to the development of cancer treatments that could help her and others. The outbreak of the full-scale war coincided with this difficult period in his life. He left Ukraine legally, on the grounds of caregiving, and chose to move to a country where he could pursue this scientific goal and potentially make his dream a reality: "When I evacuated my family from Ukraine, I immediately had two job offers in Germany. I chose the one that was somewhat related to my work in Kharkiv."[21]

19 Interview with Oksana, Ph.D. in physics, Kyiv, 10 September 2023 (recorded by Tetiana Karmadonova), researcher's private archive.

20 Interview with Hanna, Ph.D. in history, Kyiv, 12 September 2023 (recorded by Tetiana Karmadonova), researcher's private archive.

21 Interview with Oleh, Ph.D. in chemistry, senior research scientist at an institute in Germany, Kyiv, 14 September 2023 (recorded by Tetiana Karmadonova), researcher's private archive.

For some scientists, the choice of destination country was influenced less by its general attractiveness than by existing professional opportunities and academic invitations. Valentyna, doctor of philosophy and professor at a Ukrainian university, had long-standing academic connections in France prior to the full-scale war. When the war began, these connections became crucial in shaping her path: "I left the country due to the war, like millions of other people. But besides that, I had another reason – an internship at the Sorbonne. As an invited professor, I am involved in a project at the Faculty of Arts."[22]

In some cases, scientists relocated not through academic projects or formal internships, but primarily by relying on personal connections and the availability of temporary protection status. Social networks – such as friends or relatives already residing abroad – played a decisive role in shaping these migration trajectories. Inna, Ph.D. in Historical Sciences and senior researcher at a department of the Academy of Sciences of Ukraine, postponed her departure until the last moment. Ultimately, it was the support of acquaintances in Finland, and the prospect of receiving essential assistance, that influenced her choice.

> I went to Finland; I chose it because I had friends who helped me settle down. I didn't leave for the sake of science. My grandfather is ill, and we were looking for a country that could help with housing and medical care. We knew that here we would be able to find accommodation without having to pay for it. They told me that the country would help, so I didn't worry and came.[23]

When choosing a host country, researchers consider not only financial support policies for Ukrainian refugees, such as free housing and allowances, but also cultural affinity and personal interests. Vira, a postdoctoral researcher, chose Spain due to existing acquaintances in the country, and her personal interest in the Spanish way of life and culture.

> I evacuated with my children, my pensioner mother, and sister. We chose Spain for several reasons. Firstly, my sister speaks Spanish excellently, and she was supposed to go there for an internship in March. Secondly, I had many acquaintances in Spain from my university days, so we wouldn't be left without support. Thirdly, the Spanish way of life and culture have always attracted me, and that became another reason for choosing this country.[24]

22 Interview with Valentyna, doctor of fhilosophy, professor at a Ukrainian university, Kyiv, 16 September 2023 (recorded by Tetiana Karmadonova).

23 Interview with Inna, Ph.D. in historical sciences, senior researcher who worked at one of the departments of the Academy of Sciences of Ukraine before the full-scale war, Kyiv, 16 September 2023 (recorded by Tetiana Karmadonova), researcher's private archive.

24 Interview with Vira, Ph.D. in philosophical sciences, postdoctoral researcher, Kyiv, 17 September 2023 (recorded by Tetiana Karmadonova), researcher's private archive.

Some scientists chose countries for relocation where their relatives already lived. This factor was decisive, as it allowed them to receive support from their families and adapt quickly to the new host country. Ostap, doctor of economics, selected his country of residence according to this precise principle. At the time of his move, he was 81 years old, exempt from military service, and his wife required medical assistance. He relied on the support of his relatives, making his daughter's residence in Belgium particularly important. "I left Ukraine in early March 2022 because my wife got injured at the end of February, which left her bedridden. This circumstance forced us to leave Ukraine. Additionally, my daughter, along with her children, had already left Ukraine and settled in Belgium. Her presence in Belgium influenced our decision to choose this country as our place of residence."[25]

There were isolated cases where some relatives were abroad for various reasons, such as vacation or work, before the full-scale war began, and they had no choice but to stay in the host country. Eugene also left Ukraine, as a father of 5 children; he was invited by his mother to Switzerland, where they are currently residing.

> As of 24 February 2022, my mother was visiting Switzerland. She couldn't fly back. However, she managed to convince my wife that our children would be safer in Switzerland. Personally, I didn't plan to go there and initially thought that we would be there for a maximum of two to three weeks. The Catholic Church in the Swiss town of Huttwil provided accommodation for my entire large family, so we are still here. Therefore, we did not choose Switzerland in advance; we ended up there by chance due to family circumstances.[26]

Semen, a Ukrainian researcher, initially left the country to attend an academic conference held in Canada during the full-scale war. However, after assessing the increasingly precarious situation in Ukraine, he decided not to return. He subsequently chose to relocate to Germany, prioritising it over other possible destinations due to the country's comprehensive support system for displaced Ukrainians, including access to social assistance, housing, and academic opportunities. Reflecting on his displacement, Semen emphasised the complete lack of institutional support from his former academic institution in Ukraine during this critical period. His decision to remain abroad was driven primarily by concerns for personal safety rather than professional development. He described the experience as one of profound uncertainty and psychological distress, referring to it as his "worst nightmare."

25 Interview with Ostap, doctor of economics, professor, head of one of the research centres in Ukraine, Kyiv, 18 September 2023 (recorded by Tetiana Karmadonova), researcher's private archive.

26 Interview with Eugene, paleontologist and fossilologist from Ukraine, Kyiv, 19 September 2023 (recorded by Tetiana Karmadonova), researcher's private archive.

As a consequence of forced displacement, the interviewed scholars resettled in seven different European countries: Germany (three participants), Finland, Slovakia, France, Spain, Belgium, and Switzerland. The choice of host country was not random but was determined by a complex interplay of social, cultural, professional, and pragmatic considerations. Analysis of the interview data revealed the following key factors influencing destination selection:

- The presence of close relatives or family members in the host country, which significantly facilitated initial logistical and emotional adjustment.
- Pre-existing transnational ties, including prior academic collaborations, educational experiences, or familiarity with the sociocultural context of the destination.
- Employment opportunities within the host country's labour market, particularly in sectors relevant to the respondents' professional profiles.
- Availability of academic positions and possibilities for institutional integration, including fellowships, visiting appointments, or research funding.
- The overall level of security, legal stability, and predictability of the host country's governance structures, perceived as crucial under conditions of war-related uncertainty.
- Informal support mechanisms provided by personal networks, which enabled a faster and smoother adaptation process.
- Cultural proximity and the existence of Ukrainian or broader Eastern European diasporic communities offering psychosocial and practical support.
- Linguistic familiarity or ease of acquiring the local language, viewed as essential for both daily functioning and professional engagement.
- A previously established interest in the host country, often informed by earlier travel, education, or work-related experiences.

Theme 2: Finding employment

Some researchers reported that they did not initially seek employment in their professional field upon relocation, as they were able to access basic financial support provided under the temporary protection mechanisms established by the European Union. For instance, Inna explained that while on forced leave from her academic position in Ukraine, she received social assistance in Finland, which enabled her to meet essential living needs during the initial period of displacement. This support was particularly important in the absence of immediate employment opportunities or alternative sources of income. Although the level of assistance varied by country, several participants noted that such support offered a short-term sense of stability while they adapted to life in a new context. "It's quite challenging to find a job here. On the one hand, they need people, since young people are leaving

the country in large numbers. However, on the other hand, to get a job, you need to have your education recognised. Our education is not always accepted here, and to compete with locals, you need to learn Finnish and improve your skills. So far, I haven't had the need to actively look for a job in my field in Finland."[27]

Based on my observations during the interview, Inna is currently exploring the possibility of changing her profession and is considering enrolling in retraining courses. She expressed a sense of abandonment regarding institutional and professional support, noting the absence of clear guidance or pathways to continue her academic career abroad. Despite this, she spoke calmly about her previous job in Ukraine. It appears that the traumatic experience of displacement and the loss of her home have significantly influenced her outlook, leading her to contemplate new directions in her professional life.

By contrast, participants who were invited for internships and became involved in research projects often expressed a desire to maintain collaboration with host institutions. Hanna, a scientist from a frontline region of Ukraine, secured a position abroad relatively smoothly, receiving an offer for a paid internship in Germany with no strictly defined end date. Although the position was initially presented as open-ended, she clarified that its duration could extend over several years, depending on funding availability and project needs: "I work here, conduct research to write my doctoral dissertation, receive a scholarship from one of the universities in Germany, and my contract is still valid for several more years, so I plan to continue the collaboration."[28]

However, not all participants were able to extend their contracts or complete research projects initiated before the full-scale war. Oleh, after some time abroad, found himself needing to seek new employment in Germany. While he currently receives social benefits that provide a basic level of financial security, he remains actively engaged in searching for professional opportunities and exploring ways to continue his academic work. "I received a temporary contract and worked in a small scientific production company until January 2023. During this time, I tried to find opportunities to continue the project I had been working on in Kharkiv. Unfortunately, I haven't succeeded so far. I am actively looking for new opportunities, learning German, and receiving social benefits."[29]

Some researchers also mentioned that their salaries, grants, and scholarships from their respective host countries were sufficient to cover their expenses, and they did not need to seek additional funding. Oksana noted that her scholarship in Slovakia covers not only her living expenses but also allows her to make donations

27 Interview with Inna.
28 Interview with Hanna.
29 Interview with Oleh.

to the Ukrainian army. This financial stability has provided her with a sense of purpose and connection to her homeland, even while living abroad. It highlights the resilience and determination of Ukrainian scientists to support their country in any way possible, despite the challenges of displacement: "During this time, I have been working at the Astronomical Institute of Slovak Academy of Sciences. I receive a salary from the Slovak side and personal grant funds. In fact, I use these funds to rent accommodation and cover all my living expenses."[30]

Certain individuals chose not to pursue employment opportunities in their host countries due to age-related limitations. Ostap, for instance, did not consider job hunting a viable option at his stage of life: "I didn't even try to find a job because of my age; I am 81."[31]

A number of researchers continued to work remotely for their Ukrainian employers and, consequently, did not actively seek new job opportunities in the host countries. At the same time, this did not always translate into financial stability. Vira, for example, retained part-time employment with a commercial company in Ukraine that allowed remote work after her relocation. However, her income proved insufficient to support her family abroad, particularly after her position at a Ukrainian research institute was suspended: "It was a psychological shock when my salary from the Institute stopped. Although I continued to work remotely for a commercial company, it was difficult to settle in a new place, enrol my children in school, and manage everything with such limited income."[32]

Several respondents periodically travel to Ukraine to continue their research work. Despite Eugene's strong desire, he does not have the opportunity to secure employment in the host country. Nevertheless, he remains hopeful and plans to visit Ukraine periodically to maintain his academic activities.

> I was offered a job as a fossil preparator by my colleagues from Italy and France. It was very tempting, and I was personally drawn to the United Kingdom, especially to the coast where the legendary Mary Anning collected fossils 200 years ago. Unfortunately, I didn't have such close contacts with English colleagues. I also visited colleagues in Switzerland whom I knew before, but they ignored my hints about possible cooperation. So, I am currently working remotely, sometimes outside Switzerland, including almost monthly visits to Ukraine.[33]

Other scientists have decided not to return to Ukraine in the near future and are actively exploring new job prospects abroad. In conversations with Semen,

30 Interview with Oksana.
31 Interview with Ostap.
32 Interview with Vira.
33 Interview with Eugene.

it became clear that he, more than anyone else, wishes to remain abroad and is pursuing opportunities to work and live outside Ukraine: "I have already had one interview and am actively looking for a researcher position. Colleagues in Europe and America are helping with the search."[34]

The situation regarding employment varied among the Ukrainian scientists. While some succeeded in securing positions in their host countries, others encountered significant difficulties in finding work. During interviews, it became evident that the participants' accounts of seeking employment abroad were imbued with both hope and the sense of loss associated with severed professional ties to Ukraine.

Theme 3: Collaboration with Ukraine

Overall, researchers reported a noticeable decline in collaboration with Ukrainian scientific institutions following the onset of the full-scale war. Although many continue to perform their research duties remotely – just as they did prior to their displacement – the level of institutional support has, in several cases, decreased significantly. For instance, Oksana noted that she now receives only the minimum wage for the same scope of work she had carried out before relocating. Considering that remote work had already become a common practice during the COVID-19 pandemic, it remains unclear why certain institutions have chosen to reduce or suspend salary payments for researchers who were forced to leave the country. "I continue to collaborate with the National Academy of Sciences (NAS), and I work remotely at the Main Astronomical Observatory. The conditions of collaboration have not changed, especially the workload. As a collaborator residing abroad, I have been put on the minimum allowable rate in Ukraine, but there has been no reduction in the volume of work."[35]

In some cases, the reduction of scientific and technical personnel has resulted in changes to workloads and increased wage rates. Hanna observed that this rise in remuneration in Ukraine has not influenced her decision to remain in the host country: "I still continue teaching at the University of Kharkiv, but it's all online. Moreover, the university offered to increase my workload from a 0.75 to a full-time."[36]

In contrast, many researchers who continue to work remotely for Ukrainian institutions expressed concerns about potential redundancies and further reductions. Valentyna, for instance, worries that she may lose her position in Ukraine. Her anxiety manifests both psychosomatically and emotionally when she speaks about her work, recalling difficult memories, and she prefers not to discuss her future

34 Interview with Semen, Ph.D. in historical sciences, senior researcher, Kyiv, 19 September 2023 (recorded by Tetiana Karmadonova), researcher's private archive.
35 Interview with Oksana.
36 Interview with Hanna.

plans: "I continue to give lectures online, but my workload has been reduced to a minimum (0.25). Furthermore, every year we have staff reductions and salary cuts."[37]

For some researchers, the war not only shattered peace and forced them to leave their homeland but also led to the loss of employment and the inability to pursue scientific work. Vira, for example, was placed on unpaid leave before her contract was eventually terminated.

> Before the full-scale war, I was a postdoctoral researcher at the institute and worked exclusively in remotely due to the COVID-19 pandemic, so the work process and workload remained virtually unchanged. I had a contract, but due to evacuation abroad, I had to take unpaid leave. Still, I continued to actively participate in scientific conferences and to write articles and monographs. Currently, my contract has now ended, and I have no opportunity to renew it.[38]

Many participants preferred not to take an active stance when asked about changes in salary and working condition within their Ukrainian institutions. They generally described taking unpaid leave as a personal decision and reluctant to publicly question the institutions' actions: "I simply took a leave at my own expense, although I continued to work online. The workload decreased after I left the position of deputy director and department head. However, I still remain the head of the research centre. Unfortunately, there is a lack of offline contacts."[39]

Interestingly, Oleh continues to collaborate with his institute in Ukraine, albeit on a voluntary basis. There was, however, a subtle note of concern in his reflections.

> I officially remain a senior researcher in Ukraine. However, I am on unpaid leave due to the state of war. Nevertheless, I continue my activities with the institute, including working on joint articles, reviews, and publishing the results obtained before my departure. I also remotely teach a course for graduate students and supervise the research work of a graduate student at Kharkiv University. I participate in joint meetings and scientific seminars of the institute when it is possible to join online.[40]

Inna, upon moving to the host country, also had to apply for unpaid leave. She continues to maintain professional contacts with Ukrainian colleagues, publish her work, and assist her department with various events – albeit online: "I took leave from the institute at my own expense. I am still associated with the Institute."[41]

37 Interview with Valentyna.
38 Interview with Vira.
39 Interview with Ostap.
40 Interview with Oleh.
41 Interview with Inna.

Semen expressed a wish to continue remote collaboration with colleagues in Ukraine, although he views such prospects with apprehension: "I would like to collaborate with colleagues in Ukraine, explore funding sources, and other opportunities. I hope my decision to leave Ukraine during the war won't hinder our cooperation, but I'm not very confident."[42]

Overall, around half of the respondents continue to collaborate with Ukrainian institutions, though the terms of cooperation have changed: remuneration has decreased, while workloads have largely remained the same. Out of the nine researchers interviewed, two have already lost contact with their academic institutions in Ukraine, which poses challenges for potential reintegration. Meanwhile, two others are satisfied with their current employment and compensation abroad in their respective fields, which similarity reduces the likelihood of return. Consequently, four out of nine scientists reported having no urgent need to return home for professional reasons.

Theme 4: Assessment of support

Some researchers who have received temporary protection under the EU's Temporary Protection Directive (TPD) gained access to free language courses and financial assistance, depending on the specific policies of their host countries. For instance, Inna participates in such courses and receives financial support in Finland. Her case illustrates the profound transformations in the lives of Ukrainian migrant scientists during the Russian–Ukrainian war. The circumstances of her family changed drastically, and her narrative conveys deep emotions of deep loss and uncertainty. She expressed hope for continuation of social support in the host country: "I know that many researchers have moved to Finland under various programmes. I also applied but did not receive a grant. However, Finland provides me with financial assistance, allows me to take language courses, and I don't need to start working immediately."[43]

Several participants remarked that they receive considerably more support in their current host countries than they did in Ukraine. Hanna, for example, speaks enthusiastically about her life in Germany, providing examples of the extensive support she and her acquaintances have received. She noted that she encouraged her friends to relocate to Germany, as the country offers robust social assistance. She also observes that everyone around her is very satisfied with life here as Germany provides access to healthcare services, and a general sense of financial stability. This episode emerged as one of the most emotionally charged in her account.

42 Interview with Semen.
43 Interview with Inna.

> The support from the German state is tremendous, and without it, Ukrainian families would not survive here. Working conditions, the atmosphere at work, and remuneration are significantly better here than in Ukraine. There's a lot to talk about in this regard. Somehow, they take better care of me as a researcher here. My research and the results of my projects are valued much higher here than in Ukraine. And the salary matches that. Here, I can work in one position, while in Ukraine, I would have to manage and lead five projects just to make ends meet. So, there are many more attractive aspects here for us. State funding for research in Germany and the government's interest in scientific research are also significant advantages.[44]

Other respondents similarly underscored the advantages available to researchers in their host institutions, such as better funding for academic mobility, access to modern equipment, active support for grant applications, and institutional lobbying on behalf of employees, and public recognition of research work – all contributing to greater respect for the profession. Oksana, based in Slovakia, pointed out that EU membership simplifies access to telescope observation time, and facilitates academic mobility. She added that her institute provides a workplace, office, and supplies, while also responding quickly to equipment needs.

> And it's not just about taking money and buying equipment; the management actively encourages grant applications and lobbies for the interests of its employees as soon as it can be done legally. There's another aspect that may seem insignificant but is actually very important. In Slovakia, the work of a scientist is considered a priority profession, so society values researchers and teachers. In my opinion, we Ukrainians should adopt this experience and implement it in our country.[45]

Simultaneously, several participants drew attention to less favourable aspects of their research environment in their respective host countries. Some noted that the slow administrative processes and pervasive bureaucracy – particularly in German research institutions – can hinder the pace and efficiency of scientific projects. Researchers therefore need to remain flexible and adaptable, finding ways to optimise processes, and navigate bureaucratic systems to achieve their research goals. Oleh explained that in Germany, no one rushes and everything proceeds strictly according to established rules. As a result, decisions must be made in advance and carefully planned rather than expecting the system to change. German citizens, he added, are accustomed to following procedures to the letter and do rarely seek alternative solutions, even when these might be equally legitimate or more efficient.

44 Interview with Hanna.
45 Interview with Oksana.

> Of course, compared to Ukraine, researchers here, have far more opportunities to realise their potential. If you speak German, there are even more possibilities. High-quality laboratory equipment, technical and technological resources, and access to funding are abundant in universities in both small and large cities, and it's considered the norm. Unfortunately, in Ukraine, only major research centres can boast such resources, and it's seen as something exceptional. Here, it's the norm they're accustomed to. This changes a lot because a scientist who from the very beginning sees well-equipped laboratories and easy access to equipment as the norm develops differently.[46]

Some researchers have not yet had the opportunity to experience all the advantages and disadvantages of the support available to researchers in their new host countries. Nevertheless, they remain engaged with contemporary research and continue to monitor scientific developments: "As for the attitude towards scientific work here, I found that the Joint Research Centre of the European Commission has conducted quite extensive research on the interaction of science and politics. Interesting results."[47]

In some countries, researchers are able to collaborate and engage in scientific activities with local colleagues, yet they do not receive financial support for their work. Valentyna, for instance, reported that she currently does not receive substantial support from the host country and relies financially on her husband and son.

> I have no resources. I have non-monetised training. In France, they don't accept financially incapable people who cannot pay for their own accommodation and everything else. There's a programme called PAUSE (Programme d'aide à l'Accueil en Urgence des Scientifiques en Exil), but it's almost impossible to get into it; I've tried twice already. But I don't rule out that I will be able to.[48]

Eugene noted that his host country provides financial assistance to his large family but also highlighted challenges associated with legal legislation, emphasising Switzerland's closed nature for foreigners in highly paid positions, where priority is given to local experts. He contrasted this with Ukraine, observing the considerable disparity in minimum wages.

> Over this year and a half, I've stopped considering Switzerland as a potential place where I can professionally pursue my scientific interests. So, first and foremost, it's a good place where my family is safe during the war. I have managed to create a few interesting local paleontological tourist routes. I got to know local like-minded people who dream of becoming palaeontologists.

46 Interview with Oleh.
47 Interview with Ostap.
48 Interview with Valentyna.

> But, of course, it's all amateurish. It's worth noting that Switzerland, while a small country, is a confederation of 26 cantons. Therefore, even the Swiss themselves are not eager to move to other cantons because they don't know the laws of neighbouring cantons, for example, whether fossil hunting is allowed. After all, you can run into quite significant fines everywhere here. In general, Switzerland is quite a closed country for foreigners in terms of highly paid or prestigious work. It prioritises local experts. But comparing it to Ukraine doesn't really make sense. Minimum wages differ by 20 times.[49]

Some researchers have not fully assessed the support provided by their host countries but have highlighted procedural difficulties in Ukraine, particularly regarding participation in international scientific conferences during the state of war. In a personal conversation, Semen explained that he had to repeatedly petition Ukrainian management in approve his attendance at a conference, encountering obstacles at almost every step: "Ukraine created significant difficulties for my participation in a scientific conference in Canada. Of course, after crossing the Ukrainian border, the situation became much simpler."[50]

When comparing the support and resources available to researchers in host countries with those in Ukraine, several key considerations emerge:

- Host countries often provide more stable and predictable funding opportunities, whereas research funding in Ukraine can be sporadic and uncertain.
- Research infrastructure is typically better developed, including well-equipped laboratories, libraries, and research centres.
- Social welfare systems, healthcare, and family support services may be more comprehensive, creating more stable and conducive environment for researchers and their families.
- Integration programmes, language courses, and community support may be more robust, facilitating quicker adaptation for researchers and their families.

Overall, the interviewed scientists emphasise that European countries provide valuable support and resources, which are particularly necessary in the context of the Russian–Ukrainian war.

Theme 5: Recommendations for promoting science in Ukraine.

The full-scale Russian invasion in 2022 forced many Ukrainian researchers to leave the country – not by choice, but out of necessity to save their lives and protect their families. These are not typical migration stories, but cases of forced displacement caused by war. In discussing possible strategies for their return, it

49 Interview with Eugene.
50 Interview with Semen.

is important to consider not only financial incentives but also the broader context of rebuilding safe and supportive conditions for scientific work in Ukraine.

To encourage researchers to return, financial support has been highlighted as essential, including full-time salaries and access to various grant programmes. Stable budgetary funding for research should be maintained even when grants are secured. Additionally, expanding initiatives aimed at popularising science could improve public perception of scientific work in Ukrainian society. However, as Oksana notes, the challenges are systemic and begin at the level of secondary education, ultimately influencing the entire academic and research ecosystem.

> To bring researchers back, funding is necessary, including ensuring at least a full-time salary and facilitating Ukrainian researchers' access to various grants. It is essential not to reduce budgetary funding when a researcher receives a grant. However, this may require intervention from ministries and government authorities. Regarding the popularisation of science, there are currently many successful initiatives that improve its image and promote science. In my opinion, if we continue to support this pace of work or even increase it, and encourage the creation of new initiatives, society's attitude towards science will improve in a few years.[51]

Although the war was the primary cause for displacement, researchers also underscore the substantial salary gap between Ukraine and host countries. This economic disparity further discourages return and raises concerns regarding long-term brain drain. Adequate remuneration for scientific work could be a crucial factor in incentivising displaced researchers to consider returning once it is safe and may also help contribute to retaining talent in the future.

> Several aspects need to be considered. First, researchers should be provided with the opportunity to work remotely, regardless of their location, whether in Ukraine or abroad. Second, it is essential to increase the salaries of researchers, at least to the level of the average wage in Ukraine, to allow them to focus on scientific work rather than just survival and seeking additional sources of income. Third, to encourage the return of researchers to Ukraine, favourable conditions for their professional growth and development should be created. This may involve providing access to modern research infrastructure, establishing departments to assist in finding international research programs and projects for researchers, and supporting them in finding courses to learn new technologies and methodologies for their research projects. Fourth, it is crucial to provide researchers with social guarantees and protection of their rights, including free medical insurance and support in crisis situations, such as war.[52]

51 Interview with Oksana.
52 Interview with Vira.

In conversation with Inna, I was once again convinced that she has no intention of returning to Ukraine. She is seeking an opportunity to remain in the host country.

> This is a significant problem. Why did researchers relocate to other countries? Because they were offered good conditions, high salaries, and housing. Ukraine cannot even be compared. It's good when we can develop in Ukraine, write articles, and participate in conferences, but we must be paid for it because it matters a lot. You can't even rent an apartment on a Ukrainian scientist's salary. So, the top priority is to ensure researchers receive a decent salary.[53]

Researchers express doubts about the prospects of returning to Ukraine for a variety of reasons. Valentyna's hesitation to return may lead her to decide to remain in the host country and settle as an immigrant. This reluctance can be attributed to several factors, including insufficient funding, a lack of necessary conditions for conducting research, and fear of uncertainty in Ukraine.

> Officially, eight million Ukrainians have left, but actually ten million Ukrainians have left. I don't see anything in Ukraine that would make me want to return. I don't see any programmes for that. On the contrary, there are many offers to publish for money, which is not motivating at all. It's very sad to see how many researchers are leaving the country, and it's really disappointing.[54]

There are also those who contemplate the possibility of returning to Ukraine: "As for the return, as soon as family circumstances allow, we will return."[55]

In addition to a competitive salary and access to modern equipment, Hanna considers the creation of a supportive work environment – where researchers feel appreciated and recognised – to be an important factor. According to her, improving conditions for researchers and modernising the research environment can help attract talented researchers back to Ukraine.

> In terms of attracting scientists back to Ukraine, I believe it is possible with a series of steps. First and foremost, improving working conditions for scientists is crucial. This includes providing a decent salary and access to modern equipment and technologies. Additionally, it's important to create a supportive work environment where scientists feel recognised and valued for their work. It's also necessary to implement modernisation efforts in the higher education system and research institutions.[56]

53 Interview with Inna.
54 Interview with Valentyna.
55 Interview with Ostap.
56 Interview with Hanna.

Oleh emphasises the need to reform the philosophy and approach to communication within research institutions and the education system. To popularise science among young people, he recommends reforms in the education system to make it more individualised and project-oriented.

> The issue of popularising science in Ukraine is related to making science more attractive to young people and creating opportunities for career growth. This problem requires reforms in both primary and higher education systems, as well as changes in the philosophy and communication in scientific institutions. It is important to make education more individualised, allowing students to choose their own development path rather than imposing a uniform set of knowledge. Project-based learning in higher education, where students can choose projects in their field and work on real-world tasks, is also recommended to increase interest in science... Regarding the return of scientists, first, Ukraine needs to achieve victory. Even before that, it would be advisable to create an international group of scientists and experts to monitor scientific directions related to the work of Ukrainians and study their current projects for their direct applicability in achieving this victory and overcoming the consequences of aggression. These scientists could be invited to work in Ukraine or even abroad on behalf of Ukraine with sufficient funding.[57]

Eugene expressed the view that, to overcome acute crises, external threats need to be addressed, while chronic problems, such as corruption and lack of civil rights, require attention to internal issues. It was emphasised that private businesses should invest in science, and the government should implement reforms to support fundamental scientific fields. Notably, despite some challenges, science popularisation content in Ukrainian is developing, which represents a positive signal for the future of science.

> Naturally, the state of science reflects the situation in the country. It is important to reform science in a way that promotes healthy competition, including through grant funding. Scientific achievements should undergo international validation. Currently, more attention is given to the younger generation than to seasoned scientists because I believe that those who either have already achieved something or are still waiting to do so in science can make the right choice in this critical time. Ambitious high school students now have even more opportunities to get higher education abroad. It is important that children in Ukraine do not fall into an information vacuum due to the difficult situation in the country. I have not heard of any successful state initiative to popularise science. However, it is somewhat encouraging that over the past year

57 Interview with Oleh.

> and a half, Ukrainian-language science popularisation content has been developing for online audience. Enthusiasts not only run blogs but also continue working with children in science clubs, conducting workshops, writing interesting books, and so on. Therefore, there is hope for the future of Ukrainian science.[58]

Prior to the full-scale Russian invasion, many Ukrainian scientists described their lives as stable or even ideal, often without critically reflecting on the broader structural and political challenges facing the country – such as underfunding of science, limited international integration, and escalating geopolitical tensions. During the first year of forced displacement, many hoped to return to Ukraine promptly. However, as the war extends into subsequent years, these hopes are increasingly supplanted by pragmatic considerations relating to safety, career development, and family stability. The prolonged nature of the conflict risks diminishing the likelihood that displaced scientists will return to Ukraine in the near future.

Conclusions

This study offers new insights into the experiences and strategies of Ukrainian scientists displaced by the 2022 Russian invasion. Despite the small sample size (nine interviews), several patterns emerged that illuminate the broader dynamics of forced academic migration. Even with a limited number of cases, recurring strategies among displaced researchers were identified, including maintaining professional ties with Ukrainian institutions, redirecting efforts to local resources in host countries, and prioritising family safety and personal security.

The study highlights the multifaceted nature of migration decisions, demonstrating that they are shaped not only by professional opportunities but also by social networks, language familiarity, and perceived stability in the host country. It offers a nuanced understanding of how displacement influences ongoing research collaborations, career trajectories, and long-term intentions to return to Ukraine.

The research is based on a small sample of nine participants, which limits the generalisability of the findings. The results should be regarded as preliminary and exploratory, highlighting trends rather than definitive patterns across all displaced Ukrainian researchers.

Future studies could adopt longitudinal designs to track how displaced scientists' strategies and intentions evolve over time. Cross-country comparisons may reveal how host-country policies, academic infrastructures, and social support systems shape the integration and professional outcomes of displaced researchers.

58 Interview with Eugene.

Further research is also needed to explore mechanisms that encourage sustained collaboration with home institutions and facilitate eventual return once conditions in Ukraine stabilise.

In conclusion, this research contributes to an understanding the complex interplay between safety, professional needs, and personal considerations in forced academic migration. It emphasises both the resilience and adaptability of displaced scientists, as well as the structural challenges that must be addressed to support Ukraine's scientific community during and after the ongoing conflict.

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Summary
This article presents interviews with nine Ukrainian scientists who migrated from Ukraine as a result of the full-scale Russian–Ukrainian war. The aim is to understand the factors influencing their choice of destination countries, their employment prospects abroad, and the maintenance of collaboration with Ukrainian academic institutions. The nine researchers, forced to leave Ukraine, were interviewed via online video conferences or phone calls. The oral history method was employed in this study. Preliminary findings indicate that the choice of destination was influenced by employment opportunities, grants, personal interests, and recommendations. Despite remote collaboration, researchers expressed concerns about their relationships with Ukrainian institutions, noting a deterioration in cooperation despite unchanged responsibilities and reduced funding. The study explores researchers' perspectives on working conditions abroad, project funding, and professional development opportunities. It emphasises the need to promote science, reform the status of researchers in Ukraine, and foster international collaboration for scientific advancement. It also highlights the importance of creating conditions to attract researchers back to Ukraine, including competitive salaries and professional development opportunities.