

Ukrainian Student Migration: Pursuing Education in a Time of War

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Abstract

Russia's invasion of Ukraine caused substantial flows of refugees into the European Union. This paper explores a subset of wartime Ukrainian emigration—educational migration—relative to circumstances in Slovakia. We apply the extant literature on migration to assess the actions taken to welcome Ukrainian students on a general level, as well as relative to one Slovak university (University of Economics in Bratislava). In this context, a survey of Ukrainian students at UEBA reveals some possible consequences of the university's actions for return migration of students after the war concludes. The expressed intentions to remain outside Ukraine, which differ between genders, regions, and length of stay abroad, might point to possible losses for Ukraine as it endeavors to rebuild in a post-war environment. The Ukrainian government might need to focus post-war policies on attracting more reluctant students to return home.

Keywords: *Educational Migration, University Assistance, Return Migration.*

Introduction

In the last decade, the European Union (EU) has faced multiple challenges that affected its internal cohesion and its place in the wider global political and economic order. The Russian invasion of neighboring Ukraine in February 2022 and the unrelenting war has presented the EU with an additional—possibly existential—threat to its stability. In addition to the peril posed by a land-war on its eastern borders and the menace to its democratic institutions, the EU has experienced disruptions to its trade, investment, and energy flows as it opened its borders to a flow of refugees not seen since the Second World War. According to Statistica data presented in Table 1, there were 4,736,875 Ukrainian refugees registered in the temporary protection mechanism in the European Union as of May 2023.

Poland and Germany became the largest recipients with 33.6% and 22.4% of Ukrainian refugees respectively. The significance of these two countries is understandable from the perspective of a gravity model of migration (Malaj and de Rubertis, 2017) where the distance to and economic size of these two host countries is dominant relative to other EU countries. However, these two countries have large domestic populations with which to absorb these inflows. On a per capita basis, Poland ranks third at 4.2% after Estonia (5.2%) and Czechia (4.9%), whereas Germany ranks lower at 1.3% and below the more geographically distant Cyprus (1.8%) and Ireland (1.6%). Poland's high absolute and per capita ranks can be expected given its long border with Ukraine, as well as its historical and cultural ties. Among the other EU countries that directly border Ukraine, Slovakia places second on a per capita basis with 114,628 refugees or 2.1% of its population.

In light of its high per capita position, this paper explores a subset of wartime Ukrainian emigration—educational migration—relative to circumstances in Slovakia. We consider

first the overall context for the recent Ukrainian emigration into the EU, followed by a closer look at Slovakia's response. Specifically, the experience of one Slovak university, the University of Economics in Bratislava (UEBA), provides a useful case study of the actions taken to welcome Ukrainian student migrants and the students' responses to these efforts. We apply the extant literature on migration that cites the importance of conditions in the host and origin countries on the incidence of return migration. In this context, a survey of Ukrainian students at UEBA reveals the effectiveness of the university's actions and some possible consequences for return migration after the war concludes.

Table 1. Ukrainian Refugees in the EU

	Country	As of date	Number of refugees	Percent of refugees	Percent of local population
1	Poland	5/9/2023	1,593,860	33.6%	4.2%
2	Germany	4/19/2023	1,061,623	22.4%	1.3%
3	Czechia	4/30/2023	516,100	10.9%	4.9%
4	Spain	5/8/2023	175,962	3.7%	0.4%
5	Italy	4/21/2023	175,107	3.7%	0.3%
6	France	10/31/2022	118,994	2.5%	0.2%
7	Slovakia	5/7/2023	114,628	2.4%	2.1%
8	Romania	5/7/2023	97,085	2.0%	0.5%
9	Austria	5/9/2023	96,766	2.0%	1.1%
10	Netherlands	2/10/2023	89,730	1.9%	0.5%
11	Ireland	5/7/2023	82,834	1.7%	1.6%
12	Lithuania	4/11/2023	76,540	1.6%	2.7%
13	Belgium	5/2/2023	71,446	1.5%	0.6%
14	Estonia	4/10/2023	69,616	1.5%	5.2%
15	Portugal	2/26/2023	58,242	1.2%	0.6%
16	Sweden	4/5/2023	53,957	1.1%	0.5%
17	Bulgaria	5/9/2023	49,826	1.1%	0.7%
18	Finland	4/10/2023	47,067	1.0%	0.8%
19	Denmark	4/10/2023	41,560	0.9%	0.7%
20	Hungary	5/8/2023	35,030	0.7%	0.4%
21	Latvia	4/11/2023	32,380	0.7%	1.7%
22	Greece	3/31/2023	22,704	0.5%	0.2%
23	Croatia	4/7/2023	21,640	0.5%	0.6%
24	Cyprus	3/12/2023	16,281	0.3%	1.8%
25	Slovenia	5/7/2023	9,397	0.2%	0.4%
26	Luxembourg	10/25/2022	6,756	0.1%	1.0%
27	Malta	2/19/2023	1,744	0.04%	0.3%

Source: Authors' calculations, Statistica
<https://www.statista.com/statistics/1312584/ukrainian-refugees-by-country/>

Contexts for Ukrainian Migration

Since the war began in late February 2022, Ukrainian migration into the countries of the EU has become subject to numerous studies across a range of economic and social-cultural perspectives. In an economic context, there are established demand and supply side conditions fostering Ukrainian emigration. Lloyd and Sirkeci (2022), note that the general acceptance of Ukrainian refugees is longstanding and follows on recurrent instances of emigration provoked by the continuous political and economic insecurities

since the country's independence. Hofmann (2022) notes that Ukrainian refugees are well-regarded in terms of the high education and skill levels that they bring to the EU labor market. Given emerging demographic challenges, the productive capabilities embodied in Ukrainian refugees were in high demand in EU countries. For example, Janicki and Ledwith (2022) find that Ukrainian migrants to Poland act as a source of replacement labor since they offset the human capital drain of Polish workers to other EU countries. The study emphasizes the need for a comprehensive integration strategy to ensure that labor migrants possess relevant skills. Consequently, the EU's response to the substantial flow of Ukrainian refugees was intentional and institutionalized. Within a week of Russia's invasion and the resulting surge of Ukrainian refugees, the European Union implemented the Temporary Protection Directive (TPD) that provided immediate temporary residence and work permits for Ukrainian citizens.

In the socio-cultural context, whereas the acceptance of the migration wave issues from the region's altruism in helping Ukrainian refugees, the motivation behind this altruism rests on prosocial tendencies that diverge across cultures. Larsen and Witoszek (2023) find that assistance for Ukrainian refugees differs between Nordic and Slavonic contexts. Efforts in the Nordic region reflect systemic (institutional, high social trust) altruism whereas those in the Slavonic region rest on anti-systemic (spontaneity, improvisation, and occasional rule-breaking) altruism. Positive attitudes towards Ukrainians within the EU have encouraged the post-war wave of Ukrainian refugees. Politi et al. (2023) posit two channels to explain intentions to help Ukrainian refugees. One path begins with individual prosocial dispositions that lead to empathy with Ukraine's struggles. A second path connects Ukrainian identity with European identity.

The consequences of the large-scale Ukrainian refugee flows on the eventual post-war environment will depend on the motivations of these refugees and their intentions to return home. Turny et al. (2023) identify four phases in a refugee's path that separate the initial need for safety and shelter motivating behavior in the first days and weeks from the medium-term search for access to host country resources and the long-term decision to settle in the adopted country. Within these later stages host country attachments tend to deepen. Given the significant number of Ukrainian refugees, factors that affect their motivation to return will have important consequences for post-war Ukraine. Libanova (2018) identifies seven categories of migration each with distinct motivations and consequences. These include:

pendulum	or	shuttle,
short-term		agricultural,
short-term		non-agricultural,
long-term,		
permanent,		
brain-drain,		
educational.		

Evidence exists that the first four types of migration can be positive since they contribute resources to the Ukrainian economy in the form of foreign wage remittances. Czeranowska et al. (2023) identifies these forms as circular migration. In 2021 prior to the war, personal remittances to Ukraine by Ukrainian workers overseas totaled \$18.06 billion or 9% of Ukrainian GDP (World Bank 2023). Because foreign earnings are substantial, they might justify why migrants endure the temporary, negative consequences on familial relationships caused by their absences. However, the benefits of permanent and brain-drain migration are less likely to result in similar financial benefits and represent possible challenges for conditions in the home country. In these instances, negative long-term socio-demographic and economic repercussions result from the greater irreversibility of these forms of migration. Consequently, improvements to post-war conditions in Ukraine will be hampered if the share of migrants shifts from

temporary/circular to more permanent forms as time passes. As war persists, a host country might transform into an adopted country.

The intermediate stages of a refugee's path might include efforts to access the academic institutions and infrastructure of their host countries resulting in educational-related migration. In the process of advancing their education, students also require access to ancillary social, healthcare, financial, and housing infrastructure in the host country. The issue predates the war in the case of Ukrainian students abroad. Gracz et al. (2018) note that the number of Ukrainian students is constantly growing in Poland mostly in private universities. The reasons for Ukrainian student migration include host government support that lowers the costs of living and better prospects for finding a job in the host country. This inclination is likely to continue as younger Ukrainian students embed into the primary and secondary educational systems of their EU hosts (Chovpan 2023).

Educational-related migration, consequently, presents a more complicated picture with post-war consequences for Ukraine that depend on the students' plans to return to Ukraine at the conclusion of their studies. For one, Carling and Pettersen (2014) note that intentions to return home decline as integration and transnational connections intensify in the host country. Consequently, welcoming policies and conditions established by the host country contribute to a positive environment where foreign students consider the host country more as an adopted country.

Cassarino (2004) summarizes five theories that posit a range of possible motives for return migration. The study centers on a migrant's readiness and willingness (i.e. preparedness) to return along with the acquisition of tangible and intangible resources while abroad that can be readily applied to conditions in both the host and origin countries. In general, the degree of preparedness and resource development interact with policy and environmental conditions to influence the behavior of different types of return migrants. Because of their high degree of preparedness and the easier transferability of resources acquired abroad, students rank among the migrant groups most likely to return home. Whether they do, however, will depend on the degree to which governments in the origin countries implement policies that affect both migration and repatriation.

One characteristic of the current wartime emigration from Ukraine, relating to motivation and process, is the restriction imposed on departures of draft-aged males. The declaration of martial law and general mobilization immediately after Russia's invasion banned the departure from Ukraine of men between the ages of 18 and 60. The efficacy of such a restriction has been challenged by domestic and international non-governmental organizations (Carpenter, 2022). Indeed, the negative consequences on Ukraine's post-war future that might result from restricting half of the country's population from higher education opportunities abroad were sufficiently large to warrant an exception. Male students enrolled at foreign universities were permitted to remain at or depart for study abroad. However, a reported increase in forged enrollment documents led to a reversal of the exemption in September 2022. Although these issues are beyond the scope of this study, the incidence of migration by male Ukrainian students to Slovakia will be examined below to ascertain the effects of the initial restrictions and the subsequent education exemption.

Welcome to Slovakia: Educational Migration of Ukrainian Students

Considering the uncertainty surrounding Ukrainian emigration and plans of refugees to return, the remainder of this study explores the themes illustrated above in the context of Slovakia's recent experience with expat Ukrainian university students. First, the actions taken by universities in Slovakia to welcome Ukrainian students are explored on a general level, as well as relative to the University of Economics in Bratislava (UEBA). Second, the consequences of Slovakia's welcome are measured via a survey of Ukrainian students of their post-graduation plans to return home.

Table 2. Matriculated Ukrainian Students at Slovak Universities

	Number of Students	% Male	Permanent Residence	Residence % of Total Students	% Male
Academic Year 2018-19					
Bachelor and Master studies/full-time	2 789	51.2	61	37.7	
PhD studies/ full-time	42	42.9	1	0.0	
Bachelor and Master studies / external	46	52.2	9	44.4	
PhD studies / external	22	68.2	4	50.0	
Total	2 899	51.2	75	2.6%	38.7
Academic Year 2019-20					
Bachelor and Master studies/full-time	3 802	51.5	72	45.8	
PhD studies/full-time	64	42.2	2	50.0	
Bachelor and Master studies/part-time	39	48.7	6	33.3	
PhD studies/part-time	3	100.0	1	100.0	
Total	3 908	51.3	81	2.1%	45.7
Academic Year 2020-21					
Bachelor and Master studies/full-time	4 728	51.0	92	55.4	
PhD studies/full-time	72	38.9	3	66.7	
Bachelor and Master studies/part-time	73	35.6	16	47.5	
PhD studies/part-time	20	60.0	1	0.0	
Total	4 893	50.7	112	2.3%	52.7
Academic Year 2020-21					
Bachelor and Master studies/full-time	5 555	49.1	137	50.4	
PhD studies/full-time	82	42.7	5	40.0	
Bachelor and Master studies/part-time	76	22.4	20	30.0	
PhD studies/part-time	25	52.0	1	100.0	
Total	5 738	48.7	163	2.8%	47.9
Academic Year 2022-23					
Bachelor and Master studies/full-time	9 973	60.3	251	53.0	
PhD studies/full-time	97	47.4	8	25.0	
Bachelor and Master studies/part-	94	21.3	20	20.0	

time					
PhD studies/part-time	34	50.0	2		100.0
Total	10 198	59.8	281	2.8%	50.2

Source: Authors' calculations, Ministry of Education, Science, Research and Sports of the Slovak Republic, 2022

Given that Slovakia has welcomed a substantial number of Ukrainian migrants within the TPD especially relative to per capita measures, the effect on the Slovak educational environment has been considerable as illustrated in Table 2. At the Slovak university level, the number of Ukrainian students studying at Slovak universities at the bachelor, master, and doctoral levels reached 10,198 in academic year 2022-23. This wartime enrollment represents an increase of 78% from academic year 2021-22 and 252% from academic year 2018-19.

In addition to the increased number of Ukrainian students studying at Slovak universities in the aftermath of the war, the composition has also changed among the students studying full-time at the bachelor and master levels. Prior to 2022, the gender distribution remained close to 50% male and 50% female. However, in 2022-23—the first full academic year of the war—the percent of male students increased to 60.3%. This increase in male students occurred despite the prohibition against most men leaving Ukraine. One of several exceptions, which might explain the 10% increased percentage in male students in Slovakia, is for applicants for higher education who study abroad in full-time or dual degree programs.

Table 2 reveals that the incidence of Ukrainian students studying at Slovak universities had been increasing gradually for several years before the war. Tables 3 and 4 illustrate that the University of Economics in Bratislava (UEBA) experienced a similar, steady increase before the 2022/23 academic year. The data also indicate that, in terms of both applicants (Table 3) and matriculated students (Table 4), UEBA saw a significant increase in academic year 2022-23 compared to 2020-21 (the last full pre-war academic year) by 202% and 405% respectively. The annual increase from 2021-22 was smaller but sizeable at 172% and 117% for applicants and matriculated students respectively from Ukraine. This annual increase in 2022-23 in UEBA's Ukrainian student enrollment exceeds the average 78% increase registered across all Slovak universities.

Table 3. Number of Ukrainian Applicants for Study at UEBA Faculties

Faculty	2020-21			2021-22			2022-23		
	Number	% of Total	% Male	Number	% of Total	% Male	Number	% of Total	% Male
NHF	15	8.8	53.3	26	13.7	46.2	75	11.5	54.7*
OF	66	38.6	37.9	53	27.9	39.6	122	30.6	41.0
FHI	10	5.8	20.0	7	3.7	28.6*	46	8.3	47.8*
FPM	40	23.4	47.5	59	31.1	40.7	128	25.9	37.5
FMV	26	15.2	46.2	28	14.7	35.7	69	15.8	33.3
FAJ	9	5.3	11.1	5	2.6	20.0*	36	4.0	22.2*
PHF	5	2.9	20.0	12	6.3	41.7*	41	4.0	46.3
UEBA total	171		39.8	190		39.5	517		40.8

*Indicates UEBA Faculties with an annual increase in male Ukrainian enrollments above 5%

Note: NHF – Faculty of Economics and Finance; OF – Faculty of Commerce; FHI – Faculty of Economic Informatics; FPM – Faculty of Business Management; FMV – Faculty of International Relations; FAJ – Faculty of Applied Languages; PHF – Faculty of Business Economics in Kosice.

Source: Authors' calculations

Given the restrictions on the exit of men of draft age from Ukraine, it is instructive to explore any possible effects on the number of male students at UEBA. With the overall increase in applicants from Ukraine, evidence of a sizeable increase (10+%) in the percentage of male applicants after the war exists only in some faculties (Informatics, Applied Languages, and UEBA's Kosice campus). Other faculties see a slight increase or even a decrease in male applicants. In the pre-war 2021-22 academic year, there was a decrease of 2.8% in the number of male Ukrainian students at UEBA despite the 133% annual increase in Ukrainian students. This result was reversed after the war in 2022-23 with an average increase of 5.6% in male Ukrainian students across all UEBA faculties. However, in terms of matriculated Ukrainian students, overall UEBA data do not match fully the general trend among Slovak universities of an annual 10% increase in male students. Among faculties, UEBA's degree programs in business and management (OF, FPM) remain the most popular with Ukrainian students with programs in Economic Theory (NHF), Applied Languages (FAJ), and at the Kosice location (PHF) near the Ukrainian border seeing percentage increases. Table 4 shows a widespread increase in male Ukrainian students of greater than 5% in all but two UEBA faculties (FPM, FMV). The largest percentage increase (22.8%) in male students from Ukraine occurred at the university's location near the border. At least initially, the 2022-23 data from UEBA do not reflect an inability of Ukrainian men to depart the country in pursuit of higher education abroad.

Table 4. Number of Matriculated Ukrainian students at UEBA Faculties

Faculty	Number	% of Total	% Male	Number	% of Total	% Male	Number	% of Total	% Male
NHF	4	7.3	50.0	11	8.6	54.6	32	11.5	59.4*
OF	20	36.4	25.0	41	32.0	26.8	85	30.6	35.3*
FHI	6	10.9	33.3	11	8.6	27.3	23	8.3	34.8*
FPM	12	21.8	33.3	37	28.9	29.7	72	25.9	33.3
FMV	10	18.2	60.0	23	18.0	47.8	44	15.8	43.2
FAJ	1	1.8	0.0	3	2.3	0.0	11	4.0	9.1*
PHF	2	3.6	50.0	2	1.6	50.0	11	4.0	72.8*
UEBA total	55		36.4	128		33.6	278		39.2

*Indicates UEBA Faculties with an annual increase in male Ukrainian enrollments above 5%

Note: NHF – Faculty of Economics and Finance; OF – Faculty of Commerce; FHI – Faculty of Economic Informatics; FPM – Faculty of Business Management; FMV – Faculty of International Relations; FAJ – Faculty of Applied Languages; PHF – Faculty of Business Economics in Kosice.

Source: Authors' calculations

Slovak University Responses to Ukrainian Student Migration

Slovak universities were quickly exposed to a significant increase in requests to admit Ukrainian students and responded to a government appeal to assist Ukrainian students.

Table 3 illustrates the variety of integration support offered to Ukrainian students across Slovak universities in general, and at UEBA specifically. The general efforts appear in Column 1 (arranged relative to their prevalence) respond to the intermediate search for access to host country resources (Turny et al., 2023). Across Slovak universities, an improvisational focus (Larsen and Witoszek, 2023) on language assistance, along with guidance on aspects of student life both outside and inside the university, is evident. Efforts requiring greater institutional coordination with external organizations and those with direct budgetary consequences comprise more limited forms of assistance. Actions taken by UEBA (Column 2) reflect this transition from spontaneous to systemic altruism.

Table 5. Assistance Provided to Ukrainian Students

1 Slovak Universities	2 UEBA	3 Student Interest	4 Challenges
Language courses and interpretation assistance	Slovak language courses were prepared for applicants in cooperation with external providers; UEBA Slovak language courses to improve communication skills and application in Slovak language coursework.	3) Language courses to overcome language barriers	Language barriers (insufficient Slovak or English competence) on the part of Ukrainian students,
Provision of daily necessities and assistance securing medical care, bank accounts, health insurance, mental health resource, and general orientation to life in Slovakia	Assistance from administrative offices, food service/accommodation facilities, university international departments, faculty, and doctoral students.	2) Food and accommodation, 9) Assistance in arranging at councils, offices, and mental health counseling	Contradictory procedures and inflexibility of health insurance companies in insuring Ukrainians; regulations when opening bank account; inadequate mental health support
Academic orientation to Slovak universities, other study aids, recognition of diplomas	Internet resources provided to Ukrainian students with immediate and continuous consulting services and help lines regarding the progress of their studies.	4) Questions regarding studies (starting or transferring to higher education), 5) Counseling in the field of admissions 6) Resolution of documents necessary for study and recognition of study documents	

Provision of internal scholarship and grant schemes and assistance preparing applications	Admission fees for 407 applicants were waived; 78 Ukrainian students received one-time stipend amounting to €200 per student from UEBA funds (some costs later reimbursed by the Ministry of Education)	1) Financial support, grants, stipends, and Erasmus+ funding opportunities	Administrative complications in the distribution of scholarship funds
Student family assistance: residency permits, accommodation, child educational placement, employment	Accommodation was provided for students and their family members in UEBA student dormitories and external facilities.	7) Assistance with administrative barriers and communication with authorities, 8) Assistance in arranging long-term stays	Slovak bureaucracy with accommodation arrangements and support; transit difficulties imposed by Ukrainian border guards for male scholarship recipients
Post-graduate employment assistance			Employers require bank account before employment

Source: Slovak Academic Information Agency (2023), UEBA (2023)

On the demand side, the areas of support that generated the most interest from Ukrainian students is listed in Column 3. The principal form of assistance sought was financial with language training and student life matters ranking closely behind. The significance of Slovak language courses in the list is unambiguous. At Slovak universities, foreign students do not pay tuition if the program is in the Slovak language. As a result, Ukrainian students choose study programs in Slovak primarily because of their financial attractiveness. Although challenges (Column 4) remain, the support offered tracks closely with the needs of Ukrainian students.

Ukrainian Student Post-war Plans to Return

Considering UEBA's efforts to embrace Ukrainian students, the authors conducted an online survey in January 2023 among these students at all UEBA faculties in Bratislava. The survey sought demographic information on each respondent along with their views on the academic programs at UEBA and plans after the war in Ukraine concludes. The response rate was 28%.

The survey began with a question on the timing of the Ukrainian students' arrival in Slovakia. Given the 117% increase at UEBA in Ukrainian students in 2022-23, over half of these students began their studies after the war began. However, only 44% of the survey respondents noted that they arrived after the war began. Furthermore, only 21.5% cited the war as the sole reason for their study at UEBA and these were mostly recent arrivals (93%) or female (79%).

As illustrated in Figure 1, the plurality (45%) of the students who arrived after the war began resided in central Ukraine. Those from eastern Ukraine were more likely to be already in Slovakia before the war began. Students from western Ukraine split evenly in this regard. The distinction between central and eastern Ukraine can be attributed to the greater instability in eastern Ukraine in the aftermath of Russia's aggression in the Donbas and Crimea that generated initial out-migration after 2014. This instability spread to central Ukraine after February 2022 leading to the increase there in out-migration for educational purposes. Students from west Ukraine—relatively removed from Russia's belligerence—do not seem to be more motivated solely by the war when seeking education opportunities abroad.

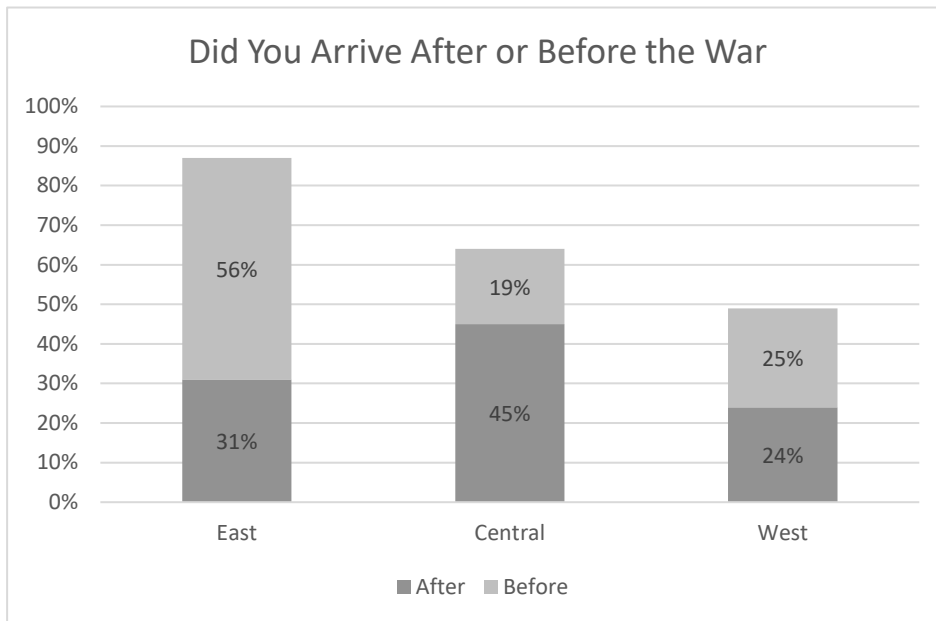


Figure 1. Arrival in Slovakia

Source: Survey Questionnaire, UEBA, January 2023

Considering the long-term importance of educational migration described in Libanova (2018), we surveyed the intention of Ukrainian students to return to their homes after the war. Here the literature on returnee preparedness (Cassarino 2004) provides insights to the respondents' intentions.

Figure 2a shows that after the end of the military conflict, 8.5% of respondents plan to return immediately, 9.9% plan to return after the end of the academic year at UEBA, and 39.4% of respondents consider returning only after completing their overall studies at UEBA. The intention among 57.7% of the Ukrainian students to return home at some point after the war ends indicates that Ukraine could well benefit from the current wave of educational migration that exhibit a high level of preparedness. However, the large percentage (42.3%) who do not plan to return indicates that Ukraine might face some challenges in terms of attracting the human capital needed for its post-war recovery efforts. A further breakdown of the students' responses might provide insight into the disinclination to return and possible policy measures—both in Ukraine and Slovakia—to address motivations after the war.

Figure 2a. Timing

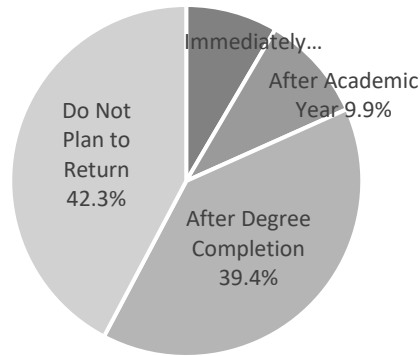


Figure 2b. Gender

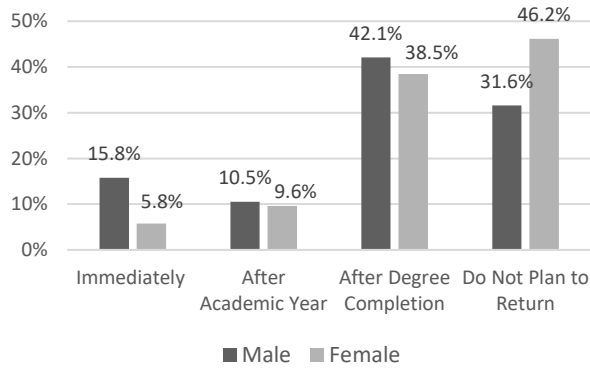


Figure 2c. Age

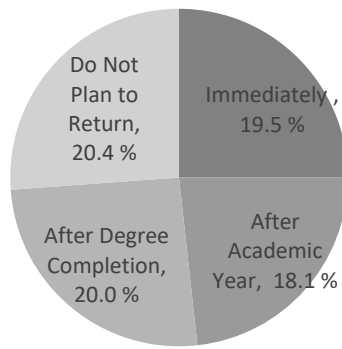


Figure 2d. Arrival

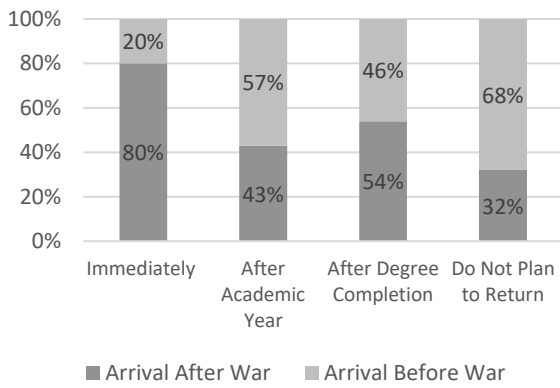


Figure 2e. Employment

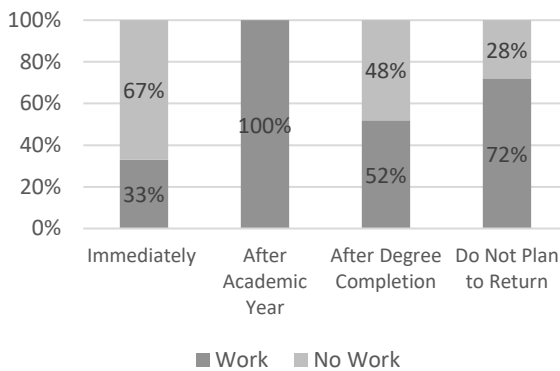
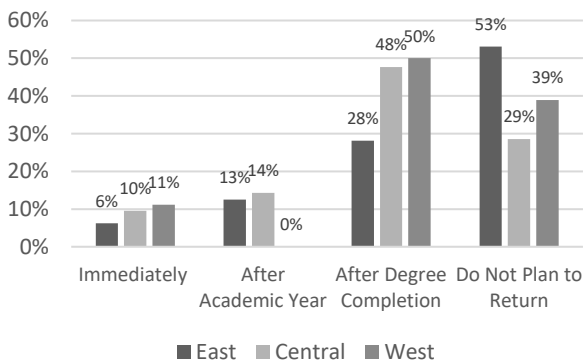


Figure 2f. Region



Source: Survey

Figures 2a. – 2f. When the War Ends, How Soon Would You Like to Return to Ukraine?

Source: Questionnaire, UEBA, January 2023

Figure 2b shows that a larger percentage of female students (46.2%) relative to male students (31.6%) do not intend to return to Ukraine after the war is over. Of those students with an intention to return, male students expressed the intention to return sooner relative to female students. Overall, the plurality of male students would complete their degree (42.1%) before returning. This result, plus those male students intending to return sooner, bodes well for Ukraine’s potential after the war. Regardless, it would be useful to

determine policies that motivate greater repatriation among Ukrainian students, especially females.

In terms of age (Figure 2c), the students who do not intend to return are somewhat older at 20.4 years than those that do intend to return at some point. This slight age difference might reflect those older students who were already in Slovakia and either did not face the initial and medium-term phases of the refugee decision making process (Turny et al., 2023) or those who had already decided on permanent residence in Slovakia. Figure 2d reflects this as those students already in Slovakia before the war constitute a substantial majority (68%) of those students who do not plan to return to Ukraine after the war. This is the inverse of those students who arrived after the war. The vast majority (80%) of the students intending to return immediately arrived after the war. The later arrivals are less likely to have become embedded in the social setting, academic infrastructure, and market environment of their host country.

Workforce participation is one aspect of the market environment that can influence the decision to remain in Slovakia. Figure 2e shows that 72% of students with no plans to return to Ukraine are employed whereas 67% of those who plan to return immediately are not employed. Because the Temporary Protection Directive (TPD) provided work permits for Ukrainian citizens, many Ukrainian students work alongside their university studies. Indeed, 67.7% of Ukrainian students already work at least part-time while studying at UEBA.

In terms of the regional distribution of respondents, Figure 2f shows that more than half of students from east Ukraine do not plan to return. Conversely, students from central and west Ukraine are more likely to return but have a high tendency to do so only after completion of their degrees. As the educational infrastructure and overall economic conditions on the front lines in east Ukraine have suffered the most damage, it is not surprising that this regional distinction arises. In a post-war environment, it will be essential for policy and financial attention to focus on reconstruction and development in the eastern oblasts to offset the network effects developed at the Slovak host university.

Conclusion

Slovak universities witnessed dramatic increases in the number of Ukrainian students in the aftermath of the war. The opening of Slovak educational institutions at all levels represents both systemic and anti-systemic responses to the wartime influx of Ukrainian students. In addition to ad hoc efforts to provide housing and other relocation support, the Slovak government has worked to make its educational infrastructure available to Ukrainian students.

This paper highlighted several aspects of this growth, as well as the actions taken by Slovak universities to accommodate these students. Specifically, the University of Economics in Bratislava provides an instructive case study of these activities. One insight revealed that, along with the overall growth in Ukrainian students at UEBA and other Slovak universities, there has to date been no decrease in the incidence of male students arriving for educational purposes. This effect seems to offset the initial concerns about the foreign travel restrictions on draft-aged men in Ukraine. Additionally, the relatively high willingness to return suggests that male students perceive a greater ability to mobilize their educational resources in Ukraine rather than in Slovakia after the war.

The supportive policies implemented by the EU (i.e. the TPD) and the Slovak government, as well as the welcoming behavior within Slovak society, were aimed at assisting Ukrainian refugees at all stages of their path away from the war's effects. A survey of Ukrainian students at UEBA reveals the positive results of these systemic and anti-systemic altruistic efforts. The survey also exposes some cause for concern relative to the high percentage of students who have no plans to return to Ukraine after the war

concludes. The long-term benefits for Ukraine that come from educational migration will ensue only if Ukrainian students return home after the war. In addition to meeting the immediate needs of Ukrainian students seeking shelter from the war, these actions have generated deeper integration into Slovak society. Consequently, the welcoming environment in Slovakia might have been successful as well in motivating a desire to remain abroad. However, because conditions in the host country affect the benefit-cost calculations of remaining abroad, the September 2023 electoral results might temper Slovakia's hospitable approach to Ukrainian migrants and motivate students to return home.

In sum, the expressed intentions to remain outside Ukraine point to possible losses for Ukraine as it endeavors to rebuild in a post-war environment. As Ukrainian students remain longer in Slovakia, they build financial resources and network effects that increase the motivation to remain in the host country. In addition to those with longer-term residency abroad, the disaggregated survey data explored in the paper, albeit limited, suggest that the Ukrainian government might need to focus post-war policies on attracting female students and students from eastern Ukraine to return. In anticipation of its reconstruction needs, Ukraine and its partners could begin to develop the institutional infrastructure, economic opportunities, and policy priorities needed to encourage return migration of its students studying abroad, especially those expressing a greater reluctance to do so.

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