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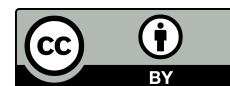
## Academic mobility in the era of turbulence

**Abstract**

The relevance of the problems of international academic mobility is due to the growth of export-import of educational services, aggravation of the global level of competition for human and intellectual resources. In the 20s of the 21st century new challenges emerged (COVID-19 pandemic, Russian aggression in Ukraine), which led to a serious transformation of the European and global educational space. In this context, the issue of developing tools to minimize negative challenges while intensifying the processes of academic mobility is relevant. The aim of the article is to analyze the processes of academic mobility in the context of contemporary challenges, in particular, the consequences of Russian aggression on the processes of international migration, redistribution of the global and European higher education market, development of university cooperation in the European and global educational environment. A common trend in higher education is dynamic internationalization: between 2000 and 2019, the number of students worldwide just over doubled (by 235%), and the number of international students tripled from 2.088 million to 6.064 million. And in traditional regions the number of foreign students increased 2-2.5 times (in Europe – 246%, in North America – 221%), and in rapidly developing regions – 4-8 times (in Asia – 440%, South America – 828%, Oceania – 481%). The consequences of the pandemic have been the increased penetration of ICTs in educational processes, the diversification of forms and methods of learning, and the spread of "internationalization at home". The military aggression of 2022 provoked a rapid increase in academic mobility, increased flows from Ukraine, and the exclusion of the Russian Federation from the European and global educational community: all programs and grants were suspended, all opportunities for academic mobility were closed, and it was excluded from the Bologna Process. European and other Western countries have taken unprecedented measures to support students and scholars, both at the level of countries and associations, as well as by individual universities. The consequence of Russian aggression has been a dynamic change in the flow of academic mobility, the main manifestation of which will be a significant influx of students and scholars to European and other countries.

**Keywords**

international students, internationalization of higher education, the flow of academic mobility, refugees

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**DOI:** <https://doi.org/10.30525/2500-946X/2022-2-1>**1 Introduction**

Global trends of modern education development are the following: significant intensification of international academic mobility, growth of export-import of educational services, increased competition at the global level for human and intellectual resources. This competition takes place both between individual universities and between countries and regions of the world for the opportunity to attract foreign students. New

centers of gravity are emerging (Asia, Oceania, Latin America), which are becoming more and more active in the global market of educational services.

In the 20s of the 21st century new challenges emerged: first the COVID-19 pandemic, then Russian aggression in Ukraine. As a result, a serious transformation of the European and world educational space is taking place. Under the influence of the pandemic, the processes of internationalization of higher education acquire new forms of manifestation, new forms and methods of

education (using ICTs) appear, and the vectors and dynamics of international academic mobility change.

As a result of the Russian aggression, even larger transformations in the international higher education sector are expected: the exclusion of the Russian Federation from academic mobility and international activity in general; the mass exodus of Ukrainian youth and scientists abroad. These processes will lead to a significant redistribution of intellectual resources at the international level. There is an obvious need to determine the dynamics and projected consequences of international academic mobility both in Europe and in the world as a whole: expert assessment of the number of Ukrainian students and scholars who have moved abroad; expert assessment of their orientation (return to Ukraine or stay in places of temporary residence); expert assessment of losses and gains for different countries as a result of forced migration.

Therefore, assessing the extent of these processes, identifying trends and patterns, the development of priority areas of joint action to take advantage and ensure academic mobility from negative consequences is of strategic importance for the educational and in general the socio-economic systems of both Ukraine and other countries. In this context, the question of developing tools to minimize the negative effects of academic mobility while intensifying these processes is relevant.

**2 Recent research**

The modern development of the system of higher education is characterized by high turbulence and instability, which becomes the object of study for many scholars around the world. Leading researchers of these problems Ph. Altbach, X. Wan&Hans de Witt include among the main trends: COVID-19, climate crisis, global inflation, economic challenges. The issue of academic mobility is extremely relevant in contemporary academic literature. Today's reality is the expansion of academic mobility for all subjects of the educational process: students, teachers, and scholars. These processes are studied by the following researchers: Ph. Altbach, H. de Witt, L. Antonyuk, O. Kuklin, Y. Sharma, L. Tsymbal and others. At the same time, modern reality brings about new

challenges and processes that require their own research and generalization.

**3 Purpose of the article**

The purpose of this article is to analyze the processes of academic mobility in the context of contemporary challenges, in particular, the consequences of Russian aggression on the processes of international migration, the redistribution of global and European markets of higher education, and the development of university cooperation in the European and global educational environment.

**4 Results**

With the beginning of the XXI century in the system of education and higher education in particular began rapid transformation processes. Back in the zero years, analysts noted significant turbulence in its development, associated with the dynamics of increasing the student population. In these years, there was a rapid growth in the need for higher education, increasing its coverage of the population, and especially young people. The boom in higher education was accompanied by an even more rapid growth of international flows, and an increase in the number of foreign students. Under the influence of rapid digitalization and the emergence of the digital economy, new forms and methods of education began to appear. The financial crisis and various financial constraints have led to cuts in countries' spending on education. Demographic trends led to a clear division between the Global North and the Global South. The Global North was characterized by a declining trend in the number of students, which was based on the decline in fertility in developed countries. To overcome this trend, a policy of attracting international students has been implemented. Conversely, the Global South is now a fast-growing market with a growing number of both students and international students.

According to Table 1, Europe and North America have seen their student populations grow by 114% and 116%, respectively, over 20 years. At the same time, in Asia the student population grew by 337%, in Africa

TABLE 1 Number of students in the world and by region, 2000–2020, thousands

Regions	2000	%	2020	%	2020/2000 %
World	99 739	100	235 292	100	235.9
Africa	6 088	6.1	15 994	6.8	262.7
Asia	41 137	41.2	138 620	58.9	337.0
Europe	25 514	25.6	29 143	12.4	114.2
Northern America	17 701	17.7	20 548	8.7	116.1
Southern America	8 255	8.3	28 875	12.3	349.8
Oceania	1 044	1.0	2 112	0.9	202.3

Source: (Enrollment..., 2000)

by 263%, in South America by 350%, and in Oceania by 202%. The global average growth rate was 236%.

However, one can observe an even more dynamic growth of internationalization processes. More dynamic is the growth in the number of international students. The latest data in international analytics are only available for 2019, which makes it impossible to assess the impact of the pandemic. Between 2000 and 2019, the number of international students as a whole tripled (290.5%) – from 2.088 million to 6.064 million people. And the growth in traditional regions is not so significant: in Europe – by 246%, in North America – by 221%. At the same time in Asia – by 440%, in South America – by 828% and in Oceania – by 481%. As for the absolute indicators, the largest number of foreign students is in Europe (2.3 million), followed by Asia (1.473 million), North America (1.256 million) and Oceania (0.57 million), Latin America (0.240 million) and Africa (0.224 million) (Table 2):

At the global level, the competition for international students is intensifying, which is manifested in constant changes in its structure and the main leaders. Thus, the long-term leader in the global market – the United States, despite the absolute growth in the number of foreign students, is gradually reducing its market share. The U.S. had 16.1% of all international students in 2019, 19% in 2015, and 25.3% in 2000. Also vying for market share are leaders such as Australia (8.4% in 2019 and 6.2% in 2015), the United Kingdom (8.1% and 9.0%, respectively), Germany (5.5% and 4, 8%), and Canada (4.6% and 3.6%). New leaders have emerged in the global market of higher education, which are very actively developing. For example, during the same period (2015-2019), the UAE increased its market share from 1.5% to 3.7%, Japan from 2.8% to 3.4%, China from 2.6% to 3.3%, and Turkey from 1.5% to 2.6%.

International student movement is supported by many foundations and organizations: Global UGRAD (USA), Fulbright Graduate Student Program (USA), Mevlana (Turkey), DAAD, British Council, etc. Thus, the European Erasmus+ program supports various forms and directions of international mobility. The Erasmus+ program budget for 2021–2027 is set at €26 billion (\$28 billion), compared with only €14.7 billion spent in 2014–2020. Of this budget, 70 percent is allocated to student and staff mobility and only 30 percent to university cooperation programs.

At the same time, the new events of the 1920s showed that all these circumstances were only prerequisites for real transformation. The key contemporary trends were as follows:

The first serious and truly unexpected test was the global pandemic COVID-19, when educational institutions around the world were forced to close in April 2020 and international communications were interrupted. As of early 2022, there is still no accurate data on the number of students in general and international students in the world in 2020 and 2021. But there is every reason to believe that it has decreased. Such concepts as "internationalization of higher education domestically" and "internationalization abroad" have emerged and begun to differ.

Nevertheless, the educational community has taken up the challenge. MOOC (massive open online courses) appeared more than 20 years ago, and since 2011 they began to grow rapidly after leading American universities (Stanford and MIT) made video courses of their professors' disciplines available for open access.

In the new situation, information technology became a decisive factor in overcoming the difficulties of the pandemic and thus gave new impetus to development. The widespread use of learning technologies using ZOOM and other platforms made

TABLE 2 Number of foreign students and market share of individual countries of the world, 2007–2019

Countries	2007	%	2019	%
USA	595 874	19.3	976 853	16.1
Australia	211 526	6.8	509 160	8.4
United Kingdom	351 470	11.4	489 019	8.1
Germany	228 756 (2008)	-	333 233	5.5
rf	60 288	2.0	282 922	4.7
Canada	92 881	3.0	279 168	4.6
France	246 612	8.0	246 378	4.1
UAE	73 445 (2015)	-	225 339	3.7
Japan	125 877	4.1	202 907	3.4
China	42 138	1.4	201 177	3.3
Ukraine	29 614	1.0	77 586	1.3
Saudi Arabia	17 716	0.6	73 216	1.2
World	3 094 942	100	6 063 665	100

Source: (Total outbound..., 2019)

interactive communication possible and ensured the continuity of educational and scientific processes.

And although we are all convinced that it is difficult to replace the personal influence of the teacher on the student, it is already obvious that the development of forms and methods of teaching will go through a synthesis, a combination of personal participation of the teacher and extensive use of technical means of communication.

The next unexpected factor was the military aggression of 2022, which, despite its local nature, will have great consequences for the global educational space. Undoubtedly, this will mean a redistribution of student flows and, accordingly, of financial flows between countries and continents, in general changing the structure of both the total number of students and the number of foreign students.

The result of the aggression was the exclusion of the Russian Federation from the European and world educational community: all programs and grants were terminated and all opportunities for academic mobility were closed. Russia was excluded from the Bologna Process. All Erasmus+ cooperation programs between educational institutions have been suspended, although people-to-people cooperation continues. In 2019, the Russian Federation became the fifth country in the world in terms of the number of foreign students – 282.9 thousand people, which was 4.7% of their total number (6063.7 thousand). Obviously, most of them will change their place of study, and the new entrants will refocus on other countries.

Unfortunately, Ukraine will also be significantly affected. According to the United Nations High Commissioner for Refugees (UNHCR), from February 24 to July 26, 2022, 9.927 million people left Ukraine and 3.996 million people returned. Thus, 6.162 million people are still abroad. 3.745 million people received temporary protection status under various national programs of European countries (Ukraine refugee..., 2022).

The largest number of people who received the status of temporary protection is in Poland – 1.246 million people, in Germany – 670.0 thousand people, in the Czech Republic – 400.4 thousand. In addition to Poland, the Czech Republic, Germany and Italy (146.5 thousand) more than 50.000 refugees from Ukraine also registered for temporary protection status in Spain – 130,100, Great Britain – 104.000, France – 92.200, Slovakia – 86.800, Austria – 77.2 thousand, the Netherlands – 68.1 thousand, Lithuania – 60.0 thousand and Switzerland – 57.7 thousand. They are followed by: Romania – 48.1 thousand, Portugal – 47.8 thousand, Ireland – 45.9 thousand, Belgium – 45.3 thousand, Sweden – 40.9 thousand, Latvia – 36.1 thousand, Finland – 32.7 thousand, Estonia – 30.3 thousand, Denmark – 30.1 thousand, Hungary – 27.3 thousand, Norway –

21.5 thousand, Greece – 16.8 thousand, Croatia – 15.9 thousand, Cyprus – 14.4 thousand. In addition, in the UN statistics regarding those who received temporary protection, refugees from Ukraine are also represented in Slovenia – 7,000, Luxembourg – 6,000, Montenegro – 2,000, Iceland – 1,200, Malta – 1,300 in Serbia and Kosovo – 0.9 thousand and Liechtenstein – 0.26 thousand (Status..., 2022).

A wave of migration on a scale unprecedented in decades has also sparked unprecedented solidarity among EU citizens and governments, UNHCR stresses. For the first time, EU states quickly activated the Temporary Protection Directive, which provides access to protection and services for refugees from Ukraine. The European Union granted Ukrainian forced migrants the right to live and work in all 27 EU countries for 3 years. They are also entitled to social benefits, medical care, and access to schooling. Some European countries have found it difficult to cope with the number of Ukrainian refugees on their own. Poland and Moldova, which have received the largest number of Ukrainian refugees relative to their populations, have asked for international financial support (De i za jakimi..., 2022).

It is clear that at this point there is no accurate data on the movement of academic mobility, on the number of people of different ages who have left. Nevertheless, the following is a rough guess. It is known that about 90 percent of all temporarily displaced persons are women and children under the age of 18. The approximate number of school-age children can be calculated, given that, on the one hand, mothers with two or more children have left, and, on the other hand, many older people have also left. It is likely that overall, children make up about half of the total number of temporarily displaced persons. Approximately two-thirds of them are school-age children. That is, according to the most minimal rough estimate, it is about 1 million people. Obviously, this one million represents a significant potential for the educational systems of Western countries.

It is known that about 200,000 students in Poland have started attending schools since the start of the Russian aggression. Considering that there are about 700,000 school-age refugees living in this country, it is logical to conclude that their parents have decided to continue their education online in Ukrainian schools or to discontinue their studies for the time being (200,000 Ukrainian..., 2022).

It should also be noted that until the summer, before the end of the school year, the majority of the population perceived the situation with leaving for other countries as temporary, that is, as a temporary solution to the problem of educating their children. If the war drags on, when the new school year begins, this issue will have to be solved again. There is every reason to predict that a certain number of refugees will remain in other countries if they find good jobs and, consequently, a good place to educate their children.

For the Ukrainian education system, this will have a certain softening of the situation in the current period, as it will mean a reduction of the burden on students. On the other hand, from a strategic point of view, it will certainly mean a loss of human potential.

A separate segment of international education is post-secondary education at various levels. European and other Western countries have created very hospitable and favorable conditions for Ukrainian youth. In most countries students are admitted free of charge even to private educational institutions.

Ukrainian students and scholars are supported both at the level of the country and at the level of individual educational institutions. The European Campus of City-Universities (EC2U) Alliance took the initiative to expand cooperation agreements with Ukrainian universities under a new scheme. EC2U is a multicultural, multilingual alliance of 7 countries: Portugal, Romania, Germany, Italy, France, Spain and Finland (Sharma, 2022).

A "Science for Ukraine" website has been created, where universities and other institutions present their proposals for student teaching, research grants, employment of scientists, etc. Scholars at Risk is an organization dedicated to protecting academic freedom and scientists at risk. Scholars who are threatened for their research or for speaking out against their government are encouraged to seek help through SAR's secure filing system.

In Latvia scientists are provided with grant support. The Cabinet of Ministers has supported the mechanism developed by the Ministry of Education and Science of the state support for citizens of Ukraine, which provides for a scholarship support fund of up to 522 thousand euros for higher education and ensuring the continuity of scientific activity.

Thus, civilian Ukrainians living in Latvia will be able to continue to study for student exchanges, and researchers – to work in Latvian research institutions. Citizens of Ukraine, who will be admitted to undergraduate, masters and doctoral programs at accredited higher education institutions in Latvia (including colleges), will be able to receive a scholarship of 140 euro per month from the day of enrollment until the end of the semester. On June 30 this year Latvian academic institutions in the register of scientific institutions can establish labor relations with Ukrainian researchers or offer internships at their institution. If Ukrainian scientists are offered unpaid internships, the state will provide a scholarship of up to 900 euros per month until August 31 of this year for scientific and academic work. According to the Ministry of Education and Science, based on the interest shown in refugee centers for obtaining higher education and continuing scientific activities in Latvia, it is predicted that about 600 students and 60 researchers from Ukraine will be able to receive scholarships (Pieškirš..., 2022).

Universities have not only favorable conditions for the admission of students, but also numerous academic programs for scholars and teachers that involve internships, research projects, and employment. For example, various study opportunities are offered for students: ESSCA business school (France); University of Vienna (Austria); Jan Evangelista Purkinje University (Czech Republic); Charles University (Czech Republic); Tallinn University of Technology and many others. Many institutions offer free tuition for undergraduate and graduate programs, summer schools, living expenses, etc.

Many programs and scholarships for scientists are also offered: Scholarship program for young scientists from Ukraine from ESI (Austria); Mobility program for Ukrainian researchers from the Austrian Academy of Sciences; Scholarships for Ukrainian research teachers from the ESSCA business school (France); Support and employment opportunities for Ukrainian researchers from Charles University (Czech Republic); Support of Ukrainian scientists from the Guild of European Research Universities. Grants to help immigrants from the Visegrad Four countries; Emeritus Education Platform and iD Tech Camp provide Ukrainian students and educators with free access to courses, programs and trainings from more than 50 of the world's top educational institutions. Most of the programs offered include grant support, but employment opportunities are also expanding.

The Swedish Foundation for Strategic Research has allocated SEK 30 million to fund research grants for Ukrainians coming to Sweden in 2022. The grant can be provided for up to three years. The British Academy together with CARA (the Council for At-Risk Academics) established the Researchers at Risk Fellowships Programme. The program covers natural, medical, engineering, humanities and social sciences and arts. Applications can be submitted to institutions in Great Britain. The program received funding of 3 million pounds. The independent charity Nuffield Foundation also contributed £0.5m.

Young Ukrainian scholars have the opportunity to receive a scholarship and to continue their research at the German Historical Institute in Warsaw for up to three months. They can conduct research, work in the libraries, and have their own workspace in the institute's office. The scholarship is administered by the German Historical Institute in Warsaw under the leadership of the Max Weber Foundation. This is one of thousands of EU opportunities for Ukraine. Support for Ukrainian scientists and researchers is offered by: University of Tuscia (Italy), Indiana University, Goethe-University Frankfurt, International Center for Defense and Security (Estonia), Hessian Ministry of Higher Education, Research, Science and the Arts (for students – 300 Euro/month, for PhD Students: 1,200 Euro/month, for researchers – 2,300 Euro/month).

The University of Edinburgh expressed an initiative for 14 places for PhD candidates in social and political sciences who studied at universities in Ukraine. The purpose of the program (referred to as study abroad) is to provide academic support and access to an electronic library for up to 12 months. Zurich University of Applied Sciences (ZHAW Zurich University of Applied Sciences, university library) provided its library space for various purposes. The Italian University of Modena and Reggio Emilia awarded 10 scholarships of 3,000 euros each. The Turkish university Koç University provided the opportunity to receive scholarships for undergraduate programs for talented young people in such areas as: (Engineering, Basic Sciences, Social Sciences, Humanities, Nursing, Business, International Relations) in Molecular Biology and Genetics, Mathematics, Physics, Chemistry, Nursing, Sociology, History, and Philosophy. There are many such examples, which shows the readiness of European countries to support Ukrainian educators and scientists in difficult times. It is necessary to emphasize the obvious tolerance and desire to support, and not to take advantage of the situation and increase its contingent.

At this point it is quite difficult to estimate the flow of educational migration from Ukraine, as there are only approximate estimates that can be made. Nevertheless, it can be unequivocally stated that Ukrainian youth will increase the number of educational institutions in other countries (both secondary and post-secondary). Unfortunately, it is obvious that the number of foreign students in Ukraine will decrease, as will the number of students in general. In addition, the situation could worsen if hostilities become protracted.

Thus, the main conclusion that can be made for the summer of 2022 is that a certain part of the student contingent of Ukraine will be transferred to the category of foreign students. Obviously, most of this contingent, primarily students, will remain mostly in European countries. Accordingly, these new trends will change in some way the general trends of the global higher education market, which is already characterized by rather turbulent processes.

The turbulent events in Ukraine will certainly make adjustments to these general trends. But at the moment it is realistic to note only general trends, and we will be able to accurately assess them only after some time. The decisive factors in this situation will be the unfolding of further events in Ukraine related to overcoming Russian aggression.

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## 5 Conclusion

The modern stage of internationalization of the higher education system is characterized by quite dynamic changes. A new paradigm of higher education is being formed, in which its main subjects (teacher and student) will acquire new functions. Academic mobility is becoming an integral part of the system of higher education, as wide opportunities are created for it, including in the framework of the Bologna system. The range of forms of academic mobility is expanding (by levels and degrees of education, by duration, by purpose, etc.).

The consequence of expanding opportunities for international education is a significant increase in the number of foreign students, research internships, etc. The scale of higher education will also grow and acquire new outlines, both by expanding its geography and diversifying its forms of manifestation.

Events after 2020: the COVID-19 pandemic and Russian aggression in Ukraine were additional factors in accelerating the internationalization of higher education. The emergence of the concepts of "internationalization at home" and "internationalization abroad" was a sign of the higher education system's response to pandemic-related travel restrictions. The main consequence of the pandemic has been an even greater penetration of ICT into educational processes, which greatly enriches and diversifies forms and methods of learning.

The consequence of Russian aggression will be dynamic changes in the flow of academic mobility, the main manifestation of which will be a significant influx of students and scholars to European and other countries. European and other Western countries have taken unprecedented measures to support students and scholars, both at the level of countries and associations, as well as by individual universities. Most forms of support are temporary: for students – the opportunity to study for a certain period, for scientists – the opportunity to continue the research they carry out as part of their official duties. Nevertheless, a much larger share of Ukrainian youth go to European universities to study. Parents of school-age children, concerned about their safety, are also choosing European countries to live in. At this point, the summer of 2022, according to surveys, more than 80 percent plan to return to the country. These numbers could change if hostilities drag on and the Russian aggressor's brutal rocket attacks continue.

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