



Education: Impact of the War in Ukraine

1. This brief presents the prospects for sustaining enrollment of Ukrainian students in educational services and addressing accumulating learning losses.

2. Displacement of Students and Educators.

The war in Ukraine has resulted in more than 6 million Ukrainians fleeing to neighboring countries. This includes nearly 665,000 students (16% of total number of enrolled students) and over 25,000 educators (6% of total educators in the country). Another 8 million Ukrainians are displaced internally.¹ Refugees and internally displaced persons (IDPs) include primarily children, women, and older people. Over 74% of IDPs have children within their households. Displacement has had a significant impact on education service delivery, along with damage and destruction of educational facilities. As of May 6, 2022, according to the Ministry of Education and Science of Ukraine (MoES), 1,635 schools and universities (5% of total) have been damaged from the war and 126 have been destroyed.

3. Current Efforts of the Education System to Sustain Student Enrollment and Service Delivery.

The current imperative need is to keep students engaged and enable them to successfully complete the 2022 academic year. Currently, around 86% of schools in Ukraine have ‘officially’ resumed classes (following short-term closures after the invasion), but almost exclusively via online/distance modalities. Over 91,000 IDP

students have re-enrolled in schools at places of their temporary residence (especially in Lviv Oblast). There are various online schooling initiatives to maintain access to education during the war, both for students within Ukraine and refugee students outside Ukraine, though there are significant gaps in coverage. Needs assessment surveys are underway. Universities have relatively better coverage, followed by schools (grades 5-11), which have access to the All-Ukrainian Online School e-platform for distance and blended learning, established during the pandemic to ensure access to curricula and learning materials for grades 5-11 students. Although the average daily traffic has grown 20-fold since the war started, the online platform is static, and many teachers do not regularly use it as it offers little opportunity for direct student-teacher interaction. There is significantly less online content available for young children (preschool to 4th grade).

4. Impact on Opportunity to Learn and Learning Outcomes.

School disruptions due to war or pandemics can have persistent negative effects on learning because they impact all elements of a student’s opportunity to learn: (i) less time spent on learning and (ii) lower quality of instruction via remote/online modalities, leading to (iii) less content covered during instruction. Ukraine performed at par with its regional neighbors in eastern Europe² prior to the pandemic, and it outpaced them in terms of stu-

1 Data from May 3-10, 2022, according to UNHCR and IOM.

2 Data from the HLO database show that Ukraine performed at par with regional neighbors, e.g., Bulgaria, Croatia.

dents' learning resilience³; however, estimates of learning losses due to the Russian invasion suggest that learning outcomes are now below the lowest-performing countries in Europe. Continued school closures only exacerbate learning losses in Ukraine. Schools were closed or disrupted due to Covid-19 for 31 weeks in Ukraine, or nearly 8 months, leading to an estimated learning loss of around 20 Programme for International Student Assessment (PISA) points (based on OECD averages of learning per year). We add another two months due to the war to date. Despite the above-mentioned efforts to sustain learning, many Ukrainian children will likely not go back to school before the fall, losing at least five more months of school time. In total, learning losses in Ukraine can amount to over one year, due to extended pandemic-related closures and the war. HLO estimates due to this length of school closure could fall from 481 to about 451 points, below the lowest performing countries in Europe, Moldova, and Armenia.⁴ The long-term effect could be substantial, with future earnings losses of more than 10% a year per student.

5. Key Priorities Looking Ahead to Next Academic Year. Educational authorities are preparing for the next academic year, but there are several key priorities, including the organization of the university admissions campaign and revised entrance exam. Over 400,000 students have registered to take the entrance exam, including refugee students in neighboring countries. MoES is also facing a growing financing gap for the publishing of textbooks and manuals for Ukraine's flagship reform of basic education curricula, the *New Ukrainian School*. Furthermore, teachers' salaries are paid both from central and local sources, and the movement to part-time work for many teachers combined with the lack of local revenues means that teachers' take-home

pay is declining in real terms. Finally, psychosocial support both for students and teachers will be critical, particularly for vulnerable or IDP students, to address trauma and mental health needs.

6. Current World Bank Support. The Bank is providing support towards these priorities in several areas: (i) an ongoing \$200 million for *Improving Higher Education for Results Project*. While this operation remains relevant, some of the goals will have to wait until after the war to be realized. The team has worked with the government to redirect \$100 million to reimburse for academic and social scholarships, and to support university admissions campaigns. These resources have been fully disbursed. The remainder of the resources remain relevant for higher education. However, in light of the uncertainties, the team is taking stock with the government on a regular basis; (ii) supporting the maintenance of the educators through the co-financing of teachers' salaries under the PEACE Investment Project Finance (for Board approval in early June); and (iii) providing technical support for an online tutoring program with Teach for Ukraine, to be scaled up with MoES support.

a. Short-term policy implications and solutions. Provision of education during war is daunting yet evidence shows it can be done in ways that can stem human capital losses which would otherwise compound long after the war is over. Some of these policies and interventions have effects on par with the most cost-effective and largest gains in education literature. Opening more classes for refugees in schools in neighboring countries can be a temporary answer, as well as expanding schools in parts of Ukraine where there are IDPs.

b. Online, phone-based, or in-person tutor-

3 PISA 2018 data showed Ukrainian students to have a high growth mindset, significantly above the OECD average.

4 Data from Angrist et al. (2021).

ing can happen anywhere and bring positive results. During Covid-19 school closures, online tutoring proved effective in Italy, Spain and the United States. In settings with limited internet access, phone call tutorials can be highly cost-effective with up to a full year of high-quality learning gained per \$100 spent.⁵ In neighboring countries, in-person tutoring could be organized, provided by Ukrainian refugee teachers.

- c. **Psychosocial support and mentoring**, paired with academic tutoring, also stands to have a real impact in Ukraine, given the psychological trauma of war and its effect on learning.
- d. **Adapting curricula** and printing textbooks in Ukrainian in countries receiving refugees so that many refugee children can regain access to standard schooling is also a way forward. Such progress is already visible in Hungary and Poland.
- e. **For secondary and tertiary education**, delay or adjust the entrance exam temporarily, and ensure possibilities for equivalency programs or credit transfer arrangements to ensure that tertiary-level students can proceed with and complete their degree programs.

7. Future engagement. The Bank can partner with the MoES, local authorities, and other donors to develop an adaptable plan for recovery and rebuilding. Through development of this plan, the Bank can estimate resources needed to restore learning. It is important to reach all students through online education and even in-person learning when it is safe. The first engagement should be a program of provisional measures aimed at restoring the interactive learning process in compulsory (primary and secondary) education and addressing unique needs through a

locally driven approach that utilizes local civil society. This could build on ongoing local initiatives (such as Finland’s support in Chernihiv oblast). The program should eschew large-scale physical infrastructure investments in favor of direct support to the teaching and learning process. In general, schooling should take place anywhere, just like South Korea did in 1951: “Start schools outdoors. Hold classes in riverbeds, on mountainsides—anywhere.” This can be done by focusing on the following key principles:

- a. Empower local authorities to organize learning facilities;
- b. Replace online education with in-person instruction, but keep online tutoring, and embed digital;
- c. Focus on fundamentals: assess, support and tutor to make sure minimal levels are achieved;
- d. Ensure access to digital devices, learning materials and textbooks;
- e. Provide psychosocial, health and nutritional support for children;
- f. Support the continuation of higher education studies;
- g. Support teachers (and their assistants) with professional development and psychosocial resources;
- h. Post-war assess buildings and plan for infrastructure renewal.

⁵ See, for example: Carlana and La Ferrara 2021; Gortazar et al. 2022; Kraft et al. 2022; Lordos et al. 2019; Angrist et al. 2020.