

A few takeaways from PIRLS on the reading ability of students across Europe and Central Asia after COVID-19¹

March 26, 2023

This note analyzes the newly released results of the Progress in International Reading Literacy Study (PIRLS) 2021. The note focuses on Europe and Central Asia Region as a region that hosts most of PIRLS participating countries. The region is composed by a diverse set of countries spanning from low-income to high-income countries. PIRLS 2021 provides the first international assessment that provides information on student learning outcomes before the peak of the COVID-19 pandemic and after it. The note provides analysis and policy implications of the new information on student learning outcomes.

The ECA region is currently experiencing multiple crises – Russia’s invasion of Ukraine and related food and fuel crises - resulting in a sharp deceleration in economic growth and the consequent increase in poverty. Even before COVID-19 and the current crises, ECA faced structural challenges with stagnant productivity growth, stalling poverty reduction, and increasing inequality. With increasing refugee populations in ECA, the region is also experiencing a rise in vulnerable populations at risk of exclusion. Education is the key to reducing inequalities, supporting vulnerable populations, and driving innovation and productivity in this region of mostly middle-income economies. Education will continue playing a critical role in these transitions. But ECA region is not on the right track in developing the right set of skills for the labor markets of the future.

Reading is the foundation of learning and skills development. Ensuring that all children read proficiently and understand a simple text by the end of primary school is essential so they can become independent learners. It is also the most essential milestone throughout any child’s educational pathway. There can be no education, skills, or innovation without ensuring the crucial ability for reading.

On May 16th, 2023, the result of the Progress in International Reading Literacy Study ([PIRLS](#)) 2021 survey was released. PIRLS 2021 represents the first internationally comparable assessment of reading outcomes since the start of the pandemic. The new PIRLS data provides new information on the reading outcomes of 4th graders in 35 of the 58 ECA countries. These include 23 High-income countries and 12 middle-income countries, and three of these countries – **Albania, Kosovo, and Uzbekistan** – joined PIRLS for the first time in 2021. For 26 of these ECA countries, it is possible to contrast 2021 level of reading comprehension with the one observed in 2016. Generated by a long-running, rigorous international assessment program on primary-school reading comprehension, PIRLS provides a strong dataset for analyzing trends in reading outcomes at the primary level in ECA countries.

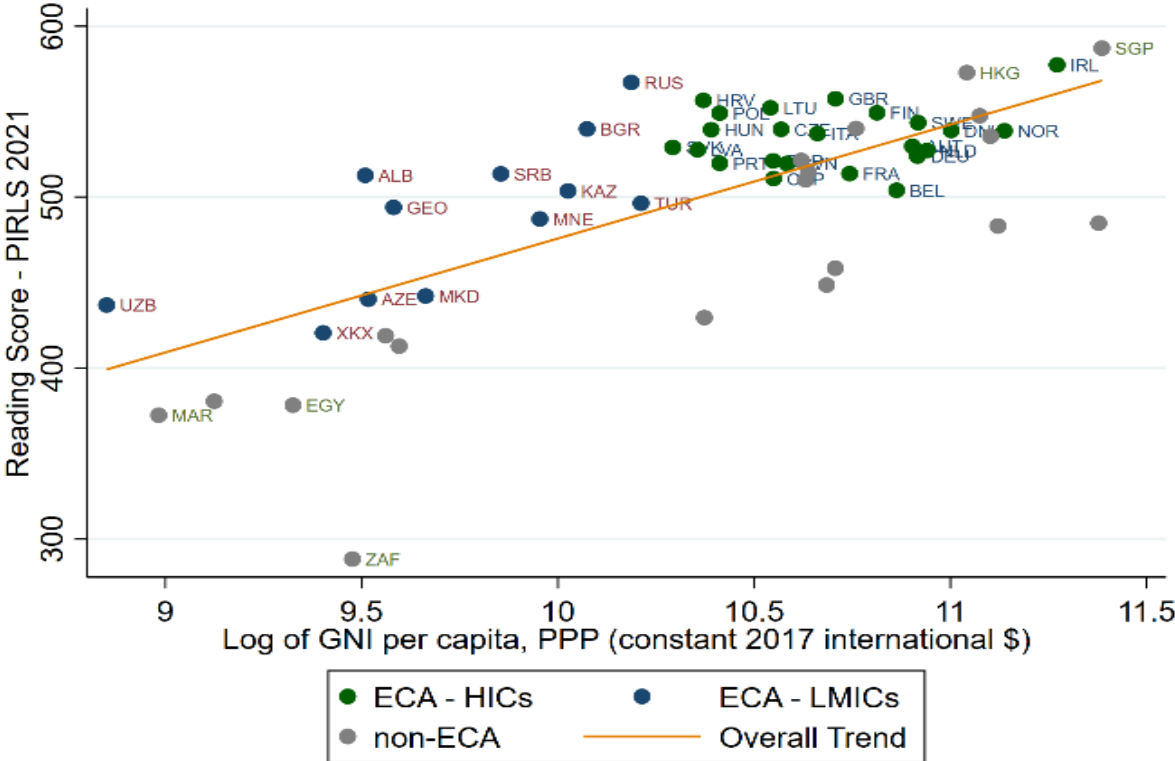
There are five important regional takeaways:

First, despite the diversity, there remain substantial differences in reading outcomes of students in low and middle-income countries as compared to students in high-income countries in ECA. Overall high-income countries typically have higher reading outcomes. On average, a student in a middle-income country in ECA performs 45 points, behind peers in high-income ECA countries. This is equivalent to more than a year of schooling. This difference demonstrates the need for improvement in middle income countries to bridge achievement gaps across countries in the region. The most notable cases of

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MICs having low reading outcomes are **Macedonia, Montenegro, Azerbaijan, and Uzbekistan**. However, the ECA results also show some diversity in performance. Few middle-income countries in ECA perform much better than expected based on their countries’ income levels. Three examples that stand out are **Bulgaria, Serbia, and Albania** (Figure 1). Despite much lower gross national incomes, these countries perform similar to high-income countries. While students in Bulgaria perform at a similar level as students in Norway, students in Serbia and Albania perform at a similar level as students in France. It is important to delve deeper and learn from these country examples to support lagging countries. Except for Ireland, data shows that Europe does worse than Hong Kong and Singapore.

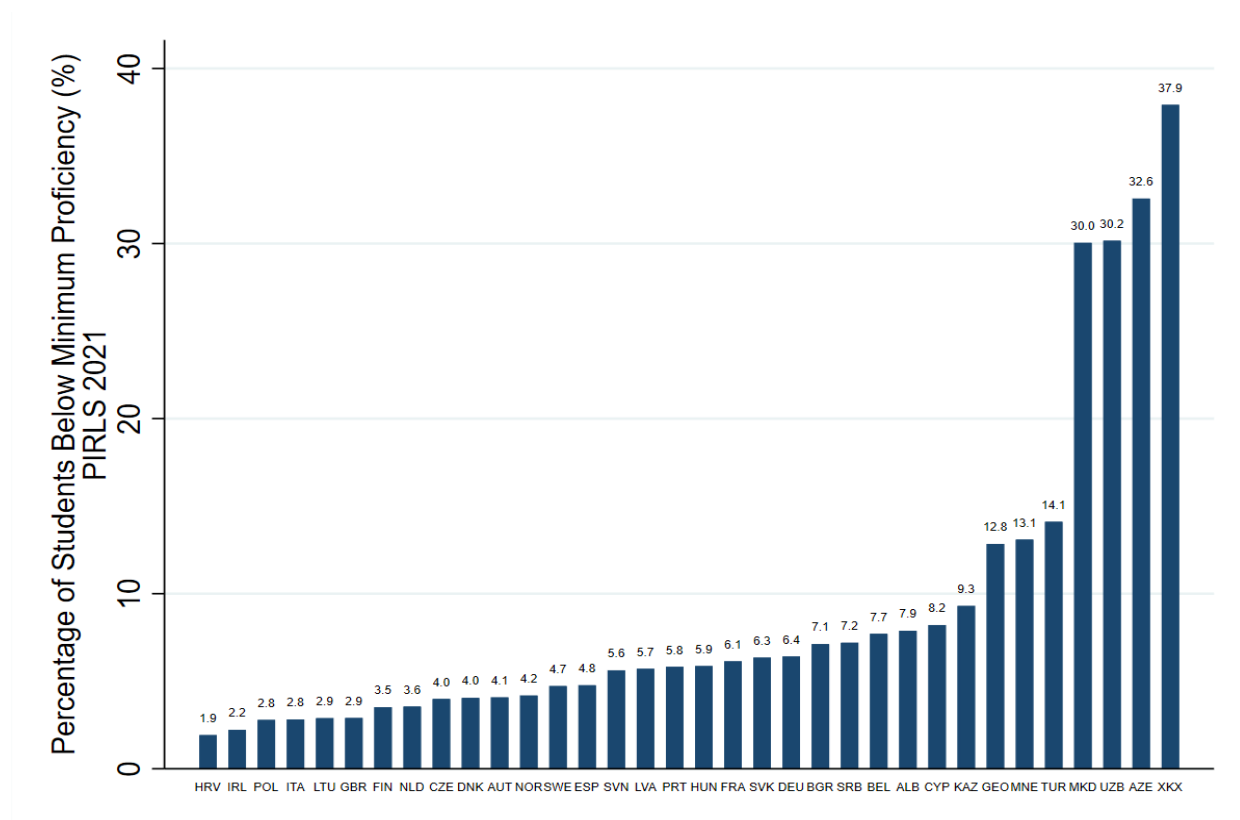
Figure 1. Relationship between countries’ income levels and reading performance.



Source: ECA Education team. PIRLS (2021 data, IEA). World Development Indicators. World Bank.

Second, a substantial share of learners is completing primary education without acquiring the ability to read and comprehend a grade-appropriate text (Figure 2). In four countries in ECA – Kosovo, Azerbaijan, Uzbekistan, and North Macedonia – more than 30 percent of primary students at the end of grade 4 cannot read and comprehend grade-level texts. In other countries, too – like Kazakhstan, Georgia, Montenegro, and Turkey, this share of students performing below minimum proficiency reaches 10 percent or above. This is a deep learning crisis that needs to be addressed urgently to avoid losing this student population.

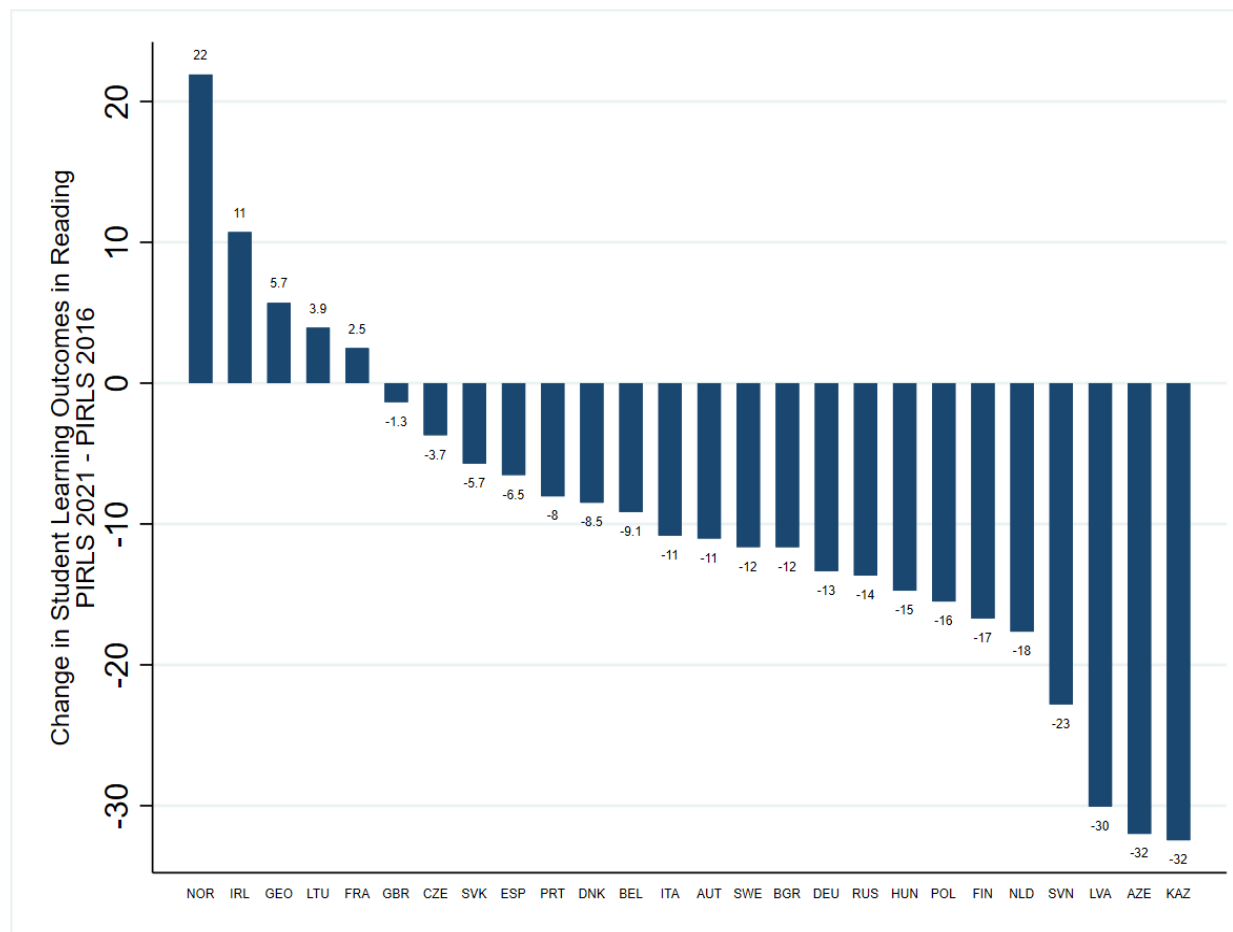
Figure 2. Share of students in ECA below minimum proficiency in PIRLS 2021.



Source: ECA Education team PIRLS (2021 data, IEA).

Third, countries in ECA faced large learning losses, likely a result of COVID-19-induced school closures (Figure 3). Of the 26 ECA countries participating in both PIRLS 2016 and 2021, 21 countries experienced a decline in reading outcomes. Of these, **Kazakhstan and Azerbaijan** report the largest declines in reading comprehension during this period of more than 30 PIRLS points, equivalent to a loss of around a full year of schooling. Some high-income countries, such as Latvia or Slovenia, also reported similarly large declines in learning. These losses have pushed an increasing share of students in ECA to below minimum reading proficiency. Azerbaijan, Kazakhstan, and Latvia reported the largest increases in the share of students performing below minimum proficiency (13.4, 7.4, and 4.9 percentage points, respectively).

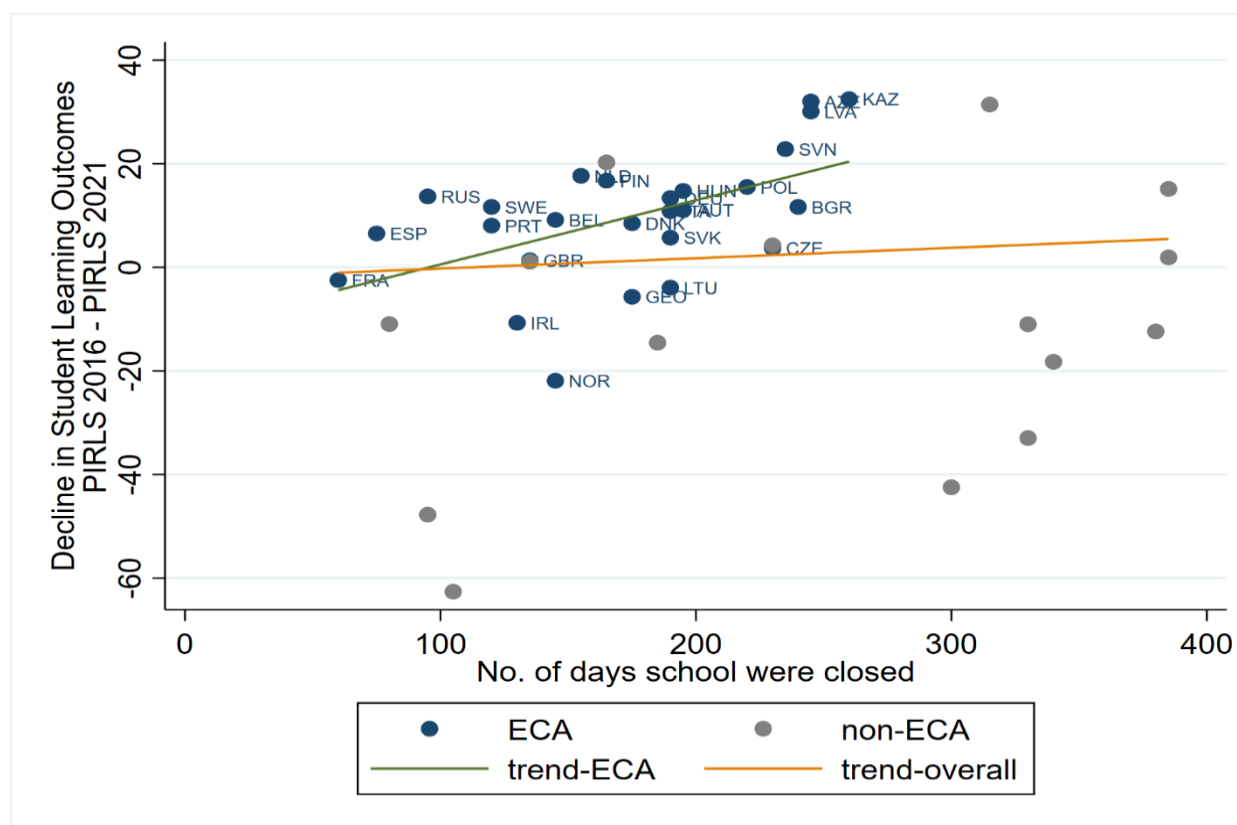
Figure 3. Change in reading outcomes for 26 ECA countries participating in both PIRLS 2021 and 2016.



Source: ECA Education team PIRLS (2021 data, IEA). Note: These graphs show only countries that participated in PIRLS 2016 and 2021.

Forth, each country’s policy response to school closures during the COVID-19 pandemic likely shaped the impacts on student learning in ECA. Figure 4 reports a strong positive correlation between the number of days of mandated school closures and the decline in average student learning at the country level. The longer the schools were closed in ECA, the larger the decline. Countries like Kazakhstan, Azerbaijan, and Latvia experienced the largest declines and experienced the longest duration of school closures - around 250 days of full or partial school closures. However, a few countries in ECA, like Lithuania and Georgia, improved students’ learning outcomes between 2016 and 2021 despite long school closures. It is important to delve deeper into these country case studies and understand the policy responses adopted by them. Although the changes between 2016 and 2021 cannot be fully attributable to the COVID-19 global pandemic, the shock likely played a major role. When the pandemic started, the students assessed by PIRLS were already in Grades two and three of primary school. This is a critical period to establish the foundations of how to read. Furthermore, when the data was collected, students had been without in-person school for several months, with durations varying by country.

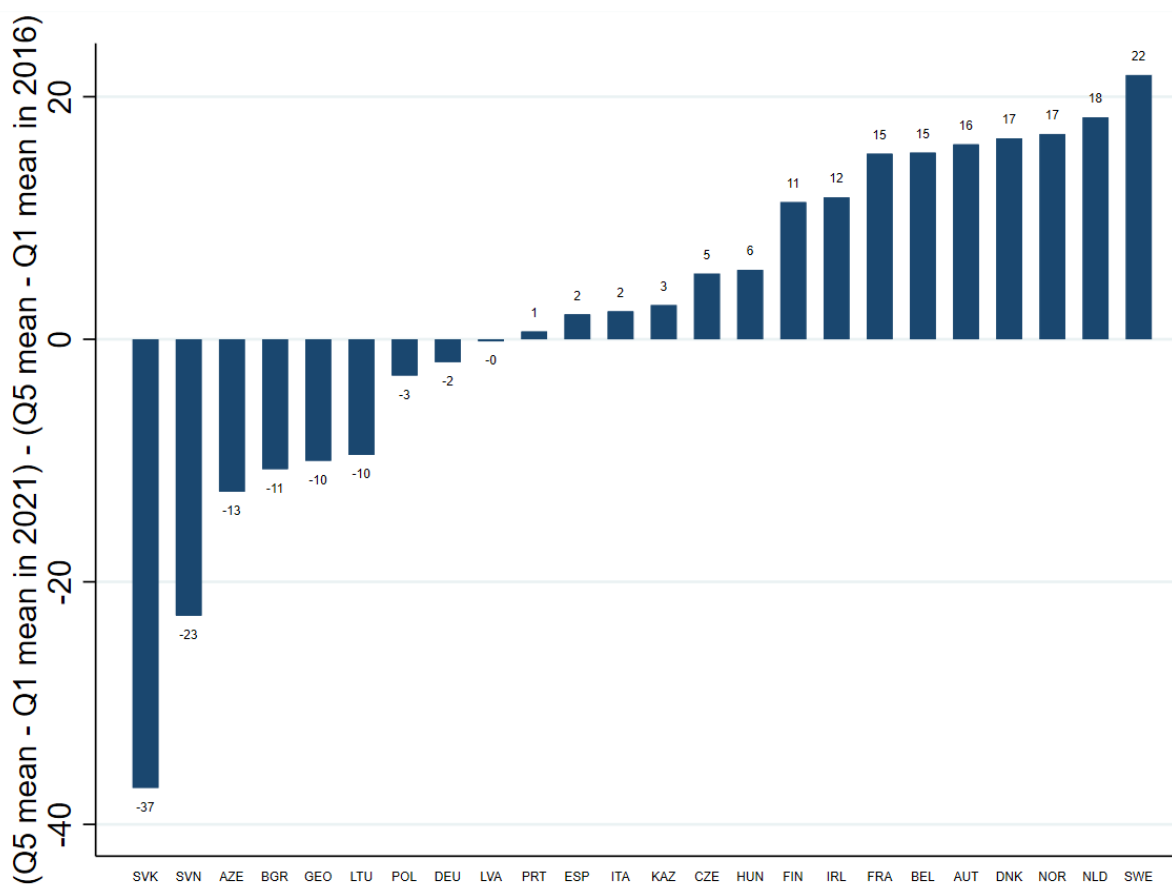
Figure 4. Relationship between school closures and decline in reading outcomes for ECA countries.



Source: ECA Education team PIRLS (2021 data, IEA). Note: These graphs show only countries that participated in PIRLS 2016 and 2021.

Fifth, between 2016 and 2021, within-country inequality in the children’s reading ability increased across most ECA countries (Figure 5). Despite the region’s ambitions for improved social cohesion, most ECA countries show large differences within countries in the children’s ability to read across families of different socio-economic backgrounds. For example, in 2021, students in Hungary and Bulgaria belonging to the poorest quintile performed 130 and 122 PIRLS points – roughly equivalent to four years of schooling - behind their peers belonging to the richest quintile. Between 2016 and 2021, the situation deteriorated for some countries. **Error! Reference source not found.** reports how the differences in average PIRLSs scores across the richest and poorest income quintiles changed between 2016 and 2021. For 15 ECA countries, differences increased in 2021 compared to the levels observed in 2016. Sweden and Netherlands were among the countries where these inequalities increased more. There the average reading comprehension for children in the richest income quintile improved between 2016 and 2021, while the average reading comprehension for children in families of the poorest quintile declined over the same period.

Figure 5. Changes in socioeconomic achievement gaps increased between 2016 and 2021 for ECA countries.



Source: ECA Education team PIRLS (2021 data, IEA)

Finally, parental engagement in student performance through COVID-19 was very diverse, and some families reallocated resources to mitigate learning impacts. In ECA countries, most parents (80%) perceive large impacts of the pandemic on student learning. Almost half of the parents in Finland, Denmark, and Norway perceive children’s learning to be severely impacted by COVID-19. In contrast, Georgia and Turkey, and even in the EU’s Croatia and Poland, are among the countries where parental perceptions are smaller. There, more than 30% of parents do not report being concerned with COVID-19 impacts on learning. The study also shows that the ECA families redirected a lot of support in keeping their children learning. On average, more than half of the families in ECA countries provided books, digital devices, digital learning materials, and remote tutoring for their kids. Moving forward, policymakers should try to leverage on the existing parental engagement in the learning recovery of their children and try to foster it further, especially for vulnerable families.

The release of the PIRLS result is an important reference for Education practitioners throughout ECA. Despite the country’s policy responses following COVID-19, the findings on the performance of 4th-graders reading comprehension raise serious concerns regarding the future of students in ECA. Especially of the ones from the most disadvantaged backgrounds. Now more than ever, governments in ECA should prioritize well targeted policies that can revert these reading losses and ensure that the lost learning is fully recovered. As predicted by earlier simulations, inequality has increased. Therefore, effective targeting of these policies is more important than ever in ECA.

Learning losses over the last 5 years are real and will impact the economic and social development of the ECA region if not reversed by policies. PIRLS study showed that parents are concerned with the deterioration of student learning. The release of these results opens many opportunities for further research using the wealth of PIRLS data. A deeper analysis will be necessary to understand drivers and help identify the good policies to accelerate reading comprehension and revert losses. For example, the PIRLS 2021 data suggests that ECA students attending early childhood education (ECE) programs perform better than their peers who did not attend by 35 PIRLS points – putting them more than a year of learning ahead. Such students are also, on average, twice less likely to perform below minimum proficiency – 7.4 versus 14.6%. Analyzing these and other factors is critical to enhancing student outcomes.

What have we learned?

The findings of PIRLS 2021 raise a lot of concerns regarding the future of students, especially for disadvantaged students. Countries in ECA, governments and international institutions will need to refocus policies on students and ensure that the lost learning is recovered.

1. Like many of the projections during the last years, learning losses are real and will impact the region's economic development, countries, and individuals if not reversed.
2. Turning a blind eye to the pandemic's impact carries political risks. PIRLS study showed that parents are concerned with the deterioration of student learning.
3. As predicted by simulations, learning inequality has increased. Targeting of learning acceleration programs becomes even more important for successful recovery. The World Bank, together with partners developed a Reach/Assess/Prioritize/Increase/Develop ([RAPID framework](#)) that countries may operationalize to change the trajectory of student learning, especially for the COVID-19-affected generation and vulnerable students.
4. The PIRLS data should be leveraged to conduct further research. Analysis of improver countries will be necessary for understanding the best policies for effective response and recovery of the learning outcomes and defining policy responses for ECA countries of different income levels and contexts.

Only with more knowledge, resources, and innovations will policymakers be able to sustainably reverse these deteriorating trends in [human capital](#). Education will be one of the most important tools to do it efficiently.