COVID-19: ARE CHILDREN ABLE TO CONTINUE LEARNING DURING SCHOOL CLOSURES?

A global analysis of the potential reach of remote learning policies using data from 100 countries
More than 90 per cent of ministries of education enacted some form of policy to provide digital and broadcast remote learning.

At the global and regional levels, most students (about 70 per cent) have assets at home that would allow them to learn remotely via digital or broadcast classes.

But at least 31 per cent of schoolchildren worldwide cannot be reached by remote learning programs, mainly due to a lack of necessary household assets or policies geared toward their needs.

And 40 per cent of countries did not provide remote learning opportunities at the pre-primary level of education.

Limited focus on pre-primary education:
Only 60 per cent of ministries provided remote learning policies for pre-primary education. Almost 70 per cent of students attending pre-primary education prior to the school closures do not have any access to digital or broadcast remote learning opportunities.

Regional discrepancies:
The share of students who cannot be reached by digital and broadcast remote learning policies is the highest in the countries of Sub-Saharan Africa: at least 48 per cent in West and Central Africa and 49 per cent in Eastern and Southern Africa.

Rurality and poverty:
Around the world, over 70 per cent of students who cannot be reached live in rural areas and over three-quarters come from the poorest 40 per cent of households.

Huge variations between and within countries:
Unsurprisingly, digital and broadcast remote learning have a higher potential reach in wealthier countries than in poorer ones, as well as in wealthier and/or urban segments of the population. The digital and broadcast remote learning coverage in low- and middle-income countries varies significantly, from almost zero per cent to 100 per cent.

Although remote learning policies were originally designed in response to the COVID-19 pandemic, they can be used as a way to deliver education even after schools reopen. The following actions are needed to ensure the world’s children can continue to learn:

1. Democratize access to safe and secure remote learning for all children and young people. Remote learning programs need to be designed around modalities that are accessible to all children and adapted for households that do not have access to broadcast or digital media.

2. Modernize the infrastructure and delivery methods used by education systems and produce accessible resources based on the national curriculum. These vital improvements will make education systems stronger and more robust and can enrich learning opportunities for all children – including the estimated 258 million who are out of school – whether schools are open or not.

3. Identify the best combination of remote learning policies, develop and provide quality education content, and invest in infrastructure that will help reach marginalized children by supporting remote learning in remote and rural areas.

4. Support and train teachers and parents to effectively manage remote ‘virtual’ classrooms and help children learn at home, at all levels of education including pre-primary. Blended learning approaches that combine in-person and remote instruction will be critical.

5. Address the social and gender norms that in many countries prevent children – especially girls – from using computers and online learning to their maximum potential.

6. Invest in innovation that supports real-time monitoring of remote learning, including formative learning assessments.
Introduction

In early 2020, schools around the globe closed to help contain the spread of COVID-19, and at their peak these closures interrupted the learning of almost all the world’s 1.5 billion from pre-primary to upper secondary school students. Governments and education stakeholders responded swiftly with remote learning policies that directed educators to use delivery channels that included digital tools, TV/radio-based teaching, and take-home packages so students could continue to learn.

This factsheet aims to help answer the question “How many students attending school prior to COVID-19 were able to continue to learn during school closures?” Using data from the UNESCO-UNICEF-World Bank Survey on National Education Responses to COVID-19 School Closures (June-July 2020), as well as household microdata from sources like Multiple Indicator Cluster Surveys (MICS), Demographic and Health Surveys (DHS) and others, this factsheet estimates the potential reach of these remote learning policies, with a focus on broadcast-based (radio and television) and internet-based approaches.

However, it must be emphasized that the actual number of students reached is likely significantly lower than the estimates presented in this factsheet, which reflect best-case scenarios based on the policies that were implemented and the technologies available in households. The fact that a home has a television and the country offered TV-based instruction does not guarantee that the children in that home partook of that instruction – parents may not understand how to access the coursework or may not take the steps necessary to support their child’s learning.

Furthermore, it should be noted that the UNESCO-UNICEF-World Bank Survey on National Education Responses to COVID-19 School Closures took an expansive approach regarding the provision of remote learning: while many countries provided remote learning only for specific grades (e.g., the last grade of primary education), in cases where this occurred, all primary students in that country were considered to potentially have been reached with a learning solution. As a result, this factsheet overstates the actual numbers of students reached.

Although the remote learning policies examined were intended as a response to the pandemic, in some cases they can and should continue to be used as a way to deliver education even after schools reopen. As such, it is important to understand the characteristics and minimum number of children who were not able to benefit from these remote learning policies so that the policies can be improved.

By providing insights as to which schoolchildren did not have access to digital or broadcast remote learning opportunities during school closures, we seek to help policymakers make choices that will ensure more children can acquire an education during the COVID-19 pandemic and beyond.

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2 For a summary of distance learning solutions provided by MoEs, please visit: https://en.unesco.org/covid19/educationresponse/nationalresponses
3 It should be noted that the analysis does not include all the possible remote learning approaches such as paper-based or SMS-based approaches due to a lack of reliable data.
How did countries provide education during school closures?

The UNESCO-UNICEF-World Bank Survey on National Education Responses to COVID-19 School Closures collected critical information on how ministries of education in more than 110 countries continued to provide learning opportunities during school closures. For each level of education, most countries have developed policies regarding digital (internet-based) or broadcast (TV- or radio-based) remote learning. The most common approach focused on digital instruction, which was used by 42 per cent of countries for pre-primary education, 74 per cent of countries for primary education and 77 per cent of countries for upper secondary education. Many countries have also developed broadcast curricula, especially for primary and lower secondary students. Overall, 94 per cent of ministries of education analyzed developed policies regarding the provision of at least one form of remote learning that involved digital and/or broadcast instruction, though only 60 per cent provided this type of policy for the pre-primary education level.

Addressing this shortcoming should be a priority – recent estimates find that every dollar invested in increasing enrollment in pre-primary education returns $9 in benefits to society in the form of reduced repetition and dropouts in primary and secondary school, as well as increased lifetime earnings for individuals. In addition to improving remote access to pre-primary instruction, policies should also recognize that at this level, parental involvement is particularly important.

Figure 1
Share of countries that implemented digital and broadcast remote learning policies, by education level


Note: Figures are estimated using simple averages across countries.
A country’s choice of remote learning technology appears to be influenced by their income group. For example, radio-based instruction is implemented at much higher rates by low-income countries (80 per cent) than lower-middle-income (56 per cent) and upper-middle-income (46 per cent) countries. In contrast, internet- and TV-based instruction is much less common among low-income countries (47 and 60 per cent, respectively), while these methods are implemented by a much larger share of lower-middle-income countries (79 and 82 per cent, respectively) and upper-middle-income countries (95 and 92 per cent, respectively).

Figure 2
Share of countries that implemented digital and broadcast remote learning policies at the pre-primary to upper secondary levels of education, by country income group

Note: Figures are estimated using simple averages across countries.
How many students could potentially be reached by remote learning?

The massive scale of school closures has laid bare the uneven distribution of technology needed to facilitate digital and broadcast remote learning at home, as well as the lack of systems to support teachers and caregivers in the safe, effective and secure use of technology for learning.\(^6\) Despite governments’ efforts to implement policies that provide digital and broadcast remote learning opportunities, not all schoolchildren have the necessary assets at home to continue their education. The share and the number of schoolchildren potentially reached – and the minimum share and number who were definitely not reached – were estimated using data on the implementation of digital and broadcast remote learning policies and household survey data on the availability of technologies needed to study at home, as detailed in Annex 1. As noted in the introduction, it should be assumed that this factsheet overestimates the number of children reached, and so by the same token, estimates of the number of children who cannot be reached are minimums.

\(^6\) In many countries, the expansion of digital access and online learning has not been accompanied by adequate protections for the safety and security of children, who may be exposed to inappropriate material, abusive language or behaviour, or have their privacy compromised. In addition to making education platforms safe and secure, teachers, parents and students must be taught how to safely navigate these systems and the broader digital world.
Globally, at least 31 per cent of students from pre-primary to upper secondary schools cannot be reached due to either a lack of policies supporting digital and broadcast remote learning or a lack of the household assets needed to receive digital or broadcast instruction. With at least 49 per cent, Eastern and Southern Africa had the highest minimum share of students who cannot be reached. Latin America and the Caribbean have the lowest share of students who cannot be reached – 9 per cent – but again, this does not mean we can conclude that 91 per cent of children were reached. For example, UNICEF offices in several countries such as Argentina, Bolivia, Panama, Paraguay and Ecuador have conducted telephone or online perception surveys of families with children and adolescents. The results reveal large gaps in access to electronic devices like computers or mobile phones, and to internet connections or other modalities of distance education, particularly in poor and rural areas.7

Figure 3
Share and number of students potentially reached and not reached† by digital and broadcast remote learning policies, by region (pre-primary to upper secondary)

<table>
<thead>
<tr>
<th>Region</th>
<th>Potentially reached</th>
<th>Cannot be reached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern and Southern Africa</td>
<td>51% 68 million</td>
<td>49% 52 million</td>
</tr>
<tr>
<td>West and Central Africa</td>
<td>52% 59 million</td>
<td>48% 54 million</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>60% 55 million</td>
<td>40% 37 million</td>
</tr>
<tr>
<td>South Asia</td>
<td>62% 244 million</td>
<td>38% 147 million</td>
</tr>
<tr>
<td>Eastern Europe and Central Asia</td>
<td>66% 49 million</td>
<td>34% 25 million</td>
</tr>
<tr>
<td>East Asia and the Pacific</td>
<td>80% 328 million</td>
<td>20% 80 million</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>91% 131 million</td>
<td>9% 13 million</td>
</tr>
<tr>
<td>Global</td>
<td>31% 463 million</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ calculations.
Notes: i) Figures are calculated using weighted averages based on the number of students across countries.
ii) The high potential reach in Latin America and the Caribbean does not indicate that children in this region had more access to communication assets in the household – access is shown in Figure 5. Rather, it reflects that the policies in this region targeted technologies that are available in most households.
‡ “Reached” indicates potential maximums; “Cannot be reached” indicates minimums, which are likely much higher.

Three factors contribute to this: 1) primary school comprises more grades than lower secondary or upper secondary school; 2) many children drop out after primary school; and 3) younger cohorts are more populous than older ones, particularly in developing countries.

The potential reach of digital and broadcast remote learning policies increases strongly from pre-primary to primary education and then more gradually for higher school levels. At least 69 per cent of students who attended pre-primary education cannot be reached by digital and broadcast remote learning policies, while at least 18 per cent of upper secondary level students cannot be reached by such policies. This is due to two factors – first, households with older students are better equipped with technology than households with younger students; and second, policies in most countries aim to reach older students.

Globally, 49 per cent of the school population consists of primary school children. As such, of the at least 463 million students around the world who cannot be reached, a little over 215 million were attending primary education prior to the COVID-related school closures. The regions with the highest concentrations of students who cannot be reached are South Asia (147 million), East Asia and the Pacific (80 million), Eastern and Southern Africa (67 million) and West and Central Africa (54 million) – again, these figures represent minimums, and the actual students who were not reached are likely much higher.

**Figure 4**

**Share and number of students potentially reached and not reached by digital and broadcast remote learning policies, by education level**

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Potentially Reached</th>
<th>Cannot be Reached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-primary</td>
<td>69% 120 million</td>
<td>31% 55 million</td>
</tr>
<tr>
<td>Primary</td>
<td>29% 217 million</td>
<td></td>
</tr>
<tr>
<td>Lower secondary</td>
<td>24% 78 million</td>
<td></td>
</tr>
<tr>
<td>Upper secondary</td>
<td>18% 48 million</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Authors’ calculations.
**Notes:** i) Figures are calculated using weighted averages based on countries’ student populations. ii) The high potential reach in Latin America and the Caribbean does not indicate that children in this region had more access to communication assets in the household – access is shown in Figure 5. Rather, it reflects that the policies in this region targeted technologies that are available in most households.

*"Reached" indicates potential maximums; “Cannot be reached” indicates minimums, which are likely much higher.

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*Three factors contribute to this: 1) primary school comprises more grades than lower secondary or upper secondary school; 2) many children drop out after primary school; and 3) younger cohorts are more populous than older ones, particularly in developing countries.*
In Kyiv, Ukraine, Zlata, 7, does schoolwork from home, with all schools in the country closed as part of measures to combat the spread of COVID-19.
What is the potential reach of different remote learning approaches?

Although television presents constraints in terms of sharing course materials, policies that implemented TV-based remote learning had the potential to reach the most students.

The proportion of students potentially reached by different digital and broadcast remote learning policies varied by region. Globally, TV-based remote learning policies had the potential to reach the highest proportion of students (62 per cent), which accounts for almost 930 million students worldwide; this suggests television has a significant role to play in delivering education during school closures, despite the fact that this medium doesn’t offer a convenient way to transmit course materials.

The potential reach of internet-based learning is lower than that of television. Outside of the most-developed countries, at best internet-based remote learning had the potential to reach only about 50 per cent of students in Latin America and the Caribbean, Eastern Europe and Central Asia.

In East Asia and the Pacific, the Middle East and North Africa, and Eastern Europe and Central Asia, more students were potentially reached by internet-based learning than radio programs, but in Eastern and Southern Africa and West and Central Africa, more students were potentially reached through radio-based education than the internet. For Latin America and the Caribbean, the share of students potentially reached by radio and the internet is almost the same.

Figure 5
Share of students (pre-primary to upper secondary) potentially reached by different types of remote learning policies by region

Source: Authors’ calculations.
Note: Figures are calculated using weighted averages based on the number of students across countries.
Unsurprisingly, digital and broadcast remote learning have the potential to reach more students in wealthier countries than in poorer ones.

In order to understand the patterns that determined whether or not students were potentially reached by digital and broadcast remote learning policies in the countries analyzed, it is important to explore the relationship between each country’s economic status, measured by Gross National Income (GNI) per capita, and the share of students who cannot be reached. It is also important to highlight how countries in fragile contexts, namely those included in the UNICEF 2020 Humanitarian Action for Children (HAC) appeal, fare in terms of remote learning.

An explicit trend exists in the association between a country’s GNI per capita and the percentage of students potentially reached – in countries with lower levels of GNI per capita, a large share of students cannot be reached by digital and broadcast remote learning policies.

Three quarters of countries included in the 2020 HAC appeal implemented at least one remote learning policy, potentially reaching 51 per cent of all students experiencing humanitarian crises. However, since only 35 per cent of these countries implemented one or more policies to ensure the continuity of pre-primary education, at best just 22 per cent of pre-primary school students were potentially reached. At higher levels the numbers improve – remote learning policies potentially reached 63 per cent of upper secondary school students experiencing humanitarian crises.
Which students cannot be reached?

Globally, three out of four students who cannot be reached by remote learning opportunities come from rural areas and/or poor households.

Students who cannot be reached by any of the three means of remote learning analyzed in this study come from various backgrounds, but some themes can be observed. Students in rural areas consistently represent the vast majority of those who cannot be reached, irrespective of the country’s level of economic development. Overall, three out of four students who cannot be reached live in rural areas, but in low-income countries the percentage is even higher.

It is also important to note that in this study, only children who were in fact attending school prior to the pandemic were counted. This is significant, because attendance rates for children in poorer and rural areas are low to begin with. As such, if out-of-school children were also counted, children in poorer and rural areas would represent even more than 75 per cent of those who cannot be reached.

Students from the poorest 40 per cent of families account for a disproportionately high percentage of those who cannot be reached. In low-income countries, they represent 47 per cent of those who cannot be reached, while in middle-income countries they constitute from 74 to 86 per cent of those who cannot be reached. Boys and girls were almost evenly represented among students who cannot be reached.

Figure 7
Composition of students who cannot be reached, by sex, household wealth and area of residence, by country economic classification

![Chart showing the percentage of students who cannot be reached, broken out based on their sex, household wealth and place of residence. For example, in low-income countries, 47 per cent of students who cannot be reached were girls.]

Source: Authors’ calculations.
Note: Figures were calculated using weighted averages based on the number of students across countries.
How to read this chart: The chart shows the percentage of students who cannot be reached, broken out based on their sex, household wealth and place of residence. For example, in low-income countries, 47 per cent of students who cannot be reached were girls.
In 2020, remote learning policies enacted in response to school closures due to the COVID-19 pandemic sought to reach more than 1 billion students globally. Hundreds of millions of students in high- and upper-middle-income countries benefited, but hundreds of millions more students in lower-resource settings were excluded from opportunities to continue learning.

Partial and ongoing school closures mean that remote learning will continue to be an essential education platform for the foreseeable future. Blended learning approaches that combine in-person and remote instruction will be key to ensure students attending school can continue to learn, and they also provide an unprecedented chance to reach out-of-school children and youth.

Policies must focus on modernizing both the infrastructure and delivery methods used by education systems and producing accessible, safe and secure remote learning resources based on the national curriculum. These vital improvements will make education systems stronger and more robust and can enrich learning opportunities for all children – including the estimated 258 million who are out of school — whether schools are open or not. Initiatives like Connect to Learn, in collaboration with Generation Unlimited and GIGA, can fast-track safe access to technology and connectivity, increasing options for remote learning delivery and facilitating quicker responses to school closures.

Digital and broadcast remote learning policies must address the needs of all households and accommodate situations where children do not have the necessary technological assets at home. To achieve this, identifying the best combinations of digital and broadcast remote learning should be a priority, and investments should be made to develop the infrastructure necessary to reach children who are marginalized, live in remote and rural areas, or are displaced by emergencies. This approach will also help prepare education systems for future crises.

Remote learning programs need to reach students, but students must access, use and learn the material. As such, policies should recognize that teachers, school professionals and parents also have to adapt to these new forms of learning and need to be trained to effectively manage virtual classrooms. Skills gaps among teachers and parents are one of the most critical barriers to effective, safe and secure remote learning, yet more than one in three countries did not provide any training for teachers to use remote learning platforms.

Policies that provide remote learning opportunities at the pre-primary level are vital. Enrollment in pre-primary education yields significant benefits to society, and has a tremendous impact on children’s future learning as well as their lifelong earnings.

There is a need to address the social and gender norms that prevent children — especially girls — from using computers and online learning to their maximum potential. Even in households where online learning is an option, in many countries, parental restrictions are among the most common barriers to digital access for children, and concerns about girls’ online safety and the fear that girls will become exposed to content that goes against their community’s values mean girls are discouraged from using the internet.

Further investments and innovation are needed to ensure the quality of remote learning and provide real-time monitoring of education outcomes, including formative learning assessments. Countries have engaged in a variety of measures to understand the usage and effectiveness of different delivery channels, but these activities remain a challenge for many.

Democratizing safe access to remote learning for all children and young people is key to providing quality education during the pandemic and beyond. Improved remote learning infrastructure and polices, particularly those that use a blended approach, will play a valuable role in helping countries navigate intermittent closures well as prevent outbreaks of the disease. When countries begin to emerge from the COVID-19 crisis, governments should prioritize school reopenings as soon as is safely possible, using consultative preparations and holistic remedial plans that coordinate with all the key actors.

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2 Connect to Learn is the new name for “Learning Unlimited” and “Digital Learning for Every Child.”


7 For example, in the Democratic Republic of the Congo, only 24 per cent of adolescent girls with computers at home use them at least once a week. (see COVID-19 and education: The digital gender divide among adolescents in sub-Saharan Africa.)


Mounée Mahdeya, 10, uses her computer tablet to complete schoolwork for her Level IV class at Monipur High School and College in the Mirpur area of Dhaka, capital of Bangladesh.
Annex 1: Methodology

The findings presented in this factsheet are based on an analysis of the potential reach of remote learning policies, which used two data sources. The first is the UNESCO-UNICEF-World Bank Joint Survey on National Education Responses to COVID-19 School Closures (May-July 2020), which compiles information collected from ministries of education regarding the policy measures adopted to ensure the continuity of learning during school closures, including the provision of remote learning through radio, television and the internet for each education level.

Although the survey also asked about the delivery of paper-based materials and their coverage, these data were not used because of the very low response rate to this question. To increase the number of countries analyzed, UNICEF country offices also collected some additional data.

The second data source was household surveys, primarily Multiple Indicator Cluster Surveys (MICS) and Demographic and Health Surveys (DHS), in addition to national data sources. Surveys conducted from 2010 onward were used in the analysis. Household data were used to calculate three indicators: (1) the percentage of students living in households with access to radio; (2) the percentage of students living in households with access to television; and (3) the percentage of students living in households with access to the internet or a computer (depending on the availability of the data). The aggregation combined countries, weighted by their student population at each level of education.

The final analysis included 100 countries that participated in the joint survey and also have household microdata available. Indicators were calculated for children attending school at each education level, including pre-primary, primary, lower and upper secondary. In addition, the total percentage of students with radio, television, or internet access or a computer at home was calculated for each country.

A child was considered to have potentially been reached if s/he was able to continue learning through any of the three modalities listed. The reachability indicator for a country was calculated as the share of students (at a specific education level and in total) reached by any of the policies designed for them. Importantly, the students who cannot be reached include both those whose households lack the necessary assets for remote learning, as well as those who were not targeted by the government’s policies.

To estimate the possible reach of each digital and broadcast learning policy, household microdata were analyzed in combination with data on each country’s policy response. As such, a student was considered to be “potentially reached” by a policy designed for their education level if they had the necessary technology at home to access that modality (broadcast or digital) of remote learning.

For example, the maximum potential reach of a policy designed to continue the education of lower secondary school students through internet classes is the share of lower secondary students in that country who have a computer or an internet connection at home.

Another important methodological pillar of the analysis was to identify vulnerable populations and formulate targeted policy messages to help them. To this end, the composition of students who cannot be reached was estimated by sex, household wealth, and place of residence to shed light on the share of girls, students from poor households, and students living in rural areas who cannot be reached. As a final step, the data were aggregated by UNICEF regions and World Bank country income group classification.

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19 For countries where the household microdata from MICS6 were available, the availability of an internet connection at home was used. For countries that participated in DHS and other survey programs, the choice between internet access or possession of a computer was dictated by the availability of the data on each of the indicators.

14 For five countries (Azerbaijan, Djibouti, Ecuador, United Kingdom and Uzbekistan), survey microdata did not include information on school attendance in the household roster. In these cases, children were divided into four groups – pre-primary, primary, lower and upper secondary – based on the age for each education level in the country.
Annex 2: Data sources

2. Brazil Continuous National Household Sample Survey (Continuous PNAD) 2018, IBGE.
8. Japan Household Panel Survey (JHPS/KHPS) 2009-2018, Panel Data Research Center at Keio University, Japan.
## Annex 3: Number of students potentially reached by remote learning policies (in thousands), by country economic classification and region

<table>
<thead>
<tr>
<th>Remote learning approach</th>
<th>Education level</th>
<th>Low Income</th>
<th>Lower-middle income</th>
<th>Upper-middle income</th>
<th>East Asia and the Pacific</th>
<th>East and South Africa</th>
<th>Latin America and the Caribbean</th>
<th>Middle East and Northern Africa</th>
<th>South Asia</th>
<th>West and Central Africa</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet / PC</td>
<td>Pre-primary</td>
<td>23</td>
<td>1,396</td>
<td>9,640</td>
<td>2,326</td>
<td>1,163</td>
<td>728</td>
<td>9,259</td>
<td>506</td>
<td>1,378</td>
<td>289</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>2,205</td>
<td>33,554</td>
<td>96,582</td>
<td>69,115</td>
<td>13,910</td>
<td>4,233</td>
<td>26,958</td>
<td>15,085</td>
<td>11,144</td>
<td>4,044</td>
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<tr>
<td></td>
<td>Lower secondary</td>
<td>1,710</td>
<td>16,668</td>
<td>60,872</td>
<td>36,938</td>
<td>14,808</td>
<td>1,571</td>
<td>20,629</td>
<td>4,670</td>
<td>5,791</td>
<td>1,232</td>
</tr>
<tr>
<td></td>
<td>Upper secondary</td>
<td>869</td>
<td>18,204</td>
<td>53,943</td>
<td>35,769</td>
<td>9,853</td>
<td>1,367</td>
<td>16,301</td>
<td>3,475</td>
<td>9,968</td>
<td>1,685</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4,807</td>
<td>69,822</td>
<td>221,037</td>
<td>144,148</td>
<td>39,731</td>
<td>7,899</td>
<td>73,147</td>
<td>23,735</td>
<td>28,280</td>
<td>7,250</td>
</tr>
<tr>
<td>Radio</td>
<td>Pre-primary</td>
<td>1,971</td>
<td>6,435</td>
<td>2,533</td>
<td>1,058</td>
<td>258</td>
<td>3,654</td>
<td>8,879</td>
<td>-</td>
<td>945</td>
<td>2,082</td>
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<tr>
<td></td>
<td>Primary</td>
<td>43,886</td>
<td>50,129</td>
<td>10,583</td>
<td>10,984</td>
<td>360</td>
<td>32,513</td>
<td>29,548</td>
<td>982</td>
<td>15,455</td>
<td>35,157</td>
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<tr>
<td></td>
<td>Lower secondary</td>
<td>7,131</td>
<td>18,750</td>
<td>6,689</td>
<td>6,541</td>
<td>169</td>
<td>4,390</td>
<td>20,300</td>
<td>650</td>
<td>6,156</td>
<td>8,299</td>
</tr>
<tr>
<td></td>
<td>Upper secondary</td>
<td>2,073</td>
<td>13,195</td>
<td>6,079</td>
<td>1,890</td>
<td>249</td>
<td>3,428</td>
<td>13,982</td>
<td>592</td>
<td>6,943</td>
<td>4,636</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>55,081</td>
<td>88,509</td>
<td>25,985</td>
<td>20,473</td>
<td>1,036</td>
<td>43,985</td>
<td>72,709</td>
<td>2,225</td>
<td>29,499</td>
<td>50,174</td>
</tr>
<tr>
<td>Television</td>
<td>Pre-primary</td>
<td>421</td>
<td>11,267</td>
<td>20,826</td>
<td>3,734</td>
<td>2,453</td>
<td>2,727</td>
<td>17,461</td>
<td>1,453</td>
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<td>190,251</td>
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**Source:** Authors’ calculations.

**Note:** Figures were calculated using weighted averages based on the number of students across countries.
Acknowledgements

This factsheet was prepared by the Data and Analytics Section of UNICEF (Suguru Mizunoya, Karen Avanesyan, Diogo Amaro, Yanhong Zhang and Claudia Cappa) with input from the UNICEF Office of Research (Matt Brossard, Thomas Wells Dreesen and Anindita Nungroho), the UNICEF Programme Division (Atif Rafique, Nicolas Reuge, Annika Rigole, Haogen Yao, Neven Knezevic and Pragya Dewan), UNICEF Regional Offices (Francisco Benavides, Akihiro Fushimi, Abhiyan Jung Rana, Margarete Sachs-Israel, Vincenzo Placco and Dominik Koeppl), the UNICEF Communications Division (Georgina Thompson), UNESCO Institute of Statistics (Sylvia Montoya), UNESCO (Maya Prince), and the UNESCO Global Education Monitoring Report (Manos Antoninis), as well as the World Bank (Tigran Shmis). The team would also like to thank Anna Giovinetto for editing the factsheet, and Kyle Arthur for its design.

Suggested citation


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