TRANSFORMING EDUCATION WITH EQUITABLE FINANCING
In September 2022, the Transforming Education Summit called on governments and the international community to mobilize action, ambition, solidarity and solutions to recover pandemic-related learning losses and transform education systems in a rapidly changing world towards achieving Sustainable Development Goal (SDG) 4. One key action is to find universal, sustained and systemic solutions in mobilizing more resources, increasing equity and efficiency of spending on education, and improving education financing data and accountability.¹

This brief presents findings on equitable education financing using the latest data from over one hundred countries², highlighting the urgent need to target resources to reach the poorest and most marginalized (proxied by household wealth quintile). We call on governments and key stakeholders to transform education with equitable financing:

+ **Most critically, unlock pro-equity public financing to education** through broader coverage and volume of decentralized allocations, resources to schools, and resources to students of disadvantaged backgrounds (by education and social protection ministries).
+ **Prioritize public funding to foundational learning** by securing funding for all in pre-primary and primary education and targeting the poor and marginalized at higher levels of education.
+ **Monitor and ensure equitable education aid allocation** in developmental and humanitarian contexts between and within countries, including sub-sector levels when applicable.
+ **Invest in innovative ways of delivering education** to complement gaps in existing public funding, through multiple and flexible pathways including quality digital learning.

Public spending on education is both inadequate and inequitable

Available evidence reveals that both underinvestment and inequity remain serious challenges in education financing. Despite the Incheon commitment to allocate at least 15–20 per cent of total public expenditure to education, only 1 in 10 countries and territories meet the 20 per cent benchmark, and only 4 in 10 meet the 15 per cent benchmark.³ The COVID-19 pandemic magnified issues in underinvestment, highlighting large financing gaps across countries: more than half of low- and lower-middle-income countries, compared to 1 in 10 high-income countries, reported a stagnation or decline in their education budgets in 2021 relative to 2020.⁴ Limited public education funding among low- and lower-middle-income countries is especially concerning, given that many of these countries had relatively longer school closures during the pandemic and thus saw a greater increase in learning disparities.⁵ Even at the pre-primary level, these countries experienced prolonged school closures with an already low public investment, accounting for only 3.3 per cent of education budgets⁶ – a third of the 10 per cent Tashkent commitment.

Within each country, learners from disadvantaged and vulnerable communities¹ tend to benefit disproportionately less from public education funding than their peers, despite facing multiple, compounding barriers to learning associated with gender, ethnicity, disability, residency and other context-specific challenges. For example, in most countries and areas, the proportion of children with disabilities is significantly higher in the poorest households, and they are 42 per cent less likely to have foundational reading and numeracy skills when compared to peers without disabilities.⁷ Higher spending is required to meet the needs of the poor and vulnerable (SDG Indicator 1.b.1). To be truly equitable, *at least* 20 per cent of public resources should go to the poorest 20 per cent, but that is difficult in most countries because the poor tend to leave school earlier and thus are unable to benefit from resources allocated to higher levels of education. For its programme countries, UNICEF has adopted a milestone benchmark of allocating at least 15 per cent of national education expenditure to the poorest.⁸
Our analysis shows that among 102 countries with data, 30 per cent of countries fail to spend even 15 per cent of public education resources on learners from the poorest 20 per cent of households. Among low-income countries, this share of countries is strikingly high at 80 per cent. On average, the poorest benefit from only 16 per cent of public education funding, while the wealthiest benefit from about 28 per cent of the same (see Figure 1). For low-income countries, the disparity is even more pronounced: 11 per cent of public education resources goes to the poorest, while 42 per cent goes to the richest.

These inequities are mainly the result of several factors. First, children living in poverty are less likely to have access to school readiness support and school itself. When they do, they generally drop out sooner and therefore ‘miss out’ on education resources. Second, the poorest children are more represented in lower levels of education which receive lower levels of public spending per capita. Third, in most countries, children from the poorest households tend to live in remote and rural areas that are generally underserved (e.g., poorer facilities, digital divide, lack of local universities or even a lack of schools).

Countries in Africa suffer the most from inequitable education financing

In some countries, education financing is inequitable to the extent that learners from the poorest quintile of households receive 10 per cent or less of public education spending. Nearly all such countries (12 of 13) are in Africa. For example, in Guinea and Mali, the poorest benefit from only 6 per cent of public education spending (see Figure 2). In Chad, the poorest receive 7 per cent, and in Côte d’Ivoire and the Central African Republic, they receive 8 per cent.

It is equally alarming that public education spending is disproportionately skewed towards learners from the richest households. In 1 out of every 10 countries, learners from the richest 20 per cent of households receive four or more times the amount of public education spending compared to those from the poorest households. All these countries are in Africa. For example, in Guinea, learners from the richest households receive 8.4 times the amount of public education spending than those from the poorest households. This figure is 7.9 times and 6.8 times in Mali and Chad, respectively.

### FIGURE 1. Average distribution of public education funding per learners’ wealth background, 2022 update

<table>
<thead>
<tr>
<th>Country income group</th>
<th>Number of countries</th>
<th>% of education resources reaching learners from the poorest 20% of households</th>
<th>% of education resources reaching learners from the richest 20% of households</th>
</tr>
</thead>
<tbody>
<tr>
<td>High income</td>
<td>33</td>
<td>17%</td>
<td>23%</td>
</tr>
<tr>
<td>Upper-middle income</td>
<td>23</td>
<td>17%</td>
<td>23%</td>
</tr>
<tr>
<td>Lower-middle income</td>
<td>28</td>
<td>15%</td>
<td>27%</td>
</tr>
<tr>
<td>Low income</td>
<td>18</td>
<td>11%</td>
<td>42%</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>16%</td>
<td>28%</td>
</tr>
</tbody>
</table>

**Source:** UNICEF calculations of unweighted averages using latest DHS, MICS, UIS and WIDE data retrieved on 1st December 2022. For details, see Annex.
FIGURE 2. Percentage of public education resources going to learners (pre-primary to tertiary levels) from the poorest and the richest quintiles

Has public education spending become more equitable across wealth quintiles?

Deliberate efforts are needed to ensure public education spending reaches the poorest and most marginalized. To assess how countries have progressed over time in the endeavour to make public education expenditure more equitable, trends are examined in the shares of public education spending received by learners from the richest households and those from the poorest. This analysis compares the latest available data for 46 countries in the two time periods of 2010–2014 and after the adoption of SDG 4 in 2015 (see Figure 3).

In the past decade, public education spending has become more equitable in 60 per cent (28 out of 46) of countries with data. Some countries (e.g., Poland) have improved equity in public education spending, while a few countries (e.g., Armenia) have experienced increased disparities. Two countries with extremely inequitable financing in the early 2010s, Chad and Ethiopia, are seeing narrower disparities but are still far from ‘equitable’.

Aid to education has been inequitable

The poorest countries have yet to receive sufficient international aid earmarked for education. While official development assistance (ODA) accounts for less than 3 per cent of overall education spending, it represents a substantive 18 per cent of education spending in low-income countries. Worryingly, however, the share of ODA allocated to education fell during the COVID-19 pandemic. ODA to the poorest countries has persistently fallen short of global expectations: over the past decade, the share of education ODA received by the least developed countries has never exceeded 30 per cent, far from matching the 50 per cent of overall ODA encouraged by the Addis Ababa Action Agenda. Moreover, the absolute amount of education ODA to the least developed countries declined by 10 per cent during the pandemic, from USD 4.3 billion in 2019 to USD 3.9 billion in 2021.

Challenges in equitable financing are also evident in education funding for learners in emergencies. An estimated 222 million school-aged children are affected by crises globally, of which about 78.2 million are out of school. In recent years, appeals for education in emergencies often receive just 10 to 30 per cent of the amounts needed, with significant disparities across countries and regions and sensitivity to the eruption of new crises. According to the Financial Tracking Service (as of 2nd January 2023), the education in emergencies funding received by Afghanistan and Ukraine crisis responses in 2022 was larger than that received by all 27 African and Middle East appeals combined (see Figure 4).
Equitable education financing is associated with a reduction in learning poverty

Equitable public education spending is essential to support the response to the ongoing global learning crisis. An estimated two thirds of 10-year-olds are learning-poor in 2022 – unable to read and understand a simple written text. Even for older age groups in OECD countries pre-pandemic, nearly a quarter of 15-year-old students had not acquired the technical skills needed for reading and cannot use reading for learning. To help end learning poverty and further transform education globally, one contributing factor is an equitable approach to public education spending.

Our analysis shows that even if public education spending (as a percentage of GDP) stagnates, a one percentage point increase in its share allocated to the poorest 20 per cent is associated with a 2.6 to 4.7 percentage point reduction in learning poverty rates (see Annex). For example, in Mali, where the learning poverty rate is above 90 per cent, increasing the current share of 6.5 per cent of public education spending for the poorest to the ambitious 20 per cent could be associated with a learning poverty reduction of at least 35 percentage points.

Applying this correlation to the 731 million primary school-aged children globally, a one percentage point increase in the allocation of public education resources to the poorest may pull up to 35 million primary school-aged children out of learning poverty, holding the size of public education resources constant.
The roots of the learning crisis begin in children’s early years, underscoring the importance of prioritizing public education resources towards foundational learning. Children who face barriers to learning and schooling early in life face increasing challenges as they progress through their education. For resource allocation to be equitable, funding should be secured for the poorest children, who are more represented at lower levels of education where the foundations of their future learning and skills development are built. More young children should also be given access to pre-primary education so they are ready to gain foundational skills in primary school; and more poor children and youth should be given the chance to study in higher levels of education so that in the long term, as future parents or educators, they can help pull the next generation out of (learning) poverty.

A look at the shares of learners from the poorest 20 per cent of households better illustrates why some countries are significantly behind in both equitable financing and learning poverty (see Figure 5). In low-income countries, where the learning poverty rate is estimated to be 92 per cent, the poorest account for only 9 per cent of enrolments in pre-primary education and 17 per cent in primary, much lower than in middle- and high-income countries. As a result, the shares of the poorest in the next three education levels are even lower at 8, 4, and 2 per cent, respectively, since many are neither prepared nor can afford education at higher levels. If more children can receive pre-primary education, more will succeed in and graduate from primary education, and more will climb further up the education ladder.

**FIGURE 5.** Shares of learners from the poorest 20 per cent of households, by education level and country income

<table>
<thead>
<tr>
<th>Education Level</th>
<th>High Income</th>
<th>Upper-middle Income</th>
<th>Lower-middle Income</th>
<th>Low Income</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-primary</td>
<td>18%</td>
<td>19%</td>
<td>15%</td>
<td>9%</td>
<td>15%</td>
</tr>
<tr>
<td>Primary</td>
<td>20%</td>
<td>22%</td>
<td>22%</td>
<td>17%</td>
<td>20%</td>
</tr>
<tr>
<td>Lower Secondary</td>
<td>19%</td>
<td>18%</td>
<td>15%</td>
<td>8%</td>
<td>16%</td>
</tr>
<tr>
<td>Upper Secondary</td>
<td>18%</td>
<td>14%</td>
<td>9%</td>
<td>4%</td>
<td>12%</td>
</tr>
<tr>
<td>Tertiary</td>
<td>12%</td>
<td>4%</td>
<td>2%</td>
<td>2%</td>
<td>6%</td>
</tr>
</tbody>
</table>

**Source:** UNICEF calculations of unweighted averages using latest DHS, MICS, UIS and WIDE data retrieved on 1st December 2022. Enrolment from the poorest 20 per cent of households can exceed 20 per cent if the poorest households have more school-aged members than the other quintiles, which is the case in many countries.
The way forward

Equitable education financing is critical to strengthening education systems so that no learner is left behind. Urgent action is needed to ensure education resources reach every learner, especially the poorest and most marginalized. Governments and key stakeholders can take the following actions to respond to the equity challenge in education:

+ **Most critically, unlock pro-equity public financing to education,** or the “existence of funding mechanisms to reallocate education resources to disadvantaged populations” (SDG Indicator 4.5.3). More specifically, to offer, monitor and strengthen the four mechanisms of:
  1. Equitable, decentralized allocations of education resources;
  2. Further resources to schools for development purposes, such as block grants for equipment, accessibility, water and sanitation, and teacher trainings in disadvantaged areas;
  3. Resources by the education ministry to disadvantaged students and families (e.g., children with disabilities, minorities, displaced children), such as scholarships and school meals; and
  4. Cash assistance, including universal cash transfers, by social protection ministries to disadvantaged students and families.

+ **Prioritize public funding to foundational learning.** This refers to the principle of ‘progressive universalism’: resource allocation is initially prioritized to lower levels of education, where foundational skills are built and the poor and marginalized are more represented. Then, when coverage at lower levels is close to universal, resource allocation is gradually increased to higher levels, with a continued focus on the poorest and most marginalized.

+ **Monitor and ensure equitable education aid allocation** in development and humanitarian contexts between and within countries. This includes gradually increasing the share of education ODA to the least developed countries, and promoting a mechanism to better monitor, raise awareness and advocate for increased prioritization of education funding, from both humanitarian and development sources, towards ‘forgotten’ crises. The international community should take the lead in facilitation.

+ **Invest in innovative ways of delivering education to complement gaps in existing public funding.** Multiple and flexible pathways are needed to help the poorest and most marginalized go further in their learning journey. Investments are also needed to overcome the digital divide in education, which goes beyond providing devices and internet connections to also improving offline functionality, bridging the gender digital divide, ensuring accessibility for learners with disabilities, including features that are mobile-friendly, and more.

Finally, it is important to note that equitable financing cannot be separated from other topics of adequacy, efficiency and transparency. This is particularly relevant for low-income countries that have limited resources and are most affected by climate shocks, conflicts and natural disasters. The whole budget cycle, from policy review to audit and evaluation, should be strengthened to better translate education policy objectives into budget allocation and implementation towards those most in need.

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**In 1 out of every 10 countries, learners from the richest 20 per cent of households receive four or more times the amount of public education spending compared to those from the poorest households. All these countries are in Africa.**
Annex: Methodology note

The major analysis conducted in this brief is the Benefit Incidence Analysis (BIA), which follows Section 2, Chapter 6 of the Education Sector Analysis Methodological Guidelines Volume 1. Generally, BIA is used to estimate the scope of social differences in the consumption of public education resources. This involves identifying the schooling profiles of individuals from different social groups (girls/boys, urban/rural, wealthy/poor) and using their representation in the total national population to extrapolate the expenditure devoted to each of the different groups.

Specific to this analysis and based on data availability, we calculated the distribution of public resources based on the enrolment (for low- and middle-income countries) and completion (for high-income countries) rates by household wealth quintile. We did this for the five school levels of pre-primary, primary, lower secondary, upper secondary and tertiary categorized by the International Standard Classification of Education (ISCED), then summed them up to determine the share of public resources in each wealth quintile.

This brief can be considered an update to the 2020 Addressing the Learning Crisis report, with wider country coverage and more recent data. Methodologically, there are three major differences in this brief.

1. For countries where household survey data were available, we programmed to obtain the enrolment-by-quintile data directly. The former analysis (in the 2020 report) used existing indicators to indirectly calculate with a formula.

2. Given the lack of precise data on private education enrolment by wealth and the fact that private enrolment can still be subsidized by public spending, this analysis built two scenarios. In Scenario 1, the distribution by wealth in private enrolment is proportional to that in overall enrolment; in Scenario 2, the richest are more likely (1.2 times the overall share) and the poorest less likely (0.8 times the overall share) to be in private enrolment, and thus the richest/poorest gap is smaller than that in Scenario 1. For concise presentation, this brief displays results under Scenario 1, but delivers messages valid under both scenarios. For country deep-dives, it is recommended to quantitatively reflect government regulation of and support to private education, including to low-cost private schools that were more vulnerable to (COVID-19) economic shocks.

3. We conducted trend analysis for 46 countries and territories, comparing the situation before and after the adoption of SDG 4 in 2015. More specifically, we compared the latest available data in 2010–2014 with the latest available data since 2015. When multiple datasets were available in the two time periods, we prioritized the Multiple Indicator Cluster Surveys (MICS) because it provides straightforward disaggregation by schooling level from pre-primary to tertiary levels, followed by the Demographic and Health Surveys (DHS) due to less straightforward though equally obtainable disaggregation, and then other national household surveys or censuses.

The selection of 102 countries and territories for the BIA was based on data availability, comparability and consistency with regard to the year of availability among the different data sources. The underlying data sources for this analysis included the UNESCO Institute for Statistics (UIS) database for data on enrolment, percentage of enrolment in private institutions, and public spending by education level; various household surveys (i.e., MICS, DHS and other national household surveys) for data on enrolment by wealth quintile at each education level; and the World Bank Education Statistics database for data on learning poverty rates. When raw data were unavailable for by-wealth enrolment calculations, we used the UNESCO World Inequality Database on Education (WIDE) as a supplemental data source, from which we extracted the by-wealth completion rates as proxy. WIDE figures calculated on the European Union Statistics on Income and Living Conditions (EU-SILC) were a key source in the analysis for high-income countries.

A country is considered eligible to be included in the BIA if that country does not have missing data on expenditure, enrolment and by-wealth distribution for at least the primary, lower secondary and upper secondary levels. One exception is put on high-income countries: if the share of primary enrolment by wealth quintile is missing, an imputation of 20 per cent was made assuming no inequity, since even for lower secondary education most high-income countries show figures that can be rounded to 20 per cent. Additionally, for high-income countries, if by-wealth distribution for pre-primary and tertiary education is only available for one period, the same values were imputed to the other time period with missing data, assuming that the change is slow when enrolment is high. For all other countries, by-wealth distribution for pre-primary and tertiary education were not imputed, assuming the disparity in these two levels are proportional to the disparity in primary and secondary education combined.
In the analysis of the association between learning poverty and equitable financing, this brief states: “even if public education spending (as a percentage of GDP) stagnates, a one percentage point increase in its share allocated to the poorest 20 per cent is associated with a 2.6 to 4.7 percentage point reduction in learning poverty rates”. This statement is based on the pooled and time-lag linear regression results of learning poverty on the share of public education expenditure to the poorest 20 per cent, under different specifications controlling for ‘public expenditure on education as a percentage of GDP’ and ‘GNI per capita’. It is important to note that (a) association does not mean causality, and (b) although learning poverty is a concept for primary school-aged children, it is connected to spending on different school levels assuming the total spending is constant: more spending on other levels means less spending on primary and, very likely, on the poor and marginalized.

Finally, it is worth mentioning that there are different numbers of children and youth within each household wealth quintile. The actual learner distribution by household wealth quintile in a country could be uneven (e.g., 22%-21%-19%-20%-18%). While the traditional BIA assumes an even distribution of population across households, we suggest taking into consideration the actual population distribution if doing a country deep-dive.

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2. According to the Methodological Guidelines For Education Sector Analysis Volume 1, ‘equitable education financing’ refers to an allocation that tends to compensate the initial disadvantages of groups considered to be disfavoured (economically, racially, etc.), through an allocation of resources proportionally greater than the group’s weight in the total population. In this brief, the data used span the period 2010–2022, with a total of 102 countries and territories covered by the main analyses, based on data availability and comparability.


7. In calculation, this report uses the poorest wealth quintile as a major and obtainable proxy for disadvantaged and vulnerable communities.


10. In this brief, ‘learners’ encompass those in pre-primary to tertiary levels. The term ‘poorest learners’ refers to those from the poorest 20 per cent of households, while ‘richest/wealthiest learners’ refers to those from the richest 20 per cent of households.

11. Assuming the distribution by wealth in private education enrolment is the same as that in public education enrolment (default assumption), there are 12 (out of 102) countries. Assuming the richest are more likely and the poorest less likely to be in private education, i.e., public resource being more pro-poor, there are 10 countries. See Annex for further explanation.

12. Due to data unavailability and incomparability of survey modality, the comparison might not reflect more recent shocks including the COVID-19 pandemic. The authors conducted a pre- and post-pandemic comparison based on Surveys of Income and Program Participation (SIPP) for the United States of America. A ‘COVID-19 distortion’ by wealth was not clearly observed.


14. Details varied based on the date of data retrieval, but findings are consistent in terms of both absolute amounts and shares. See UNICEF, UNESCO, and World Bank, Where Are We on Education Recovery?, UNICEF, March 2022; and World Bank and UNESCO (Global Education Monitoring Report), Education Finance Watch 2022, World Bank and UNESCO (Global Education Monitoring Report), July 2022.


19. In this example, we multiply the lower value of the estimated range of learning poverty reduction (2.6 percentage points) by the difference between the milestone benchmark of 20 per cent and the current share allocated to the poorest: 2.6 × (20 - 6.5) = 35 percentage points.


