



EDUCATION FINANCE WATCH 2024

Introduction

To achieve their national and international education goals, many countries need to invest more and better in their education systems. During the last decade, total education spending by governments, households, and donors globally has increased steadily, but this has not led to significant increases in allocations per child,¹ especially in poorer countries with their growing populations. Total education spending per child has either decreased or stagnated globally. Additionally, the combination of the financial repercussions of the COVID-19 pandemic plus escalating global debt is likely to be limiting the ability of countries to augment their investments in education. Moreover, the strain on public education budgets in recent years has coincided with a 4 to 8 percentage point decline in minimum reading and math proficiency among 15-year-olds compared to 2018 pre-COVID levels in middle-income countries (OECD, 2023). In low-income countries (LICs), where data on educational outcomes are scarce, simulations suggest that the incidence of learning poverty, which was already high before 2020, is likely to have risen in the aftermath of the COVID-19 pandemic (World Bank et al., 2023). The current challenge in education finance is the need to mobilize more resources while at the same time increasing the adequacy, efficiency, and equity of funding in the face of tight fiscal space and competing priorities. Tackling the spending inefficiencies and inequalities that are common to many education systems will be vital to enable countries to make better use of their resources and strengthen the link between spending and education outcomes.

The Education Finance Watch (EFW) is a collaborative effort between the World Bank, the Global Education Monitoring (GEM) Report, and the UNESCO Institute



© Bart Verweij /World Bank

for Statistics (UIS). It summarizes available information on patterns and trends in education financing around the world. To do so, the EFW draws on various sources of education, economic, and financial data from the World Bank, the UIS, the International Monetary Fund (IMF), the Organisation for

¹ EFW2024 uses “per school-age individual” and “per child” interchangeably, with school age referring to those aged between 5 and 24 years old.



© Dominic Chavez/World Bank

Economic Co-operation and Development (OECD), and the United Nations (UN). This Education Finance Watch 2024 (EFW2024) report provides a comprehensive overview of the key trends and sources of global education financing that can be used as a foundation for further analysis and future policy dialogue. Researchers and policymakers seeking to use the report's analytical underpinnings and data for further study and policy dialogue are invited to read the EFW's accompanying technical note, which provides additional details about the analytical methods and terminology used in the report.

Each year, the EFW is dedicated to a special topic of interest that highlights critical issues in education financing. The first volume of the EFW report (EFW2021) documented the continuous increase in global education spending in absolute terms over the previous decade and concluded that the COVID-19 pandemic was likely to have slowed this trend.² EFW2022 shed light on the pandemic's impact on global education spending in 2020, its first year, and revealed that half the analyzed countries had reduced their annual education spending in real terms. EFW2023 spotlighted demographic changes in school-age populations and projected the financial implications for selected countries over the following ten years. A special edition

of EFW2023 was prepared with a focus on education spending in Africa for the African Union Year of Education 2024 (World Bank and UNESCO, 2024). This year, EFW2024 explores the interplay between education financing and rising trends in international debt.

Key findings

1. Total education spending by governments, households, and donors has increased over the past decade, but funding in LICs is insufficient to overcome their learning deficits. Total education spending across the globe has been on an upward trajectory over the past decade, signaling a commitment by governments to enhancing learning opportunities for their populations. Both LICs and lower-middle-income countries (LMICs) have experienced a more rapid annual increase in education spending than wealthier nations. However, in many LICs, even those that have reached their education spending targets for countries at their GDP level, their absolute levels of funding are too low to guarantee adequate student learning. As of 2022, annual expenditure per child in LICs is insufficient to ensure adequate

² EFW2022 and EFW2023 initially suggested no significant change in total global education spending in 2020. Nevertheless, subsequent data presented in EFW2024 has indicated an actual rise in total global education expenditure in 2020 compared to 2019, adjusted for inflation. This increase can mainly be attributed to higher government spending globally than had earlier been estimated. For more details, please see the accompanying technical note to EFW2024.

student learning, amounting to no more than US\$55 (or PPP\$172). Globally, most education financing comes from government expenditures, which account for approximately three-quarters of the total. Most of the remaining quarter comes from household contributions.

2. **To overcome the global learning crisis, LICs and LMICs must focus on increasing the adequacy, efficiency, and equity of their educational expenditures.** Although total education expenditure has increased since 2010, education spending per child has largely stayed the same, reflecting global demographic shifts. There is a clear correlation between increased financial investment in education per child and improved educational performance, especially in LICs.³ Nonetheless, LICs and LMICs often face challenges in trying to allocate educational funds efficiently, which can undermine the impact of their spending. To improve educational outcomes, governments should prioritize enhancing the efficiency of their current spending by optimizing public financial management, improving school management and teacher performance, strengthening governance, and channeling resources to cost-effective policies and programs.
3. **The amount of aid provided for education in LICs is high, but the proportion of aid allocated to education has declined.** Globally, total education aid or donors' official development assistance (ODA) from donor countries reached a record high of US\$16.6 billion in 2022, up from US\$14.3 billion in 2021, a growth in real terms of 16 percent year on year. Nevertheless, the share of total ODA allocated to education decreased from 9.3 percent in 2019 to 7.6 percent in 2022. This shift reflects a significant reallocation of donors' funding priorities to energy, support for Ukraine, and healthcare in response to the COVID-19 pandemic. By 2022, ODA accounted for 12.2 percent of education funding in LICs (versus 13 percent in 2021) and just 0.29 percent of total education funding globally.
4. **In the past 10 years, interest payments on public debt have increased faster than government education spending in developing countries.** The debt situation has become particularly worrisome for LICs and LMICs, some of which are allocating nearly the same per capita resources to debt servicing as they do to education.⁴ Mounting



© Dominic Chavez/World Bank

fiscal challenges are preventing some countries, especially in Africa and South Asia, to allocate sufficient funds to education. As developing countries struggle to manage their debt, there is less direct government financing available for education. Some countries are exploring innovative financing mechanisms for short-term relief, such as debt restructuring, debt swaps, debt-for-development agreements. However, these measures must be complemented by sustained domestic resource mobilization, efficient spending, effective public financial management, and robust economic growth to ensure that their populations can receive quality education.

5. **To maintain a clear global picture of education financing trends, it is imperative for countries to report their education financing data in a timely and consistent way at a more disaggregated level.** While about 7 in 10 countries publish key education financing data, the absence of disaggregation by type of expenditure or by level of education makes it difficult to monitor education financing allocations. However, EFW2024 has been able to access more household-level data than in previous years with five times more data points, although there is still a lack of available post-pandemic data, especially from poorer countries where households spend much more out of pocket on education in relative terms. Without sound and extensive data, forward thinking policymaking is stymied.

3 IMF estimates (under preparation) using Carapella et al., 2023 suggest that LICs would need to invest between an additional 4.5 to 5.5 percent of their GDP to meet the education-related Sustainable Development Goals (SDGs). UNESCO (2023b) has estimated that LICs and LMICs would need to invest an additional 2.3 percent of their GDP to achieve their national SDG 4 benchmarks by 2030.

4 In EFW2024, "per capita" refers to the total population. In other words, a country's per capita debt servicing burden is determined by dividing the total debt servicing burden by the country's total population.

Mobilizing Resources for Education



© Dominic Chavez/World Bank

How has global education spending changed over the last ten years?

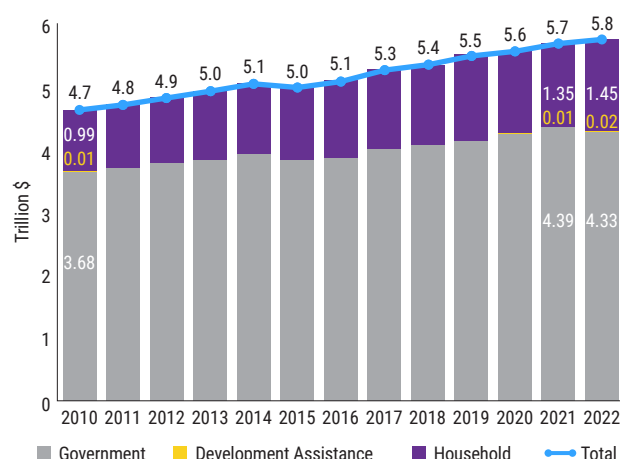
Globally, total education spending⁵ by governments, households, and donors over the past decade has increased more slowly than economic growth. Total global education spending grew in real terms by an average of 1.8 percent per year between 2010 and 2022. This rate of increase is slower than global economic growth rates⁶ and masks two diverging trends. Since 2010, total education spending in LICs, LMICs, and upper-middle-income countries (UMICs) nearly doubled in real terms. In contrast, in high-income countries (HICs), it has

increased by only 10 percent over the same period. Despite this slower growth, HICs accounted for 64 percent of the world's total education expenditure in 2022, amounting to US\$3.71 trillion, although this is a decrease from 72 percent in 2010. In the year from 2021 to 2022, total education spending grew in UMICs and HICs, remained static in LICs, and declined in LMICs (Figure 1b).

In 2021, total education spending increased moderately from US\$5.7 trillion in 2021 to US\$5.8 trillion in 2022 (in 2022 constant US dollars) (Figure 1a). This increase was driven by a slight decrease in total government expenditure in real

Figure 1. Total education spending has increased by 60 percent in low-income and middle-income countries since 2010

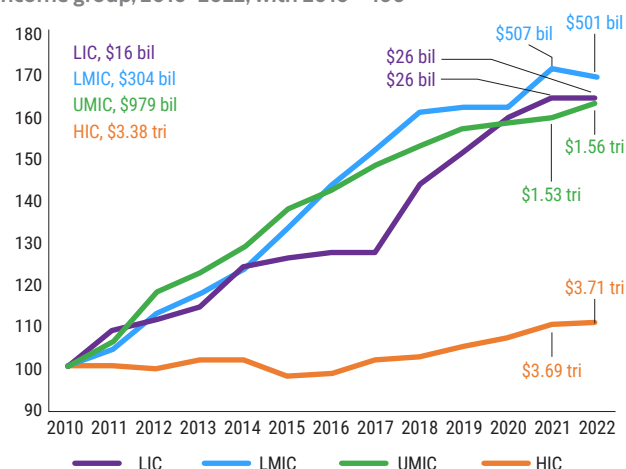
a. Total education spending (government, aid, and household) in constant 2022 US\$, trillion, 2010–2022



Source: Author estimates using the EFW2024 database.

Notes: Interpolation was used to fill in missing data and ensure a comparable sample of countries in all periods. The variation in the numbers from EFW2023 can be attributed to: (i) recent updates, increased access to data on government education spending and aid, and greater data availability across different countries; and (ii) the availability of more data on household spending in HICs. Spending patterns in households from HICs often differ from those in LICs, LMICs, and UMICs. The team has followed the World Bank's country income classification published in 2023: LICs = low-income countries, LMICs = lower-middle-income countries, UMICs = upper-middle-income countries, and HICs = high-income countries. (<https://data-helpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>, accessed in May 2024).

b. Growth in real education spending (all sources) by country income group, 2010–2022, with 2010 = 100



5 Global education spending refers to expenditure on education services by governments, households, and donors in accordance with UIS definitions.

6 During the same period, average GDP globally grew by 2.8 percent annually (WDI data).

terms (from US\$4.39 trillion in 2021 to US\$4.33 trillion in 2022) that was more than offset by global household spending (from US\$1.35 trillion in 2021 to US\$1.45 trillion in 2022) (Figure 1a).

The contributions of governments, households, and donors to global education spending have remained relatively constant over time. As of 2022, governments contributed around three-quarters to the total (74.6 percent), while households contributed one-quarter (25.1 percent), and donor's ODA accounted for 0.29 percent in 2022 (Figure 1a). While governments are the largest funders of education in all country income groups, their contributions differ significantly among those groups, ranging from 80.4 percent in HICs to 61.9 percent in LICs in 2022 (Figure 2). In the same year, donor's ODA represented 12.2 percent of total education spending in LICs, while in LMICs, it only accounted for 2.1 percent. Household spending on education in LMICs averaged 2.1 percent of GDP, while in HICs, it averaged 0.8 percent of GDP. Household spending on education varies significantly across countries within income groups. For example, in LICs, household contributions to education range from 0.1 percent to 7.6 percent of GDP. Household education expenditures as a percentage of GDP also vary across country income categories. In poorer countries, the direct contribution of households to education spending tends to be greater than in wealthier

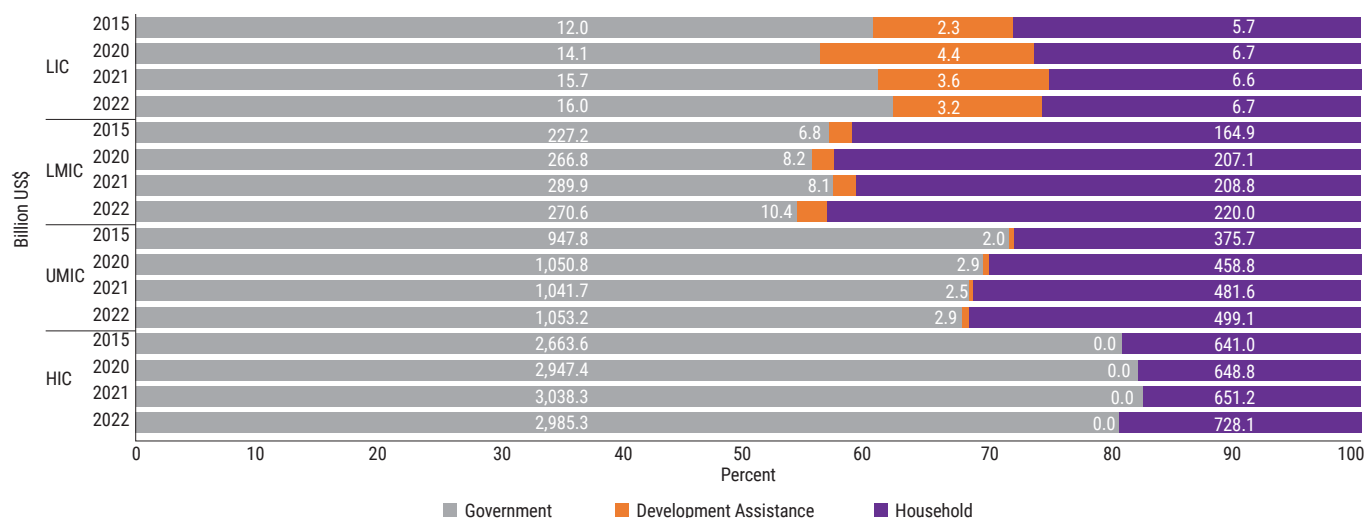


© Dominic Chavez/World Bank

countries. In 2022, household contributions accounted for approximately one-quarter (25.8 percent) of education spending in LICs and over two-fifths (43.9 percent) in LMICs, whereas in HICs, they represented only 19.6 percent of total education spending.⁷

Figure 2. Governments funded nearly three-quarters of all education expenditure in 2022

Distribution of total education spending by source, by income group, percentage, billion US\$



Source: Author estimates using the EFW2024 database.

Note: Interpolation was used to fill in missing data and to ensure a comparable sample of countries in all periods. A total of 218 countries and territories were included in the EFW2024 database. To avoid double-counting, government expenditure nets out part of the ODA received by countries. The number changed compared to EFW2023 because of: (i) changes in governmental educational spending and aid due to data updates and changes in the countries with available data, and (ii) a significant increase in household spending in HICs due to data updates and to more household spending data becoming available.

⁷ The availability of new and additional household spending data from the UN and GEM Report database indicates that household spending accounts for a lower proportion of education expenditure in LICs compared to earlier EFWs.

How has government education spending changed over the last ten years?

Over the past decade, government funding for education as a percentage of national income has increased in LICs and declined in all other country income groups.⁸ Between 2010 and 2022, government education spending in LICs grew from 2.9 to 3.9 percent of GDP, while it decreased by between 0.3 and 0.4 percentage points in all other country income groups. From 2021 to 2022, the share of government spending as a percentage of GDP continued to decline in LMICs, UMICs, and HICs. For the first time since 2016, education spending as a percentage of GDP declined in LICs from 4 percent in 2022 to 3.9 percent in 2021 (Figure 3a.). Globally, education spending as share of GDP has decreased from 4.5 percent in 2010 to 4.3 percent in 2022.

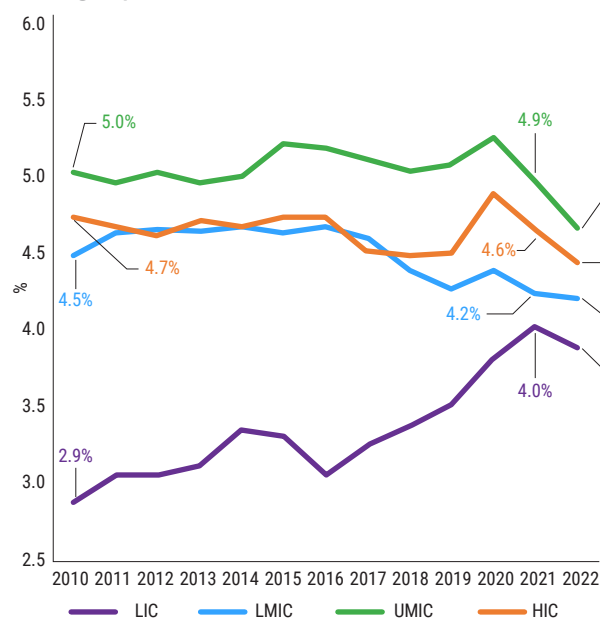
The disparity in government education spending as a percentage of GDP across different country income groups has narrowed

over the past decade. The gap between LICs and LMICs was 1.6 percentage points in 2010, but it decreased to 0.3 percentage points in 2022 (3.9 percent in LICs versus 4.2 percent in LMICs) (Figure 3a.). However, these averages conceal variations in trends in individual countries. For example, in Burkina Faso (a LIC), government spending as a share of GDP increased from 3.9 to 5.5 percent between 2014–15 and 2018–19, whereas it declined from 5.2 to 4.4 percent in Malawi (also a LIC) over the same period.⁹

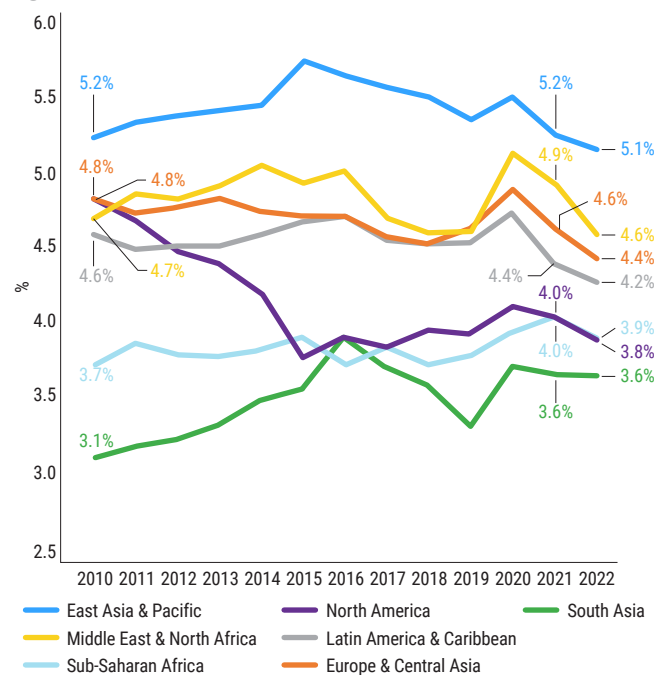
Government education spending as a percentage of national income has also gradually converged across regions. In 2010, the largest gap observed was between East Asia and the Pacific (at 5.5 percent in 2010) and South Asia (at 3.1 percent in 2010), a difference of more than two percentage points. The difference between the highest and the lowest shares of education expenditures became narrower in 2022 between these two regions (5.1 percent versus 3.6 percent respectively, a difference of 1.5 percentage points). Regional rankings have remained unchanged during the period of analysis (Figure 3b).

Figure 3. Government spending on education as a share of GDP in low-income countries has converged with the shares in middle- and high-income countries

a. Government education spending as a percentage of GDP by income group, 2010–2022



b. Government education spending as a percentage of GDP by region, 2010–2022



Source: Author estimates using the EFW2024 database.

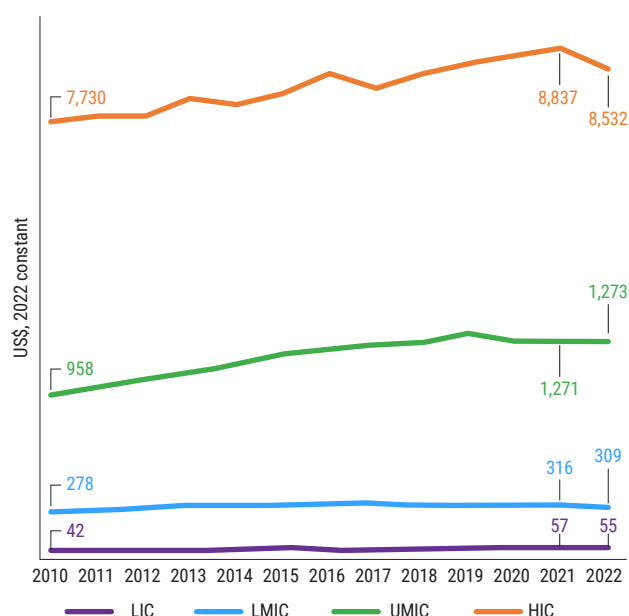
Note: The number is the mean of government education spending as a percentage of GDP by income group. Estimates of spending as a percentage of GDP include interpolations to fill in missing data and ensure that there is a comparable sample of countries in all periods. The corresponding median of government education spending as a percentage of GDP in LICs, LMICs, UMICs, and HICs in 2022 are 3.8 percent, 3.6 percent, 4.0 percent, and 4.5 percent respectively. The corresponding median value by regions are 3.4 percent in Sub-Saharan Africa (SSA), 3.7 percent in South Asia (SAR), 4.0 percent in Latin America and the Caribbean (LAC), 4.1 percent in East Asia and the Pacific (EAP), 4.1 percent in North America, 4.6 percent in Europe and Central Asia (ECA), and 5.0 percent in Middle East and North Africa (MENA) in 2022. EFW2024 continues the use of mean values to remain consistent with earlier editions and to ensure that each country, including those exhibiting outlier behavior, is accorded equal weight.

⁸ Given data limitations, the EFW cannot analyze government spending by levels of education.

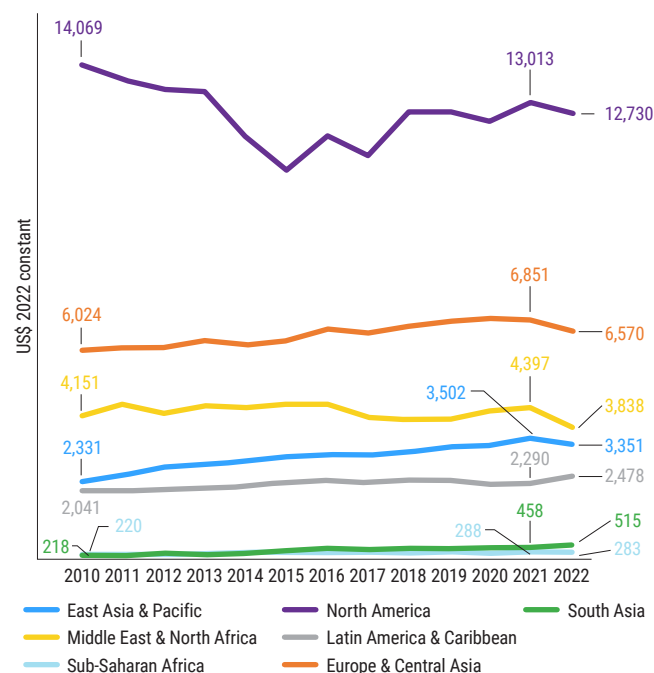
⁹ Author estimates using the EFW2024 database.

Figure 4. Public education spending per school-age individual has more than doubled in South Asia since 2010

a. Government education spending per school-age individual (constant 2022 US dollars) by income group, 2010–2022



b. Government education spending per school-age individual (constant 2022 US dollars) by region, 2010–2022



Source: Author estimates using the EFW2024 database.

Note: The number is the mean of government education spending per child by income group. Estimates of spending as a percentage of GDP include interpolated values to fill in missing data and ensure that there is a comparable sample of countries in all periods. The corresponding median of government education spending per child is US\$51 for LICs, US\$173 for LMICs, US\$1,199 for UMICs, and US\$7,317 for HICs. The median values of per child government education spending by regions are US\$87 for SSA, US\$146 for SAR, US\$823 for ECA, US\$889 for MENA, US\$1,470 for LAC, US\$4,851 for ECA, and US\$11,248 for North America in 2022.

Despite a slight convergence over the past decade, disparities in annual government spending per child by country income group remain significant. For every US\$100 that HICs allocated on education per child in 2022, LICs allocated less than US\$1. While these disparities are largely due to differences in countries' economic development (and become less notable when assessing the ratio of per child spending to per capita GDP), they indicate that even when countries reach recommended investment levels according to international benchmarks, they still face challenges in securing sufficient funding levels to produce adequate learning outcomes. Children in HICs received an education worth 155 times more (US\$8,532 per child in 2022 constant US dollars) than the education received by children in LICs (US\$55 per child in LICs). About four times as much was spent per child per year in UMICs (US\$1,273) than in LMICs (US\$309). Even taking into account differences in purchasing power between countries, the difference in per child government education spending is huge: PPP\$11,413 in HICs and PPP\$172 in LICs. From 2021

to 2022, these per child government education expenditures by country income level stayed mostly stable. However, in HICs, there was a noticeable decrease from US\$8,837 to US\$8,532 (adjusted for inflation) (Figure 4a).¹⁰

Although government spending per child in South Asia and Sub-Saharan Africa is still low relative to other regions, it has increased significantly since 2010. Annual government spending per child is highest in North America and in Europe and Central Asia ranging from US\$6,500 to US\$13,000. In the Middle East and North Africa, Latin America and the Caribbean, and East Asia and the Pacific, annual government spending per child ranges from US\$2,400 to US\$3,800 (Figure 4b.). In South Asia, although still very low, government spending per child has more than doubled over the past decade, climbing from US\$218 in 2010 to US\$515 in 2022. Because enrollment rates at private institutions have been rising across South Asia, students in public schools should be reaping greater benefits from these government educational

10 Trends in spending have been tracked based on overall government education spending per child (defined as school-age individuals at the pre-primary, primary, secondary, and tertiary levels). This made it possible to compare levels of funding between countries or groups of countries. It also accounts for differences in the size and growth of child and youth populations across countries and enables us to assess the availability and adequacy of funding for all children rather than only those who can attend schools, universities, and other educational institutions.



© Maria Fleischmann/World Bank

investments.¹¹ In Sub-Saharan Africa, education funding has grown since 2010, reaching US\$283 in 2022, but this is only a modest increase given the ongoing growth of the region's population. (Figure 4b).

In 2021–2022, regional government spending per child on education declined in four out of seven regions. In the Middle East and North Africa, it fell by 13 percent from US\$4,397 to US\$3,838. In North America, it fell by 2 percent from US\$13,013 to US\$12,730. In Europe and Central Asia, it fell by 4 percent from US\$6,851 to US\$6,570, and in East Asia and the Pacific, it also fell by 4 percent from US\$3,502 to US\$3,351, mainly due to a reduction in total government expenditure. Government spending increased modestly in Latin America and the Caribbean, rising from US\$2,290 to US\$2,478 (8 percent).

Many LICs and LMICs have not yet met international benchmarks for education spending allocations. Figure 5

shows government spending as a proportion of GDP and the share of this spending devoted to education in LICs and LMICs. The dashed lines plot the combinations of the two spending indicators to mark out the zone between two benchmarks of 4 and 6 percent of GDP that were set in the Incheon Declaration in 2015.¹² Many of the LICs and LMICs in the EFW2024 analysis were spending less than 4 percent of GDP and devoting less than 15 percent of their total public expenditure to education. Of 80 countries with available data in 2022,¹³ 41 countries met neither target, 25 countries met both, and 14 countries achieved either one or the other (Figure 5). Some countries such as Sri Lanka and Uganda fell far below the average for their income group on both indicators, while other countries such as Mozambique and Uzbekistan exceeded the average.

To overcome their learning crises, LICs and LMICs would need to boost domestic resource mobilization and allocate a higher percentage of their budgets to education. To achieve

¹¹ UNESCO (2022).

¹² Many countries have agreed to these international benchmarks, namely that they should spend 4 to 6 percent of their GDP and/or 15 to 20 percent of total government spending on education (according to the Education 2030 Incheon Declaration). For progress on these and other national SDG 4 benchmarks, see UIS and GEM Report (2024).

¹³ See the EFW2024 technical note for the complete list of country codes.

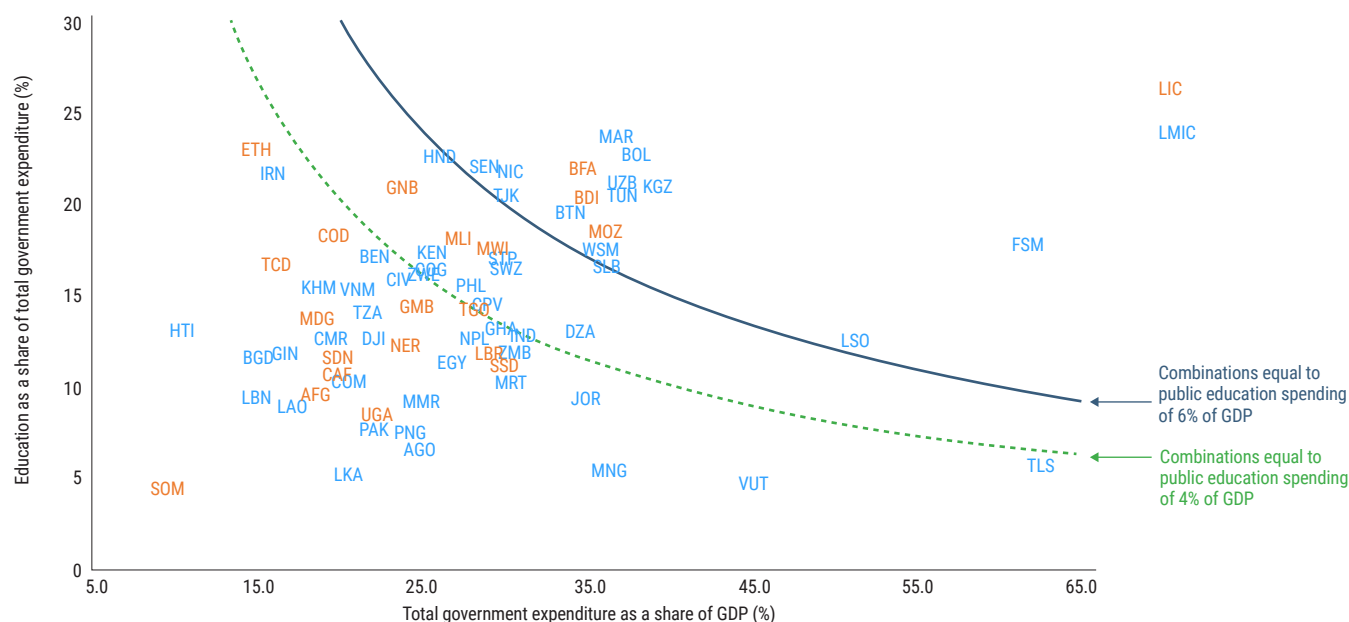
national SDG 4 benchmarks, it has been estimated that LICs and LMICs would need to increase total education spending from governments, households, and donors between 4.2 and 6.5 percent of their GDP over the period from 2023 to 2030.¹⁴ For example, just to meet the public spending benchmark of 4 percent of GDP (represented by the green dotted line in Figure 5), Madagascar would need to allocate nearly 30 percent of its total public expenditures to education. Given the competing priorities for government spending in LICs and LMICs, it seems unlikely that significant increases in education funding will be realized simply by making education a higher priority within the government budget alone. In many countries, it will also be necessary to mobilize more domestic resources to increase government revenues (Figure 5). In fact, 83 percent of LICs and 43 percent of LMICs are below the international tax collection benchmark of 15 percent of GDP.¹⁵ Although it is challenging for developing countries to increase their domestic tax revenues because of their large informal sectors, widespread misreporting of income and asset ownership, and narrow tax bases, the IMF estimates that LICs and LMICs could boost their tax-to-GDP ratio by up to 9 percentage points by improving the design of their taxation systems (Gaspar et al., 2023).



© Fernanda Reyes/Shutterstock

Figure 5: Fiscal space for mobilizing greater funding for education varies considerably across countries

Education as a share of total government expenditure and as a share of GDP in LICs and LMICs (%), 2010–2022



Source: Author estimates using the EFW2024 database. See the EFW2024 technical note for the list of country codes.

Note: N=80 for all countries (LICs = 26, LMICs = 54).

14 UNESCO (2023b).

15 Author's calculations using the World Economic Outlook database.

What are the main trends in education aid?

Total education aid (or ODA) reached a record high of US\$16.6 billion in 2022, up from US\$14.3 billion in 2021 (a growth of 16 percent) (Figure 6a). Between 2010 and 2022, ODA to education globally increased by 41 percent (or 2.9 percent per year – roughly at the same pace as global GDP). Basic education, which encompasses pre-primary and primary levels, usually receives the largest portion of ODA, but its share declined from 52 percent in 2010 to 46 percent in 2022. In contrast, the share allocated to secondary education rose from 20 to 26 percent, while the share for post-secondary education remained steady at approximately 28 percent (Figure 6b). Between 2021 and 2022, ODA for basic education increased by US\$883 million (13 percent), for secondary education by US\$684 million (19 percent), and for post-secondary education by US\$723 million (18 percent).¹⁶

Education is getting lower on donors' list of priorities. Although the overall volume of ODA to education has increased, the share of education in total ODA, which increased from 8.2 percent in 2013 to 9.3 percent in 2019, has fallen in recent years, down to 7.6 percent in 2022. In contrast,



© Omotayo Kofoworola/Shutterstock

Figure 6a. Education aid reached US\$16.6 billion globally in 2022

Total aid to education by level of education, in 2022 constant US\$, 2010–2022

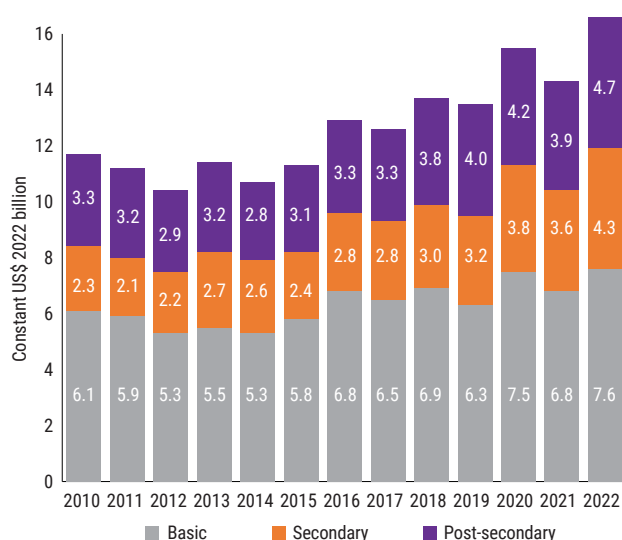
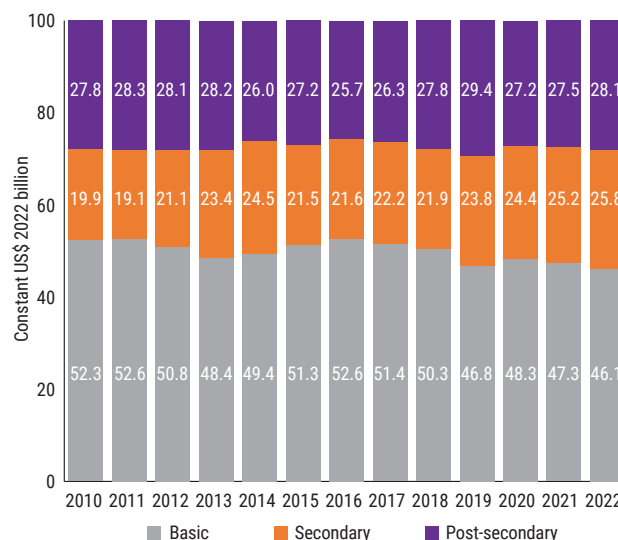


Figure 6b. The share of total aid allocated to secondary education has been increasing

Distribution of total aid to education by level of education, in 2022 constant US\$, 2010–2022

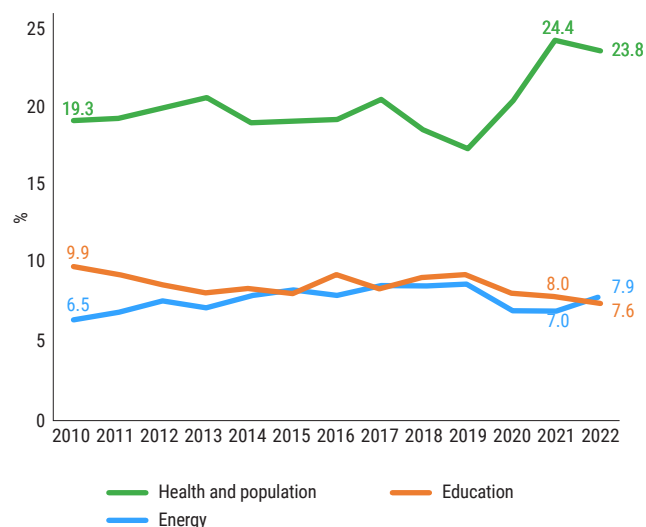


Source: Author estimates based on data from the OECD's Development Assistance Committee (DAC) Credit Reporting System (CRS).

¹⁶ For better comparability across donor countries, the amount of ODA in EFW2024 excludes imputed student costs (in other words, the cost of tuition in donor countries for nationals of ODA recipient countries in countries in cases where education systems are tuition-free or where fees do not cover the full cost of tuition). Only some European countries have been including imputed student costs in their ODA definition, which has distorted comparisons. Additionally, some countries, like Belgium did in 2022, have recently stopped reporting imputed costs. Excluding imputed student costs also aligns with the introduction of OECD's Total Official Support for Sustainable Development (TOSSD) framework, which reclassified imputed student costs as global public goods. If imputed student costs had been included, they would have accounted for 15 percent of the total ODA.

Figure 7. Between 2019 and 2022, there was a marked decline in the proportion of total aid allocated to education

Share of education, population and health, and energy in sector allocable aid, 2010–2022



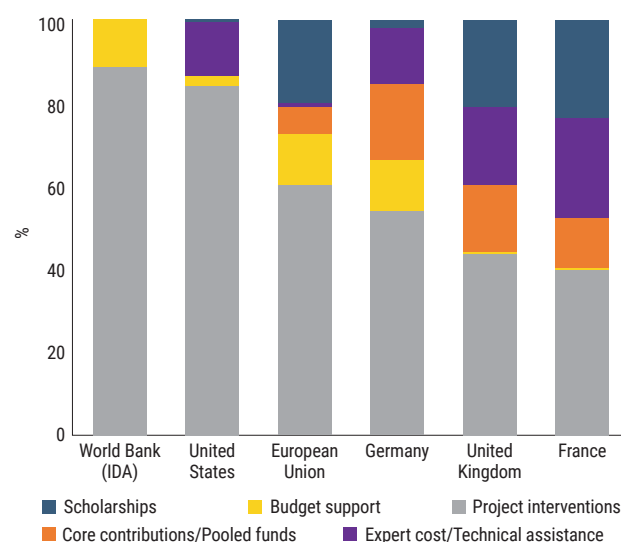
Source: Author estimates based on data from the OECD's DAC CRS data.

the share of the health sector in total ODA increased from 17.5 percent in 2019 to 23.8 percent in 2022, likely because of the increased need during the pandemic (Figure 7). However, this decline in the proportion of ODA going to education appears to be due not just to temporary shocks but also to a more structural shift in global priorities towards health and energy.

Disbursements of ODA for education to LICs and LMICs have followed different trajectories in recent years. The volume of aid to LICs increased gradually throughout the 2010s and then declined by 4 percentage points between 2019 and 2022 due to the COVID pandemic and the Ukraine war. During this four-year period, the share of aid channeled to LMICs increased, with a particularly sharp increase in 2022 (6 percentage points higher than in 2021). The increase was predominantly driven by the surge in aid to Ukraine, from US\$187 million in 2021 to US\$2.1 billion in 2022. Other than in Europe (driven by Ukraine) and Sub-Saharan Africa, ODA for education declined in 2022. Between 2020 and 2022, the World Bank's International Development Association (IDA) was the leading provider of ODA globally for education, disbursing an average of US\$2 billion per year. It was followed by Germany (US\$1.4 billion), the United States (US\$1.3 billion), and the European Union (US\$1.2 billion). The next three largest donors by volume—France, Japan, and the United Kingdom—contributed a combined total of less than US\$1 billion annually. Collectively, these donors provided an average of US\$9 billion per year, accounting for nearly 60 percent of total aid for education. Since 2018, the World Bank's ODA disbursements have

Figure 8. Donors prefer different aid modalities

Aid to education by modality, top six donors, 2022



Source: GEM Report team analysis based on data from the OECD's DAC CRS.

increased, whereas those from bilateral donors like the United Kingdom and the United States have decreased. The Global Partnership for Education (GPE), which disbursed US\$454 million annually on average between 2021 and 2022, increased its disbursements to US\$521 million in 2023 (GPE, 2024). These figures are included in the funding reported to the OECD by its donors, such as the European Union and the United Kingdom.

Donors' education sector priorities vary. For instance, 75 percent of the United States' total ODA allocations and 66 percent of Norway's ODA allocations were earmarked for basic education. In contrast, France and Japan allocated 60 percent and 53 percent of their ODA respectively to post-secondary education.

Donors also vary in their preferred aid modality. Project-based funding is the main modality for providing this aid, accounting for 64 percent of all aid allocations in 2022. Bilateral donors differ in their strategies. Some, such as Germany and Norway, have increased their funding to multilateral financing organizations to enhance their aid effectiveness (OECD, 2021 and OECD, 2024). In 2022, Germany allocated 30 percent of its aid through budget support and pooled funds, while the United States allocated only 2 percent of through this modality. The European Union, France, and the United Kingdom allocated one-fifth of their education aid through scholarships (Figure 8). Across all donors, core funding, technical assistance, and budget support decreased from 36 percent in 2010 to 23 percent in 2022, suggesting a shift towards project funding.

What do we know about household education spending?

As already mentioned, EFW2024 estimates that households contribute one-quarter of all global education expenditures. This result is consistent with the findings of the last two EFW editions even though EFW2024 has used a new data source. EFW2022 and EFW2023 relied primarily on the final reports of national household income and expenditure surveys. Most of these reports included a table that classified individual consumption by purpose, one of which was education, either on its own or combined with culture and/or recreation. The share of education in total household consumption was then multiplied by the share of household consumption in GDP¹⁷ to estimate household education consumption expenditure as a share of GDP.

EFW2024 has the benefit of new and better data to assess household education spending. It uses the United Nations' official country data reported from national accounts, which includes education and total household consumption expenditure figures from which the share of education in household budgets has been calculated. This database contains five times more data points as those used for the estimates in the last two EFW editions. In the absence of such information in past EFW editions, the assumption had been that the share of household spending in total education spending was constant. These new data points provide time-series information that make it possible to test whether the assumption of a constant share was valid or not. The disadvantage of the new source is that most of these data points come from UMICs, and particularly HICs. While these countries account for the bulk of global education spending, it was necessary to complement the UN's database with original data from national reports to increase the number of observations from LICs and, especially, LMICs where some of the highest household out-of-pocket rates have been recorded (Figure 9). For instance, the UN National Accounts contain data on household spending on education for 23.1 and 31.5 percent of LICs and LMICs respectively. When these data are supplemented by data from national household expenditure reports, the EFW2024 sample of LICs and LMICs increased to 53.8 and 85.2 respectively.

Household education spending varies across regions, with the highest allocations being in LMICs. Households in the world's poorest countries generally cannot afford to spend more than 1 percent of their budget on education, and often much less than that. This is evident from UN National Accounts Data for the four LICs included in the sample with available recent data, as well as in 14 additional LICs with



© John Hogg/World Bank

household education spending data prior to 2018. In contrast, in LMICs, the priority that households assign to education is higher, reaching a median of 2.9 percent and an unweighted mean of 3.6 percent (based on data from the latest available years 2018 to 2022), though these percentages vary widely among LMICs. Household spending on education in any country depends on characteristics such as economic status, household location, and the type of school children attend (World Bank and UNESCO, 2023). For instance, in African countries, it costs families between 1.5 and 5 times more to enroll a child in a private school than in a public school. The share of household spending on education is inversely related to the volume of public spending on education in a given country (UNESCO, 2022). The median share of household education spending drops to 1.5 percent in UMICs and 1.3 percent in HICs (Figure 9).

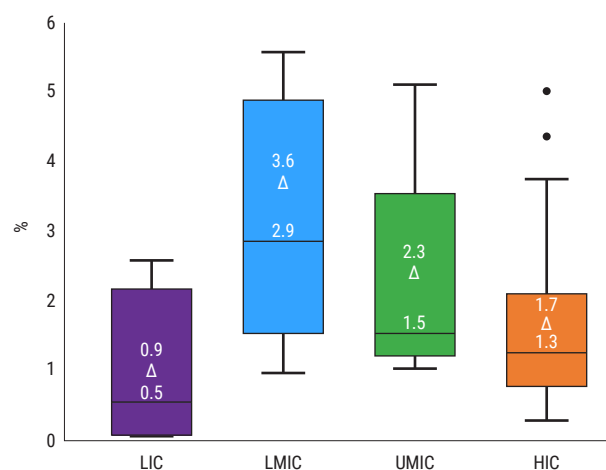
The proportion of GDP that households allocate to education has generally remained consistent over time. When the share of household spending devoted to education is multiplied by household consumption expenditure as a share of GDP, it is possible to form a picture of whether household education spending as a share of GDP has changed. Analyzing

17 This includes the market value of the final consumption expenditure of households and of non-profit institutions serving households (NPISH) as reported in countries' National Accounts.

data from selected countries from five regions reveals that, in general, household education spending as a share of GDP tends to remain stable over time. Nevertheless, in some countries, significant changes occur within a relatively short period. For instance, between 2010–2011 and 2020–2021, household education spending as a share of GDP rose from 0.9 to 1.5 percent in the United Kingdom, from 1.7 to 2.4 percent in South Africa, from 2.1 to 2.8 percent in India, and from 2.2 to 3.5 percent in Mongolia. In other countries, there have been considerable declines during the same decade, for example, from 4.3 to 3.0 percent in Kenya and from 2.2 to 3.0 percent in Republic of Korea. In several countries with available data from the 2020–2022 period, including Colombia, Montenegro, Namibia, and Singapore, it is evident that household education spending has fallen. This trend is likely a consequence of the economic shocks experienced by many households due to COVID-19. Finally, there are considerable differences in household education spending within regions. For example, in Latin America, households in Costa Rica spent three times as much as those in Mexico, while in Sub-Saharan Africa, households in Namibia spent six times as much as those in Senegal. Also, in Europe, households in Greece spent six times as much as those in France. In South Asia, households in India spent three times as much as those in Sri Lanka, and in East Asia, households in the Philippines spent five times as much as those in Thailand (Figure 10).

Figure 9. Households in LMICs spend at least twice as much on education as households in HICs

Distribution of the share of education in total household consumption spending by country income group, 2018–22

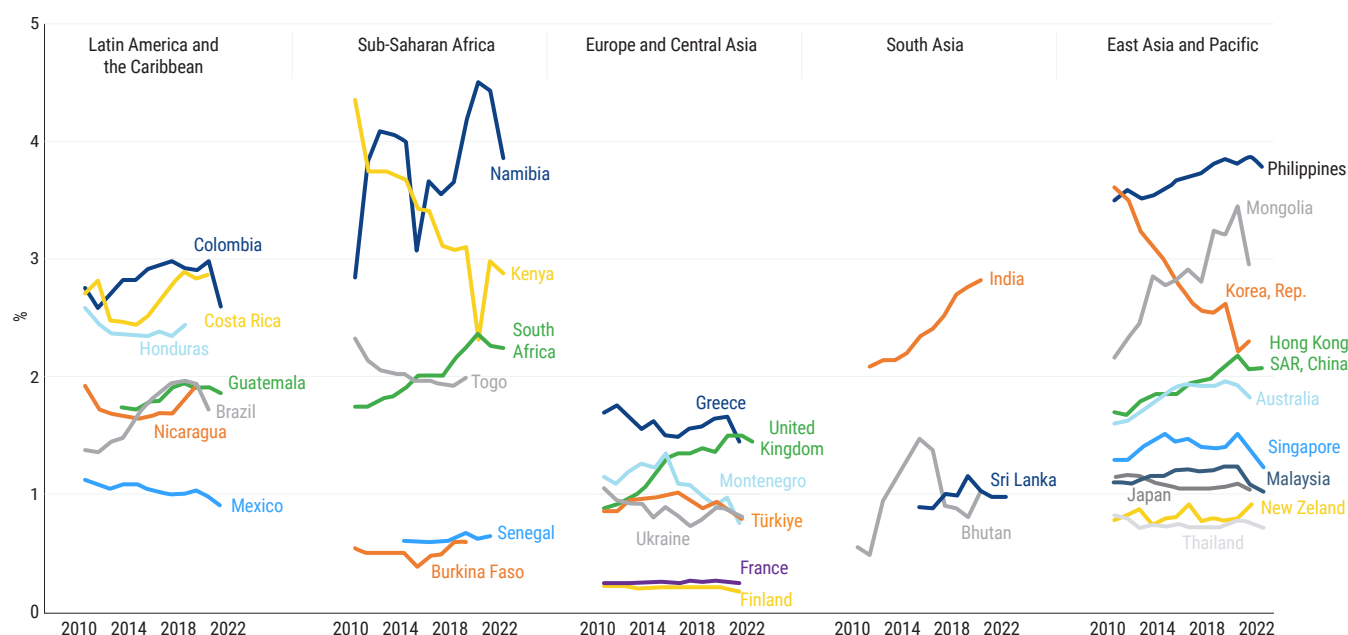


Source: Author analysis based on the United Nations National Accounts Official Country Database using the latest data available between years 2018 and 2022.

Notes: The box plots show the distribution of the share of education in total household consumption expenditure by country income group. The box limits show the range within which the central 50 percent of the data is found. The central line (and label) indicates the median value, and the Δ sign (and label) indicates the unweighted mean for each country income group. Lines extending from each box illustrate the range of the remaining data, with dots placed past the line edges indicating outliers. The graph includes observations from 4 LICs, 12 LMICs, 17 UMICs, and 42 HICs.

Figure 10. While household education spending tends to remain stable over time, significant differences exist within regions

Household education consumption expenditure as a share of GDP, selected countries, by region 2010–22



Source: Author analysis based on the United Nations National Accounts Official Country Database (on share of education in total household consumption expenditure) and World Development Indicators (on consumption as share of GDP).

Using Funds Equitably and Efficiently



© Salahaldeen Nadir/World Bank

Public spending on education can be highly unequal within countries, with wealthier groups often capturing a disproportionate share of available resources. Inequalities tend to be highest in poorer countries, where differences in enrollment patterns by income quintile tend to be most pronounced and can result in significant inequalities in public education spending across the income distribution (Figure 11). These inequalities can be exacerbated by subnational differences in education spending. It is very common for a child living in one part of a country to attend a school that receives much more funding than a comparable school in another region. For example, in EFW2021, it was noted that spending per child in Sudan was approximately six times higher in the highest spending region than in the lowest (World Bank and UNESCO, 2021). Subnational public spending differences can reinforce existing patterns of poverty and disadvantage. In many countries, spending per enrolled child is significantly lower in poorer regions than in wealthier regions. For example, in Uganda, the relationship between per enrolled child spending on education and levels of poverty by districts has been found to be negative and statistically significant (World Bank, 2023).

Equity

Education is critical for equalizing opportunities and providing each child with the skills to achieve their full potential. Children in disadvantaged and vulnerable situations face barriers to accessing school and learning related to household income and location, gender, ethnicity, and disability, among others (UNICEF, 2023). EFW2023 analyzed the distribution of public spending on education across household income quintiles at each education level (pre-primary, primary, secondary, and tertiary) in two countries (Côte d'Ivoire in 2015 and 2019 and Ghana in 2013 and 2017), using household surveys

and data published in government budget and expenditure reports. The report revealed that government spending on primary education favored poorer households in both countries, whereas spending on secondary and tertiary education disproportionately benefited wealthier households, reflecting their higher enrollment rates at those levels, especially in tertiary institutions.

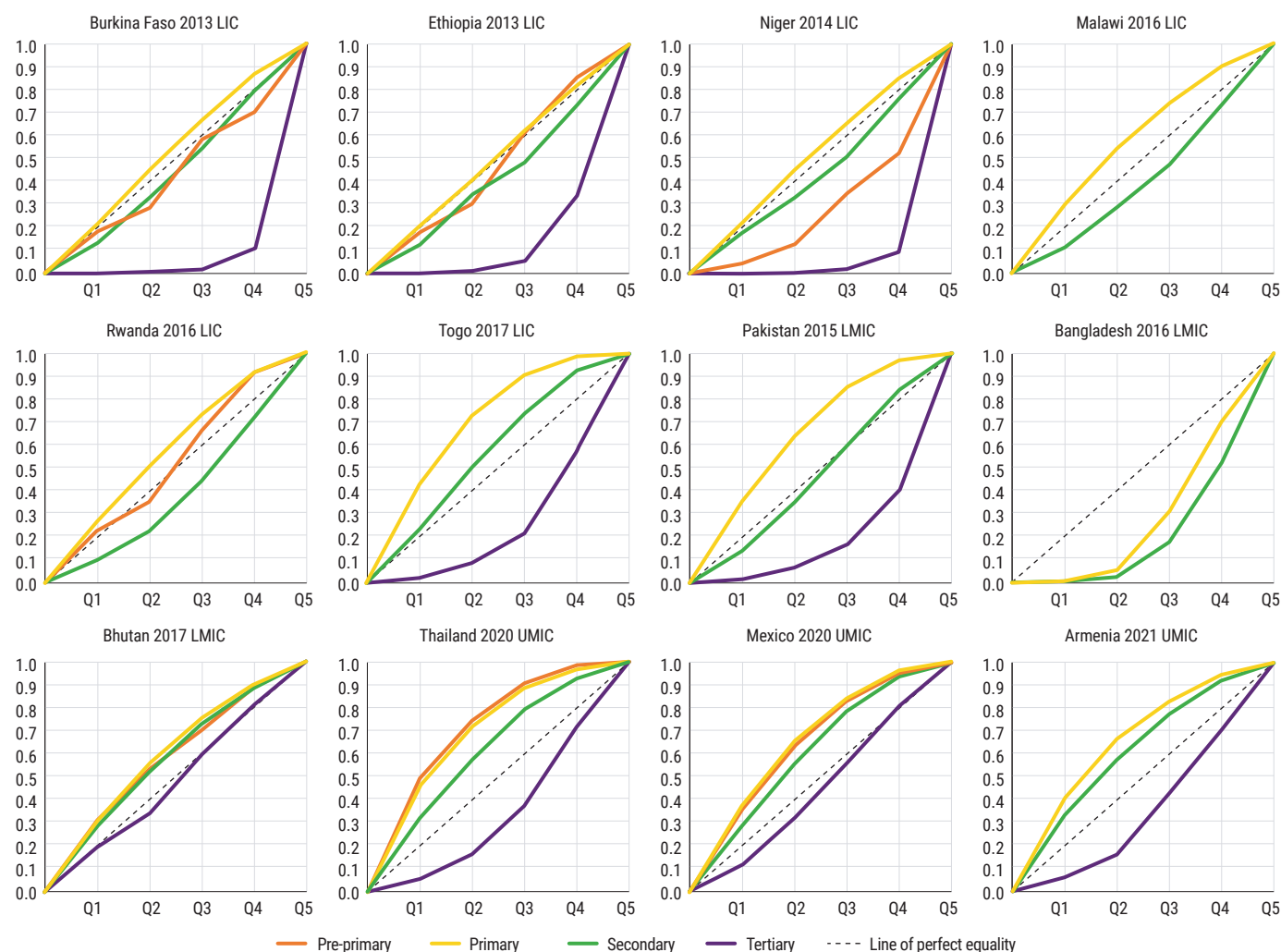
This year, EFW2024 expands the analysis by examining the distribution of public spending on education across household income quintiles at each education level¹⁸ in twelve countries (six LICs, three LMICs, and three UMICs). EFW2024 also uses microdata from household surveys and data published in government budget and expenditure reports (Figure 11).

Results are mixed in the case of pre-primary education. Recognizing the significant impact of early childhood development on reducing delayed school entry and enhancing life-long learning, countries are increasingly prioritizing and funding these initiatives due to their high return on investment and positive effects on human capital development (World Bank and UNESCO, 2023). Yet available data on public spending on pre-primary education shows mixed results. Some countries, like Thailand, fund pre-schools in a way that enable greater access for lower-income families, while in others, like Niger, public spending for pre-primary education disproportionately benefits higher-income families. This likely unintended consequence (negative externality) occurs because even subsidized pre-primary education can still impose a financial burden on low-income families, who may need to cover ancillary costs. Additionally, the limited availability of infrastructure and teachers, especially in low-income countries, can lead to quality gaps between urban and rural areas (Agyekum et al., 2023). Three of the twelve countries (Armenia, Pakistan and Togo) have not reported data on government spending on pre-primary education.

18 Pre-primary, primary, secondary, and tertiary.

Figure 11. Public spending on education can be highly unequal, with wealthier groups often capturing a greater share of available resources

Distribution of total public education funding by income quintile and by education level, selected LICs and LMICs, 2013–2021



Source: Author estimates using household survey micro data and EFW2024 database.

Note: Some countries do not include any estimates for the pre-primary or tertiary education levels due to a lack of available data.

Government spending on primary education tends to benefit lower-income households, which typically have a higher number of children attending government schools. Spending on primary education was found to be pro-poor. In Figure 11, the Lorenz curves show the distribution of expenditure by consumption quintile above the diagonal line (the 45-degree line), which means that poorer households in 11 of the countries received a higher share of government spending in primary education (yellow curve) than wealthier households. This proportion is affected by the fact that lower-income families often have larger numbers of children (Munoz Boudet et

al., 2021). Additionally, wealthier households typically have greater access to private education opportunities.¹⁹ These findings were consistent across the country income groups studied: LICs, LMICs, and UMICs.

Funding for secondary and tertiary education becomes more equitable as enrollment increases among the poor. Typically, expenditure on secondary and tertiary education is skewed toward the wealthiest as those with access to these education levels mainly come from the richest households. This was confirmed by our findings. Where data were available

¹⁹ Bangladesh was the outlier, with wealthy families receiving more public education funding than did poorer families.

for the countries in our sample, public funding for tertiary education for all countries, except for Bhutan and Mexico²⁰, was skewed toward richer households. While it is essential to recognize the challenges involved in making post-secondary education accessible to the poor, it is equally important to avoid the misconception that governments should not invest in post-secondary education on the grounds of it not being pro-poor. Effective and functional post-secondary education systems have the potential to transform the lives of individuals from impoverished backgrounds by boosting their future earnings (Shimeles, 2016). Indeed, progressive investments in post-primary education have proven to be effective in reducing inequality in Africa, as individuals from poorer households who attain secondary and tertiary education have been found to receive higher than average increases in earnings (Abdullah et al., 2013).

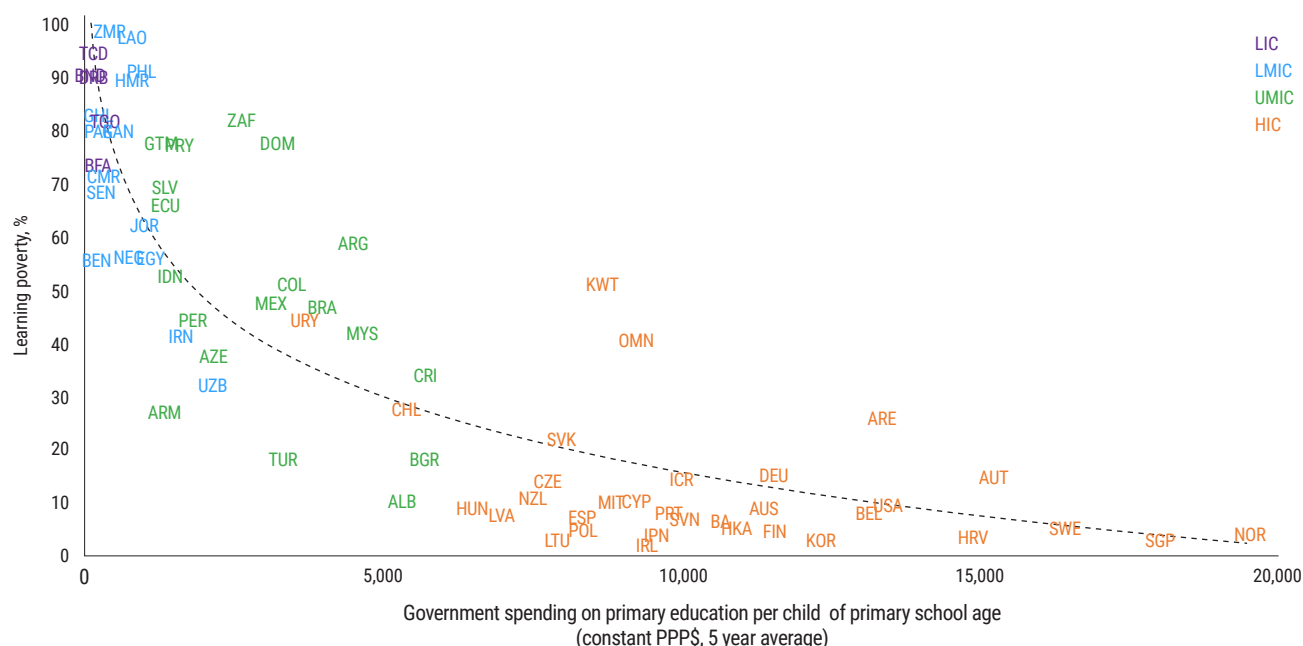
Efficiency

Countries vary greatly in their effectiveness at converting government education spending into better educational outcomes. On average, richer countries tend to have both higher spending and better learning outcomes. Comparing

the percentage of 10-year-olds who achieve minimum proficiency level in reading with per child education expenditures shows that learning poverty is highest in countries that spend the lowest amounts per school-age individual. However, some countries with lower levels of per child spending have achieved similar minimum proficiency levels in reading among 10-year-olds as those that spend more. For instance, Armenia spends less than one-third as much per child as Chile, yet a similar proportion of each country's ten-year-olds – nearly two-thirds (63 percent) – can read and understand a paragraph of age-appropriate text. Türkiye spends less (US\$2,630) to educate a child than the Dominican Republic (US\$3,173), but fewer than 20 percent of its ten-year-olds are in learning poverty, compared to 80 percent in the Dominican Republic (Figure 12). Some of the factors that influence these outcomes relate to characteristics of service delivery that are difficult to change. It is generally cheaper, for instance, to provide education services in densely populated and more urbanized countries than in more sparsely populated ones. However, many education systems also suffer from spending inefficiencies due to suboptimal spending decisions, limited accountability, and the diversion of education funds to other uses (World Bank and UNESCO, 2023).

Figure 12. Countries differ in how effectively they translate funding into improved learning outcomes

Education expenditure per primary-school-age child and learning poverty, latest year since 2015



Source: Author estimates using the EFW2024 database (education spending), the Learning Poverty database, and the UN Population Database.

20 The more young people from the richest households enroll in private higher education institutions, as in the case of Bhutan and Mexico, the less pressure they place on the public education system and, hence, the more progressive investments in post-secondary education become.

3

Spotlight on Public Debt



© Maria Fleischmann/World Bank

External borrowing plays a critical role in education financing, particularly in developing countries whose domestic resources may not be sufficient to meet the educational needs of a growing population. By accessing funds from international financial institutions, governments can invest in expanding and improving their educational infrastructure, teacher training, and learning materials. This influx of capital can help to bridge the gap between limited domestic budgets and the financial resources needed to achieve educational goals. For countries facing tight fiscal constraints, limited fiscal space, low household contribution capacity, and sluggish economic growth, international financing may be the only viable option for enabling their governments to make adequate public investments in education. Borrowing for education can be a sound investment if it leads to improved economic outcomes by producing a more educated population, which increases productivity and earnings, which in turn can help the country to repay its debt (World Bank and UNESCO, 2023).

However, borrowing must be managed prudently to ensure that it does not lead to unsustainable debt levels. Although external financing can help countries increase their levels of investment in education, they must also allocate sufficient domestic resources to education. Over-reliance on external financing can result in public finance volatility, dependency, and unsustainable debt. Therefore, mobilizing greater domestic resources is essential to ensure long-term educational and economic stability. Furthermore, higher levels of debt to finance education spending do not necessarily lead to better educational outcomes if institutions are weak and/or if investments are not efficiently directed towards effective policies and

programs (World Bank, 2023a). Additionally, even when funds are used efficiently, the returns on education investments typically take at least 15 to 20 years to materialize. In this section, we evaluate the impact of debt on education spending in terms of both magnitude and management.

Over the past decade, debt relative to gross national income (GNI) has increased in LICs and LMICs.²¹ Between 2012 and 2022, the accumulation of external debt outpaced growth in the GNIs of LICs and LMICs, as well as global trade. During this period the GNI of LICs and LMICs rose on average by 33 and 21 percent, while their combined external debt stock rose by 109 and 46 percent, respectively (World Bank, 2023a).²² This decade-long asymmetry between economic growth and debt accumulation has created or exacerbated debt vulnerabilities in many LICs and LMICs, making it a matter of urgency to address these vulnerabilities.²³

As a result, the percentage of LICs in debt distress or at high risk of falling into it increased from 21 percent to 58 percent between 2013 and 2022. Moreover, about 60 percent of the countries eligible to receive IDA resources have been assessed as being at high risk of, or already in, debt distress (World Bank, 2023a). In some countries in Sub-Saharan Africa, such as Rwanda, Zambia, and Sudan, the ratio of debt service to GNI has increased by 7, 8, and 9 percent, respectively (IMF, 2022).

Surging interest rates have intensified debt vulnerabilities in developing countries. In 2022, LICs and LMICs incurred a historic high of US\$443.5 billion in public and publicly

21 Gross domestic product (GDP) and gross national income (GNI) both measure a country's income, but GDP counts only income received from domestic sources, whereas GNI includes net income received from abroad. The World Bank favors the use of GNI in public debt analysis for operational purposes. The International Debt Statistics database follows this convention and provides users with GNI data for each reporting country and the relevant external ratios of debt stock and debt service to GNI ratios (World Bank, 2023a).

22 In US dollars.

23 The International Debt Report (IDR) is a longstanding annual publication of the World Bank featuring external debt statistics and analysis for the 122 countries that report to the World Bank Debtor Reporting System. IDR 2023 is the 50th annual edition.



© Bisual Photo/Shutterstock

guaranteed (PPG) debt service payments due to elevated borrowing, and it is projected that this rising trend will persist.²⁴ Debt service on PPG external debt alone is expected to rise by 10 percent in 2023–24 compared to the previous two years. This huge increase in borrowing has occurred during a time of rising interest rates and largely unfavorable exchange rate movements, which has exacerbated the fiscal burden of external debt service payments. As a result, servicing external debt could become increasingly burdensome for many LICs and LMICs, potentially crowding out spending on other priorities such as education (World Bank, 2023a). Over the past decade, interest payments on debt by IDA countries have quadrupled, reaching an all-time high of US\$23.6 billion in 2022. More than one-third of their external debt involves variable interest rates that could rise suddenly, further worsening the fiscal situation in these countries (World Bank, 2023a). In the past three years alone, there have been 18 sovereign defaults across 10 developing countries—more than at any time over the past two decades.

The debt situation has become particularly worrisome for LICs, some of which are allocating nearly as much per capita to debt servicing as to education. Over the past 10 years, interest payments have increased at a pace exceeding the growth of education spending in developing countries (UNCTAD, 2024), although this trend varies by region. In 2022, developing countries in Africa invested nearly as much per capita in education (US\$65 per capita²⁵) as they paid in interest (US\$50 per capita), while those in South Asia spent more on interest (US\$103 per capita) than on education (US\$81 per capita).²⁶ For instance, the median level of government spending on education as a share of total public expenditure in Africa was 15.5 percent in 2021, down by 0.9 percentage points from 2012 (UNESCO, 2024), largely due to increased debt servicing costs and the shift of resources to address the health needs resulting from the COVID-19 pandemic (AUC et al., 2024). In recent years, rising interest payments have coincided with a decline in the share of government budgets allocated to education in countries like Ghana, the Republic of the Congo

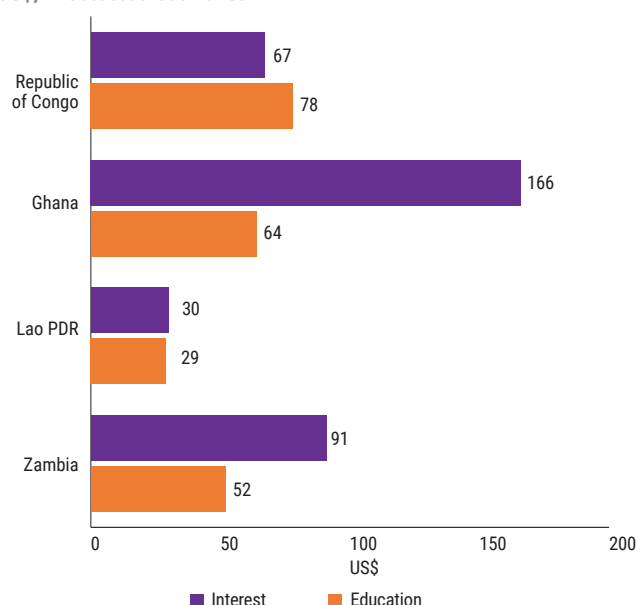
24 Publicly guaranteed debt (PPG) involves loans or credits that are guaranteed by the government, ensuring that the debt will be repaid even if the original borrower defaults. PPG debt service payments refer to the payments made by governments to service the part of their debt that is publicly guaranteed. This includes the aggregate number of repayments, interest, and other charges on the debt.

25 In this section, we use “education spending per capita” to compare with debt servicing per capita. This figure is derived by dividing total education spending by the overall population. This differs from metrics such as education spending per child or per school-age individual, which we use in other sections of EFW2024.

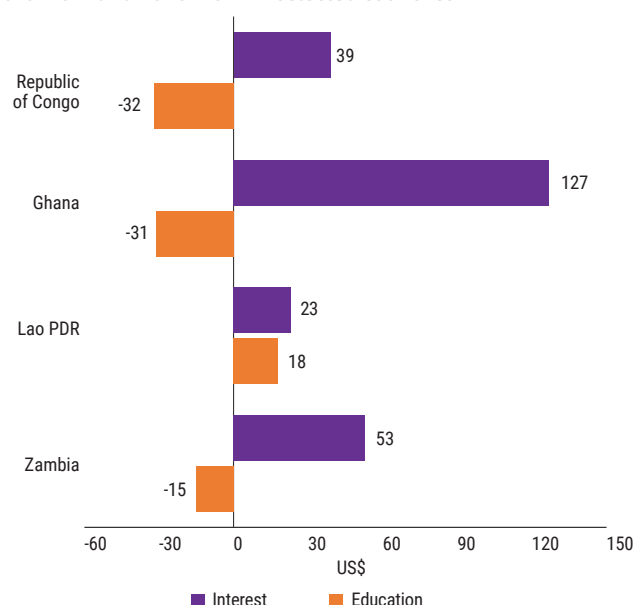
26 More developed regions typically spend significantly more per capita on education than they do on annual interest payments (1.5 times more in North America, 5.2 times more in the Middle East and North Africa, 3 times more in Europe and Central Asia, and 6 times more in East Asia and the Pacific) according to UNCTAD data (Figure 11a.)

Figure 13. Poorer countries' interest payments have been growing faster than their education spending

a. Public expenditure per capita on interest and education in 2022 (US\$) in selected countries



b. Nominal change in public expenditure per capita (US\$) between 2010–2012 and 2020–2022 in selected countries



Source: Author estimates using EFW2024 database and UNCTAD data.

and Zambia (Figures 13a and 13b). Although reducing debt service payments could free up domestic resources for education, it is important to recognize that this does not guarantee these resources will be allocated to education, as competing fiscal priorities may necessitate funding for other critical needs.

As the cost of debt servicing in developing countries has climbed, opportunities to borrow have dwindled. In 2022, new external loan commitments to PPG entities in developing countries dropped by 23 percent to US\$371 billion—the lowest level in a decade. When a country has a high debt burden, its ability to borrow additional funds is often severely constrained due to a loss of confidence among lenders and investors. This can lead to higher borrowing costs, making new loans more expensive and less accessible (World Bank, 2023). This is not the first time a debt crisis has had a negative impact on development funding. During the peak of the previous debt crisis in 1994, the median country's debt-to-GDP ratio was 72 percent, whereas it was only 33 percent at the end of 2021. However, if current trends continue, there may be a return to the debt ratios of the 1990s within the next seven years (Kose et al., 2021).

While not a panacea, debt restructuring, when combined with other funding sources, can sometimes help increase education funding in highly indebted poor countries. As debt levels soar, countries are increasingly considering restructuring their debt to better manage their financial burdens and foster

economic stability. Debt restructuring initiatives, such as debt relief and debt swaps, offer significant benefits and challenges for countries with high debt burdens (World Bank, 2024b). The main benefit of debt restructuring is that it alleviates a country's immediate financial pressure, allowing it to redirect resources toward critical social investments, including education. However, the process of debt restructuring can be complex and time-consuming, often requiring coordination among multiple creditors, and may still not lead to long-term fiscal stability. Moreover, these restructuring efforts along with the associated fiscal consolidation policies adopted by countries reduce debt, often result in expenditure reductions that can actually reduce critical human capital and social investments (Miningou, 2023).

Debt swaps are increasingly being used to alleviate countries' debt servicing burdens. Debt swaps are financial arrangements where a portion of a country's external debt is forgiven or reduced by the donor in exchange for the debtor country committing to investing the equivalent amount in local development projects. These projects often focus on areas such as education, healthcare, environmental conservation, and infrastructure. Before a debt swap is implemented, countries need to undertake a comprehensive evaluation to assess whether the instrument is viable and beneficial. From a debt and financial perspective, the most important criteria are: (i) the country's initial debt position and the swap's likely effects on its debt

Box 1. Somalia - Less debt and more investment in education

Before the World Bank and the IMF launched the Heavily Indebted Poor Countries (HIPC) Initiative in 1996, many countries were spending more on debt service than on health and education combined. As a result of the initiative, their spending on social services, including health and education, has increased to five times the amount of their debt payments. However, not all indebted countries qualify for HIPC. To be considered for HIPC Initiative assistance, a country must:

- Be eligible to borrow from the World Bank's International Development Association (IDA), which provides interest-free loans and grants to the world's poorest countries, and from the IMF's Poverty Reduction and Growth Trust, which provides loans to low-income countries at concessionary rates.
- Be carrying an unsustainable debt burden that cannot be addressed through traditional debt relief mechanisms.
- Have a track record of reform and sound policies through IMF- and World Bank-supported programs.
- Develop a Poverty Reduction Strategy Paper (PRSP) through a broad-based participatory process.

The Executive Boards of the IMF and the World Bank formally decide on a country's eligibility for debt relief and the international donor community commits to reducing debt to a sustainable level. This stage is referred to as the decision point. Once a country reaches this point, it can immediately obtain interim debt relief. To receive a full reduction of its debt under the HIPC Initiative, a country must:

- Establish a further track record of good performance under programs supported by loans from the IMF and the World Bank.
- Successfully implement key reforms to which it agreed at the decision point.
- Adopt and implement its PRSP for at least one year. A country that has met these criteria has reached its completion point, which allows it to receive the full debt relief agreed upon at the decision point.

Of the 39 countries that are eligible or are potentially eligible for HIPC Initiative assistance, 37 had reached their completion points as of June 2024 and are receiving full debt relief from the IMF and other creditors. In December 2023, Somalia became the latest to reach its completion point.

Somalia has increased government education spending in conjunction with obtaining debt relief under the HIPC Initiative (IMF, 2023). Debt restructuring irrevocably reduced Somalia's debt from 64 percent of GDP (US\$5.2 billion) in 2018 to less than 6 percent of GDP (US\$557 million) in 2023 in net present value terms. In March 2020, the World Bank announced that the IMF and IDA had determined that Somalia had taken the necessary steps to begin receiving debt relief under the enhanced HIPC Initiative (World Bank, 2020a). Upon reaching the HIPC decision point, Somalia regained access to international financial markets.

Somalia is increasing its investment in education focusing on teachers, a key driver of student learning. In January 2023, President Hassan Sheikh Mohamud announced the country would hire a record 3,000 new teachers following a four-fold increase in the country's education budget (to US\$34 million) for the year. He also reported that, for the previous five years, only 1,000 teachers had been on the public payroll.

This move was intended to address the substantial teacher shortage, a key contributing factor to Somalia's high out-of-school rate. It will be crucial for Somalia to invest these resources effectively by hiring the most qualified teachers and by funding the provision of supporting services, particularly by financing schools. Currently, fewer than one in five children complete primary school in Somalia (UNESCO, 2024, pp.33-34). As Somalia moves towards stability and development after 30 years outside the international financial system, the immediate normalization of its relations with the international community as a result of reaching the HIPC decision point will re-open its access to critical additional financial resources that can generate growth and sustainable employment for Somalis (World Bank, 2020a and 2020b).



© Sarah Farhat/World Bank

sustainability;²⁷ (ii) the net financial gains for the debtor; (iii) the country's debt management capacity and commitment to transparency; and (iv) the opportunity costs for both the borrower and the donors. Countries that are potentially good candidates for swaps are those at "moderate" or "high" risk of debt distress with a sustainable long-term debt outlook, but experiencing temporary liquidity pressures. These are usually smaller economies where the transaction can provide critical short-term relief and increase the country's debt sustainability prospects. In such countries, debt swaps can smooth debt amortization profiles and improve liability management, while supporting high-impact development projects.

Debt-for-development swaps can be used across a wide range of public expenditure programs, but it is important to ensure that the country's spending commitments are fully aligned with its development goals and strategies. Swaps are intrinsically complex, and it is crucial that these new spending commitments maintain or increase the overall efficiency of the budget (World Bank, 2024b).

Since the 1980s, several nations have used debt swaps to fund education projects,²⁸ although their impact has not been widely assessed.²⁹ The GPE's Debt2Ed program³⁰ can be used for debt swaps or loan buydowns, helping partner countries

27 Countries with unsustainable debt levels or those requiring (or already undergoing) comprehensive debt restructuring are not suitable candidates for debt swaps, which are not appropriate tools for restoring debt sustainability. These countries will need to negotiate substantial reductions in their debts from all creditors and implement a fully funded macroeconomic adjustment program.

28 Debt-for-education swaps are broadly defined as the cancellation of external debt in exchange for the debtor government's commitment to mobilize domestic resources to spend on education (UNESCO, 2009).

29 In addition to Côte d'Ivoire's recent agreement, other debt swap examples include: (i) €26 million in 2002 and €23 million in 2004 between Germany and Indonesia; (ii) US\$10 million in 2005 between Spain and El Salvador; and (iii) €1.2 billion in 2006 between France and Cameroon (Cassimon et al., 2011; UNESCO, 2011; Ito et al., 2018; GPE, 2023a; and World Bank, 2024).

30 GPE's Debt2Ed is an innovative financing instrument to transform repayments on national borrowing into investments in education while securing significant grant financing from the GPE through the Multiplier. The Multiplier unlocks grant financing for a partner country's education system when external partners mobilize new and additional financing (<https://www.globalpartnership.org/funding/gpe-multiplier>).



© Dominic Chavez/World Bank

improve their debt metrics (by lowering debt stock and debt service payments), lower borrowing costs, and increase resources for education to promote economic growth (GPE, 2023a). While debt swaps have the potential to be used as a debt restructuring mechanism, they have not yet been widely implemented. Available evidence suggests that debt-for-education swaps could be a viable instrument for mobilizing higher levels of education funding under certain conditions. However, there is still no evidence demonstrating a direct correlation between debt swaps and improved student learning outcomes (Ito et al., 2018).

Amid all the uncertainty, one thing is clear: investing in learning is one of the most cost-effective, forward-looking strategies a country can adopt. Global evidence has

shown that each additional year of schooling that a person completes yields 10 percent more income on average, which is higher than the average annual returns on the US stock market. However, the rising tide of debt service obligations in developing countries, particularly in LICs, threatens to undermine critical investments in human capital. As debt service costs soar, they risk overshadowing and potentially crowding out funding for education, which can have detrimental effects on a country's human and economic development trajectory. Long-term, sustainable increases in government education spending per student, such as those made by Republic of Korea during the 1990s, have been proven to increase student learning when phased appropriately, aligned with population growth, and coupled with strong economic growth.³¹

³¹ Republic of Korea has higher than average expenditures on education. Its expenditure on education increased dramatically in the 1990s, both as a percentage of GDP (rising from 4.9 percent in 1990 to 6.8 percent in 1998) and on a per student basis, driven by the country's high rate of economic growth (averaging 4 percent per year). In 2023, Korea spent US\$14,113 annually per full-time equivalent student (adjusted for purchasing power and including expenditure on research and development), compared to the OECD average of US\$12,647 (OECD, 2023).

Monitoring and Reporting on Education Spending



© studiolas/Shutterstock

Delays and gaps in country-level reporting of education spending data undermine accountability and monitoring, thereby restricting policy and technical discussions on education financing. Effective monitoring of educational outcomes requires detailed analysis of funding amounts and the specific use of these financial resources. This information is also vital for accountability. The share of education spending in total government spending is a global Sustainable Development Goal monitoring indicator under SDG 1 on poverty reduction. The EFW uses the UIS database as its main source of data on government spending on education, while also making use of data from the IMF and from the World Bank's BOOST Open Budgets Portal³² to impute any missing data. Seventy-three percent of the countries studied for the EFW2024 had reported 2020 data on government expenditure as a share of GDP in the UIS, while 70 percent had done so for 2021. Similarly, 72 percent of countries had reported 2020 data on education spending as a percentage of total government expenditure, and 68 percent had done so for 2021 (Figure 14a and Figure 14b).

Many countries do not report data in a timely way. As of February 2024, 51 percent of countries in the UIS dataset

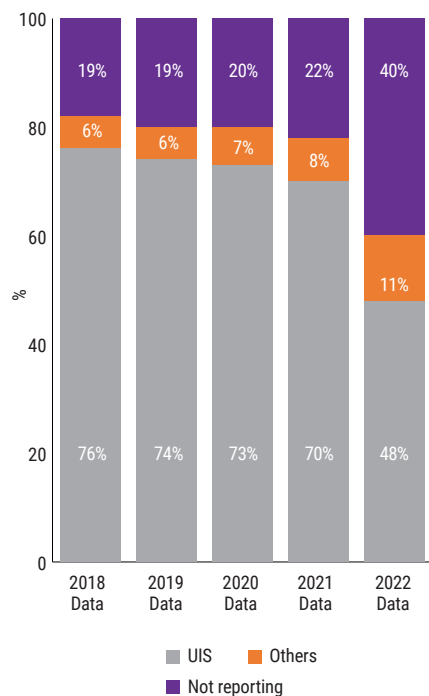
had not reported data for 2022 (the last year for which data were used in EFW2024) on education expenditure as a share of GDP, while 58 percent had not reported their education spending as a share of government spending (Figure 14c). Furthermore, most of the reported data were not broken down by type of expenditure or level of education, making it difficult to effectively monitor the adequacy and efficiency of education spending allocations. Without this information, it is impossible to track trends and analyze deeper the inequalities and inefficiencies in education spending outlined in the EFW2024. Reporting these data in a timely manner is essential to ensuring effective policymaking and making any necessary course corrections.

Despite the importance of data for monitoring, only a minority of countries have reported comparable data on core education finance indicators to the UIS. Data on spending on different education levels was available for only 47 and 22 percent of countries in 2018 and 2022, respectively, and much of that data was incomplete or inconsistent. More importantly, there is a significant lack of household-level data on education spending, especially in the post-COVID period.

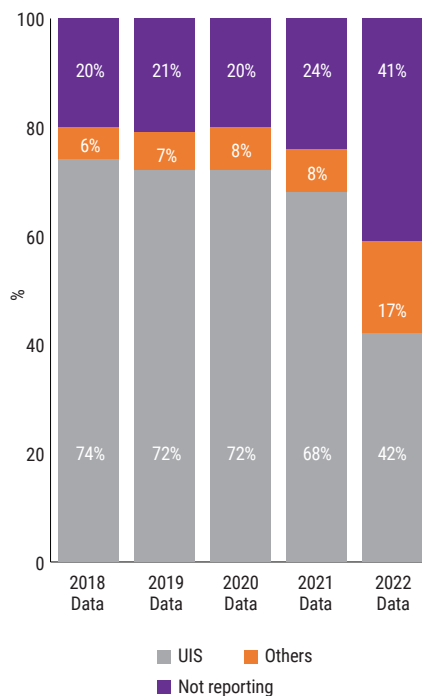
32 The BOOST Open Budgets Portal is an effort to create a one-stop shop for budget data worldwide, with the hope of highlighting countries' efforts to report their budget data, facilitating access and promoting use of spending data, and motivating other countries to report their own data <https://www.worldbank.org/en/programs/boost-portal/about-the-portal>.

Figure 14. Although the country database that informed this report is adequate, there is scope for further refinement

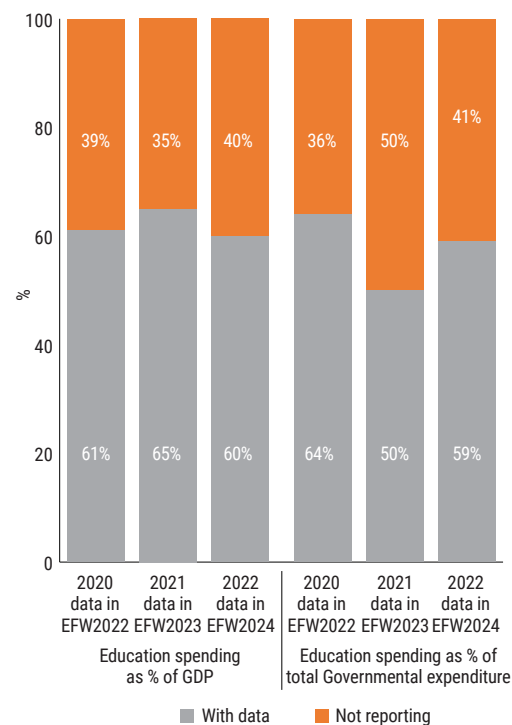
a. Availability of data on government education spending as a share of GDP in the EFW2024 database



b. Availability of data on government education spending as a share of total government spending in the EFW2024 database

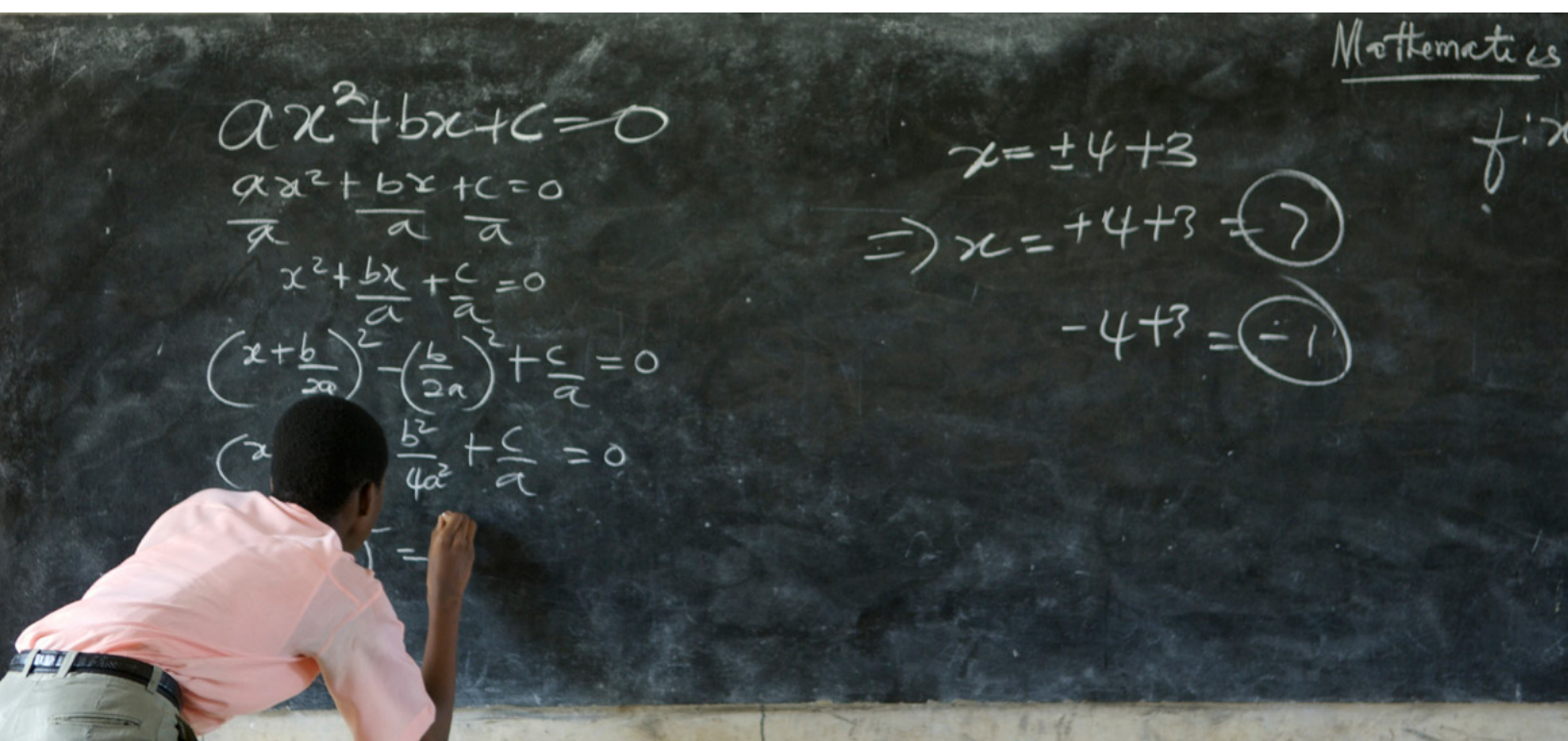


c. Availability of data for the latest year for which data are used in EFW reports



Source: Author estimates using the EFW2024 database and the EFW2022 and EFW2023 reports.

Note: The percentage is calculated for all of the 218 countries and territories covered by EFW2024.



5

Summary



© Liang Qiang/World Bank

To achieve national and international education goals, many countries will need to invest more and better in their education systems. Over the last decade, government education spending has increased steadily, but this has not led to any significant increases in per child allocations, particularly in LICs, due to rapid population growth. Learning outcomes remain poor, especially in countries that spend the least per school-age child. The World Bank estimates that learning poverty in low- and middle-income countries increased after the pandemic from 57 percent in 2019 to 70 percent in 2022 (Azevedo et al., 2022). The COVID-19 pandemic also strained public finances, reducing the prospects for maintaining pre-pandemic investment levels in education. Additionally, growing student populations, particularly in LICs and the increasing negative impacts of climate-related events on education systems are putting further pressure on limited resources in countries that invest the least in education. In examining trends and patterns in education financing from 2010 to 2022, the report concluded following:

- Although total education spending has increased over the past decade, the amount of funding available is still insufficient to address the learning crisis, especially in LICs. LICs and LMICs have experienced a more rapid annual increase in education spending than wealthier nations, but even those that have reached international education spending benchmarks are struggling to secure enough funding to enable all students to learn effectively.
- LICs and LMICs face a double jeopardy: not only are their financial resources scarce but also often inefficiently used, a persistent issue highlighted in previous EFW editions. Increased investment could enhance students' educational performance, particularly in LICs, but inefficient use of resources limits its impact. To improve educational outcomes, governments should prioritize enhancing the efficiency of their current spending by optimizing public financial management, improving school management and teacher performance, strengthening governance, and channeling resources to cost-effective policies and programs.
- The amount of aid provided for education in LICs is high, but the proportion of aid allocated to education has declined in recent years. Globally, the volume of education aid in 2022 reached a record high of US\$16.6 billion, growing by 16 percent in real terms. However, education's share of total ODA declined from 9.3 percent in 2019 to 7.6 percent in 2022. In 2022, ODA accounted for 12.2 percent of education spending in LICs and only 0.29 percent globally.
- Over the past 10 years, interest payments on public debt have increased faster than government education spending in developing countries. On a per capita basis, some LICs are allocating nearly as much to debt servicing as they are to education. Mounting fiscal challenges are significantly reducing the ability of LICs to fund their education systems. Some countries are exploring innovative financing mechanisms for short-term relief, such as debt restructuring, debt swaps, debt-for-development agreements. However, these measures must be complemented by sustained domestic resource mobilization, efficient spending, effective public financial management, and robust economic growth to ensure that their populations can receive quality education.
- To maintain a clear global picture of education financing trends, it is imperative for countries to report their education funding data in a timely and consistent manner, with more disaggregation. When data are reported late or not at all, it becomes difficult to conduct an analysis of education spending to inform forward-thinking policymaking. This lack of timely and accurate data is a disservice to education, as it hinders the ability to make informed decisions that could improve resource allocations and educational outcomes.

References

- Abdullah, Abdul, Hristos Doucouliagos, and Elizabeth Manning (2015). "Does Education Reduce Income Inequality? A Meta-Regression Analysis." *Journal of Economic Surveys*, Wiley Blackwell, vol. 29(2), 301-316, April.
- Azevedo, J.P., M. Akmal, M.-H. Cloutier, H. Rogers, and Y.N. Wong, 2022. "The State of Global Learning Poverty: 2022 Update." World Bank, Washington, D.C. <https://thedocs.worldbank.org/en/doc/e52f55322528903b27f-1b7e61238e416-0200022022/original/Learning-poverty-report-2022-06-21-final-V7-0-conferenceEdition.pdf>
- Agyekum M.W., S.B. Yeboah, C. Dzradosi, K. Ofosu-Ampong, M.O. Quaye, C. Donkoh, Andrews Acquah, Cosmos Kwame Dzikunu, Edison Pajibo, Daniel Yelkpi, Emmanuel M.J. Tamanja, and Ephraim Avea Nsoh (2023). "Rural-urban differentials in early childhood education and child development: Evidence from Multiple Indicator Cluster Survey (MICS) in Ghana." *PLOS Global Public Health* 3(8): e0002171. <https://doi.org/10.1371/journal.pgph.0002171>
- Arias, O. and I. Kheyfets (2023). "The Adequacy of Public Expenditure on Education and the Needs Post-COVID-19." World Bank, Washington, D.C. <https://thedocs.worldbank.org/en/doc/9b9ec-b979e36e80ed50b1f110565f06b-0200022023/original/Adequacy-Paper-Final.pdf>
- AUC, ITU, UNECA, OSAA and World Bank (2024). "Transforming Education in Africa by Leveraging Innovative Finance and the Digital Revolution." Africa Dialogue Series (ADS) 2024. African Union Commission, Addis Ababa, the International Telecommunication Union, Geneva, United Nations Economic Commission for Africa, Addis Ababa, the UN Office of the Special Adviser on Africa, New York, and World Bank, Washington, D.C.
- Carapella, Piergiorgio M., Tewodaj Mogues, Julieth C. Pico-Mejia, and Mauricio Soto (2023). "How to Assess Spending Needs of the Sustainable Development Goals: The Third Edition of the IMF SDG Costing Tool." IMF Fiscal Affairs Department 2023/005, International Monetary Fund. <https://www.imf.org/en/Publications/imf-how-to-notes/Issues/2023/12/14/How-To-Assess-Spending-Needs-of-the-Sustainable-Development-Goals-The-Third-Edition-of-the-541463>
- Cassimon, D., D. Essers, and R. Renard (2011). "An assessment of debt-for-education swaps. Case studies on swap initiatives between Germany and Indonesia and between Spain and El Salvador." *Comparative Education* 47:2, 139-156.
- Fery, Marin, Marine de Talancé, and Miguel Niño-Zarazúa (2022). "Less Debt, More Schooling? Evidence from Cross-country Micro Data." *Journal of Comparative Economics*, Volume 50, Issue 1, 153-173.
- Gasper, V., M. Mansour, C., Vellutini (2023) "Countries Can Tap Tax Potential to Finance Development Goals: Emerging market and low-income economies have a significant untapped tax potential of 8 percent to 9 percent of GDP". IMF Blog. International Monetary Fund, Washington, D.C. <https://www.imf.org/en/Blogs/Articles/2023/09/19/countries-can-tap-tax-potential-to-finance-development-goals>
- GPE (2023a). "Factsheet: Debt2Ed." Global Partnership for Education, Washington, D.C.
- GPE (2023b). "Turning debt payments into financing for education: Leveraging GPE's Debt2Ed in Côte d'Ivoire." Global Partnership for Education, Washington, D.C. <https://www.globalpartnership.org/blog/turning-debt-payments-financing-education-leveraging-gpes-debt2ed-cote-divoire>
- GPE (2024). "Results Report 2023." Global Partnership for Education, Washington, D.C.
- Hanyang, Y.L. (2021). "Education Finance in Korea: Achievements and New Challenges." Hanyang University, Seoul, Korea. <https://www.kdi.re.kr/upload/7322/3-2-2.pdf>
- IMF (2022). "Crisis upon Crisis: IMF Annual Report 2022." International Monetary Fund, Washington, D.C. <https://www.imf.org/external/pubs/ft/ar/2022/downloads/imf-annual-report-2022-english.pdf>
- IMF (2024). "Debt relief under the heavily indebted poor countries initiative - HIPC. 2023 Factsheet." International Monetary Fund, Washington, D.C. Accessed on September 9, 2024. <https://www.imf.org/en/About/Factsheets/Sheets/2023/Debt-relief-under-the-heavily-indebted-poor-countries-initiative-HIPC>
- Ito, H., R. Sekiguchi, T. Yamawake, and J. Sapena (2018). "Debt swaps for financing education: Exploration of new funding resources." *Cogent Economics & Finance*, 6(1). <https://doi.org/10.1080/23322039.2018.1563025>
- Kose, Ayhan, Franziska Lieselotte Ohnsorge, and Naotaka Sugawara (2021). "A Mountain of Debt: Navigating the Legacy of the Pandemic." World Bank, Washington, D.C. <https://documentsinternal.worldbank.org/search/33476302>
- Miningou, Elise Wendlassida (2023). "External Debt, Fiscal Consolidation, and Government Expenditure on Education." World Bank, Washington, D.C. <https://documentsinternal.worldbank.org/search/34076134>
- Munoz Boudet, A.M., A. Bhatt, G. Azcona, J.J. Yoo, and K. Beegle (2021). "A Global View of Poverty, Gender, and Household Composition." *Policy Research Working Paper Series* 9553, World Bank, Washington, D.C.
- OECD (2021). "OECD Development Co-operation Peer Reviews: Germany 2021," OECD Publishing, Paris, <https://doi.org/10.1787/bb32a97d-en>.

- OECD (2023). PISA 2022 Results (Volume I): *The State of Learning and Equity in Education*, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/53f23881-en>.
- OECD (2023a). *Education at a Glance 2023: OECD Indicators*, OECD Publishing, Paris, <https://doi.org/10.1787/e13bef63-en>.
- OECD (2024). "Peer Review Mid-term Review of Norway." March 4, 2024. OECD, Paris.
- Patrinos, Harry, and Nobuyuki Tanaka (2024). "Education: Innovative Financing in Developing Countries." Education Working Paper; No. 1, April 2024. World Bank, Washington, D.C. <http://hdl.handle.net/10986/41476> License: CC BY-NC 3.0 IGO
- Pholphirul, P., P. Rukumnuaykit, and S. Teimrad (2023). "Teacher shortages and educational outcomes in developing countries: Empirical evidence from PISA-Thailand." *Cogent Education*, 10(2). <https://doi.org/10.1080/2331186X.2023.2243126>
- Shimeles, Abebe (2016). "Can higher education reduce inequality in developing countries?" *IZA World of Labor*, Institute of Labor Economics (IZA), pages 273-273, July.
- UIS and GEM Report (2024). "SDG 4 Scorecard: Progress Report on National Benchmarks – Focus on Teachers." UNESCO Institute of Statistics, Montreal and Global Education Monitoring, Paris. <https://unesdoc.unesco.org/ark:/48223/pf0000388411>
- UNCTAD (2024). "A World of Debt Report 2024: A Growing Burden to Global Prosperity." UNCTAD, Geneva.
- UNESCO (2009). "Debt swaps for education." UNESCO, Paris.
- UNESCO (2011). "Debt swaps and debt conversion development bonds for education: Final report for UNESCO advisory panel of experts on debt swaps and innovative approaches to education financing." UNESCO, Paris.
- UNESCO (2022). "Global Education Monitoring Report 2021/2: Non-state Actors in Education – Who Chooses? Who Loses?" UNESCO, Paris. <https://unesdoc.unesco.org/ark:/48223/pf0000383550>
- UNESCO (2023a). "Global Education Monitoring Report 2023: Technology in Education – A Tool on Whose Terms?" UNESCO, Paris. <https://unesdoc.unesco.org/ark:/48223/pf0000385723>
- UNESCO (2023b). "Can countries afford their national SDG 4 benchmarks?" Global Education Monitoring Report Policy Paper 49. UNESCO, Paris. <https://unesdoc.unesco.org/ark:/48223/pf0000385004>
- UNESCO (2024). "Spotlight Report on Basic Education Completion and Foundational Learning in Africa." UNESCO, Paris. <https://unesdoc.unesco.org/ark:/48223/pf0000389481>
- UNICEF (2023). "Transforming Education with Equitable Financing". UNICEF, New York. <https://www.unicef.org/reports/transforming-education-equitable-financing>
- VOA News (2023). "Somalia Hiring 3,000 Teachers after quadrupling education budget." January 3, 2023. <https://www.voanews.com/a/somalia-hiring-3-000-teachers-after-quadrupling-education-budget/6902472.html> (accessed on 8/11/2024)
- World Bank (2020a). "Somalia to Receive Debt Relief under the Enhanced HIPC Initiative." Press Release, March 25, 2020. World Bank, Washington, D.C.
- World Bank (2020b). "Somalia To Reestablish Financial Relations with The World Bank Group After Thirty Years." Press Release No: 2020/067/AFR, February 27, 2020. World Bank, Washington, D.C.
- World Bank (2023). "Uganda Economic Update." World Bank, Washington, D.C. <https://documents1.worldbank.org/curated/en/099020224131540261/pdf/P1798401a450b40361963b12634ab074169.pdf>
- World Bank (2023a). "International Debt Report 2023." World Bank, Washington, D.C. <http://hdl.handle.net/10986/40670>
- World Bank, UNESCO, UNICEF, USAID, FCDO, and Bill and Melinda Gates Foundation (2023). "The State of Global Learning Poverty: 2022 Update." World Bank, Washington, D.C. <https://thedocs.worldbank.org/en/doc/34035a49acb5700ce-8b118aada81a5cb-0510022023/original/TheStateOfLearning-Poverty-Feb2023Update-03-08-23.pdf>
- World Bank (2024a). "Education: Innovative Financing in Developing Countries." Education Working Paper No. 1. April 2024. World Bank, Washington, D.C.
- World Bank (2024b). "Debt-for-Development Swaps and the Potential Role of the World Bank: Technical Note (English)." World Bank, Washington, D.C. <http://documents.worldbank.org/curated/en/099080524122527783/BOSIB1f57baa3f0971916811e7b-da53f7d5>
- World Bank and UNESCO (2021). "Education Finance Watch 2021." World Bank and UNESCO, Washington, D.C. and Paris.
- World Bank and UNESCO (2022). "Education Finance Watch 2022." World Bank and UNESCO, Washington, D.C. and Paris.
- World Bank and UNESCO (2023). "Education Finance Watch 2023." World Bank and UNESCO, Washington, D.C. and Paris.
- World Bank and UNESCO (2024). "Education Finance Watch 2023. Special Edition for the African Union Year of Education 2024." World Bank and UNESCO, Washington, D.C. and Paris.
- World Bank, UNESCO, UNICEF, USAID, FCDO, and Bill and Melinda Gates Foundation (2022). "The State of Global Learning Poverty: 2022 Update." Conference Education, June 23, 2022.

Acknowledgements

EFW2024 was prepared by Nobuyuki Tanaka, Diego Angel-Urdinola, May Bend, Yitong Hu, Angelica Rivera-Olvera (World Bank), Manos Antoninis, Yuki Murakami (GEM Report), and Silvia Montoya (UIS). It was prepared under the overall guidance of Luis Benveniste and Halil Dunder (World Bank). It benefited from comments from Albert Tumino, Fadila Caillaud, Fernando Blanco, Ivailo V. Izvorski, Fatine Guedira, Elisabeth Sedmik, Igor Kheyfets, Samer Al-Samarrai (World Bank). The team also received essential assistance from Dani Clark, Fiona Mackintosh, Stefano De Cupis (World Bank), Katherine Redman, Madeleine Barry (GEM Report). The team benefited from valuable support from education regional teams, poverty economists, and the BOOST team (World Bank).



© Simone D. McCourtie/World Bank

© 2024 International Bank for Reconstruction and Development / The World Bank and UNESCO

This work is a co-publication of The World Bank and UNESCO. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent, or those of UNESCO.

The World Bank and UNESCO do not guarantee the accuracy, completeness, or currency of the data included in this work and do not assume responsibility for any errors, omissions, or discrepancies in the information, or liability with respect to the use of or failure to use the information, methods, processes, or conclusions set forth. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank and UNESCO concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Nothing herein shall constitute or be construed or considered to be a limitation upon or waiver of the privileges and immunities of The World Bank, all of which are specifically reserved.

Rights and Permissions



This publication is available in Open Access under the Creative Commons Attribution-ShareAlike 3.0 IGO (CC-BY-SA 3.0 IGO) license (<http://creativecommons.org/licenses/by-sa/3.0/igo/>). Under this license, you are free to copy, distribute, transmit, and adapt this work, including for commercial purposes, under the following conditions:

Attribution—Please cite this publication as follows: The World Bank and UNESCO (2024). Education Finance Watch 2024. Washington D.C., Paris: The World Bank and UNESCO.

Share Alike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.

Translations—If you create a translation of this work, please add the following disclaimer along with the attribution: This translation was not created by The World Bank or UNESCO and should not be considered an official World Bank or UNESCO translation. The World Bank and UNESCO shall not be liable for any content or error in this translation.

Adaptations—If you create an adaptation of this work, please add the following disclaimer along with the attribution: This is an adaptation of an original work by The World Bank and UNESCO. Views and opinions expressed in the adaptation are the sole responsibility of the author or authors of the adaptation and are not endorsed by The World Bank and UNESCO.

Third-party content—The World Bank and UNESCO do not necessarily own each component of the content contained within the work. The World Bank and UNESCO therefore do not warrant that the use of any third party-owned individual component or part contained in the work will not infringe on the rights of those third parties. The risk of claims resulting from such infringement rests solely with you. If you wish to re-use a component of the work, it is your responsibility to determine whether permission is needed for that re-use and to obtain permission from the copyright owner. Examples of components can include, but are not limited to, tables, figures, or images.

All queries on rights and licenses, including subsidiary rights, should be addressed to World Bank Publications, The World Bank, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: pubrights@worldbank.org.

DOI: <https://doi.org/10.54676/NSCT2115>

Designed by alejandros@sonideas.com.

Photography credits: Photography credits: 1: Bart Verweij | World Bank, further permission required for reuse. 2: Dominic Chavez | World Bank | 2013, further permission required for reuse. 3: Dominic Chavez | World Bank | 2013, further permission required for reuse. 4: Steve Harris | World Bank, further permission required for reuse. 5: Dominic Chavez | World Bank | 2013, further permission required for reuse. 8: Maria Fleischmann | World Bank, further permission required for reuse. 9: Fernanda Reyes | 2022 | Shutterstock, further permission required for reuse. 10: Omotayo Kofoworola | 2024 | Shutterstock, further permission required for reuse. 12: John Hogg | World Bank, further permission required for reuse. 14: Salahdeen Nadir | World Bank, further permission required for reuse. 17: Maria Fleischmann | World Bank, further permission required for reuse. 18: Bisual Photo | 2019 | Shutterstock, further permission required for reuse. 21: Sarah Farhat | 2016 | World Bank, further permission required for reuse. 2: Dominic Chavez | 2016 | World Bank, further permission required for reuse. 23: studiolasca | 2014 | Shutterstock, further permission required for reuse. 24: Jonathan Ernst | 2006 | World Bank, further permission required for reuse. 25: Liang Qiang | 2005 | World Bank, further permission required for reuse. 28: Simone D. McCourtie | World Bank, further permission required for reuse.