POLICY RESEARCH WORKING PAPER   10591

What I Really Want

Policy Maker Views on Education in East Asia Pacific

Noah Yarrow
Paul Cahu
Mary Breeding
Rythia Afkar

Abstract

This paper reports the views and perceptions of randomly selected education policy makers in the East Asia Pacific region, based on surveys of 651 senior public officials in 14 middle-income countries. The findings show that officials tend to prioritize increasing secondary school completion over improving learning quality, and they severely underestimate learning poverty and do so by a larger margin than officials in other countries. Officials were most likely to cite system capacity as the primary constraint to improving learning. The findings show that officials' support for gender equality and disability inclusion is high. Interviewed officials tend to oppose violence against students and prefer to invest in in-service teacher training or early-grade reading compared to other options, such as EdTech or inclusion for students with disabilities. This mix of alignment and misalignment between policy makers' goals and the stated goals of development partners can inform future engagement in policy dialogue, analysis, and information campaigns.

What I Really Want: Policy Maker Views on Education in East Asia Pacific

Noah Yarrow, Paul Cahu, Mary Breeding and Rythia Afkar

World Bank

1 Introduction

This research examines the education policy priorities of senior government officials in ministries of education and ministries of finance in East Asia Pacific (EAP) countries and compares them with the priorities of international development partners. A 2020 survey conducted by the Center for Global Development (CGD) found "(m)isalignment with donor agendas" in three dimensions: (i) objectives for education; (ii) beliefs about the state of the world; and (iii) beliefs about the effectiveness of specific education interventions (Crawfurd et al., 2021). Using new survey data based on 188 interviews with senior government officials in five middle-income EAP countries and 601 interviews with officials in seven additional countries globally in 2022, this paper explores policy makers' perceptions on a range of technical topics in education, including foundational literacy and barriers to learning.[1]

In our 2022 survey, conducted jointly with CGD, officials were interviewed about their education sector knowledge, beliefs, and values. This work is built on the assumption that education policy is shaped by senior officials and that their opinion influences policy (Smets, 2020; Baekgaard et al., 2015; see discussion in Crawfurd et al., 2021).[2] We focus on EAP officials' perceptions of learning poverty, barriers to improving learning, levels of education spending, and expected returns to education, as well as opinions about gender, violence and inclusion of students with disabilities. We then compare the stated perspectives with those of officials outside the region, as well as with actual and official data, when available.

We present data from seven low- and middle-income countries in the EAP region, two which were surveyed in 2020 (Solomon Islands and Vanuatu) and five surveyed in 2022 (Indonesia, the Philippines, the Lao People's Democratic Republic, Vietnam, and Mongolia). These countries were chosen to provide a range of middle-income education systems in EAP and for which the team was able to hire enumerators and get permission to collect data from relevant ministries. We compare data from these countries with seven other participating countries of either the 2020 survey or the 2022 survey if the question item was present in both surveys. The non-EAP country participants in the 2022 survey were officials in the Democratic Republic of Congo (DRC), Ghana, Peru, Pakistan, Bangladesh, Nigeria, and Uganda. The list of participating countries for both surveys can be found in Table 1.

2 Methodology

The survey design and data collection were conducted by the World Bank together with the CGD. The full survey and data are available, along with a complete description of the methodology (CGD, forthcoming). This survey, conducted in 2022 together with CGD, builds on earlier surveys of public officials on their priorities and beliefs about the education sector in their countries (Crawfurd et al., 2021). A summary of the methodology is presented here.

---

[1] This paper is a double companion paper; it is a companion paper both to the regional flagship report "Fixing the Foundation: Teachers and Basic Education in East Asia Pacific" (2023) and a companion paper to CDG's global analysis of the 2022 survey, also forthcoming.

[2] This paper focuses on areas not already covered in detail in the EAP Education Flagship (Afkar et al., 2023).

Our aim is to better understand the views of senior policy makers in low- and middle-income countries on education. We surveyed policy makers from 12 low- and middle-income countries, including Bangladesh, DRC, Ghana, Indonesia, Mongolia, Nigeria, Pakistan, Peru, the Philippines, Sierra Leone, Uganda, and Vietnam. These countries were selected to represent a range of sizes, geographies, and income levels, with a range of political systems and educational outcomes. For comparisons between EAP and non-EAP countries in our sample, we note that living standards are lower on average in the non-EAP countries than in the EAP group. Sampled EAP countries' per capita GDP ranges from 8,200 to 12,000 $,[3] while the non-EAP countries range from PPP 1,100 to 12,000 $PPP. This means that Peru is the only non-EAP country with a similar level of income, so we use a robustness check with per capita GDP in PPP when comparing EAP and non-EAP countries.

The sampling approach was driven by a desire to: (i) have a representative sample of senior civil servants, requiring random sampling; and (ii) compare attitudes of officials across different countries, requiring a large number of respondents per country. Within each country we sample up to three different populations, with some variation according to individual countries:

1. Ministry of Education Senior officials - defined as all staff of the level of Deputy or Assistant Directors and above)
2. Ministry of Finance Senior Officials
3. Members of Parliament

Within each ministry of education and finance, the respondents were stratified into tiers by seniority prior to randomized selection. The precise numbers vary somewhat by ministry, as some have smaller total numbers in some of these tiers. The survey questions, results, and further notes on methodology are available at the address mentioned above.

This survey has a number of important limitations. Respondents were told that the survey was supported by CGD and the World Bank as part of the interview protocol. This may have influenced their responses, for example by saying what they expected the international community would want to hear. In addition, there is some inconsistency in the reported views, such as believing that additional spending on education may be ineffective, but reporting wanting additional spending nonetheless. An additional limitation is that some questions were ambiguous, for example including complex constructs such as "implementation capacity" without clearly defining them, due to survey time constraints. Even with these potential biases, we think the results are interesting, informative, and potentially helpful to understand the views of policy makers on education, and we hope future surveys can overcome some of these limitations.

3 Access to Education, Student Learning and Government Capacity

3.1 Officials in EAP tend to prioritize improvements in school completion over improvements in learning.

Officials were asked "For the economy to grow faster, the most important thing your country could do in education would be to: a) increase the number of students finishing secondary school; b) improve the test scores of children already in school; and c) don't know/other/no answer." A majority of officials in

---

[3] Living standards are compared by converting nominal GDP in local currency to an international measure, purchasing power parity (PPP), which accounts for the fact that the price of products is different across countries.

all EAP countries except Mongolia chose to increase the number of students finishing secondary rather than to improve the quality of learning, measured by increasing test scores. This aligns with responses from non-EAP government officials who also tended to prioritize schooling over learning quality.

There is substantial variation in the region (Figure 1); policy makers in Mongolia are more likely to prioritize learning (68 percent) over secondary completion. In Lao PDR and the Philippines, answers are in line with other participating countries globally, with about 30% of respondents prioritizing learning. In Vietnam and Indonesia all MOF respondents selected 'improving test scores' for the economy to grow faster. There is no significant link between country income levels and the responses in or outside the region, as evidenced by the low F-value of a simple OLS regression.[4]

The perceptions of officials from the ministries of education and the ministries of finance are similar in EAP countries, while in non-EAP countries ministry of finance officials tend to put more emphasis on quality. In Mongolia, education officials appear more concerned about quality than officials from the finance ministry. Mongolia's living standards are the second highest in the survey sample, just below Vietnam, while school enrollment and school attainment are the highest in the sample of countries, which may help explain why education quality is more valued.

There is misalignment between current global evidence and the beliefs of policymakers favoring improvements in completion over learning. The available global evidence suggests that both learning and educational attainment (finishing secondary) are important, so that large numbers of people with high levels of human capital can support economic growth (e.g., Manuelli et al., 2014). However, of the two, *learning* is the more important variable for economic growth outcomes (Hanushek and Woessmann, 2015). This is particularly important as evidence shows that despite significant global advancement in increasing school enrollment and educational attainment, many students leave school without acquiring foundational skills that are in demand in the labor market (Pritchett, 2013; World Bank, WDR 2018). Officials in EAP may prioritize increased access to school and increased completion rates above increased learning, potentially driven by equity concerns or assumptions that school completion alone guarantees automatic learning or improves employment prospects for students.

---

[4] To test whether per capita GDP predicts the survey responses, we ran an OLS regression of the responses on per capita GDP. We used the F statistic to check whether such a prediction of the model is statistically different from a random variable. If the p-value of the F test is above 5%, it means that such a model does not contain meaningful information, as per capita GDP is not a better predictor of the survey responses than a random variable and we can say that the two variables are not significantly correlated.

Figure 1: Officials prioritize improvements to school completion over improvements to learning for economic growth.
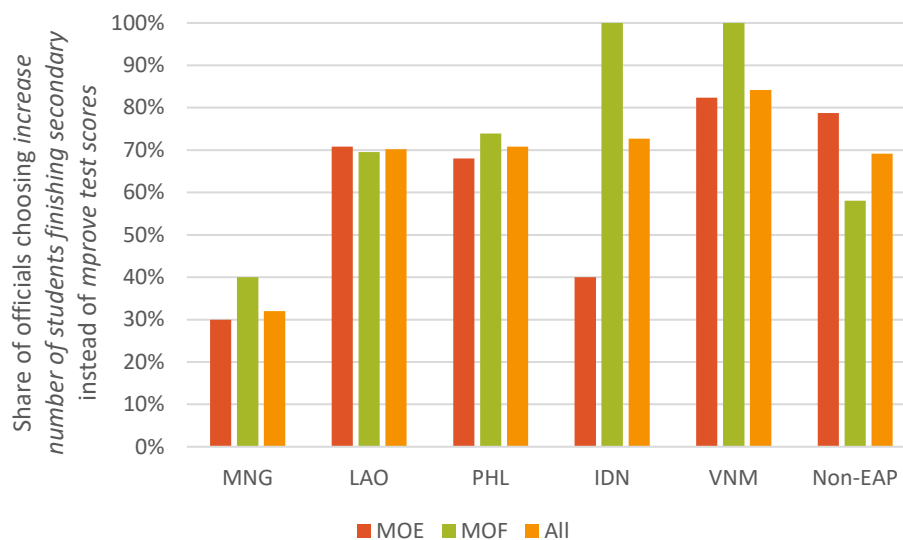
Source: CGD–World Bank survey, 2022. The figure aggregates the answers obtained for the question "For the economy to grow faster, the most important thing your country could do in education would be to: (1) Increase the number of children finishing secondary school, (2) improve test scores, (3) Do not know, (4) other: specify. The "other" replies were then identified as either linked to quality (test scores) or quantity (more secondary completion) by looking at individual responses.

3.2   Policy makers underestimate learning poverty by large margins in EAP

Policy makers in EAP underestimate learning poverty by a larger margin than officials from other countries. Learning poverty is defined as the percentage of children aged 10 who are unable to read and understand age-appropriate text. Senior education and finance officials in EAP underestimate learning poverty by an average of 31 percentage points. The gap between officials' estimates and World Bank estimated learning poverty levels is larger in EAP countries than in non-EAP countries sampled. This is true for both the 2020 and 2022 survey waves. Non-EAP officials underestimate the learning poverty level by an average of 23 percentage points, while EAP officials underestimate it by 31 percentage points.

This underestimation of learning poverty is an overestimation of the reading and comprehension ability of children around the age of 10. In countries where this divergence between perception and actual data is large, for example in Mongolia, Vietnam, Indonesia, Lao PDR, and the Philippines, one might expect that officials would be less likely to pursue education policies and funding to support learning at the primary level than they would be if they had a more accurate understanding of the actual abilities of students. We find no significant link between income levels and the underestimation of learning levels, as evidenced by the low F-value of a simple OLS regression.

The fact that officials from all countries, on average, underestimate learning poverty indicates an important disconnect between how much learning officials believe is happening and how much learning is taking place. If officials do not have an accurate understanding of the magnitude of learning poverty, they may be less likely to take effective action to address the quality of learning in their systems. Recent increases in learning poverty due to school interruptions during the COVID-19 pandemic, coupled with

the fact that the average share of government budget allocated for education has decreased during the pandemic and remained below 2019 levels in 2022,[5] reinforces the salience of accurate understanding by policy makers.

Figure 2: Policy makers underestimate learning poverty by large margins in EAP
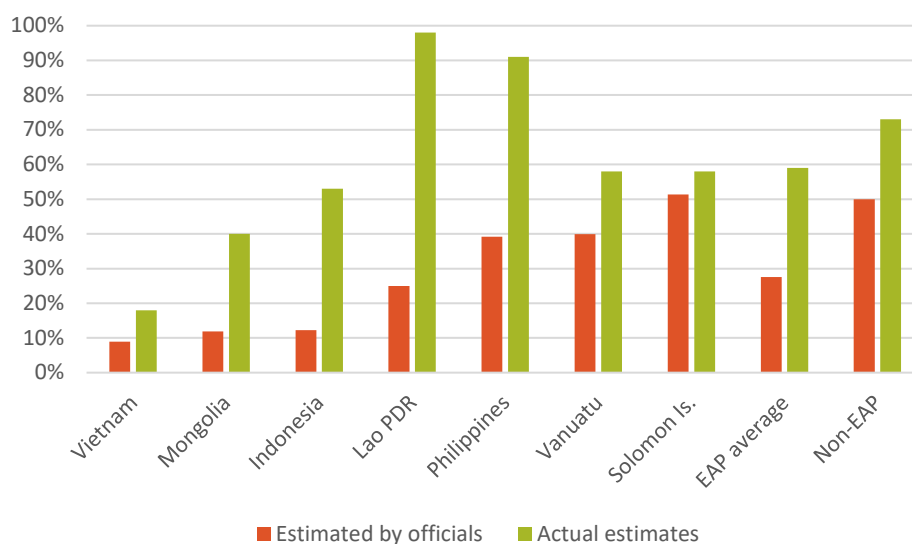
Source: CGD–World Bank surveys, 2020 and 2022 and estimating interim learning poverty for Pacific Island Countries (2023). Only countries for which both data were available were included in the average ("Non-EAP"). When countries were surveyed in both waves, we use the most recent data. Solomon Islands and Vanuatu were surveyed in 2021.

Why is the disconnect between official estimates and estimated learning poverty levels by international organizations such as the World Bank so high in EAP? Some uncertainty in the officials' estimates of learning poverty is understandable for the following reasons: (i) the concept of a globally defined and agreed-upon "minimum proficiency level" against which students can be judged to be proficient is recent and still a work-in-progress; (ii) learning poverty levels are themselves uncertain for several reasons. Computations of learning poverty are based on sampled-based standardized tests which may not be perfectly comparable despite efforts to equate them, while sampling may lead to biases, especially for large and diverse countries such as Indonesia and the Philippines. For all participating countries in EAP, the SEA-PLM assessment appears more difficult at specific levels of competency than some of the other assessments used in the learning poverty estimates, even though in theory this is accounted for in the equating exercise; (iii) due to limited participation in international assessments, there are limited data; SEA-PLM is a new assessment and for Lao PDR (with the largest gap in our data between estimated and actual learning poverty at 73 percent) it is the only assessment that provides internationally comparable data showing how many of their children are in "learning poverty"; (iv) estimations of specific data by officials are frequently inexact based on other surveys, including data collected for the Global Education Policy Dashboard (World Bank, 2023), where public officials in Jordan, Peru, Niger, and Rwanda for example often misestimated average classroom size and level of teacher absenteeism by 10 to 20

---

[5] EFW, 2022 (https://thedocs.worldbank.org/en/doc/e52f55322528903b27f1b7e61238e416-0200022022/related/EFW-2022-Jul1.pdf).

percentage points. Nonetheless, this misalignment between the perception of public officials and the position of international partners is important, particularly given the focus of international partners on student learning as reflected for example in SDG 4, the 2018 World Development Report, and the broader investments, research, and programming of these institutions.

3.3 Lack of implementation capacity is perceived as the largest barrier to improving student learning.

When asked about the largest barrier to improving student learning, "lack of implementation capacity" is cited by officials as the main bottleneck in four out of the five countries in EAP.[6] A similar trend exists for non-EAP countries in the survey, with six of the seven countries citing capacity as the main constraint to learning. On average, *half of senior officials globally identify lack of implementation capacity as the greatest barrier to improving student learning*, more than any other constraint.

There is some variation in the importance ascribed to capacity to improve learning. For example, Lao PDR is the only country in EAP where money is cited more frequently as a barrier to learning at 50 percent, with capacity second at 36 percent of respondents. This makes sense, since Lao PDR spends a lower proportion of GDP on education than other countries in the survey (Figure 3). We find a positive correlation between the share of respondents flagging implementation capacity as the main constraint and per capita GDP. However, the link is not statistically significant (the p-value of the F statistic is about 0.17). Lack of interest from the government is not considered an important barrier, implying that governments are indeed interested in improving student learning levels, a hopeful finding.

What are the implications of low implementation capacity? There is some question about how officials in EAP and in non-EAP define implementation capacity. Is it bureaucratic capability, having the right skills in government, incentives and norms in a system, or a systems' overall ability to deliver improvements in learning? The answer is likely a combination of these, and we can define implementation capacity by noting it excludes the other response categories, including money, politics, and patronage. Among all survey respondents globally, eight respondents selected "other" categories. Two of these responses referenced low capacity; three referenced poor teaching quality and teacher training, which are linked to capacity; and the remaining three responses dealt with technical challenges such as class sizes and the fit of policy to the country context. The takeaway message is that *surveyed officials are interested in improving learning but perceive their systems lack the capacity to deliver this change.* This is important since international partners themselves lack the capacity to provide or finance capacity change at scale; there is little agreement even on how to measure education system capacity. There is a misalignment or gap between what policymakers say is the largest constraint to learning, and what international development actors currently offer in terms of support.

---

[6] This question was not asked in the 2021 round of the survey. Hence, Solomon Islands and Vanuatu are not included.

Figure 3: Lack of implementation capacity is the largest barrier to improving student learning according to officials in EAP and globally.
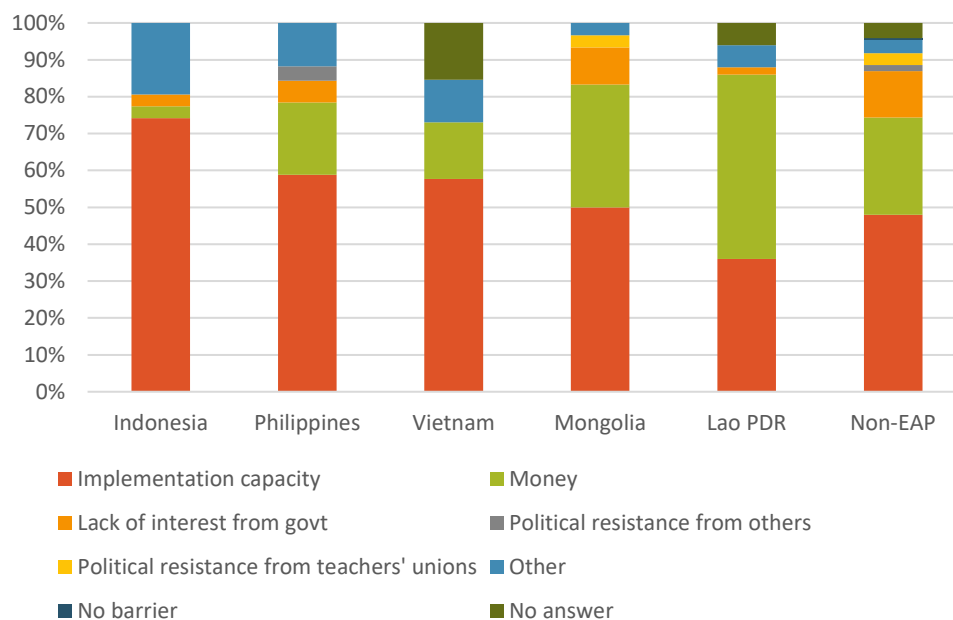
Source: CDG–World Bank survey, 2022.

# 4   The Effects of Poverty and Malnutrition on Student Learning

4.1   EAP policy makers underestimate the contribution of poverty to low levels of learning.

In Indonesia, Vietnam and Mongolia, surveyed policy makers attributed low levels of student learning to school-based factors, such as poor instruction, lack of books and learning materials, inadequate school facilities and lack of internet connectivity (Figure 4). These factors can be influenced by education policy and financing. The impacts of poverty and malnutrition are acknowledged in some EAP countries, especially in Lao PDR and the Philippines. But in other countries, officials tend to undercount the influence of socioeconomic factors in favor of school-based factors. This may indicate optimism about the power of education and the potential for disadvantaged students to benefit from learning. There is also a clear and statistically significant correlation between per capita GDP and the share of officials attributing low learning to poverty and malnutrition across all countries in the dataset. The higher incomes in EAP are associated with officials being less likely to explain low learning by economic hardship.

In contrast to the average perceptions of EAP officials, the weight of socio-economic conditions and individual characteristics remain large in many surveyed EAP countries (Afkar et al., 2023). Standardized assessments frequently show large variation in the impact of socio-economic background on student performance, including EAP countries, though not all (OECD, 2019). Some high performing education systems are able to attenuate the challenges of poverty and provide students an opportunity for academic success, while other systems do this less well and have a strong association between poverty and low

levels of academic performance.[7] Although education policy can make a large difference in the long run, socio-economic circumstances continue to play a role in student learning in many middle-income EAP countries, in contrast to the average perceptions of EAP officials.

Figure 4: Poverty and malnutrition are not considered critical for learning by policy makers in EAP.
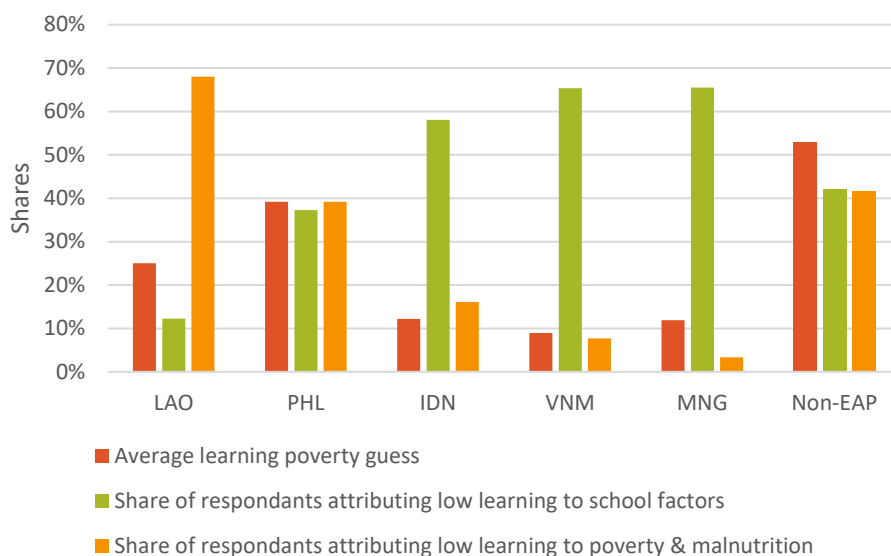
Sources: CGD–World Bank survey, 2022. Factors were pooled together depending on whether they refer to external determinants such as poverty, malnutrition, lack of internet or others. School quality factors include teaching quality, school facilities and lack of learning materials. The share of officials attributing low learning to poverty and malnutrition decreases with per capita GDP, as expected.

EAP officials' low estimations of the influence of poverty and malnutrition on learning relative to other factors is reflected in the low priority given to programs that address poverty or malnutrition issues. As part of our survey, respondents were presented with several potential policy interventions randomly selected from a pre-determined set of options, including: (i) giving teachers structured early grade reading lesson plans with linked materials and training; (ii) in-service training for teachers; (iii) delivering universal, free school lunch; (iv) removing fees for secondary school; (v) laptops for schools; (vi) hiring extra specialist teachers for students with disabilities; and (vii) building hospitals. In this discrete choice experiment, respondents were asked which intervention they would select for implementation. The cost and the implementation timeline for the intervention were provided and were varied by respondent.

We compare the results between the group of EAP and non-EAP countries in Figure 6 and in Table 3. The only category of interventions for which the probability of selection is statistically different between EAP and non-EAP countries is school feeding programs (Figure 5). On average, school feeding programs are selected by 40 percent of respondents in the EAP region, lower than the 51 percent observed in the non-EAP group.

---

[7] PISA 2018 Volume 2 (OECD, 2019).

The low level of interest of officials in EAP in school feeding is consistent with these same officials not seeing malnutrition and poverty as a major barrier to learning in the EAP region. The available data on malnutrition in young children the region (UNICEF, 2021), and evidence from other contexts show that nutritious school meals have positive benefits for both learning (e.g., Chakraborty and Jayaraman, 2019; Aurino et al., 2023), enrollment, as well as nutrition (Adelman et al., 2019; UNESCO, 2023). However, the lack of prioritizing of school feeding by officials aligns with the low levels of investment in school feeding programs by both EAP governments and the World Bank; there is currently only one school feeding program supported by World Bank investments in EAP (Cambodia).

Figure 5: Officials in EAP prefer structured reading and in-service training relative to other interventions.
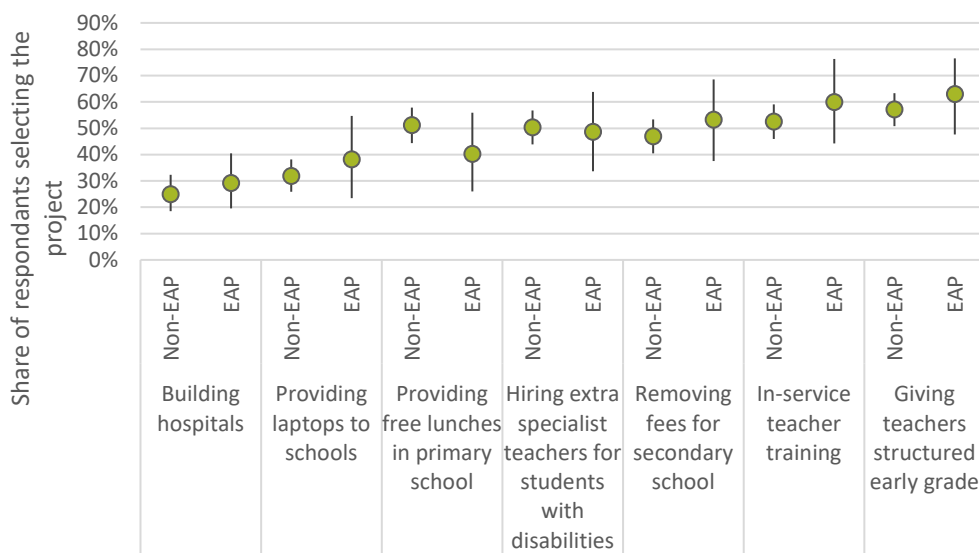
Source: Authors' calculations from the Discrete Choice Experiment as part of the CGD–World Bank survey 2022. See probit model results in the annex. The probabilities have been computed for a similar "average" respondent in all countries. About 50 percent of respondents select school feeding programs outside of the EAP region, which lies outside of the uncertainty range of the selection probability in the EAP region.

Education Technology, Gender and Inclusion

4.2   Officials overestimate the effectiveness of EdTech and underestimate inequality.

Most EAP respondents agree with the statement that education technology was effective in supporting student learning during COVID-19-related school closures (83 percent, Figure 6). However, the data for EAP and much of the world show that EdTech was usually *not* an effective support for most children during COVID-19-related school closures, or at least much less effective on average than in-person instruction, particularly for low-income students (Patrinos et al., 2022). Respondents' views on the impact of EdTech during COVID-19-related school closures are 8 percent more positive in EAP than in non-EAP countries (Figure 6).

Respondents in EAP are also more likely to agree with the statement that "EdTech helps all children learn equally" (50 percent) than respondents from outside the region (36 percent). Available data show that EdTech often augments inequality, as it tends to benefit children of higher-income families who have better access to devices and support for using them than children of lower-income families (Yarrow et al., 2022).[8] This is particularly true when used at home rather than at school, as was the case during the pandemic, indicating that at least half respondents are uninformed of the inequality enhancing risks of EdTech.

Figure 6: Share of officials agreeing with statements on EdTech.

■ "EdTech (e.g. Internet, TV, radio, or mobile) was effective in supporting student learning during COVID-related school closures."

■ "EdTech helps all children learn equally."
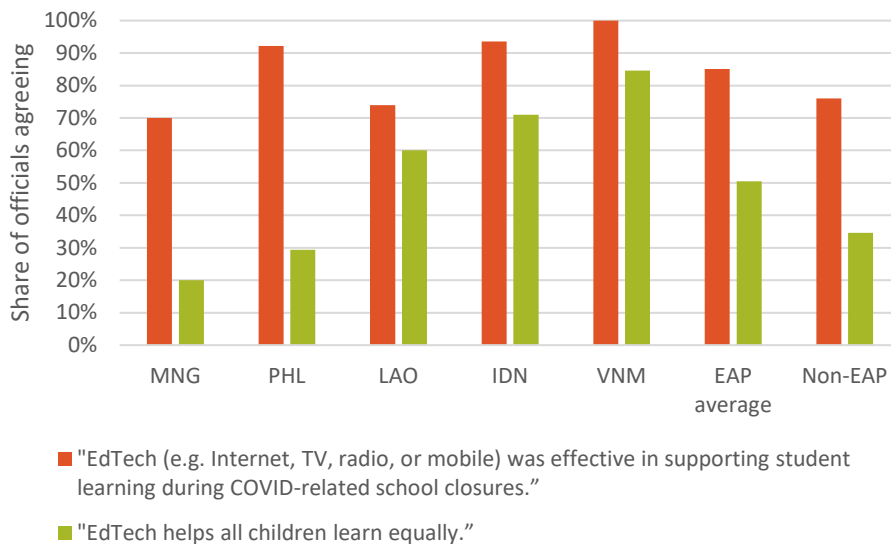
Source: Calculations from CDG–World Bank 2022 microdata.

Interestingly, the views expressed on the extent to which educational technology would help all children (thus not creating further inequalities) correlates with views on gender equity and children with disabilities; respondents who believe that EdTech is neutral are more likely to promote gender equality and favor inclusion toward children with disabilities. We find no correlation between per capita GDP and the views on EdTech, which is to say, officials in higher income countries do not tend to view EdTech differently.

4.3   Officials tend to support inclusion and assistance for children with disabilities.

On average, officials from EAP show more enthusiasm for inclusion of children with disabilities (72 percent of officials strongly support) than officials outside of the region (48 percent strongly support) (Figure 7).

---

[8] There is substantial evidence that inequity in student learning outcomes is often exacerbated by EdTech and the transition to online learning. Evidence from China shows that students with access to a computer at home rather than only a smartphone benefited 60–75 percent more from online instruction during COVID-19-related school closures (Clark et al., 2021). Among students with access to educational TV in Bangladesh, 45 percent of those in the highest economic quartile reported watching educational TV, but only 36 percent for the lowest economic quartile. During the COVID-19 school closures, students from the top quartile also received more academic support from family members than the bottom one (39 vs. 62 percent; Biswas et al., 2020). It may be that when developers and implementers of EdTech interventions understand the specific needs of the communities they intend to serve, they can give the greatest advantage to the groups with the greatest needs (Reich, 2020).

Officials are slightly more supportive of accommodations for disabled students (54 percent of EAP officials strongly support accommodation versus 48 percent in non-EAP countries). However, there is some variation; in Vietnam and Lao PDR, more than 15 percent of officials do not agree that accommodations should be made so that children with disabilities can be welcomed in schools, versus 4 percent on average in non-EAP countries (Figure 2b).[9] We note that inclusion in "regular classrooms" as posed in the question is not always beneficial for the student with disabilities, especially if the accommodations and support available in the school are inadequate to their particular needs.

Figure 7: Share of officials agreeing with statements on access to disabled children.

a. "Children with disabilities deserve the same level of access to public schooling as children without disabilities."
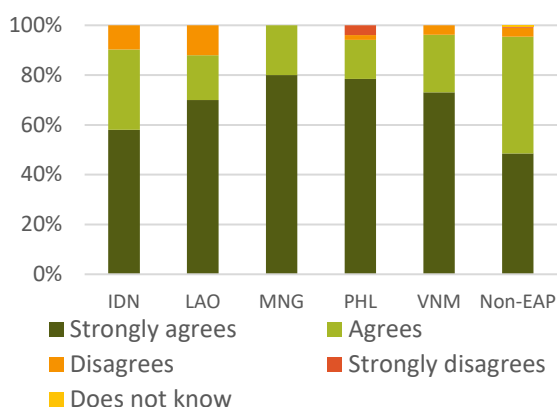
b. "In most cases, accommodations should be made so that children with disabilities can be included in regular classrooms with children who do not have disabilities."
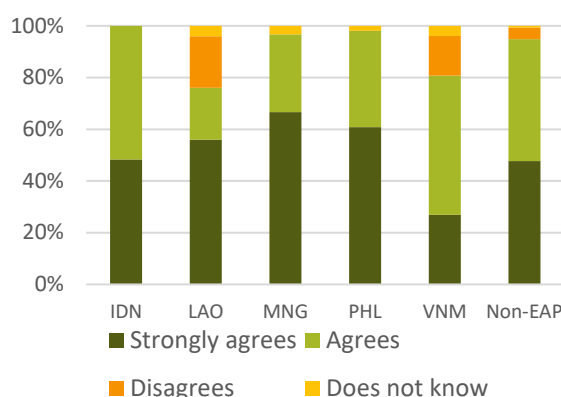
Source: Calculations from CDG–World Bank 2022 microdata.

There is larger diversity in responses across countries regarding gender equality. In Vietnam, Mongolia and Lao PDR, more officials disagree with equalitarian statements (Figure 8a). Surveyed EAP officials on average support gender equity more strongly than officials from other regions. Surveyed officials from EAP are also much less likely to believe that girls face barriers to education in their countries (Figure 8b); this aligns with higher levels of female achievement than males in all subjects on the 2019 SEA-PLM, as can be seen in Table 2 (in the Annex). We find no correlation between the share of respondents agreeing to the three first statements and per capita GDP. There is however a small significant correlation between per capita GDP and the share of officials disagreeing with the fact that girls face additional challenges in accessing and completing their education. However, this correlation disappears once one takes into account the region: EAP countries appear as a group very different from the rest of the sample.

---

[9] We speculate that officials in Vietnam and Lao PDR may view inclusion as a burden, especially if student-teacher ratios are high and supports for special education are not available. More knowledge and awareness of options to make inclusion possible may be helpful in these country contexts.

Figure 8: Share of officials agreeing with statements on gender equality.

a. "Schools should try to promote gender equality."

b. "Girls face additional challenges in accessing and completing their education compared with boys in this country."
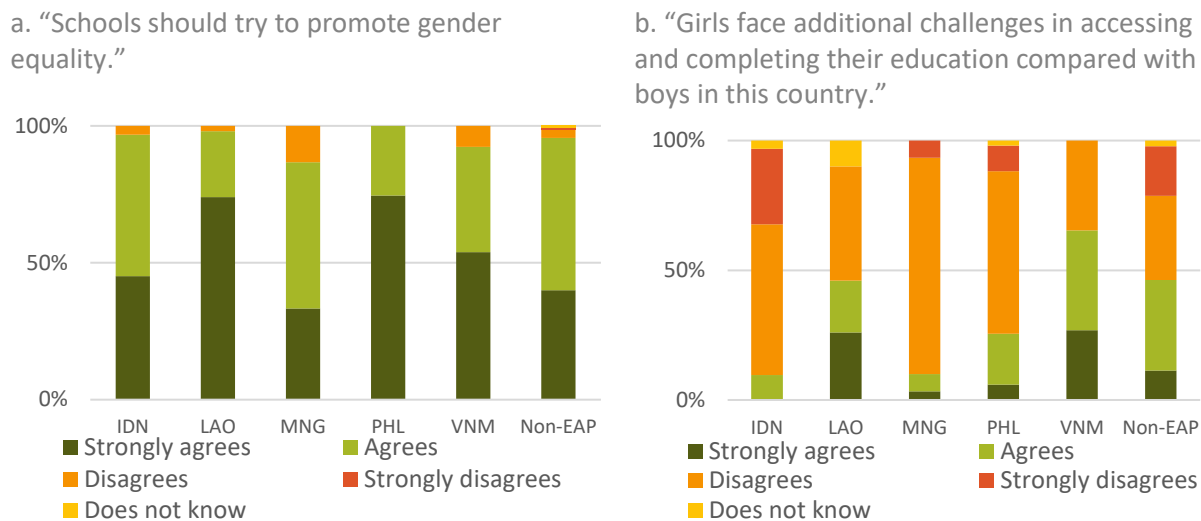
Source: Calculations from CDG–World Bank 2022 microdata.

4.4 Officials favoring gender equity tend to promote access for children with disabilities.

Policy makers' support for statements associated with gender equity is correlated with their support for statements of inclusion of children with disabilities.[10] The survey includes several questions measuring beliefs using a Likert scale.[11] Some are linked to beliefs about gender, views about children with disabilities or about EdTech and the effectiveness of more funding for education. We use factor analysis to identify potential latent variable measuring views about equity.[12] While there are large cross-country disparities in this index, respondents from EAP countries overall tend to have higher scores on the index than those from non-EAP countries (Figure 9). The index average is statistically higher in the EAP than in the non-EAP group.[13] Compared with non-EAP respondents, officials in EAP strongly support both gender equity and inclusion when surveyed. This index provides support for a range of beliefs and values on both topics that are meaningful for the World Bank and other development partners to be aware of when engaging with public officials in EAP countries. We find no statistically significant link between this index and per capita GDP.[14]

---

[10] This correlation is evidenced by the KMO statistics (the Kaiser–Meyer–Olkin (or KMO) test is a statistical measure to determine how suited data are for factor analysis), which are above 0.6 as seen in Table 4 in the Annex. The correlation coefficient of typical questions such as "schools should try to promote gender equality" and "Children with disabilities deserve the same level of access to public school" is about 0.25.

[11] Officials were asked to rate statements using a discrete scale: "Strongly agree", "Agree", "Disagree", "Strongly disagree", "Do not know".

[12] The sample appears inadequate according to the KMO test if we only analyze gender views, meaning that the items are not correlated enough to reflect an underlying trait. We therefore combined the views on gender with other measures of inclusion in this discussion. See Table 4 in the Annex for details of the analysis.

[13] The probability that the averages are different is about 4 percent in a t-test.

[14] As evidenced by the p-value of the F test, which is about 0.35.

Figure 9: Index of gender/disability equality measuring the extent to which officials promote gender equality and inclusion of children with disabilities.
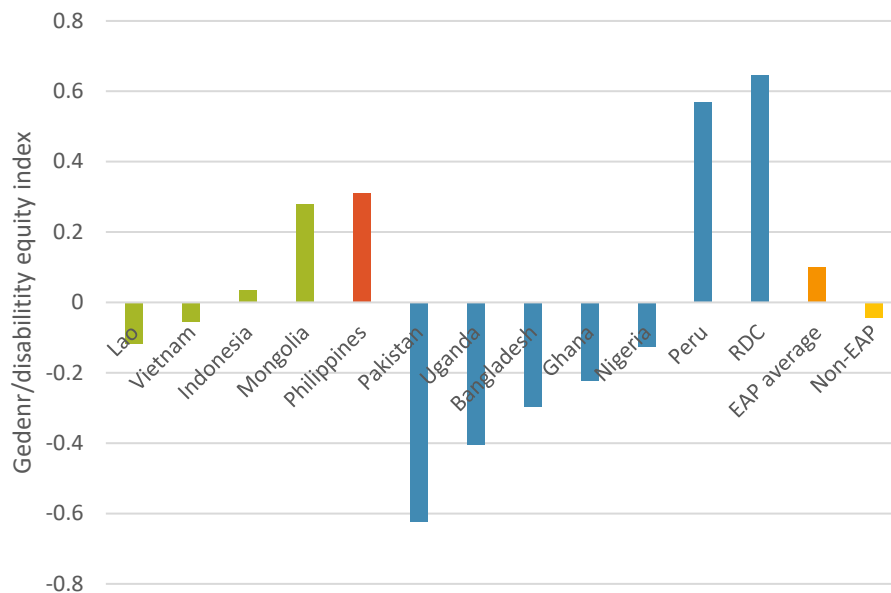
Source: Calculations from CDG–World Bank 2022 microdata. Principal factor analysis of the following items: "Schools should try to promote gender equality.", "When jobs are scarce, men should have more right to a job than women.", "Teachers found to have a sexual relationship with a secondary school student should be suspended.", "Children with disabilities deserve the same level of access to public schooling as children without disabilities.", "In most cases, accommodations should be made so that children with disabilities can be included in regular classrooms with children who do not have disabilities." The index is normalized to have a zero mean and a unitary standard deviation across the whole sample; a score of 0.16 means that the average score in the country is 16% of a standard deviation above the global mean.

4.5 Officials favoring equality also tend to reject violence toward children.

The survey included three items about violence toward children. Officials were asked if beating of children by parents or teachers could be justified and about their perceived frequency of children affected by sexual violence. Officials displaying more favorable views about gender equality and inclusion of children with disabilities are also less likely to agree with statements justifying violence toward children (Table 1). Their estimates of the prevalence of sexual violence toward children were also lower. This is important since it suggests that officials' views align with values espoused by major international development organizations, which reject the practice of violence against children.

Table 1: Average index of gender/disability equality by opinion about the justification of violence toward children

	Parents beating children	Teachers beating children
Never be justified	0.16	0.21
Something in between	-0.06	-0.23
Always be justified	-0.44	-0.45

Source: Computations from the CDG–World Bank 2022 microdata. All of these figures are statistically different from zero at the 5 percent threshold. The index standard deviation over the whole population is set at 1 by definition. The difference in the equity score between the group whose members never find violence to be justified and the one where people always find violence to be justified is about 0.6 to 0.7 of a standard deviation. This gives a Cohen's d of 0.6 to 0.7, which corresponds to a medium-to-large effect size.

4.6   Officials believe that violence toward children is justified much less often in EAP, and perceive less of it

Officials are more likely to state that violence from parents towards children is justified than violence from teachers toward children. This is true in all surveyed countries (Figure 10). Agreement with statements supporting acceptance of violence towards children is much lower in the EAP region than in other surveyed countries: about 60 percent of respondents in EAP reported that violence toward children is never justified, which is almost twice as high as the average of non-EAP countries surveyed (34 percent) (Figure 11). Mongolia is the only EAP country where some officials justified violence from both parents and teachers. These opinions correlate with estimates of the prevalence of sexual violence. In the EAP region, the guessed prevalence of sexual violence toward children is 16 percent, versus 32 percent for respondents outside of the region.

Domestic violence against children is lower in the surveyed East Asian countries, in line with officials' beliefs. The share of parents reporting that they violently discipline their children in household surveys is correlated with the estimated/perceived share of children victims of sexual violence (Figure 12). Although these two types of violence are different, they are often correlated (Ney, Fung, & Wickett, 1994). The share of child victims of sexual violence is unknown but according to self-reported surveys, the share of children violently disciplined by their parents is significantly lower in East Asian countries than in the other countries surveyed. But this share remains as high as 70 percent in Lao PDR and Vietnam (Source: UNICEF, 69 percent in Lao PDR (2017) and 68 percent in Vietnam (MICS, 2014).

There is a robust statistical link between the share of respondents justifying violence toward children and per capita GDP of their country. After accounting for the difference in per capita GDP, the share of respondents claiming that violence toward children is never justified is not statistically different in the EAP region than outside of it.

Figure 10: Justification of violence toward children by officials

a. "From parents"

b. "From teachers"
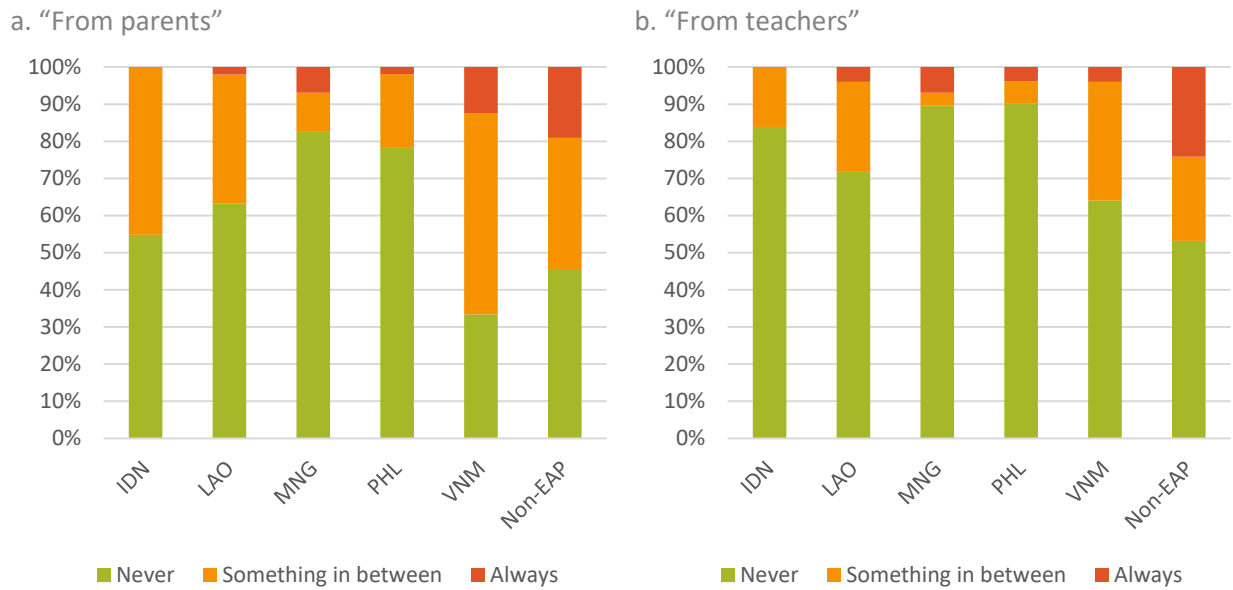
Source: CGD–World Bank survey 2022 microdata.
The questions were: "Parents beating children...always/never/something in between...justified" and "Teachers beating children...always/never/something in between...justified".

Figure 11: Justification of violence toward children from teachers and/or parents

■ Always justified for both teachers & parents

■ Always justified for either parents or teachers

■ Sometimes justified for either parents or teachers

■ Never justified, neither for parents nor teachers
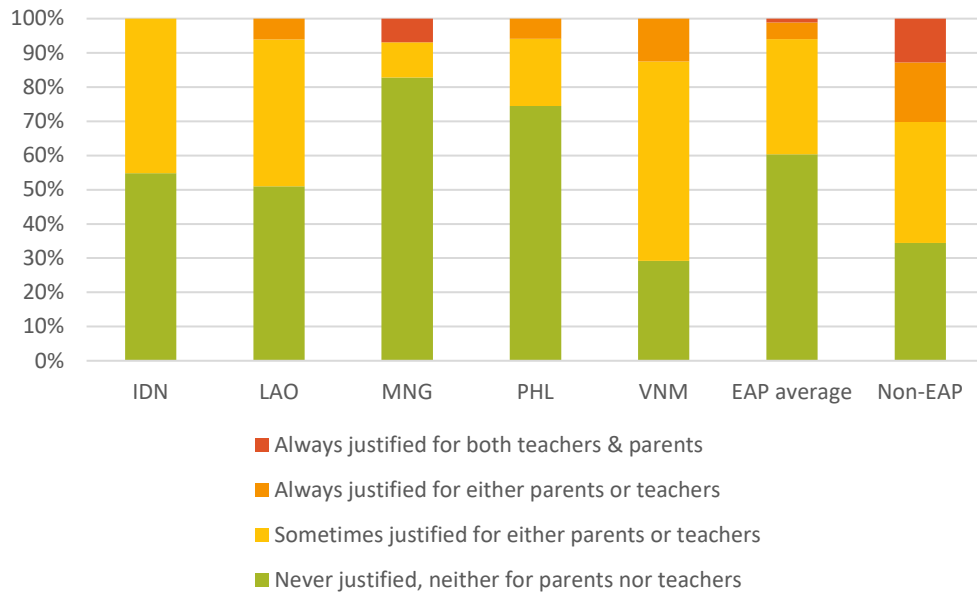
Source: CGD–World Bank survey 2022 microdata.

4.7 Support for gender equality in EAP is consistent with lower rates of domestic violence against women and legal contexts

There is a clear correlation between officials' support for gender equality in schools and the average rate of domestic violence against women using WHO figures. This suggests that officials' preferences for gender equality are consistent with lesser violence toward women. As can be seen in Figure 12, countries where officials tend to agree with the promotion of gender equality in schools also display lower rates of women reporting violence from their partner over their lifetime.
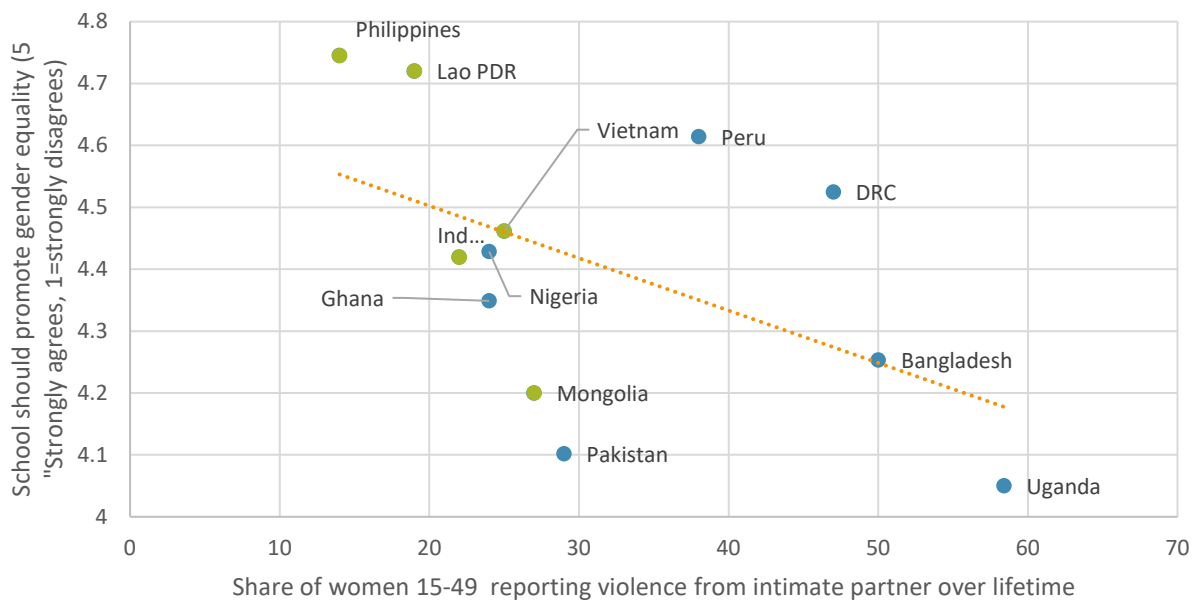
All EAP countries but Mongolia are in the upper-left corner, where support for gender equality is strong and domestic violence rates are lower than average. Mongolia is the only country where support for gender equality in schools is not as high among surveyed officials.

Figure 12: Violence toward women and promotion of gender equality

Source: CGD–World Bank 2022 survey and WHO, Global Database on the Prevalence of Violence Against Women.

There is also a strong correlation between officials' level of support for gender equality in school and the overall legal and business contexts in the surveyed countries. In countries where the legal and business context is more favorable to women, officials are more likely to agree with statements about gender equality in schools (see Figure 13). Survey findings suggest that gender equity transcends sectors and is linked to broader social beliefs and practices in school, business, home and beyond.

Figure 13: Legal and business context for women and promotion of gender equality in schools
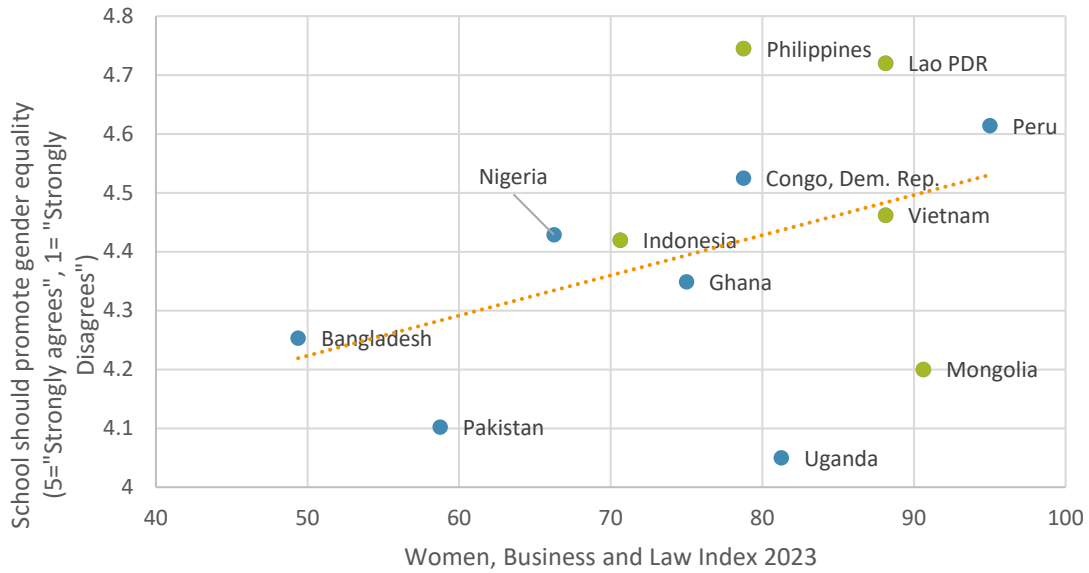
Source: CGD–World Bank 2022 survey and Women, Business and Law, 2023 (World Bank).

5 Other Priorities in Education Outcompete Investments in Inclusion

Although at least 80 percent of all respondents in the 2022 survey claim they would support accommodations to facilitate the inclusion of children with disabilities in regular classrooms, investing in a program for students with disabilities is the least often selected option in the discrete choice experiment (Figure 14). Less than 50 percent of all 2022 respondents[15] selected investing in a program for students with disabilities, preferring in-service teacher training (60 percent) or early-grade reading (62 percent). The second-lowest frequency option was investing in laptops (38 percent). Officials from the EAP region were as likely as other respondents to select the project supporting inclusion (47 percent of respondents) than outside of the region (48 percent of respondents). In the EAP region, the project supporting inclusion was selected more often (47 percent) than the provision of free meals in primary schools (38 percent).

---

[15] These figures come from the raw data of the experiment, not the probabilities computed a posteriori which are displayed in Figure 14.

Figure 14: *Officials in EAP prefer structured reading, in-service training and removing fees at the secondary level over supporting inclusion of children with disabilities.*
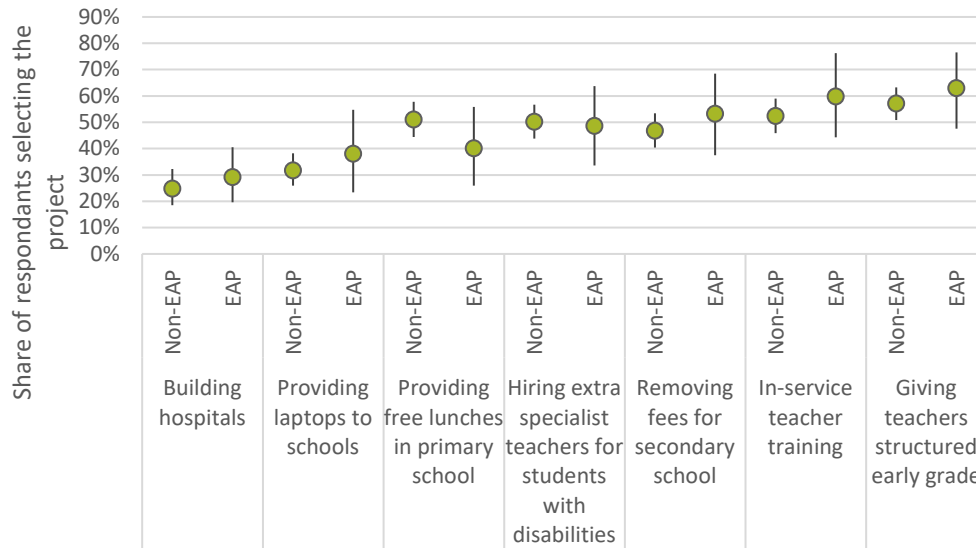
Source: Authors' calculations from the Discrete Choice Experiment as part of the 2022 survey. See probit model results in the annex. The probabilities have been computed for a similar "average" respondent in all countries. Building hospitals are the least often chosen among the proposed possibilities. Officials were asked "Now I'd like you to imagine that the Department/Ministry of Finance is considering an additional allocation for education to one of two policy areas. Which one of the following would you choose?" The percentages in the figure don't add to one hundred since individual officials were randomly offered two of the six options listed above and chose one. This means that for investing in inclusion of children with disabilities, when presented with a choice between this and another option, respondents chose to invest in inclusion 45 percent of the time.

When analyzed by *type of official* across all countries, respondents from ministries of education favor structured lessons (63 percent) and training (55.8 percent) over removing fees for secondary school (43.3 percent), whereas respondents from ministries of finance have a stronger preference for removing secondary school fees (44.2 percent) relative to structured lessons (40.7 percent) and in-service teacher training (36.3 percent). The largest difference was between ministry of education officials and ministry of finance officials was for hiring extra teachers for students with special needs, where ministry of education's officials were almost twice as likely to support hiring extra teachers (44.8 vs. 28.6 percent). Similarly, female respondents are more likely to support structured pedagogy and training relative to male respondents, who are more likely to favor removing secondary school fees. Female respondents also have higher preferences for hiring extra teachers to support students with special needs. To check for robustness, we ran an alternative model with country fixed effects, and found that they were not statistically significant. Therefore, cross country differences in per capita GDP or other development measures do not appear to play a role.

6   Education Financing and Impact on Learning

6.1   Officials in the EAP region overestimate public funding for education.

Overall, respondents from EAP countries believe that education financing levels are higher than they actually are, see Figure 16. This overestimation of education financing in EAP contrasts with other regions, where officials tend to underestimate education spending relative to actual spending levels. This finding remains consistent even when the education budget figure is taken into account instead of actual spending (World Bank, 2023). When asked about their preferred percentage of the total government budget to be spent on education, EAP respondents consistently provided estimates that exceeded their own perceptions of the current spending share allocated to education.

Figure 15: Share of public funding for education of total public spending
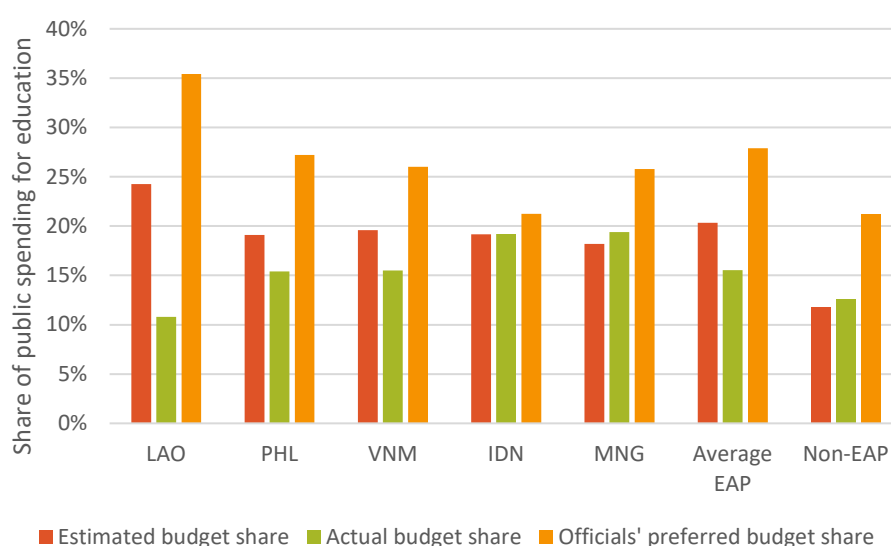
Sources: CGD–World Bank survey, 2022. Survey respondents were asked two financing questions: (i) Now thinking about the overall government budget, roughly what percentage do you think is spent on education? and (ii) What percentage of the total government budget do you think should be spent on education? Data on actual budget share from UNESCO for 2021 (http://sdg4-data.uis.unesco.org/).

The magnitude of the misperceptions is larger in EAP than in other countries, and in a different direction. On average, the gap between the estimated share of the budget and the actual share of the budget is 4 percentage points in surveyed countries in EAP, while the gap is about 1 percentage point in the other direction in non-EAP countries. As a share of education funding, this gap is very large in real terms, as the average gap amounts to 25 percent of total actual public resources budgeted for education in the surveyed countries of the EAP region.

## 6.2   Officials' belief in the need for additional public funding aligns with data.

Perceptions of the need for additional spending on education among surveyed officials align with available data on the actual needs of EAP education systems. Public spending for education in the EAP

---

[16] Except in Indonesia, which constitutionally mandates 20 percent of the national budget be spent on education.

region is indeed well below what could be expected given the countries' level of development. Public spending per child aged 5 to 19 expressed as a share of per capita GDP lags behind the global pattern from one percentage point in Vietnam to 18 percentage points in Lao PDR (Figure 16).

Figure 16: Public funding per child and level of development
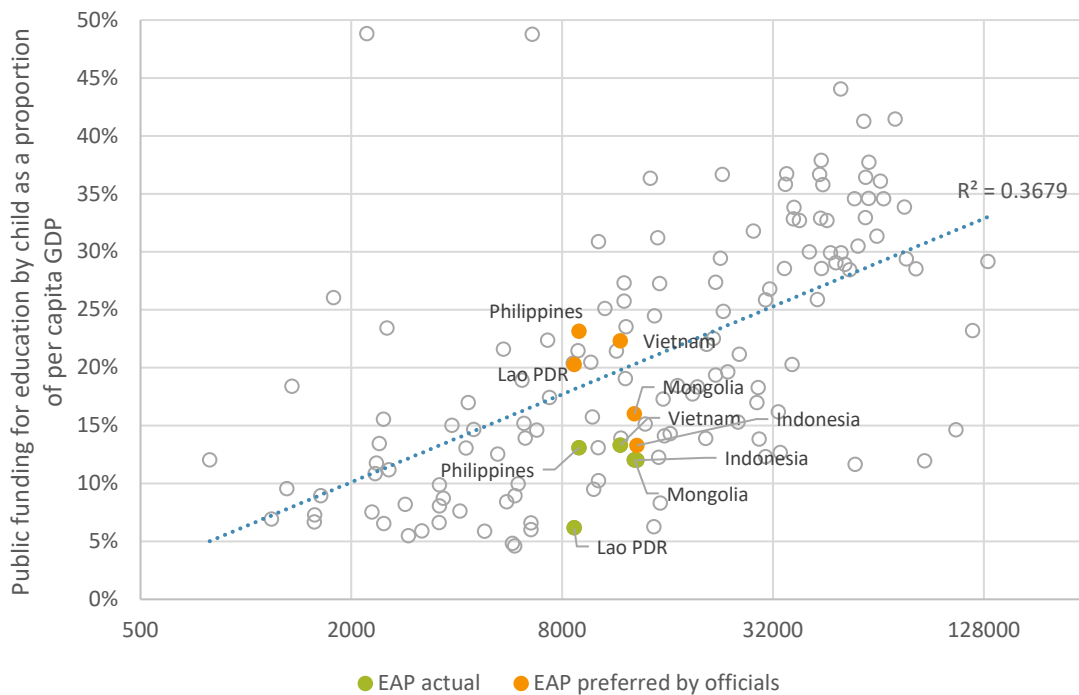
Source: Authors' calculations from UNESCO SDG 4 and World Development Indicators. The gray disks indicate actual levels for the other countries for which public funding per child could be computed using UNESCO data. The dotted line is the global pattern corresponding to the linear regression of funding per child over the levels of development (as measured by per capita GDP in PPP).

Per child spending is about a third of what one would expect in Lao PDR given the country's per capita GDP. It is also 40 percent lower than expected in Indonesia and Mongolia and about 30 percent lower than expected in the Philippines and Vietnam. This lower-than-expected level of public funding for education helps explain why learning poverty is so elevated in Lao PDR and the Philippines.

Learning poverty tends to decline rapidly among low- and middle-income countries as public funding for education reaches about 30 percent of per capita GDP, before stalling above that threshold (Figure 23 in the Annex). Although officials in the EAP region may not be fully aware of the extent of the learning crisis, they still believe that public funding for education needs to be increased.[17]

---

[17] This is true even in countries such as Indonesia, which already spends 20 percent of its national budget on education. While this is a large amount as a proportion of budget expenditure, it is a small amount in GDP terms, since Indonesia does not collect enough taxes in proportion to the value of its economy (World Bank, 2020).

6.3 Officials believe that more money is needed but are skeptical about effectiveness.

The gap between officials' preference for education spending and their perception about current spending on education is also larger in the region than in other surveyed countries (Figure 7). Indonesia is an outlier in EAP, as official data perfectly match officials' estimates and the preferred level of spending is only 2 percentage points higher.[18] In Lao PDR, the Philippines, and Vietnam, officials overestimate public spending substantially while still believing that more resources should be spent. The magnitude of the difference between actual spending and desired spending is about 12 percentage points, which is significantly larger than in non-EAP countries where this same gap is only about 9 percentage points. The average estimated level would require a 31 percent increase in spending, while the average desired level of spending would require a 79 percent increase in actual education spending in surveyed EAP countries.

Even in a country such as Lao PDR, where financing was identified as a major constraint, officials commonly believe that additional money would not improve learning (Figure 17). There is considerable variation in the opinions of officials on whether additional resources for education will improve learning. If a system does not have the capacity to spend resources effectively, it would make sense that additional financing would not improve student learning.

*Figure 17: Share of officials who believe that more money will **not** improve learning.*
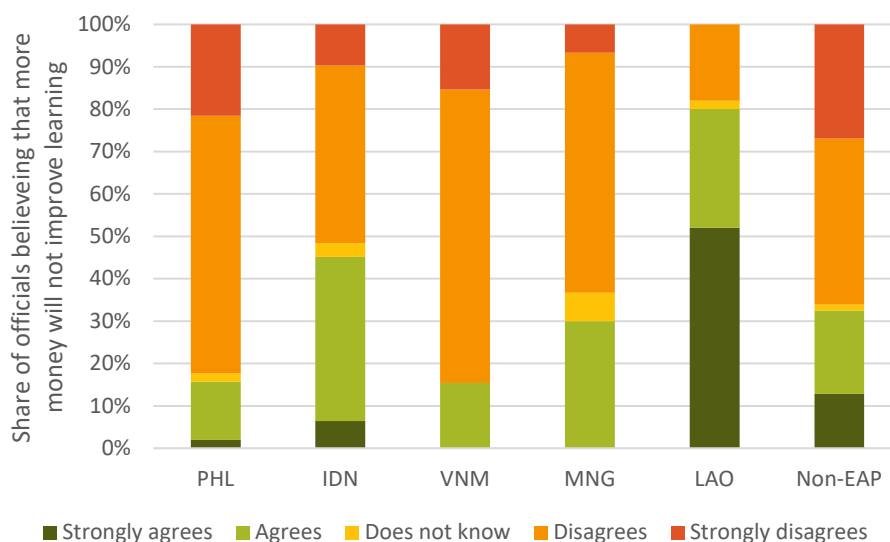
Sources: CGD–World Bank survey, 2022. Per capita GDP is not statistically linked with the displayed variable.

Most officials in all the other EAP countries believe that additional resources would improve learning, in line with responses of surveyed officials from countries outside the region. In Indonesia however, only about half of officials believe more resources would be beneficial, while in Mongolia, the figure is about a third.

---

[18] This is likely explained by the constitution, according to which public spending for education should match 20 percent of the total budget.

Most officials believe that more capacity is needed, rather than simply more money to improve student learning. This is likely true for several countries in the survey, since above a certain level of minimum spending, additional financing is unlikely to improve learning in an education system that is not aligned for learning (World Bank, 2018). Findings from Education Public Expenditure Reviews in the region show that education budgets are often not allocated based on specific needs and tend to be inequitably distributed across provinces/districts in the country (World Bank, 2020; Afkar et al., 2020; World Bank, 2021). However, if current spending is *below* a certain level, additional spending could go a long way toward improving learning. At a cross-country level, there is a correlation between education quality and per student spending expressed in per capita GDP (World Bank, 2023), so the data lead us to expect that if Lao PDR or Mongolia spent more on education, learning would improve. The officials surveyed from these countries tend not to agree with this proposition. Over the whole sample, there is surprisingly no association between the extent to which officials believe that more money will not matter, and whether they flagged money as the main barrier to learning (Figure 18). In addition to capacity, there are additional challenges in many EAP education systems that may explicitly or implicitly drive officials' perceptions about why additional resources will not improve learning (e.g., patronage, corruption, and politics). In addition, officials' perceptions may be driven by demand-side factors linked to learning unrelated to public spending (children's ability, household engagement in children's education, private tutoring availability, etc.).

Figure 18: Correlation between the officials selecting money as the main barrier to improving learning and officials agreeing with the statement that more money would not make an impact.
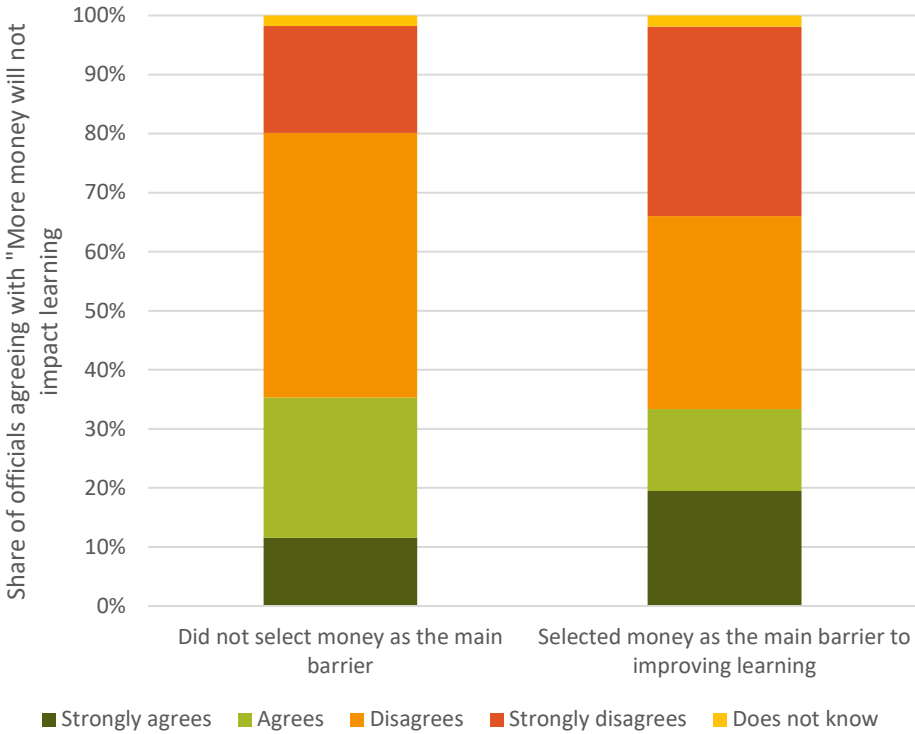

Source: CGD—World Bank survey 2022.

6.4   Expected returns to education vary widely.

Officials were asked about perceived income levels of similar individuals with different amounts of education (primary, secondary, TVET or tertiary). By comparing their responses from one level of education to another, we can infer how officials foresee returns to different amounts of education.

Overall, perceived returns to secondary education look similar in EAP and non-EAP countries. Perceived returns to tertiary education however are lower in the region than outside of it (Figure 19). Expected returns are much larger at the tertiary level but differ significantly for all countries in the region (across primary, secondary and tertiary completion).

Figure 19: Differences in education premium envisioned by level and country.
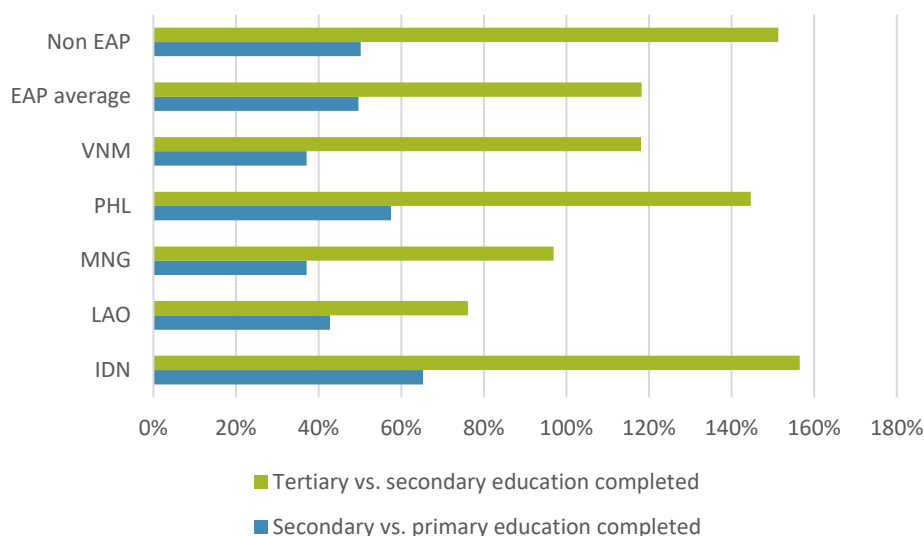
Source: CDG–World Bank 2022 survey.

6.5   Officials have diverse views on education premiums and substantially overestimate returns to tertiary education.

Actual income gains for individuals who complete secondary education versus those who only complete primary education globally were 51 percent on average (Patrinos and Montenegro, 2014), while the anticipated premium estimated by respondents for completing secondary education ranged from 38 to 63 percent, for an average of 48 percent. Given that the available data on actual returns are not updated, the estimates for returns to secondary education completion are quite close on aggregate. However, there are considerable differences between countries. For example, Lao PDR respondents estimate the returns to secondary by 20 percentage points above the global average, while respondents in the Philippines estimate 25 percentage points below the global average.

According to officials, labor market premiums associated with tertiary education (compared with secondary education) are expected to be much larger than actual premiums associated with secondary education (and compared with primary education). The EAP respondents expected premium for completing tertiary education ranged from 77 to 161 percent, versus 41 percent to 122 percent actual

(Figure 20). The cross-country differences are important and interesting because they help show the comparative value that these officials place on different kinds of education.

The gaps between envisioned and actual returns also differ from one country to another. In Indonesia, Vietnam and Mongolia, expected secondary premiums are not far from available published global data. In Lao PDR, secondary premiums are half as large as expected by officials, while they are underestimated significantly in the Philippines. At the tertiary level, education premiums are vastly overestimated by officials in all EAP countries. Actual returns at the tertiary level range from 20 percent in Lao PDR to just under 60 percent in the Philippines. Yet, expected returns are at least twice as large compared with the actual data for 2014 in all countries. This overvaluing of tertiary education may lead to disproportionate investments in tertiary education relative to primary education or other sectors.

Figure 20: Estimated versus Actual Returns to Education by Sector.
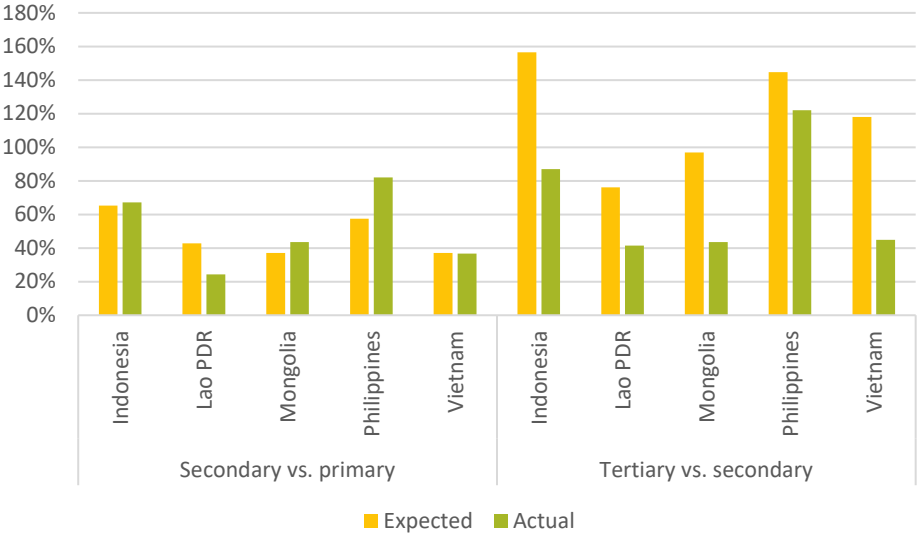
Source: CGD–World Bank 2022 survey for envisioned premiums and Patrinos and Montenegro (2014) for a compilation of the actual premiums.

6.6 Ministry of finance officials overestimate the returns to tertiary education.

Officials of ministries of finance overestimate university premiums and underestimate returns to TVET and secondary by a larger factor than officials of ministries of education. On average, among EAP countries, expected university premiums are 52 percent larger for surveyed finance officials than for education officials (Figure 21). Conversely, finance officials' estimates of premiums are 32 percent lower for secondary (versus primary) than those of education officials. Unrealistic expectations for university returns may lead policy makers to overinvest in higher education and not invest enough in primary, TVET or secondary levels.

Figure 21: Comparing envisioned education premiums estimated by ministry of finance and ministry of education officials.

Source: CGD–World Bank 2022 survey for envisioned premiums.

Why do officials tend to overvalue tertiary education and undervalue primary and TVET? One reason is likely that these officials themselves have completed tertiary education, and so are biased in favor of the value of tertiary education. Higher education is often associated with prestige and may command more attention than other levels of education such as primary and TVET. There is also some uncertainty on the actual returns; the available data are almost a decade old, and focus on formal employment, so likely differ from returns to education in today's economies.

6.7 Gaps between expected and actual returns differ widely by gender and levels of education as well.

The gap between officials' estimates and actual education premiums differs substantially from one country to another, by gender and level of education (Figure 22). As shown earlier, expectations surpass actual premiums at the tertiary level, for both gender and in all countries by large margins, except for the tertiary premium for males in Lao PDR. The gender divide is not uniform. In all countries apart from Indonesia, the premiums for secondary are underestimated more (or overestimated less) for females than for males. In the Philippines, the returns to secondary education for females are underestimated by large margins. The same pattern is observed at the tertiary level, where returns to tertiary are overestimated much more for males than for females in that country. But higher expectations for male education returns are not a common pattern of the region. In both Vietnam and Lao PDR, tertiary premiums for females are overestimated even more for women than for men.

Figure 22: Gaps between expected and actual education premiums by country, gender and levels of education
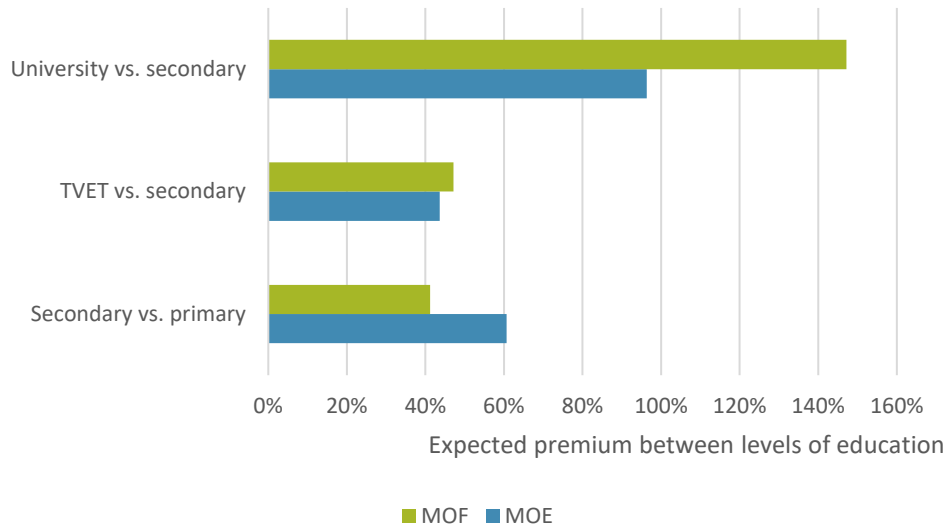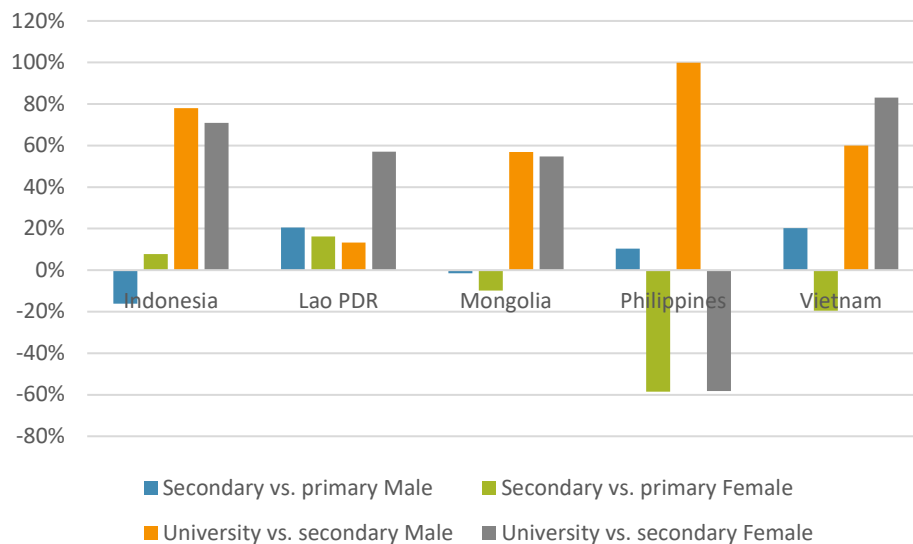

Source: CGD–World Bank 2022 survey for envisioned premiums and Patrinos and Montenegro (2014) for a compilation of the actual premiums.

7   How is this research relevant for EAP education reform and globally?

Survey responses of officials from twelve middle-income EAP countries about their perceptions of education highlight that these officials, in many cases, have surprising views on key areas of policy interest. Officials in EAP prioritize increasing school completion over improving learning, underestimate learning poverty by a higher margin than other regions and believe implementation capacity is the greatest barrier to improving student learning. If officials think children know more than they do, and prioritize increased years of schooling over increased learning, it seems less likely that they will take the necessary steps to ensure that all children are learning.

Surveyed senior public officials in EAP tend to have positive views on utilizing education technology as a tool for equitable learning, supporting access for students with disabilities, supporting gender equality, and opposing violence against children. Despite this support for inclusion, they tend to select teacher training or other investments over additional teachers for children with disabilities when given the choice.

Surveyed EAP officials tend to overestimate public financing for education and question the effectiveness but not the need for additional education spending. Officials tend to believe distance learning was effective during COVID-19-related school closures and underestimate the risk of increased learning inequality from EdTech. They tend to think that the returns to completing an advanced degree are much higher than they likely are, and officials from the ministry of finance overestimate this by a larger margin than other officials. This may lead to an overinvestment in tertiary education, to the detriment of improvements in primary and technical education sectors.

Ensuring that these decision makers have accurate access to information about learning levels and government spending on education in their country, as well as the relative estimated effectiveness of different types of learning interventions, is essential to turn the rhetoric of support for inclusion and equity into higher levels of learning for all. However, **information alone is unlikely to be sufficient**. There are political risks to embracing change, financial costs to implementing new policies, and possible negative reactions to accepting that the status quo is not delivering learning. These "frictions" to implementing new ways of teaching and managing education systems are unlikely to be resolved simply by providing information or data. They require identifying and reducing barriers to change, following Nordgren and Schonthal (2022) and Lewin (1951). Rather than focusing on learning poverty levels, it may be helpful to articulate **what teachers and systems leaders can do differently, how to do it, and why** (World Bank, forthcoming)**.** Being curious and listening to decision makers and examining why making changes is difficult for them and other system stakeholders could help international partners better understand how to support change for student learning improvement.

How important are the opinions of policy makers? The global education discourse supported by actors such as the World Bank and UN agencies focuses intensely on student learning, especially following the COVID-19 pandemic (e.g., SDG 4, World Bank WDR 2018, World Bank, 2022b). The perceptions of regional education policy makers appear different from those of international partners in important ways, both in terms of diagnostics (levels of learning poverty and education financing), as well as priorities and preferences (increasing completion of secondary over increasing learning; a focus on implementation capacity). These disconnects, gaps and misalignment contrast with important areas of alignment, including protecting children from violence and including children with disabilities in school. Even for those areas of alignment, turning these preferences into classroom level results is a major challenge.

 The most important limiting factor to learning identified by surveyed officials in the region, implementation capacity, does not have clear support mechanisms from the international discourse on the COVID-19 pandemic, which focuses on learning loss and recovery (cf. World Bank, 2022 a and b). While widely acknowledged as essential, there is little consensus on how to support capacity building for education systems either internally or with international assistance, or even how to measure it, and at what level of the education system it should be measured (Yarrow et al., forthcoming).

In order for international actors to more effectively support EAP countries' education systems to achieve improved learning outcomes for all students, effort is needed to bring the perspectives and priorities of national policy makers and those in the international community into greater alignment. In the absence of alignment, development agencies risk supporting initiatives that are outside of, or even counter to, the actual priorities of governments. In areas where there is already strong alignment in rhetoric, international partners can work to identify frictions preventing action and investment, for example to improve inclusion of children with disabilities. In areas where there is misalignment in priorities and preferences, international partners can work to improve awareness of data for example on learning poverty and evidence on effective practices as well as to identify stakeholders and political actors willing and able to support system re-alignment for learning.

References

Adelman, S., Gilligan, D.O., Konde-Lule, J., Alderman, H. 2019. "School Feeding Reduces Anemia Prevalence in Adolescent Girls and Other Vulnerable Household Members in a Cluster Randomized Controlled Trial in Uganda." *Journal of Nutrition.* 149 (4):659–666. doi: 10.1093/jn/nxy305.

Afkar, R., Luque, J., Nomura, S., and Marshall, J. 2020. *Revealing How Indonesia's Subnational Governments Spend their Money on Education.* World Bank: Washington, DC.

Afkar, Rythia; Tara Beteille; Mary Breeding; Toby Linden; Andrew D. Mason; Aaditya Mattoo; Tobias Pfutze; Lars M. Sondergaard and Noah Yarrow. 2023. *Fixing the Foundation: Teachers and Basic Education in East Asia and Pacific.* Washington DC: World Bank Group

Aurino, E., Gelli, A., Adamba, C., Osei-Akoto, I., and Alderman, H. 2023. "Food for Thought? Experimental Evidence on the Learning Impacts of a Large-Scale School Feeding Program." *Journal of Human Resources.* 58 (1): 74–111.

Baekgaard, M., Blom-Hansen, J., and Serritzlew, S. 2015. "When Politics Matters: The Impact of Politicians' and Bureaucrats' Preferences on Salient and Nonsalient Policy Areas: When Politics Matters." *Governance.* 28 (4): 459–474.

Cahu, P. and Sondergaard, L. 2023. Estimating interim learning poverty for Pacific Island Countries. World Bank.

Chakraborty, T. and Jayaraman, R. 2019. "School feeding and learning achievement: Evidence from India's midday meal program." *Journal of Development Economics*. 139: 249–26.

Crawfurd, L., Hares, S., Minardi, A., and Sandefur, J. 2021. "Understanding Education Policy Preferences: Survey Experiments with Policymakers in 35 Developing Countries." CGD Working Paper 596. Washington, DC: Center for Global Development. https://www.cgdev.org/publication/understanding-education-policy-preferences-surveyexperiments-policymakers-35-developing

Crawfurd L., Hares, S., and Oyewande, O. 2022. "What Do Countries Prioritize in Education? An Analysis of the 'Statements of Commitment' at the Transforming Education Summit." Center for Global Development (blog), September 28, 2022. https://www.cgdev.org/blog/what-do-countries-prioritise-education-analysis-statements-commitment-transforming-education

Ding, E., Arias, O., Del Toro Mijares, A.T., and Ezequiel, M. 2022. "Putting teachers' well-being and empowerment at the center of learning recovery and acceleration. Education for Global Development" (blog), October 13, 2022. World Bank. https://blogs.worldbank.org/education/putting-teachers-well-being-and-empowerment-center-learning-recovery-and-acceleration

Global Education Evidence Advisory Panel. 2022. *Prioritizing learning during COVID-19: The most effective ways to keep children learning during and postpandemic. Recommendations of the Global Education Evidence Advisory Panel.* [K. Akyeampong, T. Andrabi, A. Banerjee, R. Banerji, S. Dynarski, R. Glennerster, S. Grantham-McGregor, K. Muralidharan, B. Piper, S. Ruto, J. Saavedra, S. Schmelkes, H. Yoshikawa]. Washington D.C., London, Florence: The World Bank, FCDO, and UNICEF Office of Research -

Innocenti. https://documents1.worldbank.org/curated/en/114361643124941686/pdf/Recommendations-of-the-Global-Education-Evidence-Advisory-Panel.pdf

Hanushek, E., and Woessmann, L. 2015. *The Knowledge Capital of Nations: Education and the Economics of Growth.* Cambridge, MA: MIT Press.

Kirabo Jackson, C. 2020. "Does School Spending Matter? The New Literature on an Old Question." *An Equal Start: Policy and Practice to Promote Equality of Opportunity for Children.*

Lewin, Kurt. 1951 "Field theory in social science: selected theoretical papers" as summarized by Khaneman, Daniel. Freakonomics Episode 306 "How to launch a behavior change revolution" Oct 5, 2017 produced by Dubner, Stephen J. *https://freakonomics.com/podcast/how-to-launch-a-behavior-change-revolution/*

Manuelli, R. E. and Seshadri, A. 2014. *Human Capital and Wealth of Nations.* American Economic Review 104(9): 2736-2762

Montenegro C. and Patrinos H. 2014. Comparable Estimates of Returns to Schooling Around the World. World Bank Policy Research Working Paper 7020.

Nordgren, L. and Schonthal, D. 2022. The Human Element. Hoboken, NJ: Wiley

OECD (2019), PISA 2018 Results (Volume I): What Students Know and Can Do, PISA, OECD Publishing, Paris, https://doi.org/10.1787/5f07c754-en.

Philip G. Ney, Tak Fung, Adele Rose Wickett. 1994. The worst combinations of child abuse and neglect, Child Abuse & Neglect, 18 (9): 705–714. https://doi.org/10.1016/0145-2134(94)00037-9.

Pritchett, L. 2013. *The Rebirth of Education: Schooling Ain't Learning.* Washington, DC: Center for Global Development.

Smets, L. 2020. "Supporting Policy Reform from the Outside." *The World Bank Research Observer* 35 (1): 19–43 https://doi.org/10.1093/wbro/lkz006

Thomson, S. 2018. Achievement at school and socioeconomic background—an educational perspective. *npj Science of Learning* 3 (5) https://doi.org/10.1038/s41539-018-0022-0

OECD. 2019. PISA 2018: Insights and Interpretations. https://www.oecd.org/pisa/PISA%202018%20Insights%20and%20Interpretations%20FINAL%20PDF.pdf

UNESCO. 2023. *Ready to learn and thrive: school health and nutrition around the world.* UNESCO Digital Library. https://unesdoc.unesco.org/ark:/48223/pf0000384421

UNICEF. 2021. "Socioeconomic Impact of the COVID-19 Pandemic on Households in Indonesia: Three Rounds of Monitoring Surveys." https://www.unicef.org/indonesia/media/13106/file/Socio-Economic%20Impact%20of%20COVID-19%20on%20Households%20in%20Indonesia.pdf

UNICEF. 2021. Southeast Asia Regional Report on Maternal Nutrition and Complementary Feeding. Bangkok: UNICEF East Asia and Pacific. https://www.unicef.org/eap/media/9466/file/MaternalNutritionandComplementaryFeedingRegionalReport.pdf

World Bank. 2018. World Development Report. "LEARNING to Realize Education's Promise." Washington, DC: World Bank.

World Bank. 2020. Chapter 6. Education - Indonesia Public Expenditure Review 2020: Spending for Better Results. Washington, DC: World Bank.

https://www.worldbank.org/en/country/indonesia/publication/indonesia-public-expenditure-review#:~:text=The%20Indonesia%20Public%20Expenditure%20Review,to%20achieve%20Indonesia's%20development%20objectives.

World Bank. 2021. Chapter 4. Aligning Education Spending to Avoid Learning Crisis – Papua New Guinea Public Finance Review. Washington, DC: World Bank.

World Bank. 2022a. The State of Global Learning Poverty. https://thedocs.worldbank.org/en/doc/e52f55322528903b27f1b7e61238e416-0200022022/original/Learning-poverty-report-2022-06-21-final-V7-0-conferenceEdition.pdf

World Bank, the Bill & Melinda Gates Foundation, FCDO, UNESCO, UNICEF, and USAID. 2022b. *Guide for Learning Recovery and Acceleration: Using the RAPID Framework to Address COVID-19 Learning Losses and Build Forward Better.* Washington, DC: World Bank. https://www.worldbank.org/en/topic/education/publication/the-rapid-framework-and-a-guide-for-learning-recovery-and-acceleration

World Bank. 2023. *Raising Pasifika: Strengthening Government Finances to Enhance Human Capital in the Pacific*.

https://www.worldbank.org/en/country/pacificislands/brief/2023-public-expenditure-review-per-for-nine-pacific-island-countries#:~:text=The%20Public%20Expenditure%20Review%20(PER,increase%20domestic%20revenues%20across%20nine

World Bank. Forthcoming. *Making Teacher Policy Work: Small Changes, Big Results.*

Yarrow, N., Biag, M., Bode, M., Aklilu, T., Boni A. *Strengthening Education Systems in Low-Capacity Contexts.*

Annexes

Table 1: list of participating countries to the 2022 and 2020 CGD - World Bank survey

Country name	Average estimated learning poverty
2022 countries	
Bangladesh	-
Congo, Dem. Rep.	97%
Ghana	-
Indonesia	53%
Lao PDR	98%
Mongolia	40%
Nigeria	-
Pakistan	77%
Peru	44%
Philippines	91%
Uganda	-
Vietnam	18%
2020 countries	
Georgia	68%
Vanuatu	55%
Benin	41%
Solomon Islands	49%
Cameroon	64%
Burkina Faso	65%
Pakistan	34%
South Africa	42%
Togo	52%
Côte d'Ivoire	61%
Comoros	63%
Mali	37%
Madagascar	33%
Congo, Dem. Rep.	56%
Angola	35%
Bangladesh	47%
Congo, Rep.	71%
Gabon	66%

Gambia, The	59%
Ghana	49%
Guinea-Bissau	27%
Haiti	32%
Kenya	65%
Liberia	30%
Malawi	43%
Mozambique	30%
Namibia	51%
Nepal	47%
Nigeria	39%
Rwanda	77%
Sierra Leone	32%
Somalia	37%
Tanzania	31%
Uganda	43%
Zambia	46%

Table 2: Average SEA-PLM scores by countries, gender and subject

		Cambodia	Lao PDR	Myanmar	Malaysia	Philippines	Vietnam
Boys	Reading	287	275	290	315	285	336
	Math	288	280	288	314	287	342
	Writing	279	281	295	312	283	323
Girls	Reading	294	277	293	324	291	339
	Math	292	280	288	317	289	343
	Writing	291	289	302	324	294	333
Girls-boys gap	Reading	7	2	3	9	6	4
	Math	3	0	0	3	2	0
	Writing	12	8	7	11	11	11

Source: SEA-PLM 2019 data.

Table 3: Probit modeling of the selection of various projects in a Discrete Choice Experiment

|	Estimate	Standard error	P-value
Spending	0.028	0.037	0.453
Will have results rapidly	-0.082	0.055	0.133
Male	0.018	0.034	0.598
High level	-0.042	0.045	0.346
Choice (Ref =1)	-0.097	0.045	0.033
Group (Ref=MOE)			
MOF	0.105	0.036	0.003
MP	0.034	0.061	0.572
EAP region	0.130	0.108	0.230
Projects (Ref=Building hospitals)			
Project: in service training	0.740	0.083	0.000
Project: in service training (EAP)	0.058	0.142	0.683
Project: laptop	0.204	0.086	0.018
Project: laptop (EAP)	0.041	0.159	0.795
Project: school feeding	0.706	0.085	0.000
Project: school feeding (EAP)	-0.406	0.143	0.004
Project: Canceling fees	0.599	0.082	0.000
Project: Canceling fees (EAP)	0.031	0.147	0.834
Project: structured reading	0.858	0.080	0.000
Project: structured reading (EAP)	0.022	0.143	0.878
Project: Support for inclusion	0.685	0.081	0.000
Project: Support for inclusion (EAP)	-0.172	0.139	0.216
Intercept	-0.227	0.098	0.021

Source: Authors' calculations from CGD – World Bank 2022 dataset. The probability of selecting the project is regressed over the type of project and characteristics of the respondent. Factors that are significant at the 5 percent threshold are indicated in bold.

Table 4: Factor analysis of items about gender equality and inclusion of children with disabilities

Items	Factor loadings	KMO
Promoting gender equality	0.3536	0.7947
Men have more rights to jobs	-0.2503	0.8102
Teacher having sex with students should be suspended	0.3125	0.8036
Same access for children with disabilities	0.6593	0.6154
Accommodations for children with disabilities	0.6616	0.6148
Overall		0.6569

Source: Analysis of the CDG 2022 microdata.

Figure 23: Learning poverty rates and per student public education funding as a percentage of per capita GDP.
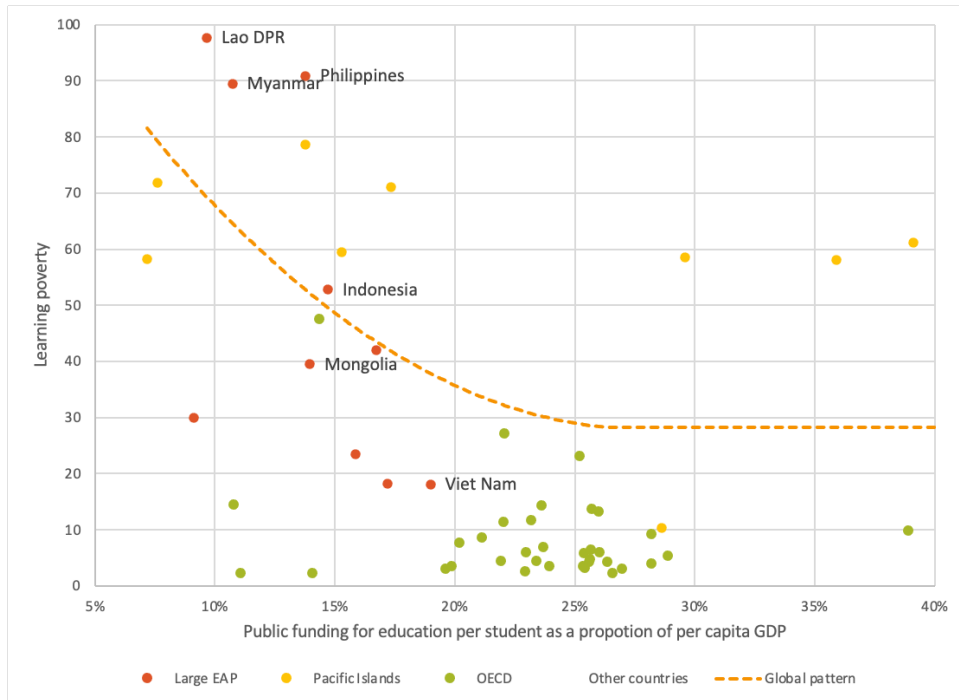
Source: Authors' calculations from UNESCO SDG4, World Development Indicators and the Learning Poverty 2022 update. The global pattern in blue is based on an OLS regression of learning poverty over public funding for education per student as per capita GDP and this same variable squared. The pattern is quadratic and assumed to remain flat beyond 30 percent.