Philippine Institute for Development Sturian sa mga Pag-aaral Pangkaumlaran ng Pilipinas

ISSN 2508-0865 (electronic)

No. 2021-05 (August 2021)

We need to invest more in learners, learners, learners!

Jose Ramon G. Albert, Lovelaine B. Basillote, and Mika S. Muñoz

In September 2015, countries across the world committed to the Sustainable Development Goals (SDGs), which include SDG 4 to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" and 16 other global goals (UN 2015a). The global commitment for SDG4 is consistent with the policy declarations in the Philippine Constitution that (1) primary education is mandatory (Article XIV, Section 2.2), (2) quality education should be protected and promoted (Article XIV, Section 1), and (3) the State must establish and maintain free public education at the primary and secondary levels (Article XIV, Section 2).

The Millennium Development Goals (MDGs), the predecessor of the SDGs, targeted to attain universal primary education (UPE). Thus, during the MDG period from 2000 to 2015, most developing countries focused on achieving UPE or at least improving participation in primary education (ADB 2015; UN 2015b). In the Philippines, the Department of Education (DepED) has been implementing the *Balik-Aral* program to encourage those who have dropped out to enroll and complete basic education. Policies to encourage access, such as the Kindergarten Education Act (Republic Act [RA] 10157)

Salient Points:

- Although the Philippines has a policy thrust to invest heavily in education, it has been underinvesting in the sector. Since 1990, public spending in education relative to the gross domestic product had been at most 3.8 percent (in 1998), dipping to 2.8 percent in 2019.
- Underinvestment in education has had devastating effects on the quality of learning. Learning outcomes measured through the National Achievement Test have remained below standards, with most students achieving low proficiency across subjects. These poor learning outcomes have also been observed in international assessments, such as the 2018 Program for International Student Assessment (PISA) and the 2019 Trends in International Mathematics and Science Study.
- The Philippines needs to quadruple its education spending to reach the average global reading proficiency (487 points) in the PISA; doubling spending could only increase reading proficiency by around 10 percent from current levels.

and the Enhanced Basic Education Act (RA 10533), were also introduced in the early 2010s. In addition, support programs, such as the *Pantawid Pamilyang Pilipino* Program, have incentivized the poor to send their children to school. These DepED policies and programs, coupled with improved budgets, undoubtedly reduced the out-of-school children in the country (David et al. 2018) and increased the size of the school system. As a result, by 2019, the Philippines has attained nearly UPE, reduced dropouts, and increased completion in primary education (PROMAN 2021).

The goals and targets on education under the SDGs have leveled up from bringing all kids to primary school to ensuring the quality of everyone's learning. Changes in the socioeconomic landscape have also necessitated a focus on SDG 4 (quality learning)—an education system's success lies in its ability to equip its learners with the skills and competencies needed to navigate a world filled with volatility, uncertainty, complexity, and ambiguity.

This *Policy Note* looks into how the Philippines has fared in education spending, considering that more investment is needed to ensure learning quality. It also examines the implications of how and where the budget for education is spent, especially for basic education. Finally, the paper presents some key policy suggestions moving forward.

Spending on the education sector

The Philippine Constitution mandates the State to assign the highest budgetary priority to education. In 2021, the budget for the education sector amounted to PHP 751.7 billion (corresponding to 16.7 percent of the total government budget), with the DepED getting PHP 605.74 billion. However, while the 2021 DepED budget increased by 7.4 percent from 2020, this increment is a pittance compared to the growth in other departments' budgets. For example, among the top ten departments that received the highest budgets for 2021, the Department of Public Works and Highways (DPWH) saw a 52.9-percent increase in its allocation compared to 2020 levels, while that of the Department of National Defense increased by 16.4 percent, the Department of Transportation and Communications by 70.5 percent, and the Department of Labor and Employment by 17 percent (Cuenca 2020).

From 2010 to 2020, the DepED budget had more than tripled in (nominal) levels (Table 1) due to the K to 12 Basic Education Program. With the shift to

Table 1. Education sector appropriations (in million PHP), 2010–2020

		2010	2011	2012	2013	2014	2015	2016	2017*	2018	2019	2020
AND REAL PROPERTY OF THE PROPE	DepED	174,966	207,271	238,766	293,401	309,415	367,122	433,383	568,436	580,632	531,565	554,213
TESDA	TESDA	2,991	2,953	2,855	3,107	5,250	5,442	6,861	6,828	7,717	12,730	13,152
	CHED	2,539	1,695	2,207	3,604	8,012	3,402	9,657	19,576	50,534	52,436	47,907
	SUCs	22,477	25,097	27,307	34,924	38,075	44,397	49,661	61,440	65,245	68,338	77,352

DepED = Department of Education; TESDA = Technical Education and Skills Development Authority; CHED = Commission on Higher Education; SUCs = State universities and colleges; PHP = Philippine peso

Source: DBM (various years)

K to 12 (Kindergarten to Grade 12), more teachers had to be hired, and more classrooms had to be built to deliver the three more grade levels (i.e., kindergarten and two years of senior high school).

Table 2 presents the total spending for the entire education sector, which includes the Basic Education Facilities Fund (BEFF), now lodged with DPWH, and budgets of local government units (LGUs) for education. The table also shows the total education spending in relation to gross domestic product (GDP). As with the trends in DepED appropriations, total education spending also increased consistently between 2010 and 2017 (in nominal terms and as a percentage of GDP). While LGU spending had increased in most years, the DepED and BEFF spending from 2010 to 2019 had increased faster. Meanwhile, the share of LGUs in total education spending decreased from about 6 percent in 2010 to about 3 percent in 2017.

From 2010 to 2019, about 85 percent of the national education budget went to the DepED. A breakdown of the DepED budget suggests that 70.2 percent of this appropriation went directly to personal services, i.e., teacher and staff salaries (Table 3). Of the remaining 29.8 percent given to maintenance and other operating expenses (MOOE), 11.2 percent went to school buildings, while the balance was spread throughout MOOE and various other small programs initiated by the department. These spending patterns have hardly changed from more than a decade ago (e.g., Human Development Network 2009; Manasan 2010). With the thrust of the global goals now on quality education for all, it is unclear how continuing these levels and quality of spending could contribute to achieving the SDG 4 targets.

Beyond its policy declarations, the Philippines has consistently recognized the relevance of education in its socioeconomic development plans. For instance, the most recent *Philippine Development Plan* justifies education investments on account of long-term aspirations of Filipinos for high educational attainment (NEDA 2015) and the increasing demand in the labor market for a more educated labor force (NEDA 2017).

Higher educational attainments are correlated with the chances of a Filipino to get engaged in decent and nonvulnerable employment. Further, education raises the quality of jobs, improves productivity, and thus, sustains and accelerates economic growth. A more educated, especially a more digitally skilled workforce, is also needed to meet the demands of the Fourth Industrial Revolution (World Bank 2019).

Table 2. Total basic education spending (in million PHP), 2010–2019

	2010	2011	2012	2013	2014	2015	2016	2017*	2018	2019
National government	191,118	218,817	240,238	291,030	284,606	365,202	430,048	577,924	567,092	500,272
Local government	13,526	14,435	16,232	16,654	15,976	15,984	16,468	18,889	20,868	24,018
Total government spending as percentage of GDP	(2.2)	(2.3)	(2.3)	(2.6)	(2.3)	(2.7)	(3.0)	(3.6)	(3.0)	(2.8)

PHP = Philippine peso; GDP = gross domestic product

*In 2017, appropriations increased to build additional school facilities to accommodate more years in secondary education under the K to 12 program. However, over PHP 100 billion was transferred from DepED to DPWH as BEFF since DPWH is responsible for constructing facilities. As a result, DepED-managed spending represented only about 77 percent of basic education spending in 2017, a significant reduction from about 90 percent in 2013. Source: World Bank (2020) Table 3. Breakdown of DepED budget (in million PHP), 2010-2019

		2011	2012	2013	2014	2015	2016	2017	2018	2019
	Personal services	152,309.6	155,232.6	187,203.5	194,440.5	209,813.7	253,314.4	328,454.3	353,375.3	374,645.2
	School building budget	10,441.2	8,780.0	14,110.4	39,028.8	48,062.6	73,182.5	109,313.6	84,783.6	14,363.3
×	Other MOOE	29,562.2	37,808.4	31,281.1	48,304.7	63,182.7	85,408.1	106,341.1	115,154.1	112,107.5

DepED = Department of Education; PHP = Philippine peso; MOOE = maintenance and other operating expenses Source: DBM (various years)

Despite the country's policy thrusts and national plans, spending for education has never reached 4 percent of GDP (with public expenditures ranging from a low of 2.3% in 2005 to a high of 3.8% in 1998; spending was 2.8% in 2019). Such spending is relatively low, relative to what several neighbors, such as Singapore (25.8% in 2018), Brunei Darussalam (4.4% in 2016), Malaysia (4.2% in 2019), Viet Nam (4.2% in 2018), and Indonesia (3.6% in 2015) have been spending (Figure 1). Meager education spending has dire consequences on the quality of education. Results of the National Achievement Test (NAT), administered to all Grade 6 and Grade 10 students, indicate the looming learning crisis in the Philippines (Figures 2 and 3).

On average, proficiency levels have been nearly proficient at best as of 2017 (and these results had hardly changed even before the K to 12 program



Figure 1. Education spending as a share (in %) of GDP and log of real GDP per capita (constant LCU, recent years)

GDP = gross domestic product; LCU = local currency unit; BRN = Brunei Darussalam; MYS = Malaysia; SGP = Singapore; PHL = Philippines; MMR = Myanmar; KHM = Cambodia; LAO = Laos; IDN = Indonesia; VNM = Viet Nam

Notes: (i) ASEAN member-states are identified; (ii) Data on education spending for the Philippines sourced from Table 2 of this report while data for SG sourced from data.gov.sg Sources: World Bank (various years); Reyes et al. (2019); Data.gov.sg (2019)



Figure 2. Mean percentage score in National Achievement Test (Grade 6), 2017–2018

Note: Criteria of proficiency levels: highly proficient (90–100), proficient (75–89), nearly proficient (50–74), low proficient (25–49), not proficient (0–24) Source: Reyes et al. (2019)



Figure 3. Mean percentage score in National Achievement Test (Grade 10), 2017–2018

Note: Criteria of proficiency levels: highly proficient (90–100), proficient (75–89), nearly proficient (50–74), low proficient (25–49), not proficient (0–24) Source: Reyes et al. (2019)

was initiated). Among the subject areas, students in both levels are least proficient in Math and Science, with low proficiency scores on average (4 in 10 students who answered the assessment questions).

The country has also performed poorly in large-scale international assessments, e.g., the 2018 Program for International Student Assessment (PISA) and the 2019 Trends in International Mathematics and Science Study (TIMSS). For example, in the TIMSS, the Philippines ranked last among 58 countries in mathematics and science for Grade 4 students in 2019.

Meanwhile, the country's participation in the PISA for the first time in 2018 yielded a dismal performance, ranking last in reading and second to last in Science and Mathematics among 79 participating countries and economies.

The PISA assessment shows that a country's spending on education per student is positively correlated with learning outcomes, proxied by average reading scores (Figure 4). This is expected since financial resources are required to have good teachers, a conducive learning environment, a reliable learning assessment system, and innovative technologies for learning. However, Figure 4 suggests that the Philippines' spending per student is among the lowest globally. While annual spending per student in the Philippines had tripled in nominal terms from less than PHP 8,000 per student in school year (SY) 2009–2010 to more than PHP 22,000 in SYs 2016–2017 and 2017–2018, it subsequently declined to less than PHP 21,000 per student only in SY 2020–2021 (Figure 5).

Policy insights

Although the country has often expressed its strong commitment to attain the SDGs, the pursuit of SDG 4 requires infusing a much bigger budget for education, particularly to DepED. The Philippines has recently invested heavily in infrastructure with its Build, Build, Build program; it ought to have an investment





PISA = Programme for International Student Assessment; PHL = Philippines; IDN = Indonesia; THA = Thailand; MYS = Malaysia; BRN = Brunei Darussalam; SGP = Singapore Note: ASEAN member-states are identified. Source: Schleicher (2019)





Source: PBED (2021)

program for learners, learners, learners in the wake of the emerging learning crisis in the country. Convening a Joint Congressional Education Commission can provide a specific action plan to address the looming education crisis.

A policy simulation on the 2018 PISA data in Figure 4 with a nonparametric kernel regression (but with Qatar dropped from the analysis) was undertaken to determine the required spending levels to achieve the desired performance in reading comprehension (Figure 6). Simulation results suggest that the country needs to increase its education spending by as much as four times to reach the average global reading proficiency of 487 points. Meanwhile, doubling the current spending could increase the reading proficiency level by around 10 percent only.

With the Mandanas ruling of 2018, a policy and fiscal window has opened, increasing the resources available to LGUs. However, unless the government provides equalization grants to compensate for disparities in the net fiscal capacity of LGUs, this may also increase inequalities in development outcomes across locales (Manasan 2020). While increased spending for education is desirable, it also matters where budgets are spent (World Bank 2018). The literature suggests that reading is best learned with one's mother tongue. However, the DepED's Mother Tongue-Based Multilingual Education (MTB-MLE) program needs to be rethought, given some implementation deficits (Monje et al. 2021). Teacher guality is the single most important in-school factor that influences learning. As such, investments in the professional development of teachers should also be made, especially using results of assessments, such as the NAT, PISA, and TIMMS. Further, the country should also seriously consider leveraging innovative technology solutions, such as high-touch high-tech (HTHT) education (Anderson 2018) to improve learning. Improving the MTB-MLE program and teacher quality and adopting tech solutions like HTHT are likely to impact learners' reading skills significantly.

Since constraints on the political economy and the fiscal space resulting from the pandemic do not make it viable to increase the education budget in the short term, DepED could scale up some good practices (e.g., peer mentoring and early reading remediation). In addition, DepED should conduct reading programs early to foster Figure 6. Predicted mean reading scores based on cumulative spending per student (USD PPP) scenarios, Philippines

Mean reading score, PISA 2018

Predicted mean reading scores

USD = United States dollar; PPP = purchasing power parity; PISA = Programme for International Student Assessment Source: Authors' computation

an appreciation for reading and a peer environment that encourages reading. In addition, it is essential to improve school libraries and make reading fun. There is also a need to reexamine current classroom practices, such as seating girls in front (and boys in the back).

Finally, programs must be implemented to assist specific geographic areas and vulnerable children being left behind in learning, especially in reading.

Regular measurements on education quality also matter (World Bank 2018). The NAT results have a wealth of information that can be further utilized for action. While mean percentage scores can be a good headline summary, much more should be examined from NAT scores to identify the determinants of learning. Anonymized microdata of NAT should be made readily accessible to researchers. Ideally, the DepED should merge these data with other data it regularly collects, such as students' height and weight (from the DepED school feeding program) and other relevant data in the Learners Information System. Having all children (from a particular grade level) take the NAT cannot be justified if the test results are not used analytically to improve the quality of learning in the country. The DepED has to build its capacity to use results from data analytics on its various data sources as inputs to policy so that eventually, no Filipino child will be left behind in learning.

References

- Anderson, J. 2018. The former education minister of one of the world's smartest countries explains the role of AI in schools. *Quartz*. https://qz.com/1285854/ai-inschools-helps-with-high-tech-high-touch-learningaccording-to-south-koreas-former-education-minister/ (accessed on July 25, 2021).
- Asian Development Bank (ADB). 2015. *Key indicators for Asia and the Pacific*. 46th ed. Mandaluyong City, Philippines: ADB. https://www.adb.org/publications/ key-indicators-asia-and-pacific-2015 (accessed on July 20, 2021).
- Cuenca, J.S. 2020. Analysis of the 2021 President's budget. PIDS Discussion Paper Series 2018-25. Quezon City, Philippines: Philippine Institute for Development Studies. https://pidswebs.pids.gov.ph/CDN/ PUBLICATIONS/pidsdps2035.pdf (accessed on July 30, 2021).
- Data.gov.sg. 2019. Government total expenditure on education. https://data.gov.sg/dataset/governmentexpenditure-on-education?view_id=0c267eb5-49e9-4b42-aef2-0f15f896f455&resource_id=79a62357-49ec-4d78-9d00-50b0cf73084c (accessed on July 26, 2021).
- Department of Budget and Management (DBM). Various years. General Appropriations Act (GAA) archives. https://www.dbm.gov.ph/index.php/dbm-publications/ general-appropriations-act-gaa/167-publications/ general-appropriations-act-gaa/496-generalappropriations-act-gaa-archives (accessed on July 26, 2021).
- David, C.C., J.R.G. Albert, and J.F.V. Vizmanos. 2018.
 Out-of-school children: Changing landscape of school attendance and barriers to completion. PIDS Discussion Paper Series 2018-25. Quezon City, Philippines: Philippine Institute for Development Studies. https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/ pidsdps1825.pdf (accessed on July 25, 2021).
- Human Development Network. 2009. Philippine human development report 2008/2009: Institutions, politics, and human development. Quezon City, Philippines: Human Development Network. http://hdn.org.ph/ forthcoming-philippine-human-development-reportinstitutions-and-politics/ (accessed on July 21, 2021).

- Manasan, R.G. 2010. Financing the MDGs and inclusive growth in the time of fiscal consolidation. PIDS Discussion Paper Series 2010-34. Makati City, Philippines: Philippine Institute for Development Studies. https://dirp4.pids.gov.ph/ris/dps/ pidsdps1034.pdf (accessed on July 21, 2021).
- —. 2020. Fiscal sustainability, equity, and allocative efficiency in the light of the 2019 Supreme Court ruling on the LGUs' share in national taxes. PIDS Discussion Paper Series 2020-18. Quezon City, Philippines: Philippine Institute for Development Studies. https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/ pidsdps2018.pdf (accessed on July 31, 2021).
- Monje, J.D., A.C. Orbeta Jr., K.A. Francisco, and E.M.
 Capones. 2021. 'Starting where the children are':
 A process evaluation of the Mother Tongue-Based
 Multilingual Education implementation. PIDS Research
 Paper Series 2021-02. Quezon City, Philippines:
 Philippine Institute for Development Studies (PIDS).
- National Economic and Development Authority (NEDA). 2015. *AmBisyon 2040: A long-term vision for the Philippines*. Pasig City, Philippines: NEDA. http://2040. neda.gov.ph/wp-content/uploads/2016/04/A-Long-Term-Vision-for-the-Philippines.pdf (accessed on July 20, 2021).
- 2017. Philippine Development Plan 2017–2022. Pasig City, Philippines: NEDA. http://pdp.neda.gov.ph/ wp-content/uploads/2017/01/PDP-2017-2022-07-20-2017.pdf (accessed on July 20, 2021).
- Philippine Business for Education (PBed). 2021. Spending per student in basic education (infographic). https://www.facebook.com/OnePBEd/ (accessed on July 30, 2021).
- PROMAN. 2021. Basic education sector analysis. Pasig City, Phillipines: DepED.
- Schleicher, A. 2019. PISA 2018: Insights and interpretations. Paris, France: Organisation for Economic Co-operation and Development. https://www.oecd.org/pisa/PISA%202018%20 Insights%20and%20Interpretations%20FINAL%20PDF. pdf (accessed on July 26, 2021).
- Republic Act 10157. 2012. Kindergarten Education Act. Manila, Philippines: Congress of the Philippines.

https://www.officialgazette.gov.ph/2012/01/20/ republic-act-no-10157/ (accessed on July 20, 2021).

- Republic Act 10533. 2013. Enhanced Basic Education Act. Manila, Philippines: Congress of the Philippines. https://www.officialgazette.gov.ph/2013/05/15/ republic-act-no-10533/ (accessed on July 20, 2021).
- Reyes, C.M., J.R.G. Albert, A.D. Tabuga, A.A. Arboneda, J.F.V. Vizmanos, and C.C. Cabaero. 2019. The Philippines' voluntary national review on the Sustainable Development Goals. PIDS Discussion Paper Series 2019-10. Quezon City, Philippines: Philippine Institute for Development Studies. https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/ pidsdps1910.pdf (accessed on July 21, 2021).
- United Nations (UN). 2015a. A/RES/70/1-Transforming our world: The 2030 agenda for sustainable development. Resolution adopted by the General Assembly on September 25, 2015. http://www.un.org/ga/search/ view_doc.asp?symbol=A/RES/70/1&Lang=E New York, NY: UN. (accessed on July 20, 2021).
 - -----. 2015b. *The Millennium Development Goals report.* New York, NY: UN. https://www.un.org/

millenniumgoals/2015_MDG_Report/pdf/MDG%20 2015%20rev%20(July%201).pdf (accessed on July 20, 2021).

- World Bank. 2018. World development report: Learning to realize education's promise. Washington, D.C.: World Bank. https://openknowledge.worldbank.org/ bitstream/handle/10986/28340/9781464810961.pdf (accessed on July 20, 2021).
- 2019. World development report: The changing nature of work. Washington, D.C.: World Bank. https://openknowledge.worldbank.org/bitstream/ handle/10986/30435/9781464813283.pdf (accessed on July 20, 2021).
- 2020. Philippines basic education public expenditure review. Washington, D.C.: World Bank. https://openknowledge.worldbank.org/bitstream/ handle/10986/34670/Philippines-Basic-Education-Public-Expenditure-Review.pdf (accessed on July 31, 2021).
 - ------. Various years. World development indicators. Washington, D.C.: World Bank. https://databank. worldbank.org/source/world-development-indicators (accessed on July 19, 2021).

Contact us

Address:	Research Information Department						
	Philippine Institute for Development Studies						
	18/F Three Cyberpod Centris - North Tower						
	EDSA corner Quezon Avenue, Quezon City						
Telephone:	(+63-2) 8877-4000						
Email:	publications@mail.pids.gov.ph						
Website:	www.pids.gov.ph						

PIDS Policy Notes are analyses written by PIDS researchers on certain policy issues. The treatise is holistic in approach and aims to provide useful inputs for decisionmaking.

Jose Ramon G. Albert and Mika S. Muñoz are senior research fellow and research analyst, respectively, at PIDS, while Lovelaine B. Basilote is the executive director of the Philippine Business for Education (PBEd). The views expressed are those of the authors and do not necessarily reflect the position of the institutions they work for. The authors thank the Education Management Information System Division of the DepED Planning Service for data provided in this report and Arkin Arboleda of PIDS for some research assistance.