PEAC
PRIVATE EDUCATION ASSISTANCE COMMITTEE
Trustee of the Fund for Assistance to Private Education

INTERNALLY FUNDED RESEARCH

The Absorptive Capacity of Basic Education in the Philippines

Don Brodeth | February 2024

This study is carried out with support from the Private Education Assistance Committee (PEAC).

PRIVATE EDUCATION ASSISTANCE COMMITTEE

Units 2505-2507, 25th Floor Philippine AXA Life Centre
1286 Sen. Gil Puyat Avenue corner Tindalo St., Makati City

peac.org.ph
@PEACOfficial
@PEACOfficial

The absorptive capacity of basic education in the Philippines

Abstract

This report presents the results of a programming exercise that, using data from the Department of Education (DepEd) and the Private Education Assistance Committee (PEAC), estimates the absorptive capacity of schools in basic education. Using a DepEd division as the unit of analysis, the study estimates the number of learners current school resources can accommodate, the number of learners that are underprovided (overprovided) by current school inputs, the number of divisions where underprovision (overprovision) prevails, and the magnitudes of the implied resource gaps. These estimates are used to assess the absorptive capacity of a DepEd division, the extent of congestion or overprovision, the capacity of private schools to take in learners from underprovided public schools, and the resources needed to address congestion. The results of the exercise can improve the targeting of the DepEd's school-building program, improve the targeting of government programs of assistance, and help operationalize the public-private complementarity framework in basic education.

This study is carried out with support from the Private Education Assistance Committee (PEAC).

1. Introduction

A. Problem and context

The Covid-19 pandemic has brought about a sea change in the basic education landscape in the Philippines. Learner access has declined of late. For example, the gross enrollment rate (GER) at K-6 – hovering at or above 108% prior to SY 2017-18 – dropped to just 92% in SY 2021-22.[i] This suggests that a significant number of our youth have dropped out of school or never joined schooling. Based on 2020 population estimates of 5–11-year-olds from the World Bank[ii] and DepEd enrollment figures[iii], there are at least 1.5 million learners in that age group alone are not in school. The trend brings the country further away from its constitutional mandate in education and from its commitment to SDG 4 – Education for All.

Compounding the situation is the shortage of classrooms in public schools. While estimates vary widely – from 40,000 to over 500,000 – the most cited figure comes from DepEd Undersecretary Densing who told the House Committee on Basic Education and Culture that the public school system lacked 91,000 classrooms for SY 2022-23.[iv] As a result, learners attending public schools do so in overcrowded classrooms or are accommodated in multiple shifts.

Congestion in public schools was exacerbated during the pandemic which saw a large movement of learners from private schools to public schools. The trend has left private schools with unused resources and strained finances, with some having to close. In a press briefing last August 2022, DepEd spokesperson Michael Poa said that up to 425 private elementary and high schools have closed permanently since 2020 disenfranchising some 20,838 students.[v]

The problem of one school type could be the other school type's solution. Public-private partnerships and coordination could address the undersupply of resources in public education and its oversupply in the private domain. One policy is to facilitate the movement of demand towards the domain where an oversupply of resources exists. In the Philippines, such transfer mechanisms already exist in the Government Assistance to Students and Teachers in Private Education (GASTPE) programs. Studies that look into the absorptive capacity of schools or its opposite – overcrowding – give vital guidance on the design and pricing of these programs.

In a separate yet related development, Republic Act 11899 created the Second Congressional Commission on Education (EDCOM 2). EDCOM 2 is tasked to undertake a comprehensive national assessment and evaluation of the performance of the Philippine education sector.[vi] Its wide-ranging agenda and policy recommendations can be informed by absorptive capacity studies that can point to areas of focus for school-building programs, public-private complementarity, and efficiency initiatives.

Finally, there is public private complementarity. The 1987 Philippine Constitution stipulates the recognition of the complementary roles of public and private institutions within the educational system. In December 2023, the DepEd launched its "Public and Private Basic Education Complementarity Framework". The framework guides and supports the DepEd towards addressing the gaps in basic education. The need to investigate absorptive capacity in the system is suggested by some of the provisions in the framework that are highlighted below.

- Public and private institutions are working together harmoniously and collaboratively in the planning and delivery of educational services, sharing resources, expertise, and best practices.
- The mixture of public and private education institutions can be said to be complementary in the sense that they supply each other's lack to enable the development of education.
- DepEd utilizes private schools' unused capacity for a fee to educate more learners instead of building new classrooms and facilities and hiring more teachers.
- Private education in a healthy competitive environment can play an important role in raising the performance of the basic education system. This forms part of the policy foundation and rationale for government spending through financial assistance and subsidy programs.
- Public-private partnerships in education are part of the government's long-term strategy and not just temporary stop-gap measures.
- This mechanism [for inter-agency discussion and deliberation] should respond to the need to agree on establishing a transparent formula for making allocation decisions for public schools and private schools … in the total basic education budget, based on the criteria of cost-effectiveness … and timely delivery of agreed results.

It is in these contexts that this absorptive capacity study is conducted.

B. Significance

The engagement has many important ramifications; perhaps, the most significant being that it can:

- Help operationalize public private complementarity, in particular, in the design of GASTPE programs. For example, GASTPE can prioritize areas with high congestion in public schools and high absorptive capacity in private schools by designing programs specific to these areas or through higher grants for these areas.

- Increase the efficiency of DepEd's school-building program by focusing on any of the following:
    a. areas where there is high congestion in public schools but low absorptive capacity in private schools
    b. resources that constrain or bind capacity
    c. cost of increasing the limiting resource

- Inform DepEd's strategy at a more granular level. For example, in areas where there is enough access in public schools, government resources can be used to increase quality and/or equity instead. In areas where there is absorptive capacity in private schools, school vouchers can be used as transfer mechanisms. In areas where both private and public schools are congested, DepEd can opt to either go on a school-building program or provide strong incentives to nudge private providers to increase capacity.

- Suggest areas of flexibility in public schools that offer multiple levels. For example, a JHS classroom may be used in SHS or vice versa. This increases capacity without adding resources.

C. Objectives

The study intends to estimate the absorptive capacity or its converse, overcrowding, by school type and basic education level at each DepEd division. The component phrases of this broad objective are parsed and defined below.

School type – The school types referred to in this study are DepEd-operated schools and non-DepEd operated schools. For brevity, these shall be called public schools and private schools respectively. This categorization is chosen over others as it relates directly to the transfer mechanisms of government assistance programs in education and the promotion of public-private complementarity.

Education level – Level refers to elementary school, junior high school (JHS), and senior high school (SHS). Elementary (K-6) consists of one year of kindergarten and grades 1 to 6, JHS consists of grades 7 to 10, and SHS consists of grades 11 and 12.

DepEd division – A schools division is the smallest unit in the DepEd hierarchy that exercises administrative supervision over the schools in its area. A DepEd division supervises schools in a city or a province excluding its cities and is thus named after the city or province it supervises. A DepEd division is chosen as the unit of analysis because its administrative role allows it to move resources and learners within its schools much more readily than at higher administrative levels. Thus, planning for and reallocating resources may be more concrete and effective at the Division level than at the regional or national levels. Further, a DepEd division comes close to a school's idea of a catchment area. It is likely that the learners and competitors of a basic education school reside within the division.

Absorptive capacity (overcrowding) – The capacity of a school is set to the lowest enrollment level that its resources – classrooms, teachers, and seats – can handle. When capacity is compared with enrollment, the difference is either absorptive capacity if the former is greater or overcrowding if the latter is greater. Aggregating the resources in various ways leads to estimates of absorptive capacity (overcrowding) by school type, by levels in basic education, and by administrative level. In promoting public-private complementarity, of particular interest is the absorptive capacity of private schools defined as the ability of private schools to take in learners from overcrowded public schools.

We begin with a base case and then vary key assumptions to form other cases. In so doing, we can see the extent of overcrowding in basic education and begin to see options as to how this may be addressed. Thus, the broad objective is broken down into the specific objectives below:

i. Base case - To estimate absorptive capacity or overcrowding at each level in basic education among school types at each DepEd division assuming that resources of a level are exclusive to the grades in that level. For example, a classroom used for Grade 7 can be used for Grades 8, 9, or 10 (JHS) but not for Grades 11 or 12 (SHS).

ii. GASTPE only case – To estimate absorptive capacity or overcrowding among school types in JHS and SHS at each DepEd division when "private schools" include only GASTPE-participating schools. Participation in government programs of assistance in basic education is voluntary. Thus, considering only those schools

that currently participate in GASTPE programs may be more reflective of the ability of private schools to absorb learners from overcrowded public schools.

iii. Shared resources case – To estimate the additional capacities created in basic education among school types at each DepEd division assuming that resources of a school can be used across all the levels that the school offers.

iv. Increased resources case – To estimate the increase in capacity at each public school assuming the limiting resource is increased until another resource limits capacity and to present this information at each level of basic education at the administrative level of a DepEd division.

By investigating the absorptive capacities (overcrowding) through these cases, the study hopes to answer the following research questions at the different levels of basic education and at the different administrative levels of the DepEd:

- What is the extent of excess capacity/ overcrowding in public schools?
- What is the extent of excess capacity/ overcrowding in private schools?
- To what extent can private schools accommodate learners from overcrowded public schools?
- To what extent can GASTPE-participating schools accommodate learners from overcrowded public schools?
- How much more capacity is created if schools that offer multiple levels can use their resources across the levels they offer?
- What school resource limits capacity in public schools? By how much can this resource be increased before another resource limits capacity?

The answers to the research questions can inform the options the DepEd, Edcom 2, and policymakers are considering to maximize the resources in basic education.

D. Assumptions and limitations

The data for this study is sourced from the Enhanced Basic Education Information System (EBEIS) of the DepEd and, to a lesser extent, from databases maintained by the PEAC. We assume the data is accurate and complete for the covered school years. 'Accurate' means that the resources and learners exist in the quantities reported and that the resources are in good working condition. Nonetheless, the research team validated the data to check for duplicates, incongruities in the values provided, or incongruities versus prior years.

The exercise assumes an efficient system. The effects of structural deficiencies such as conflicts of interest, disincentives to collaboration, lack of control, and other administrative inefficiencies are excluded. These are best addressed in separate studies.

The programming exercise further assumes that the DepEd-stipulated ideal resource-capacity standards are followed. Deviations from the standard such as hiring LGU-funded teachers, multiple shifts, and overcrowded classrooms are deemed as responses to address congestion.

Perhaps, the biggest limitation of this engagement is that it does not address the impact of transfer mechanisms on the two other goals of education policy: quality and equity. This

is not to disregard or discount the importance of these goals. Rather, two reasons exist for their exclusion. First is that the law on GASTPE clearly states access as the policy goal. Second is the interaction of access, equity, and quality in basic education. In brief, one may be achieved at the expense of the other. For example, given a fixed budget, the pursuit of education quality may be at the sacrifice of access and vice versa. For these reasons, this engagement will focus on access, presume quality and cost at private schools are at least equal to public schools, and leave equity for future studies.

The next section briefly outlines the assumptions and features of the programming model. The third section describes the data set and variables used in the exercise. The fourth section details the reports that are the main outputs of the study. The fifth section presents key findings, and the sixth section concludes.

2. The programming model

Several programming exercises have estimated the capacity/ absorptive capacity of schools in basic education in the Philippines. These include one undertaken by Nuqui for public high schools in a World Bank evaluation study of the Educational Service Contracting (ESC) scheme (The World Bank, 2011). Alba conducted a similar exercise, also for public high schools, using a slightly different set of assumptions (Alba, 2010) and another one for public elementary schools (Alba, Congestion in public elementary schools, n. d.). In 2012, the ADB undertook a preliminary assessment of the absorptive capacity of public and private providers – higher institutions included – to accommodate the projected demand for senior high school (Asian Development Bank, 2012). Brodeth (2015, 2018) did two commissioned studies on the capacity of private schools participating in GASTPE programs to absorb students from public schools. The programming model for this exercise builds on these previous studies.

The key features, assumptions, and procedures of the programming model are outlined below for the base case. Full details of the base case and the other cases are in the technical documentation of the model that accompanies this report. The report may be accessed here:
https://drive.google.com/file/d/1KMiWbTtQT90yDDC6jNhPrghttTU7xbgQ/view?usp=drive_link

The absorptive capacity reports are first generated for each level in basic education at the administrative level of a division. Each report has three parts – (a) latest and projected enrollment, (b) latest and projected capacity, and (c) the latest schools list.

(a) Latest and projected enrollment. Latest enrollment is the enrollment for BOSY 2022 and is sourced directly from the reported enrollment numbers in the EBEIS. It is aggregated to the division level and reported by school type and by grade.

Projected enrollment is based on historical enrollment data, specifically data on BOSY 2018, 2019, and 2022. We excluded data from BOSY 2020 and 2021 because the anomalous enrollment patterns induced by the Covid-19 pandemic would affect the projections.

Enrollment for the initial grade of a basic education level is based on population projections from the Philippines Statistical Authority for Kinder and from historical transition rates and

enrollment shares per school type for JHS and SHS. Thereafter, at each level in basic education, we assume negligible transfers of learners between schools across divisions. Enrollment in subsequent years in a basic education level are projected using grade- and school type-specific historical retention rates.

Enrollment is projected for 6 years, from BOSY 2023 to 2028, and is reported in the same manner as latest enrollment.

(b) Latest and projected capacity. Capacity is the number of learners that school resources can accommodate. The latest available data on school resources – teachers, classrooms, and seats (furniture) – are for BOSY 2021 and are sourced directly from the reported quantities in the EBEIS. It is aggregated to the division level and reported by school type. The quantities of school resources are kept constant in the projections.

To translate school resources to capacity, the model assumes two shifts in kindergarten and one shift for all other grades. It further assumes one seat or furniture per learner. For classrooms and teachers, the model uses DepEd-prescribed ideal resource-capacity ratios and teacher specialization factors at each level of basic education (See Appendix **1**). The DepEd prescribes different classroom-learner and teacher-learner ratios for kindergarten, grades 1-3, and grades 4-6. The average of these ratios, weighted by the latest enrollment at these grades, is used as the resource-capacity ratios for the elementary level. These standards apply to both school types.

The capacity of each school type in a division is set to the minimum of the capacities computed from the different school resources. For example, using only two resources, if the number of classrooms in a school can accommodate 1,000 students and the number of teachers can teach only 800 learners, then the capacity of the school is set to 800 learners.

Capacity is then compared with the latest or projected enrollment to obtain excess (shortfall) capacity. Excess or spare capacity (shortfall or aisle learners) is the difference between capacity and enrollment where the former (latter) is greater. This difference is expressed in the number of learners and as a percentage of enrollment. Excess or spare capacity is a measure of absorptive capacity over current or projected enrollment. Shortfall or aisle learners is a measure of congestion over capacity.

The excess or shortfall capacity of a division is the sum of the excess and shortfall capacities of the two school types. It is summed this way to provide insights on how gaps may be addressed when a DepEd division is able to reallocate resources or learners across public and private schools. Finally, the absorptive ratio is the percentage of public shortfall capacity that can be addressed through the private excess capacity. Note that the absorptive ratio is not symmetric; it reports only percentage of aisle learners from public schools that private schools can take in. This is in keeping with GASTPE programs in basic education that incentivize learners from public schools to transfer to private schools.

(c) Latest schools list. The latest schools list simply provides the list of schools as of BOSY 2022 per school type within a division along with their enrollments from BOSY 2018 to 2022. The latest schools list provides the historical data on which enrollment projections are based.

Regional and national reports.

The absorptive capacity reports for a region are generated as the sums of the values in the absorptive capacity reports of their divisions save for one important distinction. Recall that we assume student transfers between schools in different divisions to be negligible. Thus, in aggregating the capacities for a region, the spare capacities and shortfalls of the different divisions in a region do not net out. Instead, the excess capacities are aggregated and reported separately from the shortfalls. In like manner, enrollments of divisions with excess capacity are aggregated separately from enrollments of divisions with shortfall capacity to obtain the excess (shortfall) capacity percentages above (below) enrollment.

The absorptive capacity report at the national level is generated as the sums of the values in the absorptive capacity reports of all regions.

The programming exercise is then repeated for the other cases, modifying the relevant assumptions as detailed in the specific objectives. To wit,

GASTPE only case – limits "private schools" to GASTPE-participating schools in JHS and SHS.

Shared resources case – assumes resources of a school can be used across all the levels that the school offers.

Increased resources case – assumes the limiting resource is increased until another resource limits capacity.

3. Datasets and variables

The study is nationwide and considers data for the period BOSY 2018 to BOSY 2022. It covers school-level data on both public and private schools in all levels of basic education in the said period – enrollment, teachers, classrooms, and chairs. Concretely, this means working with data from 226 divisions, over 60,000 schools, and near to 28 million learners from BOSY 2018 to BOSY 2022. As mentioned, the data was sourced from the DepEd's EBEIS and from databases maintained by PEAC. We found that two divisions had no information on resources in private schools.

More granular descriptive statistics are provided in the tables below. Note that Tables 1 and 2 report a total of 77,704 schools, well above the 60,000 schools mentioned in the preceding paragraph. This is because schools that offer multiple levels are counted at each level they offer.

Table 1. National descriptive statistics on public schools by level of basic education

Level	K to 6	JHS	SHS	Total
Enrollment	14,069,177	7,245,957	2,721,117	24,036,251
Schools	39,294	10,234	7,586	57,114
Chairs	11,233,861	5,476,510	2,012,487	18,722,858
Classrooms	426,851	168,206	61,839	656,896
Teachers	512,580	291,477	74,862	878,919

* Enrollment and number of schools as of BOSY 2022, school resources as of BOSY 2021

Table 2. National descriptive statistics on private schools by level of education

Level	K to 6	JHS	SHS	Total
Enrollment	1,096,540	1,124,651	1,406,315	3,627,506
Schools	10,038	5,693	4,859	20,590
Chairs	1,073,235	1,190,263	1,065,440	3,328,938
Classrooms	90,986	60,354	50,327	201,667
Teachers	51,344	44,424	39,234	135,002

* Enrollment and number of schools as of BOSY 2022, school resources as of BOSY 2021

Table 3. Number of public schools by region and level of basic education, BOSY 2022

Region	K to 6	JHS	SHS
Region I	2,411	591	551
Region II	2,211	497	357
Region III	3,038	866	614
Region IV-A	2,751	770	532
Region IV-B	1,909	479	288
Region V	3,164	769	690
Region VI	3,412	834	663
Region VII	2,953	971	796
Region VIII	3,652	613	445
Region IX	2,128	471	361
Region X	2,176	629	385
Region XI	1,741	624	403
Region XII	1,733	631	398
CARAGA	1,703	486	403
BARMM	2,248	355	224
CAR	1,540	358	244
NCR	524	290	232
Totals	39,294	10,234	7,586

Table 4. Number of private schools by region and level of basic education, BOSY 2022

Region	K to 6	JHS	SHS
Region I	421	294	247
Region II	321	156	139
Region III	1,234	733	633
Region IV-A	2,120	1,236	917
Region IV-B	217	123	108
Region V	411	226	269
Region VI	845	339	258
Region VII	717	475	371
Region VIII	198	127	119
Region IX	204	113	134
Region X	439	269	244
Region XI	390	231	226
Region XII	271	171	170
CARAGA	202	91	85
BARMM	218	121	90
CAR	167	136	104
NCR	1,663	852	745
Totals	10,038	5,693	4,859

Table 5. Enrollment in public schools by region and level of basic education, BOSY 2022

Region	K to 6	JHS	SHS
Region I	421	294	247
Region II	321	156	139
Region III	1,234	733	633
Region IV-A	2,120	1,236	917
Region IV-B	217	123	108
Region V	411	226	269
Region VI	845	339	258
Region VII	717	475	371
Region VIII	198	127	119
Region IX	204	113	134
Region X	439	269	244
Region XI	390	231	226
Region XII	271	171	170
CARAGA	202	91	85
BARMM	218	121	90
CAR	167	136	104
NCR	1,663	852	745
Totals	10,038	5,693	4,859

Table 6. Enrollment in private schools by region and level of basic education, BOSY 2022

Region	K to 6	JHS	SHS
Region I	41,100	50,691	46,031
Region II	25,464	37,374	26,996
Region III	138,077	139,441	185,538
Region IV-A	231,879	209,017	274,779
Region IV-B	16,820	26,191	23,005
Region V	38,777	53,685	57,695
Region VI	61,670	68,603	66,898
Region VII	77,925	86,213	108,774
Region VIII	18,217	26,933	27,040
Region IX	20,641	25,319	36,617
Region X	40,216	59,234	65,294
Region XI	46,129	46,221	69,211
Region XII	31,243	40,983	39,447
CARAGA	15,349	25,539	26,881
BARMM	45,700	37,915	29,633
CAR	18,091	28,310	23,795
NCR	229,242	162,982	298,681
Totals	1,096,540	1,124,651	1,406,315

4. Reports and outputs

The programming exercise generated 1,240 reports as detailed below:

A. Reports on the base case for each DepEd division at each level of basic education (678 reports)
B. Reports on the base case for each region at each level of basic education (51 reports)
C. Reports on the base case for the nation at each level of basic education (3 reports)
D. Summary division-level reports on the base case by school type and level of basic education (6 reports)
E. Reports on the number of aisle learners in public schools that can and cannot be absorbed by private schools by DepEd division and level of basic education under the base case (6 reports)
F. Reports on the GASTPE only case for each DepEd division at the JHS and SHS levels (452 reports)
G. Reports on the GASTPE only case for each region at the JHS and SHS levels (34 reports)
H. Reports on the GASTPE only case for the nation at the JHS and SHS levels (2 reports)
I. Summary division-level reports on the GASTPE only case by school type and level of basic education (4 reports)
J. A report on the increase in absorptive capacity by DepEd division when resources of a school can be used across all the levels that the school offers (shared resources case) (1 report)
K. Reports on the increase in absorptive capacity by DepEd division and level of basic education when the limiting resource is increased until another resource limits capacity (increased resource case) (3 reports)

All these reports are available here:
https://drive.google.com/drive/folders/1bdvf3-GUSuim4Hqai5bAIXHVNatGmfVi?usp=drive_link

A sample of an absorptive capacity report under the base case is shown below for the elementary level of the Maasin City division.

LATEST HISTORICAL AND PROJECTED ENROLLMENTS

Region:	**Region VIII**
Division:	**Maasin City**
Level:	**ES**

PUBLIC ES ENROLLMENTS

	LATEST DATA	PROJECTIONS					
BOSY	2022	2023	2024	2025	2026	2027	2028
K	1,263	1,260	1,256	1,253	1,250	1,247	1,243
G1	1,283	1,226	1,223	1,219	1,216	1,213	1,210
G2	1,393	1,245	1,190	1,187	1,183	1,180	1,177
G3	1,153	1,352	1,208	1,155	1,152	1,149	1,146
G4	1,706	1,203	1,312	1,173	1,121	1,118	1,115
G5	1,421	1,708	1,255	1,273	1,138	1,088	1,085
G6	1,152	1,428	1,709	1,310	1,236	1,105	1,055
TOTAL	*9,371*	*9,421*	*9,153*	*8,570*	*8,296*	*8,098*	*8,031*
TOTAL (ONE-SHIFT)	*8,740*	*8,792*	*8,525*	*7,943*	*7,671*	*7,475*	*7,409*

PRIVATE ES ENROLLMENTS

	LATEST DATA	PROJECTIONS					
BOSY	2022	2023	2024	2025	2026	2027	2028
K	78	78	78	77	77	77	77
G1	113	90	90	90	90	89	89
G2	102	131	105	104	104	104	104
G3	85	118	152	121	121	121	120
G4	142	75	137	176	141	140	140
G5	129	129	66	159	204	163	162
G6	84	123	116	58	184	236	189
TOTAL	*733*	*743*	*743*	*785*	*920*	*930*	*881*
TOTAL (ONE-SHIFT)	*694*	*704*	*704*	*747*	*882*	*892*	*843*

ABSORPTIVE CAPACITY REPORT

			Historical	Projected					
PUBLIC ES			BOSY 2022	BOSY 2023	BOSY 2024	BOSY 2025	BOSY 2026	BOSY 2027	BOSY 2028
Enrolment									
Total ES enrollees (Single Shift)			8,740	8,792	8,525	7,943	7,671	7,475	7,409
Capacity			**Excess (Need) of resource**						
Resource (BOSY 2022)	Qty	Learner slots	Qty						
Teachers	*520*	15,167	220	219	228	248	257	264	266
Classrooms	*520*	18,200	270	269	276	293	301	306	308
Furniture	*8,596*	8,596	(144)	(196)	71	653	925	1,121	1,187
Capacity implied by binding resource		8,596							
Excess (Shortfall) Capacity									
Implied slack capacity (aisle learners)			-144	-196	71	653	925	1,121	1,187
Percent capacity above (below) enrollment			-1.64%	-2.22%	0.83%	8.22%	12.06%	15.00%	16.02%

			Historical	Projected					
PRIVATE ES			BOSY 2022	BOSY 2023	BOSY 2024	BOSY 2025	BOSY 2026	BOSY 2027	BOSY 2028
Enrolment									
Total ES enrollees (Single Shift)			694	704	704	747	882	892	843
Capacity			**Excess (Need) of resource**						
Resource (BOSY 2022)	Qty	Learner slots	Qty						
Teachers	26	758	2	2	2	0	(4)	(5)	(3)
Classrooms	*35*	1,225	15	15	15	14	10	10	11
Furniture	*760*	760	66	56	56	13	(122)	(132)	(83)
Capacity implied by binding resource		758							
Excess (Shortfall) Capacity									
Implied slack capacity (aisle learners)			64	54	54	12	-123	-133	-84
Percent capacity above (below) enrollment			9.27%	7.67%	7.66%	1.57%	-13.98%	-14.95%	-10.01%
ABSORPTIVE CAPACITY EXCESS (SHORTAGE)			-79	-141	125	665	802	988	1,103
ABSORPTIVE RATIO (Public to Private only)									
percent of aisle learners in public that can be potentially absorbed by private			44.83%	27.64%	0.00%	0.00%	0.00%	0.00%	0.00%

DepEd Sch	School Name	2022	2021	2020	2019	2018
122118	Bactul I MGS	67	75	73	78.5	81
122119	Bactul II ES	56.5	65	66.5	86.5	94
122120	Badiang ES	135.5	140.5	132.5	132	125.5
122122	Baugo ES	77	82.5	90.5	85.5	88
122123	Bilibol ES	154	147	138.5	138	138.5
122124	Cabulihan ES	183	174	161.5	159.5	152.5
122125	Cambooc MGS	69	75	71	70.5	83
122126	Cansirong ES	77.5	97	91	92	88
122128	Gawisan MGS	60.5	57	57	57	58.5
122129	Guadalupe Elementary School	133.5	139.5	138.5	139.5	139.5
122130	Hantag MGS	63.5	79	76	86.5	85.5
122131	Lanao ES	100	109	101	96	100.5
122132	Libhu ES	160.5	178	184.5	180	180
122133	Lib-og ES	142.5	143.5	148	139.5	163.5
122134	Lunas ES	213	215.5	216.5	231	242
122135	Maasin Central School	921	920	936	899.5	916.5
122136	Mahayahay ES	163	155	149.5	155	154.5
122137	Malapoc Norte ES	82.5	78	86	83	87.5
122138	Malapoc Sur MGS	59	63	63.5	69.5	73
122139	Manhilo ES	168.5	151	144	149.5	161.5
122140	Matin-Aw ES	66	73.5	75	69	66.5
122142	REYMS ES	373.5	390.5	392	374.5	376.5
122143	Rizal MGS	69.5	78.5	82	82	68.5
122144	San Isidro MGS	70	72.5	77	90	94
122145	Sto. Rosario ES	106	100.5	106	109	116
122146	Tam-Is ES	114.5	108	115	127	134
122147	Tawid ES	79	90	83	87.5	90
122149	Bagtican MGS	59.5	61	52.5	44.5	42
122150	Basak ES	98	98	88.5	81.5	100.5
122151	Bato I ES	87.5	92	95.5	100.5	103.5
122152	Bato II MGS	48.5	37.5	34	36.5	34.5
122153	BOGO MULTIGRADE SCHOOL	48	42	28	27	28.5
122154	Cabadiangan MGS	69.5	71	68.5	69	73
122155	Cagnitoan MGS	64.5	62.5	52	56	64
122157	Dongon Elementary School	127.5	140	157.5	158.5	159
122158	Hanginan ES	122.5	118.5	121	119.5	115.5
122159	Hinapu Daku ES	106	102.5	104	116	132.5
122160	Hinapu Gamay ES	73	73.5	75.5	90.5	99
122161	Ibarra ES	348	346.5	352	345.5	336.5
122162	Isagani ES	98	100	98	91.5	84.5
122163	Laboon ES	196	204	179.5	160	154.5
122164	Libertad MGS	29.5	37.5	36	41.5	49.5
122165	Lonoy MGS	61.5	63.5	68.5	68	66
122167	Nati MGS	31	36.5	46.5	50.5	47
122168	Nonok Norte ES	62.5	62	71.5	76.5	80.5
122169	Nonok Sur ES	88	99	98	101.5	109
122170	Pansaan MGS	45	50.5	53	47.5	57.5
122171	Pinascohan MGS	64.5	75	69.5	74.5	78.5
122172	San Agustin MGS	41	39.5	44.5	53	61
122173	San Jose ES	81.5	93	97.5	99.5	99
122174	San Rafael ES	171.5	172	188	186.5	195.5
122175	Sta. Cruz ES	94.5	94	86	87	91
122176	Tigbawan IS	122	128	138.5	150	163.5
122177	Tomas Oppus Pilot School (TOPS)	795	811.5	823	800.5	796
238001	Tomoy-Tomoy MGS	52.5	49	53	53.5	63
238002	Sta. Rosa Multigrade School	37.5	28.5	28.5	27.5	29
238003	Maasin City SPED Center	265.5	261	284.5	278.5	293.5
500399	Asuncion Integrated School	463.5	475.5	474	470.5	477
500400	Batuan Integrated School	135	137.5	123.5	127.5	133.5
501050	Maria Clara Integrated School	325	329.5	332	325.5	352.5
501051	Panan-awan Integrated School	178	172.5	173.5	170.5	165
501052	Canyuom Integrated School	83	77.5	76	84.5	84
Grand Total		**8739.5**	**8900**	**8927**	**8938.5**	**9177.5**

Private ES Schools List

DepEd Sch	School Name	2022	2021	2020	2019	2018
404716	Maasin Christian Academy	216.5	189.5	197.5	224	231
404717	St. Joseph College	281.5	268.5	309.5	475	512.5
404718	The College of Maasin	196	155.5	180	321.5	298.5
Grand Total		**694**	**613.5**	**687**	**1020.5**	**1042**

Through its outputs, the engagement hopes to achieve the following benefits:

- Analysis at the level of a DepEd division thought to be more relevant and useful for planning and collaboration.
- A more efficient use of existing resources and greater complementarity where projected surpluses at some schools are used to address deficits in others.
- Relief for the State from the pressures of an aggressive capacity-building program via existing and cost-effective alternatives.

5. Key findings

It is important to note that the great majority of the generated reports are at the administrative level of a DepEd division. As mentioned, the administrative role of a DepEd division allows it to move resources and learners within its schools more readily than at administrative levels with greater geographic scope. Thus, planning for and reallocating resources may be more concrete and effective at the Division level than at the regional or national levels. Further, a DepEd division comes close to a school's idea of a catchment area. It is likely that the learners and competitors of a basic education school reside within the division.

For the reasons stated above, we stress that the study has greatest utility when stakeholders examine the reports that are relevant to their division. Having said above, it is too unwieldy to detail the findings for each division in this report. Thus, only the summarized and higher-level findings are presented below.

A. Public schools remain overcrowded and are even more so at higher levels of basic education. Across the three levels over 5.1M of the 24M learners in public schools are aisle learners. The table below provides some measures that support this finding.

Table 7. Measures of overcrowding in public schools, BOSY 2023

Level	K to 6	JHS	SHS
# of divisions with overcrowded public schools	173 (77%)	191 (85%)	219 (97%)
# of aisle learners in public schools	2.5M	1.6M	1.0M
average # of aisle learners per grade	358K	392K	479K

For more details, summaries of implied slack capacity (aisle learners) in public schools at each level of basic education by DepEd division are provided in Appendix 2, Appendix 3, and Appendix 4. The slack capacities (aisle learners) are ranked by the degree of overcrowding (i.e., percentage of capacity below enrollment) as overcrowding is a concern in public schools.

B. Private schools have limited absorptive capacity and are even more so at higher levels of education. The table below provides some measures that support this finding.

Table 8. Measures of absorptive capacity in private schools, BOSY 2023

Level	K to 6	JHS	SHS
# of divisions with spare capacity in private schools	119 (52%)	99 (44%)	99 (44%)
Absorptive capacity of private schools (# of learners)	0.1M	0.1M	0.02M
Average absorptive capacity of private schools per grade (# of learners)	18K	18K	8K

For more details, summaries of implied slack capacity (aisle learners) in private schools at each level of basic education by DepEd division are provided in Appendix 5, Appendix 6, and Appendix 7. In contrast to public schools, the slack capacities (aisle learners) are ranked by the degree of absorptive capacity (i.e., percentage of capacity above enrollment) as spare capacity of private schools is a concern in public-private complementarity.

Together, findings A and B suggest that private schools can absorb only 4.9% of aisle learners at the elementary level, 4.6% at the JHS level and 1.7% at the SHS level.

As the unit of analysis is a DepEd division, the spare capacities and overcrowding within schools of the same type net out. For example, suppose a division has only Public School A and Public School B. If Public School A is overcrowded by 120 learners and Public School B has spare capacity for 80 learners, the division-level absorptive capacity report will reflect overcrowding of 40 (120-80) learners in public schools. Offsetting spare capacities with capacity shortfalls may be true to an extent. A DepEd division may be able to transfer resources like teachers within its schools or it can redirect learners to enroll in public schools that have spare capacity. Likewise, private schools with full enrollment can turn away learners through selective admissions policies. Or learners can simply vote with their feet and enroll in schools that can accommodate them.

The assumed ability to reallocate resources or learners within a DepEd division suggests an efficiency that can but may not actually happen or happen only to a limited extent. As such, the division-level reports underestimate the extent of excess capacity or overcrowding in a division. This efficiency is not assumed at the regional level as it is much harder to reallocate resources or learners across regions.

C. Regions 4-A, NCR, and BARMM have the most number of aisle learners in public schools. The private schools in Regions 4-A, NCR, and Region 3 can absorb the most number of aisle learners in public schools, The private schools in CAR, and Region 1 can absorb the highest % of aisle learners in public schools. The magnitudes are shown in the table below.

Table 9. Selected regional-level estimates of measures of absorptive capacity

Region	Aisle learners	Region	Excess Capacity	Region	Absorptive
	Public		Private		Capacity
R4A	480,566	R4A	38,538	CAR	34.87%
NCR	432,622	NCR	23,430	R1	14.00%
BARMM	303,942	R3	14,323	R3	8.24%

Region-level findings are highlighted to suggest geographically-bounded options that are available to policymakers to improve the targeting of GASTPE-programs and other transfer mechanisms. Thus, if government is to contract private schools in a more targeted fashion, it may contract based on the aisle learners in public schools, the number of aisle learners private schools can absorb, or the percentage of overcrowding in public schools that is addressed by private schools.

D. If only GASTPE-participating schools are considered, the absorptive capacity of private schools becomes even more limited. This is because spare capacities of non-participating schools are excluded from the calculations. Only the JHS and SHS levels are covered in the GASTPE only case because the GASTPE transfer mechanisms – ESC and SHS VP – operate only at these levels. The table below provides some measures that support this finding.

Table 10. Measures of absorptive capacity in GASTPE-participating private schools, BOSY 2023

Level	JHS	SHS
# of divisions with spare capacity in private schools	82 (36%)	42 (19%)
Absorptive capacity of private schools (# of learners)	0.04M	.01M
Average absorptive capacity of private schools per grade (# of learners)	11K	7K

For more details, summaries of implied slack capacity (aisle learners) in GASTPE-participating private schools in JHS and SHS by DepEd division may be accessed in the links below.

For JHS:

https://drive.google.com/file/d/15aRcoYNXe0EAcfhEml1ndTLo-6fNISmj/view?usp=drive_link

For SHS:

https://drive.google.com/file/d/15aRcoYNXe0EAcfhEml1ndTLo-6fNISmj/view?usp=drive_link

As with the base case, the slack capacities (aisle learners) are ranked by the degree of absorptive capacity (i.e., percentage of capacity above enrollment) as spare capacity of GASTPE-participating schools is a concern in public-private complementarity.

E. When resources are shared by the levels a school offers, 400K more learners can be accommodated in public schools and 498K more learners can be accommodated in private schools.

The base case presented so far assumes that resources are not shared across levels. But if, for instance, a school offers both JHS and SHS, it is not farfetched to imagine that the classrooms, chairs, and even teachers in JHS can be used in SHS and vice versa. The flexibility to reallocate resources increases capacity. In this scenario of shared resources, public schools can accommodate 400K more learners and private schools about half a million more. The division level increases in capacity when resources are shared within the levels a school offers may be accessed through the link below. https://drive.google.com/file/d/1R7asnkvmAZo1UeanpkZBkoZk1MJg6kw9/view?usp=drive_link

Note that private schools can accommodate more students when resources are shared even though they are substantially less in number and have less enrollments than public schools (see Table **1**). This is because private schools are much more likely to offer multiple levels of basic education. For example, 2,873 or 14% of private schools offer all grades in K to 12 whereas only 682 or 1% of public schools do so.

F. Chairs/ seats are what limit capacity in public schools at most divisions, a relatively easy fix. In SHS, teachers are what limit capacity in 100 divisions.

Three key school resources are considered to estimate capacity – teachers, classrooms, and chairs (furniture). The capacity of each school type in a division is set to the minimum of the capacities computed from each of these resources. The resource that accommodated the least number of learners and therefore prevented schools from accommodating more learners is defined as the limiting or binding resource.

For public schools, it is chairs – not classrooms or teachers – that limit capacity in most school divisions. Of course, procuring chairs is easier, faster, and cheaper than building classrooms or hiring and training teachers. The table below groups the divisions by the limiting resource at each level of basic education.

Table 11. Number of divisions by limiting resource at each level of basic education

	Basic education level		
Limiting resource	K to 6	JHS	SHS
Chairs	176	208	115
Classrooms	39	8	11
Teachers	11	10	100
Total divisions	226	226	226

In the next table, the binding resource is increased to the point where another resource limits capacity (i.e., only the limiting resource is addressed and addressed until another resource becomes the limiting resource). If the DepEd were to address just the “chair”

constraint, it would already accommodate more than half the 5.1M aisle learners in public schools.

Table 12. Additional number of learners accommodated when limiting resource is increased (in millions)

Level	K to 6	JHS	SHS	Total
Chairs	1.17	1.23	0.20	2.60
Classrooms	0.31	0.03	0.01	0.35
Teachers	0.00	0.00	0.13	0.13

Details by DepEd division on the effect of increasing the binding resources to the point where another resource binds capacity may be accessed here:

https://docs.google.com/spreadsheets/d/1qK_zojFNJOAyJMQeXBLJfLSlktDgwYFU/edit?usp=drive_link&ouid=111426725928193080496&rtpof=true&sd=true

6. Conclusion

This report presents high-level estimates of an absorptive capacity exercise in terms of (a) spare or excess capacity per school type, (b) the absorptive capacity of all private schools or only GASTPE-participating schools, (c) the increase in capacity when resources are shared across the levels a school offers, (d) the increase in capacity when the binding resource is addressed. The full results, however, are more detailed than these estimates. Indeed, they can identify whether each division is congested, how many students are affected, what resource constrains capacity, and the extent that overcrowding may be addressed. The programming model is therefore most useful as a tool, not for analysts but for the DepEd planners, policymakers, and private school administrators in the allocation and investment of scarce education resources. To this end, the program used for the exercise is made available in a user-friendly Excel format. The program and its usage documentation may be accessed here:

Excel-based absorptive capacity generator:
https://drive.google.com/file/d/1dUMjlWcx-yEZo6bzh1WUaXvlsZaZj9Yv/view?usp=drive_link

Usage documentation:
https://docs.google.com/document/d/1BSBUSgqFfNCecWz7niS-QjVbNzZfoODE/edit?usp=drive_link&ouid=111426725928193080496&rtpof=true&sd=true

On a final note, the analysis has pointed to options that can address to a material extent the overcrowding in public schools given latest and projected enrollments. What it does not address are the children left out of schooling altogether. As noted in the introduction, at least 1.5 million 5-11 year olds are not in school. Add to that the out-of-school-youth that should have been studying in JHS and SHS. When these unserved populations are considered for the nation to achieve education for all, many more resources need to be invested and mobilized.

References

Alba, M. M. (2010). Basic Education: All's Still Not Well. In H. D. Network, *In Search of A Human Face: 15 Years of Knowledge Building for Human Development in the Philippines* (pp. 214-251). Manila: Human Development Network.

Alba, M. M. (n. d.). *Congestion in public elementary schools.* Manila.

Asian Development Bank. (2012). *Interim Report: Senior High School Absorptive Capacity Study: Findings of the Division Level Analysis.* Pasig: Asian Development Bank.

Brodeth, D. (2013). *Whither Private Schools? Examining and Fulfilling the Complementary role of Private Schools in Philippine Basic Education.* Quezon City: Catholic Educational Associaiton of the Philippines.

Congress of the Philippines. (1989, June 10). Republic Act 6728: Government Assistance to Students and Teachers in Private Education Act. Metro Manila, Philippines: Congress of the Philippines.

Congress of the Philippines. (1998, February 24). Republic Act 8545: Expanded Government Assistance to Students and Teachers in Private Education Act. Metro Manila, Philippines: Congress of the Philippines.

Department of Budget and Management. (2015). General Appropriations Act, Fiscal Year 2015. *General Appropriations Act, Fiscal Year 2015*. Metro Manila: Department of Budget and Management.

Education Network Philippines. (2012). *Education Service Contracting in the Philippines: Assessing Public-Private Partnership in Education from the Perspective of the Marginalized Sectors.* Manila: Education Network Philippines.

The World Bank. (2011). *Philippines: Private Provision, Public Purpose: A Review of the Government's Education Service Contracting Program.* Washington, D.C.: The World Bank.

Appendix 1. Ideal resource-capacity ratios, FY 2024

IDEAL NUMBER OF LEARNERS PER CLASSROOM/TEACHERS AT THE KINDER/ELEMENTARY, JHS and SHS LEVEL
FY 2024

I. Classroom

Level	Classroom Ideal Ratio
1. MONOGRADE CLASS	
• Kindergarten	1:25 maximum of 30 learners
• Grades 1 to 3	1:30 maximum of 35 learners
• Grades 4-6	1:40 maximum of 45 learners
• Junior High School	1:40 maximum of 45 learners
• Senior High School	1: 40 learners per classroom
2. MULTIGRADE (MG)	At most 25 learners per classroom of 2 consecutive grade levels
3. SPED Centers/Schools Offering Non-Grade SPED Classes	1 classroom per 15 learners

II. Teachers

Level	Teacher Ideal Ratio
1. MONOGRADE CLASS	
• Kindergarten	1:25 maximum of 30 learners in a class
• Grades 1 to 3	1:30 maximum of 35 learners in a class
• Grades 4-6	1:40 maximum of 45 learners in a class
• Junior High School	1:40 maximum of 45 learners in a class
• Senior High School	1: 40 learners for Academic Track 1: 20 learners for Technical Vocational Track

Level	Teacher Ideal Ratio
2. MULTIGRADE (MG)	At most 25 learners per class of 2 consecutive grade levels
3. SPED Centers/Schools Offering Non-Grade SPED Classes	1: 15 learners in a class

Teacher specialization factors
Grades 5 to 10: 5 teachers per 3 sections
Grades 11 and 12: 9 teachers per 6 sections

Source: DepEd

Appendix 2. Implied slack capacity (aisle learners) in public schools at the elementary level by DepEd division, ranked by % of capacity below enrollment

Projected Year:	2023		
Sector:	Public		
Level:	ES		
Region	**Division**	**Percent capacity above (below) enrollment**	**Implied slack capacity (aisle learners)**
Region IV-A	San Pedro City	-72.52%	-23458
BARMM	Sulu	-62.82%	-61809
BARMM	Tawi-Tawi	-62.51%	-36364
BARMM	Maguindanao II	-55.50%	-45071
BARMM	Lanao del Sur - I	-54.71%	-47844
NCR	Las PiÃ±as City	-54.10%	-29615
NCR	Taguig City and Pateros	-52.44%	-50660
BARMM	Lanao del Sur - II	-52.38%	-37536
Region XI	Digos City	-52.05%	-12626
NCR	Caloocan City	-50.91%	-82390
CARAGA	Siargao	-49.45%	-9168
Region VIII	Catbalogan City	-48.51%	-7287
Region IV-A	Antipolo City	-48.38%	-51791
Region VII	Talisay City	-48.10%	-15148
Region IV-A	Tayabas City	-47.80%	-6055
Region X	Oroquieta City	-47.47%	-3956
NCR	Malabon City	-47.33%	-20854
BARMM	Basilan	-45.51%	-17215
NCR	Navotas	-44.99%	-12996
Region III	City of San Jose Del Monte	-44.60%	-33780
Region IV-A	Sta. Rosa City	-44.28%	-18078
Region IV-A	General Trias City	-44.13%	-21838
Region IV-A	Dasmarinas City	-43.34%	-31560
BARMM	Maguindanao I	-43.25%	-43208
Region XI	Mati City	-43.11%	-9561
NCR	Quezon City	-42.11%	-104643
Region VII	Toledo City	-41.94%	-12889
Region IV-A	Bacoor City	-41.85%	-23027

Region V	Catanduanes	-39.19%	-15615
Region V	Legaspi City	-37.19%	-9251
NCR	Muntinlupa City	-36.80%	-17489
NCR	Paranaque City	-36.55%	-19516
Region IX	Pagadian City	-36.08%	-9325
NCR	Valenzuela City	-35.89%	-24722
Region IV-A	Imus City	-35.79%	-16950
Region IV-A	Binan City	-35.48%	-13259
Region IX	Zamboanga del Norte	-33.84%	-40225
Region IV-A	Rizal	-33.44%	-94659
Region VII	Dumaguete City	-32.59%	-4622
Region IV-A	Cabuyao City	-32.53%	-11663
Region VI	San Carlos City	-31.94%	-5093
Region XI	Panabo City	-31.17%	-8495
NCR	Marikina City	-31.14%	-13393
Region V	Ligao City	-31.14%	-5333
Region XII	Sarangani	-30.81%	-26118
Region V	Camarines Sur	-30.80%	-77582
BARMM	Marawi City	-29.67%	-5645
Region VI	Bacolod City	-29.53%	-19559
Region V	Iriga City	-29.02%	-3979
CARAGA	Dinagat Island	-28.11%	-4527
Region VII	Carcar City	-27.82%	-5512
Region XII	Kidapawan City	-27.66%	-6099
Region VI	Victorias City	-27.11%	-3223
Region V	Tabaco City	-26.62%	-5193
Region XI	Island Garden City of Samal	-25.98%	-4216
Region V	Sorsogon City	-25.74%	-6530
Region XII	North Cotabato	-25.65%	-41287
NCR	Pasay City	-25.56%	-9019
Region V	Sorsogon	-25.51%	-24014
Region III	Angeles City	-25.09%	-12780
Region VI	Passi City	-25.07%	-2710
Region II	Cagayan	-24.77%	-32431
Region III	Cabanatuan City	-24.64%	-8727
Region VII	City of Naga, Cebu	-24.48%	-4338
Region IX	Zamboanga City	-24.43%	-33778

Region VI	Guimaras	-24.36%	-5327
Region X	Lanao del Norte	-24.23%	-21805
Region IX	Dapitan City	-24.12%	-2828
Region VI	Iloilo	-23.36%	-53476
Region VII	Lapu-Lapu City	-23.26%	-13844
Region IV-A	Calamba City	-23.18%	-14560
CAR	Tabuk City	-22.87%	-3584
CARAGA	Surigao City	-22.39%	-4402
Region IV-A	Cavite	-22.35%	-52567
CARAGA	Butuan City	-22.34%	-11363
Region IV-B	Palawan	-22.33%	-32510
Region VI	Bago City	-22.20%	-4722
Region IV-B	Puerto Princesa City	-21.89%	-8048
Region IV-A	Laguna	-21.58%	-27301
Region VII	Danao City	-21.54%	-4486
Region I	Pangasinan I, Lingayen	-20.93%	-35159
Region I	San Carlos City	-20.75%	-5225
Region VI	Negros Occidental	-20.73%	-34042
Region X	Iligan City	-20.52%	-9705
Region VII	Mandaue City	-20.51%	-7701
Region III	Tarlac	-20.50%	-27543
Region X	Malaybalay City	-19.99%	-5849
Region XI	Davao City	-19.58%	-42228
Region VI	Iloilo City	-19.43%	-8578
NCR	Manila	-19.19%	-29573
Region XI	Davao del Sur	-18.72%	-11886
Region IV-A	Tanauan City	-18.59%	-4399
Region VII	Cebu City	-17.69%	-17990
Region I	La Union	-17.68%	-12663
Region X	Valencia City	-17.37%	-4348
Region VII	Tagbilaran City	-17.29%	-1679
Region X	Bukidnon	-17.19%	-29312
Region III	Nueva Ecija	-16.91%	-31606
CARAGA	Cabadbaran City	-16.66%	-1840
Region X	Cagayan de Oro City	-16.51%	-13807
Region IV-A	Quezon	-16.25%	-40639
BARMM	Lamitan City	-16.22%	-2450
CARAGA	Surigao del Norte	-15.47%	-4975

CAR	Baguio City	-15.08%	-5191
NCR	Pasig City	-15.06%	-11244
Region II	Nueva Vizcaya	-15.03%	-8863
Region III	Mabalacat City	-14.62%	-4412
NCR	Makati City	-14.37%	-5604
Region X	Misamis Oriental	-14.25%	-15300
Region VIII	Northern Samar	-14.11%	-13559
CARAGA	Tandag City	-14.02%	-1273
Region VII	Cebu	-13.90%	-43417
Region III	Meycauayan City	-13.67%	-3100
Region XII	General Santos City	-13.01%	-11601
Region VI	Cadiz City	-12.84%	-2771
Region VI	Sipalay City	-12.52%	-1436
Region VI	Kabankalan City	-11.97%	-3384
BARMM	Cotabato City	-11.95%	-3732
Region III	San Fernando City	-11.54%	-4165
Region VII	Negros Oriental	-11.19%	-12262
Region VIII	Baybay City	-11.06%	-1537
Region II	Santiago City	-11.05%	-1922
Region VIII	Leyte	-11.05%	-21926
Region VI	Silay City	-10.86%	-1743
Region IX	Isabela City	-10.81%	-1946
Region XII	Koronadal City	-10.71%	-2511
Region I	Urdaneta City	-10.43%	-1779
Region III	Bataan	-10.37%	-9697
Region V	Masbate City	-10.34%	-1606
BARMM	Special Geographic Area Di	-10.28%	-3068
Region III	Balanga City	-10.12%	-889
Region I	Alaminos City	-10.05%	-1222
Region III	Pampanga	-9.90%	-19221
Region VIII	Calbayog City	-9.89%	-2635
Region IV-A	Batangas	-9.81%	-21736
Region I	Laoag City	-9.60%	-895
Region IV-A	Lucena City	-9.49%	-3416
Region IV-A	Cavite City	-9.45%	-937
Region II	Cauayan City	-9.14%	-1655
Region VI	Escalante City	-8.99%	-1238

Region V	Albay	-8.20%	-9998
Region XI	Davao del Norte	-7.87%	-5275
Region IV-B	Oriental Mindoro	-7.28%	-7632
Region VII	Guihulngan City	-7.06%	-1434
Region VII	Bayawan City	-6.95%	-1564
Region XII	South Cotabato	-6.90%	-7584
Region III	Tarlac City	-6.51%	-2896
Region VI	Himamaylan City	-6.44%	-1074
Region VII	Bohol	-6.43%	-10047
CARAGA	Surigao del Sur	-6.39%	-4627
Region IV-A	Lipa City	-6.06%	-2672
Region VIII	Ormoc City	-5.05%	-1512
Region V	Naga City	-5.04%	-1281
Region III	Bulacan	-5.01%	-14495
Region VI	Roxas City	-4.95%	-950
Region IV-B	Romblon	-4.84%	-1943
Region II	Tuguegarao City	-4.20%	-654
Region V	Camarines Norte	-4.09%	-3779
Region X	Tangub City	-4.03%	-388
Region VII	Bogo City	-3.92%	-448
Region III	Gapan City	-3.82%	-579
Region XI	Tagum City	-3.80%	-1327
Region VII	Bais City	-3.80%	-416
Region IX	Zamboanga Sibugay	-3.35%	-3220
NCR	Mandaluyong City	-3.25%	-903
Region X	Misamis Occidental	-3.01%	-1266
Region I	Dagupan City	-2.44%	-489
Region VIII	Maasin City	-2.22%	-196
Region X	El Salvador	-1.88%	-143
CARAGA	Agusan del Sur	-1.78%	-1742
Region VIII	Biliran	-1.25%	-335
Region VI	Aklan	-1.21%	-831
Region IV-B	Calapan City	-0.47%	-80
Region II	Quirino	0.15%	38
Region X	Gingoog City	0.51%	102
Region II	Isabela	0.51%	755
Region IV-B	Occidental Mindoro	0.69%	561
Region III	Malolos City	0.75%	179

Region I	San Fernando City	0.88%	94
Region VIII	Eastern Samar	1.03%	574
Region III	Olongapo City	1.39%	384
Region III	Aurora	1.71%	535
Region XII	Tacurong City	1.97%	240
CAR	Ifugao	2.02%	511
Region X	Camiguin	2.07%	247
CAR	Benguet	2.30%	1107
Region XI	Davao De Oro	2.81%	2969
Region VIII	Southern Leyte	4.25%	1660
Region IV-A	San Pablo City	4.32%	1496
Region VII	Tanjay City	4.93%	740
Region II	City of Ilagan	6.80%	1260
CARAGA	Agusan del Norte	6.88%	2945
Region I	Pangasinan II, Binalonan	7.14%	9311
CAR	Mt. Province	7.68%	1436
Region VII	Siquijor	8.02%	910
Region III	Science City of MuÃ±oz	8.27%	840
Region III	San Jose City	9.33%	1678
Region IX	Zamboanga del Sur	9.89%	11255
CARAGA	Bayugan City	10.02%	1516
Region V	Masbate	10.45%	13166
Region XII	Sultan Kudarat	10.66%	9966
Region X	Ozamis City	11.86%	2105
Region XI	Davao Occidental	11.99%	5588
Region III	Zambales	12.29%	10303
Region IV-A	Batangas City	12.63%	4385
Region VI	Antique	12.71%	9857
Region VIII	Tacloban City	12.89%	3860
Region I	Vigan City	13.19%	651
Region I	Batac City	13.85%	690
CARAGA	Bislig City	15.72%	2023
CAR	Kalinga	16.46%	2224
Region VI	La Carlota City	17.25%	1438
Region VI	Sagay City	17.60%	3689
Region IX	Dipolog City	17.94%	2986
CAR	Abra	17.97%	5078
Region I	Ilocos Sur	18.54%	11108

Region XI	Davao Oriental	18.70%	12293
Region IV-B	Marinduque	18.78%	5931
Region II	Batanes	19.23%	379
Region VIII	Samar (Western Samar)	19.95%	15501
NCR	City of San Juan	21.07%	1467
Region I	Candon City	21.51%	1315
Region VIII	Borongan City	22.01%	1943
Region VI	Capiz	25.90%	18242
CAR	Apayao	28.86%	4394
Region I	Ilocos Norte	61.86%	26602

Appendix 3. Implied slack capacity (aisle learners) in public schools at the JHS level by DepEd division, ranked by % of capacity below enrollment

Projected Year:	2023		
Sector:	Public		
Level:	JHS		
Region	**Division**	**Percent capacity above (below) enrollment**	**Implied slack capacity (aisle learners)**
BARMM	Tawi-Tawi	-85.29%	-11405
BARMM	Sulu	-84.82%	-29206
Region IV-A	Imus City	-67.29%	-21039
Region IV-A	San Pedro City	-66.90%	-11483
BARMM	Maguindanao II	-62.60%	-16336
BARMM	Basilan	-61.54%	-8005
Region VIII	Catbalogan City	-60.76%	-4939
Region IV-A	General Trias City	-59.52%	-15108
BARMM	Lamitan City	-58.15%	-2942
BARMM	Lanao del Sur - I	-56.40%	-13946
Region VI	Bago City	-55.70%	-6385
Region V	Legaspi City	-54.60%	-7117
Region IV-A	Sta. Rosa City	-52.78%	-11278
Region IV-A	Bacoor City	-50.46%	-13787
Region V	Sorsogon City	-49.76%	-6853
BARMM	Maguindanao I	-49.40%	-15527
NCR	Las PiÃ±as City	-48.85%	-15468
BARMM	Lanao del Sur - II	-48.46%	-11029
Region X	Lanao del Norte	-48.05%	-17949
NCR	Navotas	-47.33%	-6861
Region VI	Himamaylan City	-46.67%	-3496
Region V	Catanduanes	-46.38%	-10200
Region IV-A	Rizal	-45.89%	-65993
Region II	Tuguegarao City	-45.70%	-4864
Region IV-A	Antipolo City	-45.61%	-26497
NCR	Taguig City and Pateros	-45.45%	-21575
Region V	Naga City	-45.39%	-7311
Region IV-A	Cabuyao City	-42.36%	-9365

BARMM	Special Geographic Area Di	-41.98%	-3655
Region VII	Guihulngan City	-40.77%	-3992
Region XI	Digos City	-40.77%	-5676
Region X	El Salvador	-40.57%	-1568
Region IX	Zamboanga City	-40.54%	-26828
Region III	Meycauayan City	-40.38%	-3891
NCR	Caloocan City	-40.15%	-38022
NCR	Pasay City	-40.07%	-7918
Region VI	Roxas City	-39.37%	-3764
Region XI	Mati City	-39.22%	-4682
NCR	Quezon City	-39.04%	-59321
Region III	Malolos City	-39.00%	-5804
NCR	Makati City	-38.76%	-9849
Region VII	Toledo City	-38.73%	-6165
Region V	Sorsogon	-38.36%	-19504
Region X	Malaybalay City	-38.08%	-6304
Region V	Albay	-37.94%	-24270
NCR	Malabon City	-37.30%	-7844
Region IV-A	Dasmarinas City	-37.11%	-14605
Region V	Tabaco City	-37.09%	-4994
NCR	Muntinlupa City	-36.09%	-9354
CARAGA	Tandag City	-35.89%	-1696
Region VI	Escalante City	-35.53%	-2725
Region III	Mabalacat City	-35.40%	-6081
Region VII	Lapu-Lapu City	-35.39%	-12334
Region V	Camarines Sur	-34.59%	-43952
Region VII	Carcar City	-34.14%	-3481
Region VII	Cebu City	-33.95%	-19236
Region IV-A	Lucena City	-33.46%	-4430
NCR	Marikina City	-33.32%	-9511
CARAGA	Cabadbaran City	-33.15%	-1832
NCR	Valenzuela City	-33.04%	-15390
Region VII	Mandaue City	-32.91%	-6949
Region IV-A	Cavite	-32.80%	-42726
Region VI	Sipalay City	-31.07%	-2054
BARMM	Marawi City	-31.03%	-1279
Region IV-A	Calamba City	-30.01%	-9047
Region X	Valencia City	-29.98%	-3582
Region IX	Zamboanga del Norte	-29.80%	-17713

Region IX	Isabela City	-29.71%	-3175
Region VII	Talisay City	-29.51%	-4802
Region VII	City of Naga, Cebu	-28.93%	-2771
Region IV-A	Binan City	-28.90%	-5566
Region XII	Koronadal City	-27.72%	-3806
NCR	Paranaque City	-27.67%	-9239
NCR	Pasig City	-27.54%	-15094
Region V	Camarines Norte	-27.53%	-12766
Region III	Bulacan	-27.35%	-40708
Region VII	Dumaguete City	-27.14%	-1832
NCR	Manila	-26.94%	-23536
Region III	Pampanga	-26.93%	-26631
CARAGA	Butuan City	-26.51%	-7882
Region IV-B	Calapan City	-26.50%	-2735
Region XII	Sultan Kudarat	-26.47%	-12013
Region VII	Tagbilaran City	-26.12%	-1890
Region IV-A	Laguna	-25.97%	-17742
Region IV-A	San Pablo City	-25.81%	-4653
NCR	City of San Juan	-25.37%	-847
Region IX	Dapitan City	-25.32%	-1706
Region I	Pangasinan I, Lingayen	-25.22%	-23655
Region III	City of San Jose Del Monte	-24.83%	-9857
Region VII	Cebu	-24.01%	-40185
CAR	Abra	-23.72%	-3142
Region VII	Siquijor	-23.61%	-1553
Region II	Santiago City	-23.50%	-2432
Region III	Nueva Ecija	-23.29%	-24476
Region VI	Guimaras	-23.06%	-3075
Region III	Angeles City	-22.77%	-6268
Region V	Masbate City	-22.41%	-1812
Region III	San Jose City	-22.29%	-1959
Region IV-B	Palawan	-22.28%	-16483
Region XII	North Cotabato	-22.21%	-18591
Region III	San Fernando City	-21.74%	-4702
Region X	Gingoog City	-21.11%	-2192
Region VI	Bacolod City	-20.86%	-7213
Region I	Ilocos Sur	-20.75%	-6131
CARAGA	Dinagat Island	-20.68%	-1758
Region I	Alaminos City	-20.13%	-1429

Region XI	Davao City	-20.12%	-23685
Region IV-A	Tayabas City	-20.04%	-1254
Region II	Cagayan	-19.84%	-13345
Region XII	Tacurong City	-19.58%	-1318
CARAGA	Surigao del Sur	-19.46%	-6918
CAR	Benguet	-19.05%	-4580
Region X	Iligan City	-18.71%	-4484
Region VIII	Northern Samar	-18.53%	-9213
Region I	Vigan City	-18.33%	-1115
Region II	Nueva Vizcaya	-18.21%	-5907
Region VI	Negros Occidental	-17.80%	-15414
BARMM	Cotabato City	-17.78%	-2450
Region III	Tarlac City	-17.58%	-2977
Region IV-B	Occidental Mindoro	-17.47%	-6768
Region VII	Bohol	-17.16%	-13330
Region VI	Iloilo City	-16.84%	-4030
Region VI	Capiz	-16.80%	-7687
Region XII	Sarangani	-16.76%	-7404
Region VIII	Ormoc City	-16.63%	-2898
Region VI	Iloilo	-16.49%	-23855
CARAGA	Siargao	-16.44%	-1567
Region V	Masbate	-16.38%	-10495
Region VII	Tanjay City	-15.52%	-1245
Region III	Bataan	-15.47%	-7085
Region IV-A	Batangas	-15.20%	-17621
Region III	Tarlac	-14.99%	-11539
Region IV-A	Quezon	-14.96%	-18624
Region VI	Aklan	-13.96%	-5156
Region VII	Bayawan City	-13.63%	-1724
Region XI	Davao Occidental	-12.07%	-2782
Region XII	South Cotabato	-11.86%	-7141
Region IX	Zamboanga Sibugay	-11.78%	-5492
Region II	Cauayan City	-11.64%	-1220
CAR	Tabuk City	-11.37%	-888
Region VI	San Carlos City	-11.33%	-711
Region VII	Danao City	-11.32%	-1330
Region I	La Union	-10.82%	-4566
CAR	Mt. Province	-10.75%	-1124
Region XII	Kidapawan City	-10.71%	-1386

Region X	Bukidnon	-10.68%	-7546
Region VI	Victorias City	-10.61%	-835
Region I	San Carlos City	-10.25%	-1461
Region IX	Dipolog City	-9.86%	-1086
CARAGA	Surigao del Norte	-9.81%	-2051
Region I	Urdaneta City	-9.66%	-1024
Region VII	Bais City	-9.30%	-584
Region VI	Kabankalan City	-9.29%	-1372
Region III	Science City of MuÃ±oz	-9.23%	-587
Region II	Isabela	-8.54%	-6942
Region VI	Passi City	-8.09%	-571
Region XI	Panabo City	-7.84%	-1097
Region VIII	Baybay City	-7.73%	-629
Region I	Batac City	-7.72%	-183
Region III	Cabanatuan City	-7.57%	-1367
Region IV-B	Oriental Mindoro	-7.48%	-3643
Region III	Olongapo City	-7.46%	-1177
CARAGA	Agusan del Sur	-7.43%	-3594
Region III	Balanga City	-7.35%	-654
CAR	Kalinga	-6.77%	-444
Region VII	Bogo City	-6.50%	-282
Region X	Cagayan de Oro City	-5.67%	-2317
Region II	Quirino	-5.65%	-878
Region VIII	Samar (Western Samar)	-5.37%	-2216
Region IV-B	Puerto Princesa City	-5.34%	-1148
Region VIII	Leyte	-5.34%	-5798
Region X	Misamis Occidental	-5.11%	-925
Region V	Ligao City	-5.00%	-573
CARAGA	Surigao City	-4.94%	-417
Region III	Gapan City	-4.79%	-443
NCR	Mandaluyong City	-4.79%	-898
Region XI	Davao Oriental	-4.61%	-1517
Region XI	Davao del Norte	-4.52%	-1559
CARAGA	Bislig City	-4.25%	-220
Region VIII	Biliran	-4.15%	-602
Region XI	Davao del Sur	-3.71%	-1103
Region IX	Zamboanga del Sur	-3.44%	-1967
Region IV-B	Romblon	-3.44%	-802
Region XII	General Santos City	-3.37%	-1619

Region III	Zambales	-2.80%	-1197
Region II	City of Ilagan	-1.52%	-160
Region IX	Pagadian City	-1.39%	-189
CAR	Apayao	-0.96%	-80
CAR	Baguio City	-0.81%	-179
Region IV-A	Tanauan City	-0.52%	-70
Region IV-A	Lipa City	-0.22%	-52
Region I	San Fernando City	0.64%	43
CARAGA	Bayugan City	0.79%	73
Region I	Dagupan City	1.38%	158
Region V	Iriga City	1.90%	136
Region I	Candon City	2.55%	101
Region I	Laoag City	2.73%	201
Region IV-B	Marinduque	3.77%	636
Region VI	Silay City	3.86%	368
CARAGA	Agusan del Norte	4.37%	911
Region XI	Tagum City	5.63%	1144
Region VI	Antique	5.77%	2416
Region X	Misamis Oriental	5.78%	3548
Region IV-A	Batangas City	5.94%	1205
Region VIII	Eastern Samar	6.25%	1815
Region VI	Sagay City	6.35%	796
CAR	Ifugao	7.16%	744
Region VIII	Maasin City	8.10%	363
Region III	Aurora	9.26%	1486
Region X	Oroquieta City	9.31%	501
Region X	Ozamis City	11.29%	1140
Region VI	Cadiz City	11.46%	1463
Region VI	La Carlota City	11.82%	693
Region IV-A	Cavite City	12.09%	706
Region VIII	Calbayog City	13.91%	1908
Region XI	Davao De Oro	15.28%	8791
Region VII	Negros Oriental	15.29%	8472
Region II	Batanes	17.61%	220
Region I	Pangasinan II, Binalonan	21.08%	16202
Region VIII	Tacloban City	21.20%	3880
Region I	Ilocos Norte	22.88%	5676
Region X	Camiguin	25.06%	1803
Region XI	Island Garden City of Samal	27.04%	2343

Region VIII	Southern Leyte	29.95%	6482
Region VIII	Borongan City	34.63%	1837
Region X	Tangub City	36.00%	1904

Appendix 4. Implied slack capacity (aisle learners) in public schools at the SHS level by DepEd division, ranked by % of capacity below enrollment

Projected Year:	2023		
Sector:	Public		
Level:	SHS		
Region	**Division**	**Percent capacity above (below) enrollment**	**Implied slack capacity (aisle learners)**
NCR	City of San Juan	-100.00%	-1267
NCR	Paranaque City	-90.28%	-11637
BARMM	Sulu	-84.61%	-6837
Region IV-A	General Trias City	-81.77%	-5666
BARMM	Special Geographic Area Di	-79.45%	-1704
BARMM	Basilan	-78.23%	-3417
BARMM	Tawi-Tawi	-75.55%	-3128
Region III	Balanga City	-69.45%	-3337
Region VI	Himamaylan City	-69.06%	-3016
BARMM	Maguindanao II	-69.01%	-5518
NCR	Navotas	-67.46%	-4137
Region VIII	Catbalogan City	-64.89%	-2965
Region V	Sorsogon City	-63.10%	-4692
BARMM	Lamitan City	-62.32%	-730
Region IX	Zamboanga City	-61.33%	-17382
Region XII	Tacurong City	-60.84%	-2220
Region X	Valencia City	-59.84%	-3760
Region VI	Sipalay City	-58.36%	-2080
Region VI	Bago City	-58.36%	-2060
Region V	Catanduanes	-58.28%	-7141
BARMM	Lanao del Sur - I	-58.25%	-5168
BARMM	Maguindanao I	-57.35%	-5092
Region IV-A	Imus City	-54.45%	-3004
Region IV-A	San Pedro City	-54.28%	-1773
CARAGA	Tandag City	-53.41%	-1223
BARMM	Lanao del Sur - II	-52.61%	-3669
Region VI	Roxas City	-52.13%	-2097
Region X	Lanao del Norte	-51.69%	-7927

Region VII	Guihulngan City	-51.60%	-2239
Region IV-A	Lipa City	-51.30%	-4439
Region XI	Davao City	-51.29%	-20276
NCR	Pasay City	-51.04%	-4420
BARMM	Marawi City	-50.87%	-608
NCR	Muntinlupa City	-50.00%	-5066
Region V	Albay	-49.99%	-16216
Region V	Naga City	-49.84%	-3371
Region V	Legaspi City	-49.72%	-2631
Region X	Bukidnon	-49.44%	-16138
Region V	Sorsogon	-49.08%	-13701
Region VII	Talisay City	-48.90%	-2526
Region X	Ozamis City	-48.53%	-2213
Region VI	Silay City	-47.78%	-1732
Region V	Masbate City	-47.76%	-2200
Region IV-A	Rizal	-47.43%	-17684
Region IV-A	Antipolo City	-47.26%	-5643
Region V	Camarines Sur	-46.69%	-29322
Region VII	Toledo City	-45.30%	-2364
Region VII	Tagbilaran City	-45.17%	-1659
Region IV-B	Occidental Mindoro	-45.11%	-7912
Region V	Tabaco City	-44.81%	-2907
Region X	Misamis Oriental	-44.62%	-10828
Region VII	Cebu	-44.48%	-36255
Region VI	San Carlos City	-43.91%	-1759
Region XI	Davao del Sur	-43.79%	-6127
NCR	Makati City	-43.65%	-2776
Region VI	Negros Occidental	-43.18%	-19760
Region VI	Kabankalan City	-43.13%	-3337
Region V	Masbate	-42.91%	-13835
Region XI	Panabo City	-42.78%	-2791
Region II	Cagayan	-42.72%	-15434
NCR	Taguig City and Pateros	-42.67%	-4576
Region IV-B	Palawan	-42.57%	-14353
Region XII	Koronadal City	-42.46%	-2763
Region IV-B	Calapan City	-42.11%	-2068
Region XI	Mati City	-41.88%	-2287
Region I	Pangasinan I, Lingayen	-41.79%	-20004
Region XI	Davao Occidental	-41.36%	-4672

Region XI	Davao Oriental	-41.00%	-6171
Region III	San Fernando City	-40.98%	-3592
CAR	Benguet	-40.60%	-5393
Region IX	Dipolog City	-40.18%	-2203
Region V	Camarines Norte	-40.17%	-7177
Region III	Pampanga	-40.17%	-14875
Region XII	North Cotabato	-40.08%	-14700
Region VI	La Carlota City	-39.98%	-1515
NCR	Pasig City	-39.88%	-6863
CAR	Kalinga	-39.57%	-1468
Region X	Malaybalay City	-39.28%	-3552
Region IV-A	Quezon	-38.85%	-22261
Region IX	Zamboanga Sibugay	-38.03%	-8202
Region XI	Davao del Norte	-37.67%	-7165
Region VI	Bacolod City	-37.65%	-5249
Region VII	Bogo City	-37.53%	-1248
Region VI	Iloilo City	-36.89%	-3398
Region III	Nueva Ecija	-36.80%	-17178
Region VII	City of Naga, Cebu	-36.44%	-1320
Region IV-A	Cavite City	-36.33%	-1157
Region VI	Cadiz City	-36.09%	-2364
Region XI	Davao De Oro	-36.09%	-9833
Region IX	Isabela City	-35.48%	-1473
Region VI	Iloilo	-35.25%	-29195
Region VIII	Eastern Samar	-35.14%	-6019
Region VII	Bais City	-35.10%	-1073
Region IV-A	Calamba City	-34.98%	-3156
Region II	Nueva Vizcaya	-34.87%	-5020
Region IV-A	San Pablo City	-34.28%	-1989
Region VI	Guimaras	-34.16%	-2346
Region III	Tarlac	-34.12%	-12276
BARMM	Cotabato City	-34.09%	-2381
Region XII	South Cotabato	-33.94%	-9824
Region VI	Capiz	-33.90%	-8290
Region VI	Passi City	-33.80%	-1334
Region IX	Zamboanga del Norte	-33.55%	-9968
Region IV-A	Bacoor City	-33.21%	-1677
Region VI	Escalante City	-33.18%	-1350
Region VII	Mandaue City	-32.71%	-2010

Region III	Tarlac City	-32.01%	-1253
Region I	Ilocos Sur	-31.85%	-5045
NCR	Valenzuela City	-31.82%	-2906
Region IV-A	Tayabas City	-31.81%	-1057
Region IV-A	Batangas	-31.70%	-17107
Region II	Santiago City	-31.61%	-1269
Region XII	Sultan Kudarat	-31.56%	-6526
Region VII	Bayawan City	-31.54%	-1831
Region V	Ligao City	-31.52%	-1768
Region IX	Dapitan City	-31.35%	-1034
Region X	El Salvador	-31.20%	-568
Region IV-A	Cavite	-30.76%	-11089
Region III	Angeles City	-30.69%	-2881
Region II	Tuguegarao City	-30.64%	-1378
Region III	Gapan City	-30.56%	-1492
Region VII	Carcar City	-30.49%	-1223
NCR	Las PiÃ±as City	-30.18%	-1593
Region IV-A	Laguna	-29.93%	-7346
Region VIII	Northern Samar	-29.81%	-7160
Region XII	Sarangani	-29.61%	-5868
Region III	San Jose City	-29.55%	-1130
Region X	Gingoog City	-29.45%	-1388
Region VII	Bohol	-29.45%	-12995
Region I	Batac City	-29.36%	-398
Region III	Meycauayan City	-29.05%	-655
Region III	Mabalacat City	-28.97%	-1024
Region I	Vigan City	-28.81%	-1025
Region VII	Lapu-Lapu City	-28.65%	-2153
Region VIII	Biliran	-28.07%	-2111
Region VII	Negros Oriental	-27.82%	-7348
CARAGA	Cabadbaran City	-27.80%	-760
Region IV-A	Sta. Rosa City	-27.62%	-1027
CAR	Apayao	-27.61%	-1167
Region XII	Kidapawan City	-27.29%	-1892
Region VIII	Southern Leyte	-27.18%	-3375
Region I	Alaminos City	-26.94%	-1131
Region VI	Antique	-26.89%	-5846
Region X	Tangub City	-26.80%	-801
Region I	San Fernando City	-26.69%	-796

Region VIII	Leyte	-26.07%	-13581
Region I	San Carlos City	-25.81%	-1518
CAR	Abra	-25.73%	-1589
CARAGA	Butuan City	-24.58%	-3277
Region VII	Dumaguete City	-24.20%	-741
Region I	La Union	-23.96%	-5214
Region III	Bulacan	-23.94%	-10098
Region I	Ilocos Norte	-23.85%	-3390
Region XI	Island Garden City of Samal	-23.70%	-1052
Region VIII	Maasin City	-23.68%	-447
Region IV-A	Lucena City	-23.67%	-629
Region IV-B	Marinduque	-23.64%	-1697
Region XII	General Santos City	-23.19%	-3993
CARAGA	Dinagat Island	-23.05%	-866
Region III	Zambales	-22.93%	-3705
Region IV-B	Oriental Mindoro	-22.93%	-4758
Region VI	Victorias City	-22.78%	-842
Region I	Candon City	-22.49%	-563
Region III	Bataan	-22.48%	-4571
Region XI	Digos City	-22.36%	-482
Region VIII	Calbayog City	-22.35%	-1573
CAR	Mt. Province	-22.01%	-1045
Region VI	Sagay City	-21.89%	-1076
Region III	Science City of MuÃ±oz	-21.64%	-734
Region I	Laoag City	-21.58%	-844
NCR	Mandaluyong City	-21.48%	-1364
Region VI	Aklan	-21.21%	-4056
Region X	Camiguin	-21.07%	-769
Region VIII	Tacloban City	-20.41%	-1340
Region IX	Zamboanga del Sur	-19.90%	-4851
CARAGA	Surigao del Norte	-19.80%	-2389
CAR	Tabuk City	-19.64%	-814
Region VII	Tanjay City	-19.28%	-555
Region III	Aurora	-18.53%	-1092
Region VIII	Borongan City	-18.40%	-607
Region VIII	Baybay City	-17.60%	-798
Region VII	Cebu City	-17.54%	-2773
Region III	Malolos City	-17.01%	-658
Region IX	Pagadian City	-16.93%	-720

CARAGA	Siargao	-16.83%	-605
NCR	Manila	-16.71%	-2035
Region II	City of Ilagan	-16.65%	-943
CARAGA	Agusan del Sur	-16.32%	-2657
Region VII	Danao City	-16.31%	-520
CARAGA	Agusan del Norte	-15.95%	-1615
CAR	Ifugao	-15.86%	-731
Region IV-A	Dasmarinas City	-14.84%	-1223
Region II	Quirino	-14.83%	-1174
Region II	Isabela	-14.65%	-5694
Region VIII	Samar (Western Samar)	-14.54%	-2958
Region I	Dagupan City	-14.36%	-648
Region IV-B	Romblon	-13.97%	-1663
Region III	City of San Jose Del Monte	-13.95%	-1051
Region XI	Tagum City	-13.84%	-886
Region X	Iligan City	-13.71%	-1052
CARAGA	Surigao del Sur	-13.41%	-2114
Region IV-A	Tanauan City	-13.14%	-174
Region VII	Siquijor	-13.12%	-391
NCR	Quezon City	-12.99%	-3587
Region V	Iriga City	-12.37%	-391
Region I	Pangasinan II, Binalonan	-12.18%	-4433
Region IV-B	Puerto Princesa City	-12.07%	-1403
NCR	Marikina City	-11.47%	-686
Region I	Urdaneta City	-11.32%	-473
Region VIII	Ormoc City	-10.76%	-681
Region X	Misamis Occidental	-10.35%	-868
Region III	Cabanatuan City	-9.99%	-388
Region IV-A	Cabuyao City	-9.12%	-232
Region X	Oroquieta City	-8.49%	-245
NCR	Caloocan City	-7.65%	-651
CARAGA	Bislig City	-5.10%	-113
CAR	Baguio City	-2.88%	-177
Region III	Olongapo City	-2.53%	-84
Region IV-A	Batangas City	-1.16%	-91
Region X	Cagayan de Oro City	1.50%	136
CARAGA	Surigao City	2.50%	86
CARAGA	Bayugan City	5.93%	163
NCR	Malabon City	23.37%	311

Region II	Batanes	35.34%	235
Region II	Cauayan City	45.31%	1339
Region IV-A	Binan City	82.17%	2929

Appendix 5. Implied slack capacity (aisle learners) in private schools at the elementary level by DepEd division, ranked by % of capacity above enrollment

Projected Year:	2023		
Sector:	Private		
Level:	ES		
Region	**Division**	**Percent capacity above (below) enrollment**	**Implied slack capacity (aisle learners)**
Region I	Urdaneta City	88.07%	1163
NCR	Makati City	65.42%	4996
Region VI	Victorias City	64.77%	449
Region IV-A	Lucena City	64.62%	2314
Region IV-A	Tanauan City	63.61%	2048
Region III	San Jose City	61.92%	1015
Region III	Gapan City	61.74%	448
Region VI	Capiz	54.92%	938
Region III	Balanga City	53.26%	805
Region II	Batanes	53.15%	43
Region IV-A	Bacoor City	48.71%	6485
Region I	Alaminos City	47.09%	380
Region I	Dagupan City	45.05%	1608
NCR	Pasay City	43.27%	1515
Region IV-A	Calamba City	43.08%	3694
Region VI	Himamaylan City	42.61%	84
NCR	Taguig City and Pateros	41.82%	5633
Region I	San Fernando City	40.63%	1062
Region III	Malolos City	38.64%	1753
NCR	Las PiÃ±as City	38.52%	4685
Region IV-A	San Pablo City	38.37%	1245
Region VII	Lapu-Lapu City	37.46%	2426
Region IV-B	Calapan City	36.91%	500
Region III	Science City of MuÃ±oz	35.08%	258
Region III	Olongapo City	33.70%	772
Region IV-A	Imus City	33.15%	4071
Region VI	Roxas City	31.69%	674
Region IV-A	Batangas City	31.65%	1620
Region XII	South Cotabato	31.59%	1926

CAR	Abra	31.52%	330
Region III	Tarlac City	30.55%	1686
Region I	San Carlos City	30.47%	548
Region IV-A	Quezon	30.47%	2468
Region VIII	Eastern Samar	29.28%	122
Region VII	Danao City	29.27%	283
Region III	Mabalacat City	28.88%	821
Region XI	Davao Oriental	28.13%	269
BARMM	Cotabato City	27.47%	1175
CAR	Mt. Province	27.33%	150
Region II	Isabela	27.21%	1951
Region III	Bataan	27.18%	1515
Region VI	Negros Occidental	26.28%	1179
Region VII	Talisay City	25.42%	1052
Region VII	Mandaue City	25.28%	1296
Region IV-A	Cavite	25.16%	5796
CAR	Benguet	24.82%	942
Region V	Sorsogon City	24.80%	352
Region VII	Tagbilaran City	24.66%	850
Region II	Cauayan City	24.09%	423
Region XI	Davao Occidental	22.40%	107
Region VII	Carcar City	21.24%	178
NCR	Paranaque City	21.24%	2821
Region VIII	Tacloban City	21.23%	629
Region X	Gingoog City	21.09%	229
Region VIII	Catbalogan City	20.87%	152
Region III	Nueva Ecija	20.78%	2040
Region IV-A	Cabuyao City	20.70%	1119
Region IV-A	Sta. Rosa City	20.64%	1500
Region I	Batac City	20.09%	104
NCR	Marikina City	20.07%	2053
Region VI	Iloilo City	19.79%	1757
Region X	Iligan City	19.72%	863
Region XII	Kidapawan City	19.64%	297
Region IV-B	Marinduque	19.01%	141
CAR	Baguio City	18.84%	1639
Region V	Legaspi City	18.81%	543
Region III	San Fernando City	18.53%	1073
NCR	Muntinlupa City	18.46%	1532

Region IV-A	General Trias City	18.45%	1342
Region XII	Koronadal City	18.01%	523
Region I	La Union	17.92%	654
Region II	City of Ilagan	17.79%	201
Region I	Laoag City	17.79%	328
Region I	Pangasinan II, Binalonan	17.48%	1366
Region VIII	Ormoc City	17.41%	355
Region VI	Bacolod City	17.27%	1927
Region V	Naga City	16.49%	1032
Region V	Albay	16.31%	461
Region I	Candon City	15.64%	97
CARAGA	Butuan City	15.38%	638
Region VIII	Leyte	15.05%	747
Region VI	La Carlota City	14.50%	58
Region III	City of San Jose Del Monte	13.53%	1384
Region XII	General Santos City	13.49%	767
Region V	Catanduanes	13.46%	121
Region IV-A	Batangas	13.18%	1796
Region XI	Island Garden City of Samal	12.98%	53
Region VII	Cebu	12.49%	2060
Region IV-A	Dasmarinas City	12.48%	1308
Region IV-A	Antipolo City	10.96%	1731
Region VII	Toledo City	10.91%	131
Region VI	Escalante City	10.69%	34
Region III	Tarlac	10.48%	750
Region V	Tabaco City	9.94%	100
CARAGA	Surigao del Sur	9.31%	122
Region VI	Sipalay City	9.23%	41
Region II	Cagayan	9.00%	409
Region XI	Davao City	8.26%	2086
Region I	Vigan City	7.83%	49
Region VIII	Maasin City	7.67%	54
Region VI	Cadiz City	7.47%	29
Region X	Lanao del Norte	7.40%	158
Region I	Pangasinan I, Lingayen	7.40%	650
Region VI	Antique	7.09%	235
BARMM	Tawi-Tawi	6.72%	108
Region VIII	Southern Leyte	6.50%	93

Region VII	Cebu City	6.17%	1022
Region XI	Davao del Sur	5.41%	72
Region V	Iriga City	5.04%	126
Region X	Valencia City	4.70%	131
NCR	Malabon City	4.67%	195
Region II	Tuguegarao City	3.56%	76
Region VII	Dumaguete City	3.44%	126
Region X	Ozamis City	2.43%	40
Region VI	Aklan	1.77%	76
Region II	Santiago City	1.60%	31
Region I	Ilocos Sur	1.38%	31
Region III	Zambales	0.13%	5
Region XI	Panabo City	0.04%	1
BARMM	Special Geographic Area	0.00%	0
	Di		
CAR	Kalinga	0.00%	0
Region VI	Sagay City	-0.17%	-1
NCR	Navotas	-0.28%	-3
Region X	Oroquieta City	-0.65%	-5
Region III	Angeles City	-0.86%	-70
Region X	Cagayan de Oro City	-0.87%	-91
NCR	Caloocan City	-1.20%	-219
Region VI	Iloilo	-1.20%	-146
Region X	El Salvador	-2.03%	-7
Region IX	Dipolog City	-3.08%	-58
Region XI	Davao del Norte	-3.15%	-76
CAR	Ifugao	-3.31%	-16
Region IV-B	Palawan	-3.50%	-139
Region VI	San Carlos City	-3.53%	-18
NCR	Pasig City	-3.56%	-643
Region X	Bukidnon	-3.65%	-187
NCR	Mandaluyong City	-3.74%	-254
Region VIII	Baybay City	-4.44%	-37
Region IV-B	Puerto Princesa City	-4.53%	-123
Region III	Meycauayan City	-4.67%	-146
Region VII	Tanjay City	-4.81%	-29
BARMM	Maguindanao II	-4.96%	-149
Region XI	Mati City	-5.37%	-73
Region IV-B	Oriental Mindoro	-5.55%	-173
Region I	Ilocos Norte	-5.67%	-84

Region IV-A	Binan City	-5.73%	-506
Region VII	Bais City	-5.85%	-20
Region VIII	Calbayog City	-6.02%	-38
Region IX	Zamboanga City	-6.03%	-461
Region XI	Tagum City	-6.10%	-204
Region VII	Siquijor	-6.76%	-36
Region VII	Negros Oriental	-6.96%	-141
Region IV-A	Lipa City	-7.35%	-540
BARMM	Lanao del Sur - II	-9.04%	-453
CARAGA	Cabadbaran City	-9.49%	-76
Region III	Cabanatuan City	-10.00%	-399
Region X	Misamis Oriental	-10.05%	-444
Region V	Camarines Sur	-10.34%	-1077
Region XII	Tacurong City	-11.08%	-226
CARAGA	Bislig City	-11.30%	-100
BARMM	Marawi City	-11.65%	-1386
Region IX	Zamboanga Sibugay	-12.41%	-296
Region VII	Bohol	-12.61%	-968
Region X	Misamis Occidental	-12.63%	-221
Region III	Pampanga	-12.76%	-1753
NCR	City of San Juan	-13.49%	-541
Region IX	Zamboanga del Sur	-13.53%	-418
Region VII	Guihulngan City	-13.57%	-73
Region VI	Kabankalan City	-15.10%	-276
Region VI	Guimaras	-15.16%	-159
Region XII	North Cotabato	-16.24%	-814
CAR	Apayao	-16.78%	-27
Region VIII	Biliran	-17.11%	-88
Region V	Sorsogon	-17.85%	-292
Region V	Camarines Norte	-17.87%	-561
Region IX	Dapitan City	-17.92%	-38
Region XII	Sultan Kudarat	-18.78%	-658
BARMM	Lamitan City	-19.31%	-183
Region VIII	Northern Samar	-19.49%	-253
Region V	Ligao City	-19.61%	-222
Region V	Masbate City	-19.85%	-268
Region IV-A	Tayabas City	-20.40%	-187
Region VII	Bogo City	-20.58%	-109
Region IV-A	Rizal	-20.92%	-7584

Region XII	Sarangani	-21.17%	-453
Region V	Masbate	-21.32%	-369
Region VII	City of Naga, Cebu	-22.13%	-168
Region III	Bulacan	-22.36%	-7573
NCR	Quezon City	-24.74%	-12620
Region XI	Davao De Oro	-25.20%	-787
Region VI	Silay City	-25.35%	-293
BARMM	Sulu	-25.98%	-493
Region X	Camiguin	-26.71%	-117
Region X	Malaybalay City	-27.42%	-474
Region IV-B	Occidental Mindoro	-27.65%	-847
Region XI	Digos City	-28.74%	-555
NCR	Manila	-29.26%	-6622
BARMM	Lanao del Sur - I	-30.22%	-1809
Region IV-B	Romblon	-31.01%	-341
Region VI	Bago City	-31.34%	-373
CARAGA	Bayugan City	-32.27%	-414
BARMM	Maguindanao I	-35.54%	-3435
Region IX	Zamboanga del Norte	-36.79%	-676
CARAGA	Agusan del Sur	-37.90%	-985
Region X	Tangub City	-39.09%	-145
CAR	Tabuk City	-40.11%	-606
Region IX	Isabela City	-40.89%	-252
Region IV-A	Cavite City	-41.57%	-525
CARAGA	Agusan del Norte	-41.99%	-473
CARAGA	Siargao	-43.36%	-257
Region VII	Bayawan City	-43.61%	-112
CARAGA	Tandag City	-43.84%	-196
CARAGA	Dinagat Island	-46.78%	-34
CARAGA	Surigao City	-47.49%	-774
Region II	Quirino	-48.53%	-550
CARAGA	Surigao del Norte	-48.80%	-337
Region VIII	Borongan City	-48.85%	-135
BARMM	Basilan	-50.79%	-543
Region II	Nueva Vizcaya	-61.82%	-2191
Region IV-A	Laguna	-66.59%	-6334
Region VI	Passi City	-69.27%	-526
Region IV-A	San Pedro City	-69.97%	-4363
Region IX	Pagadian City	-73.63%	-2212

This study is carried out with support from the Private Education Assistance Committee (PEAC).

Region III	Aurora	-95.19%	-1426
NCR	Valenzuela City	-100.00%	-6649
Region VIII	Samar (Western Samar)	-100.00%	-49

Appendix 6. Implied slack capacity (aisle learners) in private schools at the JHS level by DepEd division, ranked by % of capacity above enrollment

Projected Year:	2023		
Sector:	Private		
Level:	JHS		
Region	**Division**	**Percent capacity above (below) enrollment**	**Implied slack capacity (aisle learners)**
Region VIII	Baybay City	165.01%	369
Region III	Balanga City	130.19%	991
Region VI	Capiz	125.64%	1905
Region VI	Victorias City	118.85%	819
Region VI	La Carlota City	99.07%	94
Region I	Vigan City	98.90%	479
Region VII	City of Naga, Cebu	78.26%	308
Region I	Laoag City	76.51%	819
Region V	Catanduanes	69.32%	220
Region III	Science City of MuÃ±oz	64.43%	139
Region V	Ligao City	61.46%	205
Region III	San Fernando City	60.58%	1718
Region III	Gapan City	60.52%	345
Region V	Sorsogon City	58.22%	708
Region I	Urdaneta City	57.91%	728
Region I	San Carlos City	57.42%	1458
Region VII	Siquijor	55.88%	300
Region IX	Dipolog City	54.85%	611
Region VII	Dumaguete City	50.30%	1389
Region VII	Lapu-Lapu City	49.29%	1898
Region I	Dagupan City	43.60%	1490
Region XI	Tagum City	42.96%	1335
Region VI	Sagay City	42.00%	50
Region I	San Fernando City	41.56%	969
Region IV-A	Bacoor City	38.56%	3497
CAR	Kalinga	38.51%	384
Region VIII	Catbalogan City	38.20%	261
Region VIII	Tacloban City	37.96%	624
NCR	Las PiÃ±as City	34.47%	2622

Region V	Tabaco City	33.16%	176
Region VI	Roxas City	33.05%	632
Region III	Malolos City	32.87%	924
Region VII	Danao City	31.97%	310
Region V	Iriga City	31.59%	1028
Region X	Ozamis City	31.58%	420
Region XI	Island Garden City of Samal	29.74%	222
Region IV-A	Batangas City	27.10%	1195
NCR	Paranaque City	25.67%	2073
Region XII	Kidapawan City	25.40%	300
Region XI	Digos City	23.83%	410
Region XII	Koronadal City	23.75%	574
Region VIII	Biliran	23.58%	104
NCR	Makati City	23.34%	1168
Region III	Angeles City	22.68%	1659
Region IV-A	Calamba City	22.25%	2065
Region I	Candon City	22.22%	100
Region III	Mabalacat City	22.05%	579
Region V	Legaspi City	21.89%	766
Region IV-A	Imus City	21.50%	1890
Region VI	Iloilo City	21.12%	1515
Region III	San Jose City	20.55%	349
Region IV-A	Dasmarinas City	19.64%	1985
Region VII	Cebu City	19.46%	2685
Region III	Zambales	19.41%	1349
Region VIII	Ormoc City	17.53%	193
Region VII	Talisay City	17.33%	806
Region IV-A	Antipolo City	17.24%	2022
Region IV-A	Lucena City	16.38%	614
Region XI	Davao del Norte	15.98%	490
Region XI	Davao De Oro	15.41%	370
Region I	Alaminos City	14.42%	168
Region VII	Toledo City	14.15%	117
Region I	Pangasinan II, Binalonan	14.14%	1207
Region IX	Zamboanga City	13.65%	1062
Region VI	Guimaras	12.73%	122
Region VI	Iloilo	12.67%	920
Region V	Naga City	11.21%	576
Region I	Batac City	11.03%	180

Region XII	General Santos City	10.68%	536
Region X	Malaybalay City	10.52%	147
Region IV-A	Tayabas City	10.47%	65
NCR	Muntinlupa City	10.05%	701
Region X	Iligan City	9.14%	483
CAR	Baguio City	8.98%	608
Region XI	Davao City	8.69%	1728
CARAGA	Butuan City	8.63%	282
Region IV-A	Binan City	8.52%	573
Region VI	Bacolod City	8.08%	785
Region IV-B	Puerto Princesa City	7.75%	103
Region IV-A	Cavite	7.70%	1640
Region IV-A	Sta. Rosa City	7.39%	475
NCR	Mandaluyong City	6.84%	327
Region IX	Dapitan City	6.54%	26
Region IV-B	Occidental Mindoro	6.12%	197
NCR	Navotas	5.88%	71
Region XI	Mati City	5.61%	54
NCR	Taguig City and Pateros	5.42%	804
NCR	Pasay City	5.04%	194
Region III	Cabanatuan City	4.82%	181
Region III	Bataan	3.60%	277
NCR	Marikina City	3.41%	210
Region VII	Cebu	3.00%	705
Region IV-A	General Trias City	2.64%	136
Region III	Tarlac City	1.30%	60
Region II	Cauayan City	0.70%	11
Region VIII	Maasin City	0.68%	12
Region II	Isabela	0.34%	40
Region VI	Kabankalan City	0.32%	9
Region VII	Tagbilaran City	0.09%	3
Region X	Oroquieta City	0.05%	0
Region II	Batanes	0.00%	0
Region IV-A	Cabuyao City	-0.41%	-18
Region I	Pangasinan I, Lingayen	-1.12%	-131
Region III	Nueva Ecija	-2.56%	-356
Region III	Tarlac	-2.58%	-347
NCR	Caloocan City	-3.08%	-408
Region IV-A	Tanauan City	-3.53%	-133

Region IV-A	San Pablo City	-3.55%	-145
Region X	Cagayan de Oro City	-3.68%	-323
Region IV-A	Batangas	-6.15%	-1556
Region X	Valencia City	-6.28%	-349
Region XII	Tacurong City	-6.96%	-204
Region V	Sorsogon	-6.98%	-348
Region VI	Bago City	-7.54%	-99
Region VI	Negros Occidental	-7.68%	-1163
Region I	La Union	-7.80%	-408
Region II	Santiago City	-8.15%	-194
Region IX	Zamboanga del Norte	-8.47%	-212
Region III	Olongapo City	-10.11%	-238
Region IV-B	Palawan	-10.22%	-371
Region VII	Carcar City	-10.29%	-130
NCR	Pasig City	-10.86%	-1162
Region IV-A	Lipa City	-10.87%	-1002
Region II	Tuguegarao City	-11.00%	-333
Region VII	Bayawan City	-11.01%	-43
CAR	Mt. Province	-11.51%	-185
Region IV-B	Calapan City	-11.65%	-131
Region XI	Davao Occidental	-12.27%	-170
Region XII	South Cotabato	-12.27%	-1115
BARMM	Marawi City	-12.82%	-899
Region I	Ilocos Sur	-13.38%	-1320
CARAGA	Bayugan City	-13.43%	-184
BARMM	Lanao del Sur - I	-13.99%	-364
Region VII	Mandaue City	-14.42%	-651
BARMM	Cotabato City	-14.73%	-991
Region VI	Aklan	-15.15%	-1556
Region IV-A	Rizal	-15.61%	-3803
Region VIII	Northern Samar	-15.71%	-603
CAR	Benguet	-15.94%	-940
Region VIII	Leyte	-17.65%	-1987
Region VII	Negros Oriental	-17.85%	-697
Region IV-A	Quezon	-17.89%	-5154
Region V	Albay	-19.13%	-1000
Region IV-B	Marinduque	-19.46%	-745
Region V	Camarines Norte	-21.10%	-1589
Region XII	Sarangani	-21.41%	-579

Region II	Cagayan	-22.49%	-3561
BARMM	Special Geographic Area Di	-23.13%	-105
NCR	Quezon City	-23.34%	-7701
Region III	Meycauayan City	-24.17%	-692
Region III	City of San Jose Del Monte	-24.64%	-2907
Region XII	North Cotabato	-24.86%	-2926
Region X	Gingoog City	-24.93%	-537
Region IX	Zamboanga del Sur	-25.95%	-1817
Region VI	Cadiz City	-27.39%	-204
Region X	Bukidnon	-27.62%	-5214
Region VI	Sipalay City	-28.14%	-158
Region XI	Davao del Sur	-28.37%	-2496
Region XI	Panabo City	-29.00%	-935
CARAGA	Bislig City	-29.90%	-1276
Region XII	Sultan Kudarat	-30.02%	-3306
Region X	Misamis Oriental	-30.95%	-2719
Region XI	Davao Oriental	-31.28%	-981
Region IV-A	Cavite City	-31.40%	-197
Region I	Ilocos Norte	-32.03%	-1373
CARAGA	Tandag City	-33.32%	-323
Region IX	Zamboanga Sibugay	-33.58%	-2112
NCR	Malabon City	-34.35%	-1847
Region III	Pampanga	-34.84%	-5649
Region VIII	Borongan City	-34.93%	-235
Region V	Camarines Sur	-34.97%	-5912
Region X	Lanao del Norte	-35.02%	-2904
Region IV-B	Romblon	-35.03%	-973
Region V	Masbate City	-35.96%	-953
CARAGA	Agusan del Norte	-36.06%	-1854
NCR	City of San Juan	-36.20%	-1268
CAR	Abra	-36.75%	-2254
Region VII	Bohol	-37.61%	-8854
Region IV-B	Oriental Mindoro	-38.06%	-6275
Region VIII	Calbayog City	-38.36%	-319
BARMM	Lanao del Sur - II	-38.46%	-724
BARMM	Maguindanao II	-38.59%	-3217
Region III	Bulacan	-39.25%	-14887
CAR	Apayao	-39.67%	-673

Region VII	Guihulngan City	-39.69%	-355
CARAGA	Surigao del Sur	-39.90%	-1878
Region VIII	Eastern Samar	-40.24%	-1887
Region VI	Silay City	-40.51%	-405
NCR	Manila	-40.72%	-8940
Region II	City of Ilagan	-41.32%	-740
BARMM	Maguindanao I	-41.63%	-2696
Region VII	Bogo City	-41.65%	-1750
BARMM	Basilan	-41.89%	-777
Region VIII	Southern Leyte	-41.92%	-2256
Region X	Camiguin	-42.08%	-313
Region II	Nueva Vizcaya	-42.74%	-2485
CARAGA	Surigao del Norte	-46.27%	-882
Region X	Misamis Occidental	-47.79%	-4070
BARMM	Sulu	-47.99%	-2262
Region V	Masbate	-48.65%	-6178
CARAGA	Dinagat Island	-49.46%	-449
Region VI	Antique	-49.90%	-3810
Region VI	Himamaylan City	-50.51%	-1018
Region VI	Escalante City	-54.22%	-160
Region VII	Tanjay City	-55.77%	-646
Region X	Tangub City	-56.30%	-316
CARAGA	Siargao	-58.05%	-356
CAR	Ifugao	-58.31%	-4426
Region IX	Pagadian City	-59.53%	-2260
BARMM	Tawi-Tawi	-60.63%	-2946
Region II	Quirino	-60.99%	-506
CAR	Tabuk City	-62.60%	-2224
BARMM	Lamitan City	-63.07%	-1841
CARAGA	Surigao City	-63.33%	-1083
Region VII	Bais City	-64.39%	-54
Region VI	San Carlos City	-64.74%	-2424
Region IV-A	Laguna	-65.73%	-7534
Region VI	Passi City	-68.49%	-234
CARAGA	Cabadbaran City	-71.01%	-2178
CARAGA	Agusan del Sur	-73.15%	-3891
Region IV-A	San Pedro City	-77.26%	-3933
Region X	El Salvador	-77.90%	-455
Region IX	Isabela City	-82.74%	-719

This study is carried out with support from the Private Education Assistance Committee (PEAC).

Region III	Aurora	-99.01%	-2915
NCR	Valenzuela City	-100.00%	-6998
Region VIII	Samar (Western Samar)	-100.00%	-1153

Appendix 7. Implied slack capacity (aisle learners) in private schools at the SHS level by DepEd division, ranked by % of capacity above enrollment

Projected Year:	2023		
Sector:	Private		
Level:	SHS		
Region	**Division**	**Percent capacity above (below) enrollment**	**Implied slack capacity (aisle learners)**
Region VI	La Carlota City	155.52%	46
Region I	Vigan City	115.10%	656
Region I	Alaminos City	110.75%	813
Region V	Catanduanes	105.14%	547
Region VI	Capiz	89.98%	723
Region IV-A	Tayabas City	77.76%	93
Region III	Balanga City	60.69%	796
Region VI	Guimaras	52.34%	175
Region III	Science City of MuÃ±oz	48.93%	53
NCR	Makati City	47.60%	3135
Region VI	Victorias City	46.68%	514
Region I	San Fernando City	42.40%	1008
Region VIII	Eastern Samar	38.02%	267
Region III	San Fernando City	37.79%	2143
Region X	Oroquieta City	35.98%	329
Region VIII	Baybay City	34.77%	117
Region II	City of Ilagan	27.56%	202
Region IV-B	Calapan City	24.68%	391
Region X	Malaybalay City	22.30%	146
Region V	Sorsogon City	21.28%	349
Region V	Sorsogon	20.66%	390
Region I	Laoag City	16.43%	234
Region III	Gapan City	15.26%	155
Region XII	Tacurong City	14.74%	319
Region I	Ilocos Sur	14.49%	514
Region VIII	Borongan City	14.06%	29
Region IX	Zamboanga del Norte	13.33%	292
Region XII	Kidapawan City	12.45%	215
Region V	Ligao City	11.57%	94

Region VII	Bogo City	11.06%	115
Region II	Santiago City	10.99%	293
Region I	La Union	9.15%	244
Region XII	Koronadal City	8.23%	341
Region I	Batac City	7.57%	65
Region VI	Iloilo	7.23%	278
Region V	Iriga City	5.25%	180
Region II	Tuguegarao City	4.77%	198
CARAGA	Surigao del Norte	3.99%	15
Region VIII	Catbalogan City	3.98%	27
Region VII	Guihulngan City	2.93%	12
Region I	San Carlos City	2.31%	78
Region II	Batanes	2.28%	1
Region XI	Davao del Norte	1.07%	16
Region VII	Dumaguete City	0.54%	24
BARMM	Special Geographic Area	0.00%	0
	Di		
CAR	Kalinga	-0.26%	-1
CAR	Apayao	-0.76%	-3
BARMM	Marawi City	-2.11%	-99
Region VI	Bacolod City	-2.16%	-276
Region XI	Island Garden City of	-2.46%	-11
	Samal		
CARAGA	Surigao del Sur	-2.95%	-68
Region V	Legaspi City	-3.55%	-183
Region IX	Dipolog City	-4.85%	-79
Region III	Zambales	-6.89%	-603
Region VIII	Maasin City	-6.93%	-149
Region IX	Zamboanga City	-7.15%	-852
Region X	Camiguin	-7.65%	-35
BARMM	Basilan	-8.14%	-61
CARAGA	Agusan del Norte	-8.18%	-197
Region IV-A	Batangas	-8.32%	-1609
NCR	City of San Juan	-9.14%	-111
Region VI	Cadiz City	-9.32%	-43
Region VI	Roxas City	-9.54%	-321
Region IV-B	Marinduque	-10.11%	-305
Region XI	Davao Oriental	-10.24%	-187
Region IV-B	Puerto Princesa City	-10.33%	-183
Region XI	Davao De Oro	-11.03%	-458

Region VII	Negros Oriental	-11.68%	-258
Region II	Isabela	-12.62%	-973
Region V	Albay	-12.78%	-547
Region IV-A	Quezon	-12.84%	-2481
Region X	Iligan City	-12.96%	-1135
Region II	Cauayan City	-13.29%	-243
NCR	Mandaluyong City	-13.43%	-1063
CARAGA	Bislig City	-14.99%	-400
Region IV-B	Palawan	-15.86%	-372
Region I	Candon City	-16.24%	-52
Region XII	Sarangani	-16.43%	-298
NCR	Navotas	-16.45%	-134
Region X	Valencia City	-16.50%	-707
Region III	Tarlac	-17.23%	-1860
Region IV-A	Batangas City	-17.24%	-1017
CAR	Abra	-17.24%	-411
Region X	Misamis Occidental	-17.37%	-673
Region VIII	Tacloban City	-18.22%	-1166
Region VIII	Leyte	-18.25%	-1157
Region IV-B	Romblon	-18.44%	-319
Region VI	Kabankalan City	-18.72%	-442
BARMM	Maguindanao II	-18.84%	-811
NCR	Pasay City	-19.11%	-1389
Region V	Masbate	-19.30%	-995
Region VI	Aklan	-19.56%	-1410
Region IV-A	Cavite City	-19.75%	-191
Region VI	Sipalay City	-20.08%	-46
BARMM	Cotabato City	-20.37%	-989
Region VIII	Calbayog City	-20.54%	-131
Region VIII	Southern Leyte	-20.72%	-495
Region X	Gingoog City	-20.78%	-252
Region I	Ilocos Norte	-21.04%	-331
Region II	Cagayan	-21.22%	-1520
Region IV-B	Oriental Mindoro	-21.55%	-2154
Region VII	Bayawan City	-23.20%	-76
Region I	Pangasinan I, Lingayen	-23.63%	-2220
Region VII	Cebu	-25.12%	-4882
CAR	Mt. Province	-25.12%	-351
Region VII	Tagbilaran City	-26.05%	-770

Region XII	Sultan Kudarat	-26.09%	-1304
Region XI	Davao Occidental	-26.25%	-236
Region VII	Bohol	-26.73%	-3068
Region IV-A	Calamba City	-26.84%	-3375
Region IV-A	Bacoor City	-27.01%	-3626
Region I	Dagupan City	-27.54%	-2027
NCR	Las PiÃ±as City	-27.72%	-5471
NCR	Paranaque City	-28.16%	-2488
Region VII	Siquijor	-28.22%	-174
Region VI	Negros Occidental	-28.24%	-2487
Region XI	Mati City	-28.33%	-538
Region X	Lanao del Norte	-28.60%	-1367
Region VIII	Northern Samar	-28.76%	-829
Region VI	San Carlos City	-29.57%	-369
Region III	Bataan	-30.64%	-2050
Region X	Bukidnon	-30.70%	-2179
Region VII	Danao City	-31.94%	-1001
Region V	Tabaco City	-31.94%	-813
BARMM	Lanao del Sur - I	-32.09%	-479
Region III	Angeles City	-32.27%	-3495
Region II	Quirino	-32.29%	-153
Region III	Nueva Ecija	-32.35%	-4153
Region XII	North Cotabato	-32.42%	-2840
Region V	Masbate City	-32.63%	-607
Region XI	Davao del Sur	-32.71%	-1470
Region IV-A	Antipolo City	-33.06%	-7626
CAR	Benguet	-33.13%	-833
Region I	Urdaneta City	-33.38%	-1270
CARAGA	Dinagat Island	-33.87%	-341
CARAGA	Siargao	-34.09%	-509
Region V	Camarines Norte	-34.18%	-3588
Region I	Pangasinan II, Binalonan	-34.38%	-3821
Region IV-A	Lipa City	-34.75%	-3522
NCR	Taguig City and Pateros	-34.79%	-7611
Region IV-A	Dasmarinas City	-34.82%	-10185
Region V	Naga City	-34.94%	-2836
Region IX	Dapitan City	-35.18%	-223
Region IV-B	Occidental Mindoro	-35.48%	-1525
Region IV-A	Lucena City	-36.22%	-3060

Region IX	Zamboanga del Sur	-38.08%	-2003
Region VI	Iloilo City	-38.75%	-5414
Region X	Ozamis City	-39.12%	-977
Region IV-A	San Pablo City	-39.14%	-2435
CARAGA	Butuan City	-39.95%	-1965
Region V	Camarines Sur	-40.92%	-5915
Region XI	Tagum City	-41.03%	-3395
CAR	Baguio City	-41.54%	-5457
NCR	Muntinlupa City	-41.99%	-4053
Region IV-A	Sta. Rosa City	-43.60%	-4696
Region III	Cabanatuan City	-43.70%	-4719
Region XI	Panabo City	-43.86%	-1459
Region VI	Himamaylan City	-44.63%	-278
Region IV-A	Imus City	-44.68%	-5346
Region III	Mabalacat City	-44.89%	-3413
CAR	Tabuk City	-44.94%	-1099
Region IV-A	Cavite	-45.55%	-22078
Region XI	Davao City	-45.94%	-19667
Region III	Olongapo City	-46.12%	-3902
Region VI	Passi City	-46.22%	-113
Region IX	Zamboanga Sibugay	-46.43%	-4276
Region VIII	Biliran	-47.42%	-102
Region III	San Jose City	-47.46%	-1228
Region III	Meycauayan City	-47.65%	-1456
Region IV-A	Binan City	-47.95%	-5674
CARAGA	Surigao City	-50.13%	-790
Region IV-A	Tanauan City	-50.90%	-5806
CARAGA	Tandag City	-51.53%	-510
Region XI	Digos City	-52.18%	-5616
BARMM	Tawi-Tawi	-52.78%	-1557
Region XII	General Santos City	-54.08%	-7295
Region IV-A	Rizal	-55.06%	-26100
Region VI	Bago City	-55.38%	-3144
Region VII	Cebu City	-55.73%	-16416
NCR	Malabon City	-55.95%	-13463
Region X	Misamis Oriental	-56.58%	-4404
Region IV-A	General Trias City	-56.74%	-3672
Region III	Tarlac City	-57.42%	-6148
Region VII	Carcar City	-58.55%	-1545

NCR	Marikina City	-59.46%	-7368
Region XII	South Cotabato	-59.84%	-4688
Region IX	Isabela City	-60.17%	-1355
BARMM	Lamitan City	-60.60%	-1641
CARAGA	Cabadbaran City	-61.10%	-880
Region III	Malolos City	-61.29%	-5969
NCR	Pasig City	-61.47%	-10331
Region VII	Lapu-Lapu City	-62.08%	-9797
BARMM	Sulu	-62.20%	-4080
Region VI	Antique	-62.43%	-3146
Region X	Tangub City	-63.20%	-172
BARMM	Maguindanao I	-63.49%	-3245
CAR	Ifugao	-63.58%	-1722
Region II	Nueva Vizcaya	-64.24%	-2655
NCR	Quezon City	-64.40%	-58764
Region III	Bulacan	-65.87%	-34949
Region III	Pampanga	-65.97%	-17575
Region III	City of San Jose Del Monte	-66.41%	-16763
Region X	Cagayan de Oro City	-67.06%	-20920
Region IV-A	Cabuyao City	-67.65%	-8588
Region VIII	Ormoc City	-67.80%	-3986
Region VII	Toledo City	-68.55%	-2637
CARAGA	Bayugan City	-69.76%	-2892
NCR	Manila	-71.45%	-48466
Region VII	Mandaue City	-71.81%	-8107
Region IV-A	Laguna	-72.76%	-12537
BARMM	Lanao del Sur - II	-74.90%	-1194
Region VII	Talisay City	-75.43%	-5789
Region VII	Tanjay City	-76.08%	-1103
Region IX	Pagadian City	-76.97%	-6417
CARAGA	Agusan del Sur	-79.93%	-6690
NCR	Caloocan City	-81.18%	-44741
Region VII	Bais City	-81.72%	-179
Region VI	Escalante City	-82.84%	-515
Region IV-A	San Pedro City	-86.29%	-6379
Region X	El Salvador	-87.39%	-312
Region VI	Sagay City	-88.33%	-3535
Region VII	City of Naga, Cebu	-88.61%	-1393
Region VI	Silay City	-93.91%	-1926

Region III	Aurora	-99.29%	-4030
NCR	Valenzuela City	-100.00%	-20544
Region VIII	Samar (Western Samar)	-100.00%	-157

Endnotes

[i] https://data.worldbank.org/indicator/SE.PRM.ENRR?contextual=default&end=2021&locations=PH&start=2014
[ii] https://databank.worldbank.org/source/health-nutrition-and-population-statistics/Type/TABLE/preview/on#advancedDownloadOptions
[iii] https://www.deped.gov.ph/alternative-learning-system/resources/facts-and-figures/datasets/
[iv] https://www.rappler.com/nation/deped-lacks-classrooms-school-year-2022-2023/; https://www.teacherph.com/deped-projected-classroom-shortages-face-to-face-classes/; and https://www.gmanetwork.com/news/topstories/nation/842441/deped-reports-40k-classroom-shortage-nationwide-even-as-classes-start/story/
[v] https://www.philstar.com/nation/2022/08/20/2203802/425-private-schools-closed-2020-#:~:text=MANILA%2C%20Philippines%20%E2%80%94%20Up%20to%20425,students%20transferred%20to%20public%20schools, and https://www.youtube.com/watch?v=M8Ne4AynBNc
[vi] https://edcom2.gov.ph/