

“Improvement of the Implementation Procedures and Management Systems for the Teacher Deployment and New Classroom Construction Programs of the Department of Education”¹

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by

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I. Introduction

1. Assessments of basic education indicators in the country have identified problems in education outcomes, such as low school participation aside from and low retention of children in school, aside from poor education quality and gender disparities (Maligalig and Albert, 2008). Studies (e.g. Maligalig et al, 2010; Albert, 2011) suggest that education outcomes are dependent not only on demand side issues, but also on supply side issues. In consequence, it is important to provide the appropriate resources to the basic education sector. Although the Philippine Development Plans (PDP), including the most recent 2011-2016 PDP have identified the importance of public expenditure in education, public spending on education has been wanting, especially when compared to corresponding investments on education made by neighboring countries (See Table 1). From 2005-2010, the Department of Education (DepEd) budget has been ranging only between 1.8 to 2.3 percent of GDP, with real expenditures per student of DepEd (in 2000 prices) decreasing from PHP 6,601 in 1997 to PHP 5,022 in 2005, although spending per student recovered partially and rose to PHP 6,154 in 2009 (PIDS, 2011). Figure 1 shows that the official net enrolment rate at the primary level is cointegrated with education spending, so that if government is attempting to meet the Millennium Development Goals, such as universal primary education, it is important for the requisite resources to be made available.

Table 1. Public Expenditures on Education across selected ASEAN countries.

Country	1990	2000	2005	2009
Cambodia	0.8	1.3	1.4	1.4*
Indonesia	1.7	2.5**	...	2.8**
Malaysia	5.5	5.6	5.1	7.3
Philippines	3.1	3.5	2.4	2.9
Singapore	4.0	3.9	3.2	3.1*
Thailand	2.8	4.0	3.7	4.4

Main Data Source: Asian Development Bank Key Indicators

Notes: * 2008 data; ** sourced from UNESCO Institute of Statistics.

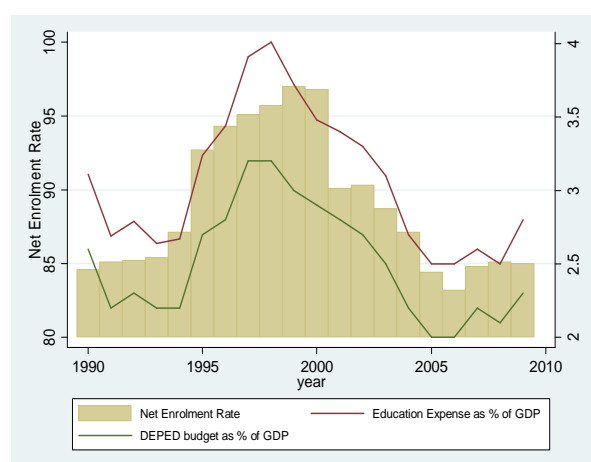


Figure 1. Trends in Net Enrolment Rate (NER) and Gross Enrolment Rate (GER): 1990-2010.

Sources: BEIS, DepEd; DBM.

2. Over the years, resources have been made available for the creation of new teacher items. These have been reported by the DepEd to be insufficient to fully address requirements for teachers. However, of those teaching items that are approved by the Department of Budget and Management (DBM) for creation, some of these new teaching items do not always get created, or if they are created, they are not necessarily deployed within a reasonable amount of time. The World Bank Budget Execution Study (2008) estimates the budget execution ratio for the allocation for newly created teacher items in 2006-2008 at 30%, 40% and 56%, respectively of total appropriations for this line item in 2006, 2007 and 2008. In addition, the same study pointed out that

“Anecdotal stories about reasons for such low disbursement have been varied. On the one side, it is mentioned that there are significant delays in the issuance of allotments and cash releases by DBM, thus the delays in implementation. On the other side, it is the low absorptive capacity of DepEd that prompts DBM to decide to hold out on the issuance of funds.”

3. In any case, whether bottlenecks exist at DepEd, DBM, or both, it is important to examine the implementation procedures and management system for the teacher hiring program. Similarly, it is essential to look into the processes for new classroom construction. In this paper, we review the current procedures governing the deployment of new teacher positions and the construction of new classrooms for the purpose of identifying institutional bottlenecks, and proposing ways of addressing these issues. In carrying out such ends, key informant interviews of staff and officials of the DepEd, and some DBM analysts, were conducted. In addition, an examination of DepEd policy issuances, databases, as well as monitoring reports on teacher deployment and new classroom construction was undertaken. The study aimed to assess the existing procedures and guidelines for allocating the aggregate number of new teachers, and new classrooms to be built across regions, divisions, districts and schools in terms of allocative efficiency to ensure that those who are given more resources are actually those in dire need of such assistance.

II. Teacher Deployment System

4. Data from BEIS shows that pupil to teacher ratio (PTR) in the Philippines is currently averaging at 35:1, which is much higher than the corresponding PTR of all developing countries (28:1). How does the Philippines compare with neighboring countries? Table 2 shows the PTR in primary and secondary schools across countries in the Association of South East Asian Nations (ASEAN). It is readily noticed that the Philippines has a high secondary school PTR, and that while some neighbours that have had higher PTRs two decades ago are improving their PTRs, but for the Philippines, this education indicator is practically at a standstill from where it was in the 1990s.

Table 2. Pupil to Teacher Ratios in Primary and Secondary Schools across ASEAN countries

ASEAN countries	Primary Pupil–Teacher Ratio			Secondary Pupil–Teacher Ratio		
	1990	2000	2008	1990	2000	2008
Brunei Darussalam	15.3 ⁽¹⁹⁹¹⁾	13.7	12.6	11.8 ⁽¹⁹⁹¹⁾	10.9	10.5
Cambodia	35.0	50.1	48.5	20.1	18.5	28.9 ⁽²⁰⁰⁷⁾
Indonesia	23.3	22.4	18.8 ⁽²⁰⁰⁷⁾	12.9	15.8	13.0 ⁽²⁰⁰⁷⁾
Lao PDR	28.2	30.1	30.5	11.8	21.3	22.8
Malaysia	20.4	19.6	15.7 ⁽²⁰⁰⁶⁾	19.3	18.4	17.0 ⁽²⁰⁰⁵⁾
Myanmar	44.9	32.8	29.1 ⁽²⁰⁰⁷⁾	12.8 ⁽¹⁹⁹¹⁾	31.9	32.8 ⁽²⁰⁰⁷⁾
Philippines	32.7	35.2 ⁽²⁰⁰¹⁾	33.7 ⁽²⁰⁰⁷⁾	33.3	36.4 ⁽²⁰⁰¹⁾	35.1 ⁽²⁰⁰⁷⁾
Singapore	25.8	25.3 ⁽¹⁹⁹⁵⁾	19.3	17.9 ⁽¹⁹⁹¹⁾	...	16.4
Thailand	20.3	20.8	16.0	16.2	24.0 ⁽²⁰⁰¹⁾	21.2
Viet Nam	34.2	29.5	19.9	18.0	28.0	20.7

Source: Asian Development Bank Indicators

Teacher Deployment Analysis

- Upon the development of its Basic Education Information System (BEIS) in 2002-2003, the DepEd made of BEIS data, particularly the Quick Count Module information on enrolment, number of teachers (nationally-funded only), instructional room provision, seating provision to regularly come up with teacher deployment analysis, instructional room analysis and furniture analysis (Roces and Genito, 2004). In the case of teacher deployment analysis, the DepEd looks into the PTR of schools, districts, divisions, regions and the entire country, with areas color-coded in a geographical information system according to a “rainbow spectrum” of their actual PTRs (see Table 3). Black schools that have no nationally funded teachers are given top priority, followed by schools with hot colors (“red”, then orange, then gold). The intensity of the color would suggest the degree of teacher shortage. When the rainbow spectrum was developed, red schools were defined to be those schools that have PTRs at least fifteen units above the national PTR of 35; orange schools have PTRs within ten to fifteen units above the national PTR; while gold schools have PTRs within five to ten units from the national PTR. Cool colored schools, on the other hand, have a relatively generous provision of teachers. Cool colors include green (which have PTRs within five units below the national PTR), sky blue (which have PTRs within five to ten units below the national PTR), and blue (which have PTR at least 10 units below the national PTR). The examination of the rainbow spectrum helps identify prioritization for allocation of available new teacher positions. While visual evidence provided for by BEIS teacher deployment analysis should readily improve the targeting of new teaching positions to shortage divisions and schools, there has been some anecdotal evidence that the actual allocation of new teacher items has not always been entirely consistent with such analysis. This is to be examined in this section using data from BEIS across recent school years.

Table 3. Rainbow Spectrum for Pupil-to-Teacher Ratio (PTR).

<i>Group</i>	<i>Color</i>	<i>Pupil to teacher ratio (PTR) Range</i>	<i>REMARK</i>
'Cool' colors	Blue	Below 25	Relatively generous teacher provision
	Sky Blue	25 – 29.99	
	Green	30 – 34.99	
	Yellow	35 – 39.99	Close to national average provision
'Hot' colors	Gold	40 – 44.99	Relative teacher shortage
	Orange	45 – 49.99	
	Red	50+	
	Black	No nationally-funded teachers	

Teacher Requirements and Teacher Shortage Estimates

6. The DepEd has perennially reported supply of teachers to be short of need. It must be pointed out, however, that service standards have been fluid and not robust. That is, the estimated number of required teachers would crucially depend on assumptions governing the estimation scheme. The 2004-2010 Medium Term Philippine Development Plan, for instance, estimated a rather modest national aggregate of teacher shortage in 2004 at 20,103 teachers (and classroom shortage at 17,873 classrooms) based on assumptions of a class size of 50, and accounting for the use of double or multi-shift classes. The DepEd generated in March 2011 three sets of estimates on teacher requirements that even account for the new sets of 10,000 allocated teachers for fiscal year 2011, but with the teacher requirement estimates based on more ideal assumptions (than those specified for the 2004 estimation). The first set of estimates consider current data on enrolment broken down and number of teachers, and assume certain classroom requirements for monograde levels (one classroom per 50, 40, and 45 students in pre-school, grades 1 to 3, and grades 4 to 6, respectively), for multi-grade levels (one classroom) and for secondary schools (class sizes of 45), and assume one teacher per classroom for grades 4 and below, and 5 teachers per three classrooms for both grades 5-6 and all high school year levels. The second set of estimates adjust the first set of estimates to consider the projected enrolment figures by 2012 on account of population growth, while the third set of estimates have an additional assumption of meeting all the EFA targets. Calculations for all of these estimates are done at the school-level to identify teacher requirements, which together with the current number of teachers in the school

would help identify teacher shortage or excess. These three sets of figures on teacher shortage and excess are then aggregated across the primary and secondary school levels (see Tables 4 and 5). By merely considering current conditions, total teacher shortage net of teacher excess (across the country) is estimated at over 160,000. On account of population growth trends, and meeting the EFA targets, the estimate of teacher shortage net of excess teachers in schools even increases to around 200,000 teachers. During the National Education Forum held last May 26, 2011, DepEd Secretary Bro. Armin Luistro, FSC mentioned that for the school year 2011-2012, DepEd is short of about a hundred thousand (101, 612) teachers.

Table 4. Teacher Requirements, Shortages and Excesses among Primary Schools, by Region

Region	Total Teachers	(A) Meeting Current Needs			(B) Accounting for Population trends			(C) Meeting EFA Targets		
		Required	Shortage	Excess	Required	Shortage	Excess	Required	Shortage	Excess
1	21604	24401	3897	1113	26807	4903	943	24967	4309	959
2	14721	17058	3168	849	17044	3493	761	17148	3204	795
3	34952	45353	10455	223	43787	11775	203	47340	12341	122
5	27056	35455	8761	445	35470	10733	362	37366	10568	341
6	32777	36665	5446	1584	34404	7471	1042	37462	6037	1378
7	25966	35302	9468	313	38997	9636	686	37622	11649	174
8	21897	28090	6746	664	36206	10206	465	29385	7815	438
9	16603	21192	5082	576	18181	5818	209	22580	6266	372
10	17998	22986	5290	349	25283	7325	322	24454	6632	223
11	17146	22172	5219	264	20233	5878	200	23989	6917	145
12	15765	21354	5730	317	23661	6886	148	22476	6740	205
CARAGA	11569	15045	3712	281	21677	6672	177	16030	4569	153
ARMM	14275	22715	8923	673	20789	5888	389	24529	10603	539
CAR	7848	9606	2064	321	10127	2574	243	9725	2151	289
M Mla	31314	37241	7255	1523	36168	7550	1340	38130	7983	1362
4A	37187	51052	13727	216	50177	15112	94	54148	16713	106
4B	12889	17498	4767	238	26872	8269	146	18532	5692	129
Total	361567	463185	109710	9949	485883	130189	7730	485883	130189	7730

Source: DepEd Preliminary Analysis of BEIS as of March 2011

Table 5. Teacher Requirements, Shortages and Excesses among Secondary Schools, by Region

Region	Total Teachers	(A) Meeting Current Needs			(B) Accounting for Population trends			(C) Meeting EFA Targets		
		Required	Shortage	Excess	Required	Shortage	Excess	Required	Shortage	Excess
1	9032	12096	2882	141	12388	3880	108	12062	2844	137
2	5816	7847	2150	346	9578	2677	340	8042	2285	325
3	14534	22635	7362	242	18583	6083	138	23652	8337	200
5	10513	15189	4279	91	20983	8219	272	16232	5281	50
6	13859	18473	4533	456	16531	5218	198	18663	4698	431
7	9856	16394	7058	1292	19092	6117	220	17523	7982	1087
8	7348	11417	3739	146	12170	3344	278	12427	4708	105
9	5703	8402	2696	308	7625	3441	496	9175	3408	247
10	5979	8996	3017	367	8053	3476	453	10030	3948	264
11	6619	9612	2739	82	6373	2877	390	10379	3464	40
12	6031	9201	3074	261	8573	3031	320	9916	3719	191
CARAGA	4271	6389	2154	263	18006	4750	1334	6890	2597	205
ARMM	3332	7073	3639	69	14963	5571	364	8076	4617	44
CAR	2967	3685	1122	498	10904	3619	144	3998	1353	416
M Mla	19210	25294	6723	1588	7455	3084	283	25454	6837	1542
4A	16193	26883	9843	401	22983	8344	189	27993	10887	335
4B	4953	7505	2398	125	13630	5513	225	8047	2914	99
Total	146216	217091	69408	6676	227890	79244	5752	228559	79879	5718

Source: DepEd Preliminary Analysis of BEIS as of March 2011

Processes for Hiring of New Teachers

- Prior to 2011, the processes for creation of new teacher items have already been extremely complex: once the DepEd requests new teaching items to the DBM Central Office (CO), the latter provides approval and issuance of the request for deployment report to the DepEd CO, which then allocates new teacher items to the DepEd Regional Offices (and divisions). A memo from

the DepEd ROs is given to the School Divisions Office (SDOs), which submits deployment reports that are subsequently endorsed by the DepEd RO to the DBM RO, which issues the Notice of Salary Compensation Action (NOSCAs). A series of further processes on advertisement of new teaching items, hiring, and subsequent appointment of the new teachers then result, with some of the powers and authorities devolved on these processes to local-level managers. Appointment papers though have to be further attested by the Civil Service Commission (CSC), which validates the required documents submitted by the new teachers. This attestation includes the verification of teacher licenses from the Professional Regulations Commission.

8. Unlike the flow chart in DepEd Order No. 29, s. 2010, that of DepEd Order No. 9, s. 2011 indicates the monitoring of “utilization of teacher items created” is a responsibility of the Office of Planning Service of DepEd CO. This monitoring task would naturally require the assistance of ROs, and the reports of ROs would be consolidated by OPS. However, there is no account for bottlenecks in delays, and with what frequency should this monitoring be done on account of delays in processes. Lag time from the creation of a new teacher item to the appointment of a teacher may take more than a year as Table 6 suggests. For 2009 new teacher items, some regions, such as Regions 8, 9, 12, and ARMM, managed to have a good record for filling new teacher positions, but other regions such as Region 7 and CAR, did not do as well in filling the new teacher items.

Table 6. Distribution of Newly Created Teacher Items for 2009 by Status of Appointment

REGION	Number of Items Created (including SPED Items)	TOTAL ELEMENTARY and SECONDARY			Number of Unfilled Positions	Percentage of Unfilled Positions
		Number of Teacher Items with Appointment Papers	Number of Teacher Items in the Process of Being Appointed	Percentage of Filled or Nearly Filled positions		
I	284	260	14	96.48%	10	3.52%
II	344	246	17	76.45%	81	23.55%
III	986	925	14	95.23%	47	4.77%
IV-A	1,124	986		87.72%	138	12.28%
IV-B	474	447		94.30%	27	5.70%
V	618	575		93.04%	43	6.96%
VI	538	430	32	85.87%	76	14.13%
VII	875	600		68.57%	275	31.43%
VIII	762	749	12	99.87%	1	0.13%
IX	472	466	0	98.73%	6	1.27%
X	401	386		96.26%	15	3.74%
XI	352	340		96.59%	12	3.41%
XII	724	682	37	99.31%	5	0.69%
CARAGA	361	322	2	89.75%	37	10.25%
NCR	782	596	97	88.62%	89	11.38%
CAR	206	201		97.57%	65	31.55%
ARMM	409	409		100.00%	0	0.00%
TOTAL	9,712	8,620	225	91.07%	927	9.54%

Source: Dep Ed RSD (Note: Data as of October 2010.)

9. For fiscal year 2010, a total of 11,675 new teacher items were approved for creation by DBM, and these were approved in three batches:

- Batch 1 : 5,000 items approved in June, 2010
- Batch 2: 2,941 items approved in November 1, 2010
- Batch 3: 3,734 items approved in December 1, 2010

The DepEd monitoring reports suggest that the latter two batches of 2010 teacher items are still currently in the process of deployment. As of February 28, 2011, the rate of filled positions for the first batch of 5,000 item stands only at around 80%, with the rates varying considerably across regions. For Region 5, the extremely low rate of appointment (of 2%) is attributed to the delay in the NOSCA release by the DBM RO. For other regions with low rates Region 7 (30%) and Region 6 (60%), no explanations have been provided in the monitoring reports. To further illustrate the problems with release of the NOSCA, which is a prerequisite for DepEd to fill up the new teacher items, as of this writing, it was reported by DepEd that some DBM offices (such as NCR and Marikina) still have not yet released the NOSCA for the Batch 2 and Batch 3 teacher items for FY 2010.

Table 7. Distribution of Batch 1 Newly Created Teacher Items for 2010 by Status of Appointment, as of February 28 2011.

Region	Number of Approved Newly Created Batch 1 Items	Number of Filled-up Items	% of Filled-Up Items to the Number of Items Created	REMARKS
I	189	184	97.35%	
II	145	145	100.00%	
III	547	543	99.27%	
IV-A	734	651	88.69%	
IV-B	188	188	100.00%	
V	309	7	2.27%	NOSCA released by DBM-RO Jan. 11, 2011
VI	315	183	58.10%	
VII	437	124	28.38%	
VIII	273	273	100.00%	
IX	204	204	100.00%	
X	194	180	92.78%	
XI	206	166	80.58%	
XII	269	269	100.00%	
CARAGA	145	145	100.00%	
ARMM	260	260	100.00%	w/NOSCA, profile & assignment not yet submitted
CAR	48	48	100.00%	
NCR	537	407	75.79%	
TOTAL	5,000	3,977	79.54%	

Source: Dep Ed RSD

10. With the availability of new teacher items, are the PTRs in the country actually improving across the years? An inspection of data from the BEIS quick count modules across school years 2008-2009, 2009-2010, and 2010-2011 provides empirical evidence of the conditions of PTRs in this period. At the surface, when the cross-sectional distribution of schools by PTR color code is considered (see Table 8), the profile of PTRs appears to have even worsened starting in

schoolyear 2009-2010, especially in the secondary level. However, this worsening is really on account of the change in definitions for the PTR rainbow spectrum for secondary schools adopted in 2009-2010 that brought down the ranges in Table 2 by ten points (so that red refers to PTRs greater than 40, orange signifies PTRs greater or equal to 35 but less than 40, and so forth), and that considered yellow as part of the hot colors. (DepEd Order No. 88, S. 2009). These changes were made to account for teacher specializations in the secondary school level, with computations based on a 5:3 teacher class ratio. For primary schools, the rainbow spectrum remain unchanged.

Table 8. Distribution of Primary and Secondary Schools by PTR Color-Codes (Schoolyear 2008-2009; 2009-2010; 2010-1011

PTR Color Code	2008-2009			2009-2010			2010-2011		
	Primary	Secondary	Primary and Secondary	Primary	Secondary*	Primary and Secondary*	Primary	Secondary*	Primary and Secondary*
Black	368	1,059	1427	359	1,098	1,457	373	1,233	1,606
Red	3,719	1,161	4880	3,858	2,490	6,348	4,183	2,451	6,634
Orange	2,366	530	2896	2,410	935	3,345	2,443	1,001	3,444
Yellow	4,085	810	4895	4,204	890	5,094	4,274	916	5,190
Light Green	6,214	849	7063	6,265	748	7,013	6,173	777	6,950
Green	7,411	811	8222	7,313	482	7,795	7,131	505	7,636
Light Blue	6,595	635	7230	6,604	242	6,846	6,543	260	6,803
Dark Blue	7,208	795	8003	7,213	139	7,352	7,277	149	7,426
TOTAL	37,966	6,650	44616	38,226	7,024	45,250	38,397	7,292	45,689

* change in rainbow spectrum definition

11. Further examination of dynamics in PTR color codes is informative, but on account of the change in definitions in the rainbow spectrum for the secondary schools, the analysis can be done only starting schoolyear 2009-2010 to ensure consistency of results. Of about 45 thousand primary and secondary schools, nearly one in five (19.4%) were found to have had improvements in their PTR color-codes in the succeeding year (see Table 9). About half (52.3%) of these improvements were from black or hot-colored schools. Some schools, however, worsened their PTRs color codes (20.6%) on account of increasing enrolment size. Of these schools that worsened, about one in ten (10.3%) were schools that were not hot colored in the previous schoolyear but fell into hot-colors in the succeeding schoolyear, and nearly one in four (26.5%) were hot-colored schools that further worsened in their PTR rainbow spectrum.

Table 9. Distribution of Primary and Secondary Schools by Color-Codes from Schoolyear 2009-2010 to 2010-2011

2010-2011 PTR Color Code	2009-2010 PTR Color Code								TOTAL
	Black	Red	Orange	Yellow	Light Green	Green	Light Blue	Dark Blue	
Black	1,103	105	11	9	8	10	3	8	1,257
Red	271	4,551	846	424	220	131	64	59	6,566
Orange	12	760	1,398	880	220	101	43	19	3,433
Yellow	15	405	686	2,401	1,259	290	77	47	5,180
Light Green	9	254	235	998	3,718	1,392	246	83	6,935
Green	18	113	101	269	1,299	4,291	1,336	200	7,627
Light Blue	9	69	51	72	214	1,349	3,943	1,083	6,790
Dark Blue	20	34	17	41	75	231	1,134	5,853	7,405

TOTAL	1,457	6,291	3,345	5,094	7,013	7,795	6,846	7,352	45,193
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12. The DepED CO is reported to proportionally allocate the total new teachers allotted by DBM at the national level to the regions on the basis of the aggregated DepEd estimate of teacher needs. However, how these regional allocations are further allocated down to the divisions and schools was decentralized with instructions to prioritize schools on the basis of the rainbow spectrum. But has such prioritization been practiced, and to what extent? While an *ex post* checking of the consistency of the allocation of new teacher positions to the various DepEd ROs and from the various DepEd ROs to the various SDOs within each RO would have been ideal to examine, the BEIS provides a proxy indicator for new teacher positions. For each school, we can also look at the changes in the number of available teachers from 2009-2010 to the succeeding schoolyear, and this can serve as a proxy indicator for the number of new teachers in 2010-2011 (although such a change may also be the result of new teacher items from LGUs, or teachers that may have been out of station in the previous schoolyear but returned to duty). Table 10 provides the percentage distribution of this proxy indicator for 2010-2011 (with base schoolyear as 2009-2010) by region and by PTR color code for schoolyear 2009-2010.

Table 10. Percentage Distribution of New Teachers in 2010-2011 by Region, and by PTR Color Code for Schoolyear 2009-2010.

Region	2009-2010 PTR Color Code								TOTAL	Memo Notes: 2009-2010 Average PTR	
										Primary	Secondary
1	0.10%	0.61%	0.26%	0.31%	0.42%	0.44%	0.44%	0.39%	3.73%	27.9	36.8
2	0.29%	1.34%	0.21%	0.31%	0.43%	0.46%	0.44%	0.31%	3.08%	30.7	51.1
3	0.86%	3.94%	0.98%	0.90%	1.07%	0.77%	0.47%	0.31%	8.21%	34.4	47.9
5	0.22%	2.63%	0.88%	1.51%	1.03%	0.91%	0.28%	0.16%	6.76%	35.5	48.7
6	0.19%	1.86%	0.52%	1.01%	0.90%	0.76%	0.74%	0.77%	4.36%	29.8	46.6
7	0.70%	3.43%	0.90%	1.22%	0.84%	0.50%	0.60%	0.29%	8.10%	35.6	49.9
8	0.12%	2.04%	0.29%	0.48%	0.66%	0.63%	0.60%	0.37%	7.60%	33.4	48.4
9	0.31%	1.67%	0.52%	0.44%	0.40%	0.53%	0.38%	0.33%	4.85%	35.3	66.9
10	0.17%	0.70%	0.26%	0.48%	0.58%	0.38%	0.19%	0.29%	4.08%	34.6	40.7
11	0.28%	2.18%	0.76%	0.86%	0.58%	0.35%	0.19%	0.14%	6.35%	37.4	40.0
12	0.46%	3.04%	0.57%	0.72%	0.74%	0.70%	0.46%	0.12%	5.73%	46.0	72.5
CARAGA	0.43%	0.58%	0.26%	0.50%	0.44%	0.60%	0.42%	0.22%	4.70%	34.6	31.5
ARMM	0.82%	5.06%	0.46%	0.79%	0.83%	0.63%	1.05%	0.22%	8.03%	66.0	93.4
CAR	0.11%	0.27%	0.19%	0.17%	0.27%	0.36%	0.26%	0.46%	2.72%	26.3	28.1
M Mla	0.54%	3.38%	1.79%	1.27%	0.61%	0.82%	0.66%	0.29%	7.31%	40.1	40.2
4A	0.33%	2.85%	1.63%	0.88%	0.50%	0.35%	0.15%	0.20%	10.82%	37.9	46.3
4B	0.17%	2.10%	0.39%	0.32%	0.50%	0.61%	0.24%	0.15%	3.57%	37.8	50.2
Total	6.08%	37.68%	10.85%	12.17%	10.83%	9.80%	7.58%	5.01%	100.00%	35.9	49.1

13. It can be readily noticed that that although over 60% of new teacher allocation went to black and hot-colored areas, regions that had very high PTR ratios did not always get a big share of the allocation of new teachers. This suggests that prioritization of teacher allocation with the use of

PTR rainbow spectrum may not always be observed. Such an observation is further validated by examining the distribution of the proposed new ten thousand teacher items created for 2011 across regions and PTR rainbow spectrum in 2010-2011 (see Tables 11 and 12) .

Table 11. Distribution of Proposed 2011 Teachers across Primary Schools by Region, and by PTR Color Code for Schoolyear 2010-2011.

Region	2010-2011 PTR Color Code								TOTAL
1	3	8	2	0	0	0	0	0	13
2	2	15	0	1	0	0	0	0	18
3	10	136	21	2	0	0	0	0	169
5	1	81	0	1	0	0	0	0	83
6	2	22	2	0	0	0	0	0	26
7	8	158	15	0	0	0	0	0	181
8	6	104	1	0	0	0	0	0	111
9	8	74	1	0	0	0	0	0	83
10	4	37	5	1	0	0	0	0	47
11	8	62	1	0	0	0	0	0	71
12	22	150	3	0	0	0	0	1	176
CARAGA	19	25	0	0	0	0	1	0	45
ARMM	157	33	0	0	0	0	0	0	190
CAR	3	10	0	1	0	1	0	0	15
M Mla	0	125	49	17	2	0	2	0	195
4A	17	253	73	11	0	0	0	0	354
4B	20	57	3	0	0	0	0	0	80
Total	290	1350	176	34	2	1	3	1	1857

Table 12. Distribution of Proposed 2011 Teachers across Secondary Schools by Region, and by PTR Color Code for Schoolyear 2010-2011.

Region	2010-2011 PTR Color Code								TOTAL
1	40	161	85	31	4	0	2	0	323
2	8	184	18	13	3	0	0	1	227
3	61	758	96	42	14	5	5	0	981
5	115	301	40	27	3	2	0	0	488
6	39	371	65	37	1	14	0	10	537
7	83	358	77	39	63	87	31	34	772
8	46	376	28	7	8	8	3	0	476
9	55	222	11	12	0	0	0	11	311
10	154	115	69	10	7	7	5	0	367
11	47	240	30	16	2	1	0	0	336
12	63	243	20	12	15	0	4	0	357
CARAGA	60	108	25	13	10	2	2	7	227
ARMM	73	95	2	0	0	1	0	0	171
CAR	53	27	8	2	0	3	1	0	94
M Mla	79	653	75	48	44	40	10	0	949
4A	63	1020	103	25	3	15	12	7	1248
4B	2	241	30	3	0	1	0	2	279
Total	1041	5473	782	337	177	186	75	72	8143

14. It is unclear from Tables 11 and 12 what decisions were involved in (a) the proposed allocation of few or teachers in black schools that supposedly have highest priority according to teacher deployment analysis:

- In Metro Manila, no new teachers for black PTR primary schools were allocated when there are three such schools according to the BEIS, while allocations were given to other non-black schools;
- In Bicol, only one new teacher was allocated for black PTR primary schools when there are four black schools;

(b) the proposed allocation of seven new teachers to primary schools that were not-hot colored (despite the overwhelming magnitude of hot colored primary schools across the country, and within each region):

- Two items to be provided in yellow primary schools, and two items in sky blue primary schools in Metro Manila;
- One item in a green primary school in CAR;
- One item in a sky blue primary school in Caraga; and,
- One item in a blue primary school in Region 12;

(c) as well as the proposed allocation of three hundred thirty two new teachers to secondary schools that were not hot-colored across all regions in the country (with even more new secondary school teachers apportioned to green areas than to yellow areas). If the BEIS data are accurate, then these results suggest that the use of the rainbow spectrum may not be fully observed. Part of the issue though may also be that of reference periods. The DepEd RSD pointed out that the BEIS 2010 is as of July 2010, and that some schools that were black in the BEIS 2010 were no longer black during a validation exercise done in February 2011, since new items were deployed to that school between August 2010 to January/February 2011. To assist the DepEd RSD to validate the results generated here, a list of the primary and secondary schools in belonging to cool colored schools that were allocated new teacher items in 2011 is provided in the Appendix.

Improving Hiring Processes

15. With the issuance of DepEd Order No. 9, Series 2011, the preparation of deployment reports (for submission to DBM) has been centralized to streamline teacher hiring and deployment processes. The delays in the release of the NOSCA by some DBM ROs for the June 2010 batch 1 new teacher items that were readily observed in Table 7 could have arisen from the delayed submission of prerequisite deployment reports by DepEd ROs, the lack of speedy action by DBM ROs, or both. Clearly, there are extra complications arising from the differences in calendar of activities observed at DepEd and DBM regarding budget processes (Luz, 2008). Delays in the conduct of one activity would lead to consequent delays in other activities in the hiring process. The flow chart in teacher deployment processes indicated in DepEd Order No. 9, Series 2011 assumed that DepEd CO would issue a deployment report to DBM CO by the third week of February, and that DBM CO would then issue the NOSCA by end of February, so that teacher

hiring, particularly advertisements for new posts, could be initiated in March, and hiring could be done before the school year starts. However, it appears that these schedules were not carried out: the DepEd CO sent a request for approval of the 10,000 new items by end of February, but as of end of March, DepEd did not receive from DBM any approval notice. While there were some delays in the observance of the flow chart on the part of DepEd, there were also delays in DBM action. It would be important for the DepEd and DBM to come up with a Memorandum of Understanding (MOU) regarding streamlining teacher hiring and deployment, so that institutional bottlenecks can be addressed. To prepare for this, the two institutions could have a bilateral set of regular meetings to determine ways forward for synchronizing schedules to streamline the speed of new teacher hiring. The DepEd may also need a MOU with the Civil Service Commission to ensure swift attestation of newly created teacher items.

16. Past and current practices put the responsibility of appointment to the field offices (concerned divisions, and pertinent schools). The lack of speed at which appointments were done in the past could have been an attempt by field offices to generate savings. This was confirmed by DepEd staff who pointed out that that DBM only clarified two years ago that such practices are not allowed. Paradigms, however, do not change overnight. It is important to hold field offices accountable for delays in hiring, and to explore possibilities of providing incentives for quick action. The possibility exists that supply of qualified applicants may be lacking in an area. Regardless of the reasons behind filling up new teaching positions, it will be important to put specific timetables for actions to be undertaken upon approval and creation of teacher items in an area. If after some period, such as one and a half years after an allocation of a teacher item to a school, no hiring has been done, then that item should be reallocated to other areas that may be more successful in filling these items.
17. The monitoring of newly created teacher items continues to be the responsibility of the Office of Planning Service of DepEd CO. However, it was observed that the frequency in the regularity in this monitoring is not properly defined. It seems that the DepEd CO does not track the status of created items (and allotted items for creation) two years after their creation (and allotment, respectively). For the 2009 created teaching items, the final monitoring report was as of October 2010, with no further monitoring in the pipeline of DepEd CO. The assumption of the DepEd CO is that by this time, the remaining ten percent of 2009 newly created teaching items that were not filled up as of October 2010 would have already been deployed. Such an assumption may not be necessarily hold: it is even a possibility that items created (and allotted) before 2009 may not still have been filled up. It is important for DepEd to have a regular period of monitoring for any new approved items, say, every 3 months. As mentioned earlier, if after a year and a half from the moment a teacher item was created, the item has still not been filled up, then the DepEd CO should be empowered to reallocate this item to other needy areas.
18. Monitoring reports do not discuss the number of items that were allotted by the DBM in this fiscal year. Percentages of filled positions are relative to the number of "created positions," but there is no indication to see if these created items have matched the allotted new teacher items for the fiscal year. The DepEd and DBM ought to also have bilateral meetings to address apparent issues on data regarding the number of teacher items that were approved for creation, those

actually created, and number of filled positions. If such data have not been tracked properly, attempts must be made to examine current databases in both institutions and determine sources of data inconsistencies. Annual planning for teacher requirements (and shortages) should also pay attention to whether or not new teacher items have actually been filled, and how long it takes to fill out these items.

19. That “tranches” of new teaching items were being created in the past, as in 2009, also makes the monitoring of such items difficult to track. There is a clear need to have activities in hiring processes and timetables spelled out better, including better timelines regarding these activities, and with both DepEd and DBM committing to observing a strict calendar of regular activities for new teacher hiring.
20. The DepEd (see Order No. 77, S. 2010) has adopted a policy involving prioritization in the allocation of newly created teacher items based on the rainbow spectrum, with black taking full priority, followed by red, and so forth, but empirical evidence shows while this is generally observed, the observance is not strictly followed. A new prioritization could be considered based on PTR colors of the current schoolyear, and the two immediate past schoolyears:

Priority	Current	Immediate Past Two Schoolyears
1.	Black	Black
2.	Black	Non-black
3.	Red	Red in both
4.	Red	Red at least once
5.	Red	Never Red
6.	Orange	Red or Orange in both
7.	Orange	Red or Orange at least once
8.	Orange	Never Red or Orange
9.	Gold	Red, Orange or Gold in both
10.	Gold	Red, Orange or Gold at least once
11.	Gold	Never Red, Orange or Gold

and with no teacher allocation given to cool colors in the rainbow spectrum. This way, prioritization takes into account not only the PTR color but also how long hot colors have persisted across the years. There does not seem to be any value in having allocation of new teaching items assigned to regional offices. This task could be centralized, with evidence on school performance (as regards actual PTRs) providing a second tier of prioritization within each priority category listed above. Disseminating information to stakeholders on these processes would promote transparency.

21. Current policy on shortage of teachers is based only on the number of nationally-funded teachers, without proper attention to the number of locally funded teachers in the area. In addition, the PTR calculations may also be overstated on account of mobile teachers (and teacher items on leave). On top of looking at the current PTR (which does not include the number of locally funded teachers but includes mobile teachers and teachers on leave), the DepEd should also consider examination of PTRs that incorporate locally funded teachers but exclude mobile teachers and

teachers on leave, and examine how robust the list of hot colored schools will be, with this adjusted PTR calculation. Schools that are in both lists should be given more priority for assistance.

22. The BEIS is a rich source of “panel” data, i.e., information on schools across the schoolyears. Dynamics in color codes provide information on improvements and worsening of conditions (as in Table 9). Movements from blue into black or red in the next schoolyear may, however, be indicative of measurement error. While the DepEd CO, particularly the Research and Statistics Department (RSD), has recently conducted a data quality check of BEIS involving sampling some schools to validate the BEIS data (and the results of this initiative are forthcoming), it may be important in the future to engage field staff in further validating information. Abrupt changes in major indicators such as number of teachers may be suggestive of data quality problems. The DepEd will have to build capacity in the analysis of such panel data for purposes of assessing BEIS data quality, as much of the analysis undertaken on teacher deployment hinges on the accuracy of BEIS data.
23. Finally, it has been observed that policies and programs regarding the redeployment of excess teachers are unclear. Some schools and districts have been observed to have excess teachers, and others may well have teacher plantilla items that have remained vacant for years. These items, especially the latter ones, should be freed up to the DepEd CO, with the areas concerned provided incentives to release these teachers and teacher items. The lack of incentives and accountabilities for teacher deployment and redeployment deserve attention.

III. Classroom Construction

24. For studying the classroom needs in the country, the DepEd conducts an examination of BEIS data similar to the teacher deployment analysis. Instructional room analysis (see Table 13) involves giving priority for new classroom construction to schools with black codes of room ratios (that suggest no existing classrooms), or red schools that have severe classroom shortages.

Table 13. Rainbow Spectrum for Pupil-to-Instructional Room Ratio.

<i>Group</i>	<i>Color</i>	<i>Pupil : room ratio Range</i>	<i>REMARK</i>
	Blue	Less than 46	Meet Republic Act (RA*) 7880 with one shift
	Yellow	46.00 – 50.99	Fails to meet RA 7880 with one shift
	Gold	51.00 – 55.99	Does not meet RA 7880 even with double shifting
'Hot' colors	Red	More than 56	Does not meet RA 7880, schools with severe shortage

	Black	Schools that have not been a recipient of any school building project, and those that are using temporary or makeshift structures, or those without classrooms at all.
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* Republic Act 7880 – An Act providing for the Fair and Equitable Allocation of the Department of Education Budget for Capital Outlay.

Classroom Definition and Possible Measurement Errors

25. Forms of the BEIS Government School Profile define instructional rooms (i.e., classrooms) as rooms exclusively used for instructional purposes (which exclude offices, libraries, laboratories, workshops and the like), with either of the following dimensions:

- 7m x 9m
- 7m x 8m
- 7m x 7m
- 7m x 6m
- 6m x 8m (Bagong Lipunan type)
- 7.5m x 6m
- 7m x 18m (multi-purpose workshop science lab., computer lab.)

Schools are advised to count classrooms regardless of the number of doors (either 1 door or 2 doors) of the room, or their respective funding source. Instructions are provided in the Government School Profile forms to exclude “makeshift and condemned/condemnable instructional rooms” in counting classrooms, yet DepEd CO suggests that there are apparent misinterpretations in such instructions as per feedback from school principals, and as per preliminary results of a sample validation exercise on the reliability of information being generated from the BEIS.

26. It was noticed that Government School Profile form requires schools to count classrooms and tabulate them as follows:

Instructional rooms								
Used as academic classrooms	Used as Science Laboratories	Used as H.E. rooms	Used as I.A./ Workshops	Used as computer rooms	Not currently used	Total instructional rooms	Used for Pre-school classes	Used for SPED classes

It is readily observable that the “total instructional rooms” is listed on the third to the last column in the form. Such a position on the form may further contribute to measurement error.

Classroom Requirements Estimates

27. As in the case of estimating teacher requirements (and consequently excesses and shortages), the requirements for classrooms also involve assumptions. For 2011, the DepEd looked into conditions of each school, assuming class sizes of at most:

- 50 for pre-school

- 40 for grades 1 to 3
- 45 for grades 4 to 6
- 45 for high school classes.

to yield three sets of estimates of classroom requirements (see Table 14 and Table 15). These estimates consider (a) current enrolment, (b) trends in enrolment accounting, and (c) assumptions of meeting EFA targets. By merely considering current conditions, total classroom shortage (across primary and secondary schools) is already estimated at around a hundred thousand, and on account of population growth trends, and meeting the EFA targets, the estimate of classroom deficit increases to around one hundred and twenty thousand.

Table 14. Classroom Requirements, Shortages and Excesses among Primary Schools, by Region

Region	Total Classrooms	(A) Meeting Current Needs		(B) Accounting for Population trends		(C) Meeting EFA Targets	
		Required	Shortage	Required	Shortage	Required	Shortage
1	23996	21204	945	23264	2095	21684	1116
2	16537	14888	1115	14913	1425	14951	1116
3	38394	38943	3732	37743	4496	40587	4659
5	28094	30936	4443	31068	6282	32670	5734
6	34980	31766	2198	30103	3542	32511	2468
7	26443	30710	5816	33839	6046	32861	7571
8	22465	24795	4390	31853	6686	25927	5103
9	16816	18696	3254	16027	3971	19791	4017
10	17896	20093	3425	22165	4955	21438	4446
11	17182	19369	3230	17767	4199	21035	4517
12	15655	18682	3906	20796	4771	19634	4611
CARAGA	11650	13257	2384	18983	4694	14136	3041
ARMM	12921	20514	8070	18428	4388	22192	9646
CAR	7871	8553	1547	9051	1998	8663	1604
M Mla	17750	31471	14097	30544	13929	32207	14785
4A	37257	43760	8638	43092	9075	46423	10696
4B	14124	15378	2471	23334	5588	16260	3010
Total	360031	403015	73661	422970	88140	422970	88140

Source: DepEd RSD Analysis of BEIS

Table 15. Classroom Requirements, Shortages and Excesses among Secondary Schools, by Region

Region	Total Classrooms	(A) Meeting Current Needs		(B) Accounting for Population trends		(C) Meeting EFA Targets	
		Required	Shortage	Required	Shortage	Required	Shortage
1	6977	7264	700	7439	1288	7242	685
2	5001	4701	284	5743	598	4822	328

3	10754	13584	2866	11141	2329	14193	3382
5	7778	9113	1331	12580	4035	9742	1830
6	10823	11094	1068	9914	1885	11205	1135
7	7571	9835	2363	11460	2128	10516	2941
8	5764	6849	1224	7305	781	7462	1708
9	4512	5041	661	4571	1012	5499	1010
10	4567	5394	938	4828	1539	6013	1439
11	4587	5764	1133	3824	892	6227	1543
12	4406	5517	1084	5136	921	5945	1429
CARAGA	3378	3827	528	10800	3856	4131	734
ARMM	2136	4243	2012	8978	3725	4845	2573
CAR	2257	2200	238	6546	1908	2391	347
M Mla	8549	15177	6733	4472	1351	15274	6829
4A	11190	16125	4995	13793	3289	16791	5595
4B	3897	4496	695	8173	2647	4823	953
Total	104147	130224	28853	136703	34184	137121	34461

Source: DepEd RSD Analysis of BEIS

New Classroom Construction

28. As per DepEd Order No. 1, S. 2011, a lump sum of 7.891Billion pesos was allocated for implementation of constructing new school buildings for areas with classroom shortage through the 2011 Basic Educational Facilities Fund (BEFF). New classrooms are provided to schools according to the following order of priority:

- (a) schools with Black codes in the Pupil:Room ratio;
- (b) schools with Red codes in the Pupil:Room ratio;
- (c) schools declared to be located in hazard prone areas and in need of immediate relocation;
- (d) schools with buildings razed by fire, or those considered condemned (due to age or dilapidated structures); and,
- (e) schools with incomplete/partial constructions, and still falling in the Red Code.

29. Schools that are to be supported under the BEFF are required to have: (a) sufficient space and, (b) documentation of ownership of lots. The DepEd provides for coordination mechanisms with DPWH, NGOs, LGUs, and legislators to prevent duplication of activities for implementing school building projects. Procurement limits and responsible units are also specified. Current process flows are adopted from previous DepEd-implemented School Building Programs, but with the additional possibility of counterpart funding from LGUs and other partners. As was pointed out in the World Bank Budget Execution Study (2008), school building programs were

already implemented by DepEd starting 2005, and previous to this, by the Department of Public Works and Highways (DPWH) through a special purpose fund. To date, the DPWH also implements a Regular School Building Program.

DepEd Status Reports on New Classrooms for 2011-2012

30. The Dep-Ed reports that prior to opening of classes for schoolyear 2011-2012, over eleven thousand (11,495) additional classrooms have been constructed in 2010 or are planned for construction (in 2011) by the national government. Most of these are implemented or to be implemented by the DepEd itself (see Table 16).

Table 16. Distribution across regions of New Classrooms Constructed in 2010 or to be Constructed in 2011 by the national government

REGION	DepED Implemented		DPWH Implemented		TOTAL		GRAND TOTAL
	2010	2011	2010	2011	2010	2011	
NCR	364	40	284	61	648	101	749
CAR	49	172	55	15	104	187	294
CARAGA	94	381	61	38	155	419	533
ARMM	121	971	110	36	231	1007	1159
I	95	262	83	9	178	271	449
II	87	306	80	20	167	326	493
III	266	400	121	87	387	487	874
IVA	294	242	196	83	490	325	815
IVB	94	352	81	37	175	389	564
V	128	573	113	81	241	654	895
VI	85	398	112	23	197	421	618
VII	167	483	154	55	321	538	859
VIII	101	504	93	31	194	535	729
IX	73	338	92	42	165	380	545
X	100	396	55	35	155	431	586
XI	170	311	73	26	243	337	580
XII	130	434	134	55	264	489	753
TOTAL	2,418	6,446	1,897	734	4,315	7,180	11,495

Note: Status as of March 2011

31. According to monitoring reports of the DepEd see Table 17). about a dozen (13) divisions have LGU counter parting in their projects, and only about 15% of Divisions have plans that are on

schedule. Two dozen divisions have delays on procurement (particularly soil testing), while nearly two in three (126 divisions) have not reported updates on their procurement.

Table 17. Status Report on New Classroom Construction in 2010 or to be Constructed in 2011 by the national government

Region	No. of Divisions	TRACKING STATUS					REMARKS
		On schedule	Delayed due to Soil Testing	No Updated Report	With Proposed LGU Counterparting	Delayed (not to meet target)	
NCR	16	5	10		1		Two Divisions with schedule of Bidding despite ST
CAR	7	2		5			Benguet and Baguio City
CARAGA	9	2		6	1		Surigao Del Norte w/proposed LGU counterpart
ARMM	10					10	MOA with ARMM Gov't.
I	13	5		7	1		Ilocos Sur w/proposed LGU counterpart
II	8			7	1		Quirino w/proposed LGU counterpart
III	17			17			No Submitted Updates on Procurement Activity
IVA	15	4	4	5	3		Batangas, Batangas City, Lipa City and Tanauan
IVB	7		1	5	1		Occidental Mindoro w/proposed LGU counterpart
V	13			11	2		Albay & Cam Sur w/proposed LGU counterpart
VI	18	1		17			No Submitted Updates on Procurement Activity
VII	19		1	18			No Updated Report
VIII	10	9			1		Southern Leyte w/proposed LGU counterpart
IX	8		2	5	1		Dipolog City w/proposed LGU counterpart
X	13	1	1	11			No Submitted Updates on Procurement Activity
XI	9			9			No Submitted Updates on Procurement Activity
XII	9	1	2	6			No Submitted Updates on Procurement Activity
TOTAL	201*	30	22	128	12	10*	* With interim divisions

Note: Status as of March 2011

BEIS Data on Classrooms

32. As in the previous section of this report, an examination of the BEIS data across school years can provide the extent of changes in the number of classrooms in each school. Table 18 lists the distribution of the nearly 45 thousand primary and secondary schools according to the room ratio rainbow spectrum in school years 2008-2009, 2009-2010, and 2010-2011.

Table 18. Distribution of Primary and Secondary Schools by Room Ratio Color-Codes (Schoolyear 2008-2009; 2009-2010; 2010-1011)

Room Ratio Color Code	2008-2009			2009-2010			2010-2011		
	Primary	Secondary	Primary and Secondary	Primary	Secondary	Primary and Secondary	Primary	Secondary	Primary and Secondary
Black	715	286	1,001	659	395	1,054	714	465	1,179
Red	4,371	2,205	6,576	4,310	1,862	6,172	4,369	1,845	6,214
Orange	1,267	633	1,900	1,356	677	2,033	1,343	582	1,925
Yellow	1,949	761	2,710	1,966	804	2,770	2,040	818	2,858
Blue	29,664	2,765	32,429	29,883	3,281	33,164	29,885	3,564	33,449
TOTAL	37,966	6,650	44,616	38,174	7,019	45,193	38,351	7,274	45,625

33. The profiles of the room ratio in Table 18 surprisingly do not suggest changes across in the percentage distribution of schools in these schoolyears. A richer examination may be done by looking at the transition in the rainbow spectrum in the room ratio across these three schoolyears (see Tables 19 and 20). From these color transitions, we find that that more than one in ten schools (13.3%) having improved in their color codes from 2008-2009 to 2009-2010, as well as in the following school year (11.2%). However, there color transitions also suggest that there are some schools that have worsened in their room ratios. For instance, we find evidence of 252 non-black schools in 2008-2009 that moved into black in the following schoolyear. Similarly, among schools in 2009-2010, 282 non-black schools moved into black in the succeeding schoolyear. Such movements may indicate actual worsening of conditions in school facilities, or they may suggest issues on data quality that pose problems on getting reliable estimates of classroom requirements across the entire public school system.

Table 19. Distribution of Primary and Secondary Schools by Room Ratio Color-Codes from Schoolyear 2008-2009 to 2009-2010

2009-2010 Color Code	2008-2009 Pupil:Room Ratio Color Code					TOTAL
	Black	Red	Orange	Yellow	Blue	
Black	431	66	15	14	162	688
Red	227	4156	479	375	841	6078
Orange	24	662	499	395	439	2019
Yellow	27	479	339	814	1089	2748
Blue	283	1202	568	1109	29864	33026
TOTAL	992	6565	1900	2707	32395	44559

Table 20. Distribution of Primary and Secondary Schools by Room Ratio Color-Codes from Schoolyear 2009-2010 to 2010-2011

2010-2011 Color Code	2009-2010 Pupil:Room Ratio Color Code					TOTAL
	Black	Red	Orange	Yellow	Blue	
Black	623	92	16	23	151	905
Red	174	4348	598	339	687	6146
Orange	12	531	572	423	376	1914
Yellow	28	397	377	959	1084	2845
Blue	200	788	470	1025	30836	33319
TOTAL	1037	6156	2033	2769	33134	45129

Issues on New Classroom Construction

34. Studies such as the World Bank Budget Execution Study (2008) have suggested that plans for DepEd implemented new classroom construction have had delays in implementation due to procedural lapses in start-ups within DepEd, especially as building new classrooms and other physical facilities were not part of the DepEd's task in the past. The issuance of DepEd Order No. 1, S. 2011 suggests the level of priority given by the DepED management to classroom construction. However, as in previous years, there have been changing implementation priorities in these school building and new classroom projects. For instance, for this year, there is preference for LGU counterparting and such a change in priorities for recipient schools could have delayed identification of recipient schools.
35. Current tracking of new classroom construction projects suggest that nearly two thirds of divisions have not provided any feedback for their projects. Accountabilities and incentives for the submission of timely reports will need to be looked into.
36. There is also a view that priority listing in instructional room ratio analysis may be deficient as such examination may not be forward looking, i.e., the analysis considers past schoolyear BEIS data. Plans for new classrooms take time to develop, implementation also is not immediate. Current estimation processes done by DepEd for classroom laudably looks not only at current enrolment data, but also incorporate trends in future enrolment.
37. Management of school resources as well as planning for new teacher hiring and new classroom construction are contingent on having reliable information. Currently, BEIS is the only data source for aggregate school facility needs in the country. The DepEd need to resolve problems on definition of classrooms and on minimizing measurement errors arising from generating school information. Abrupt year-on-year changes in the color codes of room ratios (as reflected in Tables 19 and 20) suggest possible data problems in the BEIS. The DepEd ought to have a system for tracking changes at the school level in major indicators from BEIS, e.g., total classrooms and total teachers. Such an examination would be geared toward developing a list of schools that may have probable data reliability problems. Field staff could need to validate the

information supplied by such schools, in order to have better aggregate figures on classrooms, that are required for planning purposes.

IV. Conclusion

38. In conclusion, while the DepEd has managed to find an evidence-based approach (that involves examining BEIS data) to plan for teacher deployment and new classroom construction, there appear to be some bottlenecks in carrying out these plans effectively, equitably and efficiently. Monitoring reports as well as an examination of panel data from BEIS suggest that improvements can be made in the allocation of new teacher items, as well as in the monitoring of hiring of new teachers, and new classroom construction. The DepEd and DBM should conduct regular bilateral meetings in order to streamline processes on new teacher hiring and deployment, as well as to develop accountabilities regarding the failure to provide feedback from the regions on both teacher deployment and new classroom construction.
39. The paper would like to make a case for DepEd's regular examination not only of major BEIS indicators, such as number of teachers and number of classrooms, but also of monitoring the changes in these indicators to also examine BEIS data quality since DepEd plans are contingent on the availability of reliable and meaningful information.

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ANNEX TABLE. List of School IDs, Region, Color Code and Number of New Teachers Allocated of Cool Colored Schools that were Allocated 2011 Teacher Items.

PRIMARY			
Schoolid	Region	Color Code	Number of 2011 Teachers
130832	12	Blue	1
132448	Caraga	Sky Blue	1
136639	M Mla	Yellow	1
136742	M Mla	Yellow	1
136763	M Mla	Sky Blue	2
221505	CAR	Green	1
SECONDARY			
Schoolid	Region	Color Code	Number of 2011 Teachers
300146	1	skyblue	2
300482	2	blue	1
300825	3	green	5
300995	3	skyblue	5
301170	4A	skyblue	10
301200	4A	blue	7
301263	4A	skyblue	2
301437	4A	green	6
301465	4A	green	5
301673	4B	blue	1
301701	4B	green	1
301721	4B	blue	1
302207	5	green	2
302423	6	green	1
302632	6	blue	10
302646	6	green	9
302728	6	green	4
302808	7	skyblue	2
302887	7	green	1
302903	7	green	1
302905	7	green	1
302930	7	blue	1
302940	7	green	2
302942	7	green	1
302945	7	green	15
302961	7	blue	3

302967	7	green	3
302984	7	blue	2
302988	7	skyblue	1
303005	7	green	1
303010	7	green	1
303024	7	skyblue	3
303033	7	skyblue	2
303059	7	blue	7
303075	7	green	1
303091	7	green	12
303104	7	blue	6
303134	7	skyblue	5
303138	7	skyblue	1
303142	7	green	15
303150	7	green	14
303205	7	green	2
303217	7	skyblue	3
303225	7	skyblue	4
303237	7	blue	5
303244	7	green	8
303252	7	skyblue	4
303263	7	blue	6
303268	7	green	6
303270	7	green	3
303273	7	skyblue	5
303275	7	blue	4
303278	7	skyblue	1
303373	8	green	4
303551	8	green	4
303579	8	skyblue	3
303772	9	blue	11
303952	10	green	1
303975	10	green	2
303984	10	green	1
303986	10	green	1
304138	10	green	2
304146	10	skyblue	5
304342	11	green	1
304543	12	skyblue	3
304544	12	skyblue	1
304679	CARAGA	skyblue	1

304701	CARAGA	green	2
304886	CARAGA	skyblue	1
304898	CARAGA	blue	2
304905	CARAGA	blue	5
305037	ARMM	green	1
305111	CAR	skyblue	1
305116	CAR	green	3
305363	M Mla	skyblue	10
305431	M Mla	green	12
305434	M Mla	green	28
307907	4A	green	4