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Teacher Education in the Philippines: Are we meeting the demand for quantity and quality?[1]

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Abstract

The quality and capacity of the country's basic education system relies, to a great extent, on the ability of the Higher Education Institutions (HEIs) to train a sufficient number of promising teachers to hire annually. This policy note seeks to describe the state of teacher education in HEIs as reflected by their performance in the Licensure Exam for Teachers (LET). Analysis of the passing rates of HEIs suggest that (1) there is an insufficient total number of LET-passers each year to supply the needs of the basic education sector, (2) there are areas of the country where there are lower numbers of LET passers, and fewer high-performing HEIs in teacher education, and (3) a large portion of each year's LET takers are on at least their second attempt and are much less likely to pass than first-time takers. Recommendations for further research and review of the teacher professionalization tracks are discussed.

Sharp increases in local demand for teachers

Recent basic education reforms have increased the demand for public and private school teachers at the primary and secondary levels over the last 5 years. These include full roll-out of mandatory Kindergarten in 2012 (R.A. 10157) and then Kindergarten plus 12 years in the education cycle in 2013 (K to 12: R.A. 10533), which added 2 more years of schooling in the form of Senior High School (SHS). Just for the years 2010 to 2016, including the years of implementing K to 12, the Department of Education (DepEd) reported that they hired over 195,000[2] teachers for Kindergarten and elementary.

In 2018, the agency budgeted to hire over 81,000 new teachers[3], the bulk of whom will teach in the junior high school level. The demand for new teachers extends to all private schools as well since the expanded cycle applies to all high schools in the country.

There are 674,613[4] teaching positions just in the Philippine public education system in school year 2015-2016, over 36,000 of those positions were vacant by March 2016. This does not account yet for teaching positions in the private schools. Starting salaries for public school teachers went from PhP 15,649[5] in 2010 to PhP 20,179 in 2018[6], placing it close to double the median income for wage and salary workers in the country. Republic Act 7836, passed in 1994, requires that teachers in primary and secondary schools first pass the Licensure Exam for Teachers (LET), which in turn requires at least a college degree in teacher education or a related field, with additional 18 units of advanced training in teacher education if the undergraduate degree is not aligned[7]. The standard elementary education licensure exam qualifies applicants to teach any subject in elementary school, while the exam for high school teachers have a generalized test and, for some, a specialization that qualifies them to teach in the discipline for which they passed the specialized exam. Currently the DepEd is experiencing a shortage of math and science specialized secondary school teachers to fill positions in junior and senior high school[8].

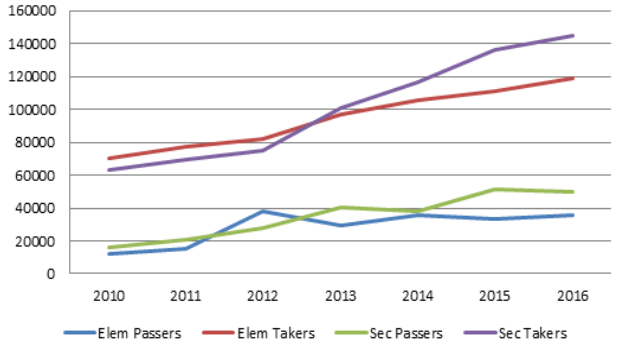
Results of Licensure Exam for Teachers

Figure 1 shows the total number of takers and passers of the LET in the last 5 years, totaling 200,260 passers out of 663,645 takers for elementary education, and 244,385 passers out of 707,204 takers for secondary education. The number of LET takers has been increasing steadily over the past 7 years, growing for elementary LET from 70,132 in 2010, to 119,091 in 2016. For the secondary LET it had more than doubled from 63,575 to 144,588 for the same period. In the 2017 LET, 263,679 took the test, and 85,361 passed it, resulting in an overall passing rate of 32.37%.

[1] *The opinions expressed in this publication are those of the author/s. They do not reflect nor represent the opinions or views of the University of the Philippines, the UP Center for Integrative and Development Studies, the sources of data, or its affiliates. The presentation and interpretation of information in this publication do not imply the expression of any opinion on the part of UP or CIDS.*
[2] *http://newsinfo.inquirer.net/816267/deped-needs-teachers-lots-of-them*
[3] *https://www.rappler.com/nation/178812-deped-budget-2018-hiring-teachers*
[4] *DepEd Presentation in 2016 Philippine Education Summit*
[5] *http://newsinfo.inquirer.net/816267/deped-needs-teachers-lots-of-them*
[6] *DepEd Presentation in 2016 Philippine Education Summit*
[7] *http://www.prc.gov.ph/uploaded/documents/18%20PROF%20EDUC%20UNITS.pdf*
[8] *http://newsinfo.inquirer.net/816095/deped-seeking-to-hire-more-science-math-teachers*

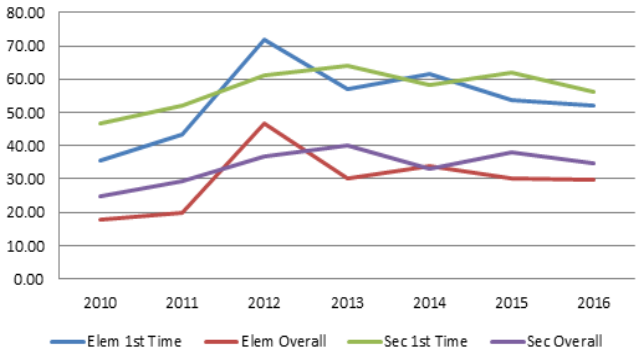
Those who took the test for the first time had a higher passing rate of 54.50%. According to the DepEd, given the total number of LET passers in 2017, even if all are hired by the agency there remains a shortfall of over 10,000 teachers for the 2018 cycle.

Fig 1. Total number of takers and passers of LET 2010-2016



To study the quality of teacher education, we use the LET passing rates of HEIs, focusing only on the first-time takers[9]. Between 2010 and 2012, the overall passing rates of first-time takers of the elementary school LET increased dramatically from 27.3% to 75%, but has since experienced steady declines to the 2016 level of 50%[10]. For the secondary school LET, improvement has been steady, in 2010 the average passing rate was 33.3%, by 2013 it had peaked to 60% and in 2016 it declined again to 50%. Note that passing rates for repeat takers are substantially lower. In 2016, for instance, passing rate for repeat LET takers in Elementary was only 14.3% and in Secondary was only 12.9%.

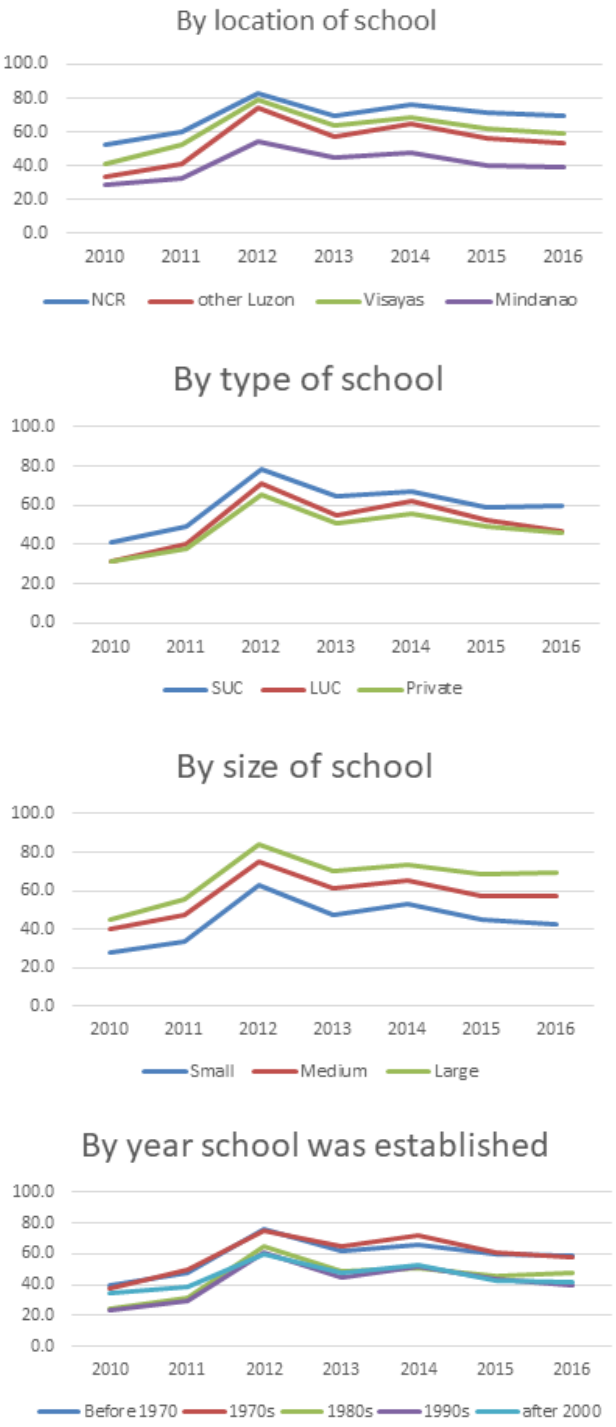
Fig 2. Passing rate (%) of Elementary and Secondary 1st time and overall takers of LET 2010-2016



Which programs do better?

Based on the school where LET takers received their college degree, there are types of HEIs that tend to have higher passing rates than others. At the bivariate level, illustrated in the graphs in Figure 3, larger HEIs by size of enrollment[11], public institutions, and schools located in NCR and Visayas have higher passing rates than others. These are evident in both the elementary and high school tests, and the changes over time are consistent across the subgroups of HEIs.

Fig 3. Passing rates of Teacher Education programs in HEIs for LET elementary 2010-16 (First time takers)



Note: Only schools with at least 10 takers in 4 of the 7 years were included

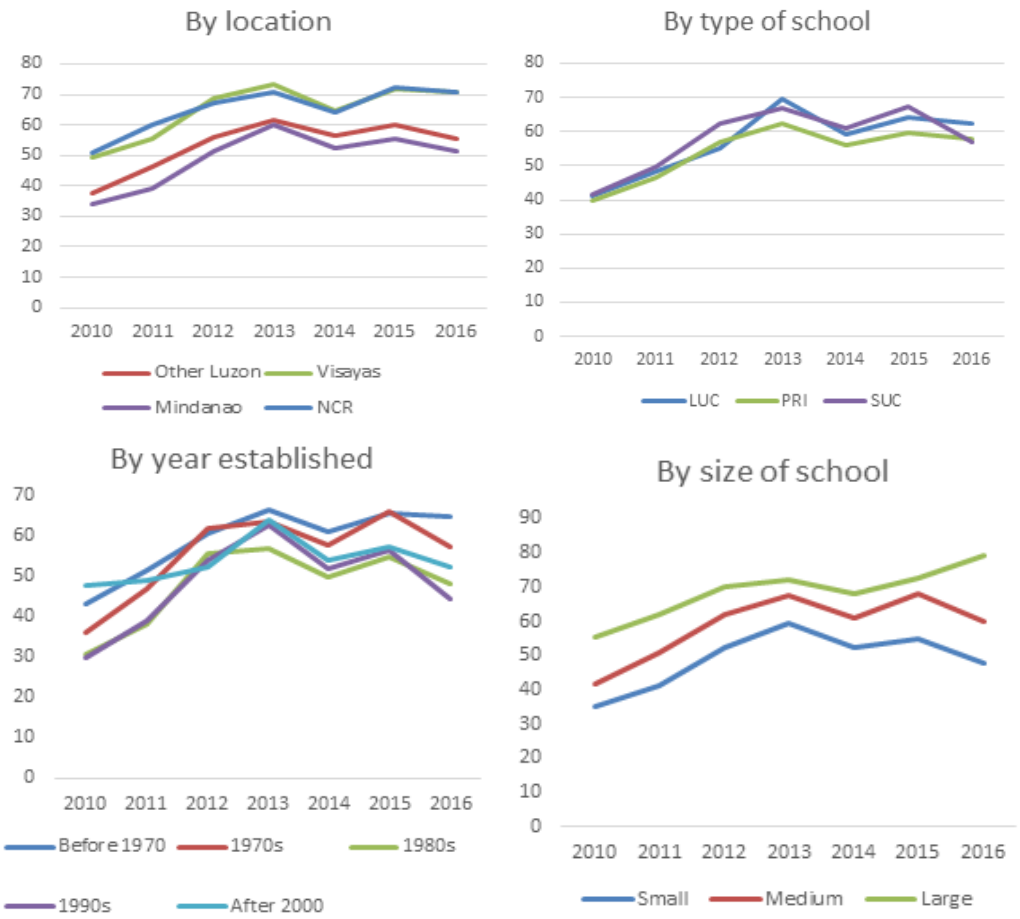
Focusing on location differences, both elementary and high school Teacher Education Institutions (TEIs) in NCR and Visayas consistently do better than those in the rest of the country. In particular, schools in Mindanao have an average passing rate in LET elementary in 2016 of only 39.3% compared to 59.5% in Visayas.

[9]Since the PRC allows examinees to make multiple attempts to pass the exam and repeat takers generally have a lower likelihood of passing, using first-time takers only in assessing program quality we argue, is more accurate.

[10]The one-year sharp increase between 2011 and 2012 is likely attributable to a change in features of the exam rather than a real improvement in the quality of HEI instruction.

[11]As per CHED, a higher educational institutions are grouped by size depending on the size of enrollment as follows: Small: 1-1,999 students, Medium: 2,000-9,999 students, Large: 10,000 and above.

Fig 4. Passing rates of Teacher Education programs in HEIs for LET Secondary 2010-16
(First time takers)



Note: Only schools with at least 10 takers in 4 of the 7 years were included

Tables 1 and 2 show the number of high-performing and low-performing schools in each of the areas in LET elementary and LET secondary. In Mindanao, 14% (n=36) of the schools are low-performing for the elementary LET, comprising 83.7% of all low-performing schools in the country. There are only 28 high-performing schools in the elementary LET in the entire island group and the regional distributions in Table 3 below suggest that there are regions with very few good schools.

Many of the consistently high performing schools in LET secondary teaching are in NCR, including Asia Pacific College, Assumption College, Ateneo de Manila, and FEU East Asia College. Some of the same schools are also the high perfoming schools in LET elementary, with the addition of other HEIs in NCR such as Centro Escolar University, La Consolacion College, and the main campus of the Philippine Normal University. There are consistently low-performing programs, even those in SUCs, some examples are Mindanao

Table 1. Number of low-performing and high-performing schools by location, LET Elementary first-time takers

Island group	No. of Low-performing schools	%	No. of High-performing schools	%	No. of schools in category	%
NCR	1	2	17	13	38	6
Other Luzon	16	25	36	28	273	41
Visayas	2	3	38	29	152	23
Mindanao	45	70	38	29	208	31
Total	64	10	129	100	671	100

Classification: low-performing schools are those with at most 25% passing rate in at least 4 of the 7 years from 2010 to 2016; high-performing schools are those with at least 75% passing rate in at least 4 of the 7 years from 2010 to 2016;

Table 2. Number of low-performing and high-performing schools by location, LET High School first-time takers

Island group	No. of Low-performing schools	%	No. of High-performing schools	%	No. of schools in category	%
NCR	0	0	19	19	71	10
Other Luzon	39	46	24	24	302	44
Visayas	10	12	31	31	141	21
Mindanao	35	42	26	26	170	25
Total	84	12%	100	100	684	100

Classification: low-performing schools are those with at most 25% passing rate in at least 4 of the 7 years from 2010 to 2016; high-performing schools are those with at least 75% passing rate in at least 4 of the 7 years from 2010 to 2016;

State University in Lanao and in Sulu, Palawan State University in Coron, and Catanduanes State University. The Appendix tables to this Policy Brief provides a listing.

Table 3 below on regional distributions of LET passing rates and total number of passers suggests that the regions of ARMM, IX, and XII post the lowest overall passing rates compared to the rest of the country in the elementary LET. The highest rates are in NCR and Western Visayas (VI). For the secondary LET, the lowest passing rates are posted by ARMM, IX and VIII, while the highest are CAR and NCR. To gain a full picture of the spatial distribution of the passers vis a vis shortage in supply, additional data from DepEd are needed. However, as a general indicator from raw numbers we can see that in the entire ARMM, only 800 people passed the LET to teach in secondary school, and also a small number of 1,054 in Region XIII.

Predictors of education program performance

An important limitation of the previous analyses is that the variables that were found to be correlated with passing rate could themselves be correlated. If that were the case, then the estimated relationship between these variables individually with passing rate could be overstated (or understated, depending on the nature of the correlation). Multiple regression analysis is a means of estimating the relationship of each of the same variables with passing rate while controlling for the other variables at the same time.

Table 4 shows the results, separately for LET elementary and LET secondary, of regressing passing rates against the following variables: student-to-faculty ratio; island group; type of school; size of school; and year school was established. It shows a robust relationship between passing rate and each of the individual variables after controlling for the other variables in the regression.

In LET elementary, a one-unit increase in the student-to-faculty ratio for instance is associated with a 0.1 percentage point decline in passing rate, after controlling for the other variables. Schools in NCR, on average, have a passing rate higher by 9.6 percentage points, and those in Mindanao, have a passing rate lower by 8.4 percentage points compared to schools in the Visayas. Private schools have a passing rate lower by 4.7 percentage-points compared to SUCs. Small schools, have passing rates lower by 24.4 percentage-points, and medium-sized schools have passing rate lower by 11.7 percentage-points compared to large schools. Schools established in the 1980s, have passing rate lower by 7.8 percentage-points, schools established in the 1990s, have passing rate lower by 13.5 percentage-points, and schools established in the 2000s, have passing rate lower by 6.2 percentage-points compared to schools established before 1970.

Table 3. Regional distribution of LET number of passers and passing rates, 2016

	Elementary				Secondary			
	1st Time Passing Rate (%)	Repeater Passing Rate (%)	Total Passers	Total Passing Rate (%)	1st Time Passing Rate (%)	Repeater Passing Rate (%)	Total Passers	Total Passing Rate (%)
ARMM	18	10	1,864	12	34	8	800	15
CAR	63	21	902	43	68	19	1,678	50
NCR	69	16	1,999	46	68	19	6,569	49
NIR	56	17	2,051	38	54	13	1,952	37
Region I	58	20	1,876	40	58	16	2,425	38
Region II	57	18	1,348	36	56	17	2,631	38
Region III	57	18	3,140	36	55	17	4,424	36
Region IV-A	53	14	2,538	32	56	15	4,983	36
Region IV-B	58	15	1,131	31	54	12	1,573	32
Region IX	37	12	1,839	21	34	10	1,549	18
Region V	44	13	3,248	26	50	13	3,871	32
Region VI	65	21	1,992	46	61	19	2,271	41
Region VII	65	15	2,788	42	64	16	3,351	43
Region VIII	55	13	2,666	28	46	11	2,876	23
Region X	54	13	2,138	30	58	15	2,390	38
Region XI	65	18	1,230	39	62	16	2,923	40
Region XII	43	12	1,531	21	50	13	2,646	29
Region XIII	52	14	1,114	27	52	15	1,054	27
Philippines	52	14	35,395	28	56	14	49,966	35

Table 4. Multiple regression analysis of LET Elementary and LET Secondary passing rates, 2016 (All school types)

Dependent variable: LET passing rate	Elementary	Secondary
	Coef.	Coef.
Student to faculty ratio	-0.1**	-0.2***
Island group (Base=Visayas)		
NCR	9.6***	8.1***
Other Luzon	0.5	1.1
Mindanao	-8.4***	-7.9***
Type of school (Base=SUC)		
LUC	0.1	5.4*
Private	-4.7***	4.1***
Size of school (Base=Large)		
Medium	-11.7***	-7.4***
Small	-24.4***	-19.2***
Year school was established (Base=Before 1970)		
1970s	-2.4	-0.1
1980s	-7.8**	-5.5**
1990s	-13.5***	-7.7***
2000s	-6.2***	-6.0***
Constant	81.2	69.5
No. of obs.	733	786
F-stat	24.2	18.0
R^2	0.288***	0.218***

Notes: 1) Only schools with at least 10 takers were included; 2) *** significant at 1% level, ** at 5% level, * at 10% level

Results for the LET secondary are roughly similar, except that private schools and LUCs do somewhat better than SUCs after controlling for the other variables. In LET secondary, a one-unit increase in the student-to-faculty ratio for instance is associated with a 0.2 percentage point decline in passing rate. Schools in NCR, on average, have a passing rate higher by 8.1 percentage points, and those in Mindanao, have a passing rate lower by 7.9 percentage points compared to schools in the Visayas. LUCs, on average, have a passing rate higher by 5.4 percentage-points, and private schools have a passing rate higher by 4.1 percentage points compared

to SUCs. Small schools have passing rates lower by 19.2 percentage-points, and medium-sized schools, have passing rates lower by 7.4 percentage-points compared to large schools. Schools established in the 1980s have passing rates lower by 5.5 percentage-points, schools established in the 1990s have passing rates lower by 7.7 percentage-points, and schools established in the 2000s have passing rates lower by 6 percentage-points compared to schools established before 1970. The overall regression model explains only 29% of the variation for elementary LET, and 22% for secondary LET. This means that further investigation is necessary to understand HEI predictors of quality, factors that may provide greater explanatory power that as of yet, is unavailable in existing datasets.

To summarize, the schools that tended to perform most poorly, on average, in the LET elementary and secondary were those that are small, with high student-to-faculty ratio, are located in Mindanao, and established in the 1990s. Since strictly speaking, examinees are not required to have completed a teacher education BA/BA program to qualify for the LET, the extent to which the passing rates serve as an indicator of program quality is limited.

Recommendations

The demand for elementary and secondary school teachers has been growing consistently, far outpacing supply. At present the supply of new teachers is not even enough to meet demand solely from the public school system. Hiring, placement, and retention of teachers in the DepEd is a highly complex issue. It is not a matter of hiring all LET passers to fill positions. In elementary school a teacher can be a generalist, but they have to be assigned to schools where there are vacancies, often in areas that are difficult to reach in rural and remote communities. Not all teachers are willing or able to move for their job. The regional disparities in LET passing rates of HEIs means that in regions with very low performance it would be difficult to hire enough good teachers. In high school, teachers should have specializations such as science or math. Moreover, the local job market competes with the demand for overseas teaching positions. For all these reasons, ideally there should be many more qualified teachers entering the job market every year.

Teacher education programs have benefits that redound to one of the most critical factors for improving human development in the Philippines: high quality primary and secondary education. Improving HEI programs for teachers must be aggressively pursued not only by CHED but also by the DepEd and stakeholders representing private schools of all levels. Incentivizing high performing teacher education schools by providing institutional grants (e.g. Centers of Excellence and Development) may not be sufficient. To increase the pool of qualified teachers, providing close support to programs in areas with almost no high-performing schools will be necessary. Targeted interventions to improve teacher education at the HEI-level should be mindful of the areas where there are teacher shortages in the basic education level. For instance, in certain areas of Mindanao where there are only a few good HEIs, mentoring, exposure programs, and visiting scholar programs may help shore up program quality.

More broadly the policy framework that governs the licensing process for teachers needs close review and updating. The law was passed in 1994 (R.A. 7836). Since then, millions of Filipinos have taken the test, a good portion of them later hired by the public education system. What is the extent to which the LET has been able to professionalize the ranks and raise the quality of teaching in schools? Since 1994 there have been many large reforms instituted, under these new conditions, do the laws and policies governing teacher professionalization still perform as intended, or are changes necessary to make them more responsive to the current institutional set-up, expected roles of teachers, and responsibilities once hired by a school? A review of how well the professionalization efforts have done over the years, and how these might be improved for current times should be conducted through close coordination between providers, regulators, and stakeholders in the basic and higher education sectors.

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