RESEARCH ARTICLE

# PHILIPPINE GOVERNMENT'S INVESTMENT ON TEACHER PREPARATION AND THE PERFORMANCE OF GRADUATES IN THE LICENSURE EXAMINATION

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**ABSTRACT**

This research paper looks into the government investment on teacher preparation vis-à-vis the performance of teacher education institutions on the regional level. It aims to analyze the relationship between investment and performance of the regions in the Licensure Examination for Teachers (LET), and draw policy implications from the analysis. A total of 56 state universities and colleges (SUCs) were sampled for this research and revealed that on average, the government invested around Php 60,000 per graduate of teacher education for the entire four-year stay in college from school year (SY) 2008-2009 to SY 2011-2012. Meanwhile, the average LET passing rate of graduates form these SUCS for the period covered was only around 35 percent. The sample SUCs NCR, ARMM, Regions 5, 1, 3, 2, 6, and 8 received the highest government funding support for teacher preparation during the period under study. On the contrary, some of these regions were found to have the lowest passing rates in the LET.

This research found a weak but consistently positive correlation between the cost of teacher preparation and the LET performance. This finding suggested that education graduates are likely to perform better in LET with higher government support to teacher education. It remains sound to sustain or even strengthen the investments in teacher education or preparation in relation to the goal of enhancing the overall performance of the graduates in the national licensure examination.

**INTRODUCTION**

Government spending on education in the Philippines remains one of the lowest in Asia. In 2011, the Philippines' public education spending stood at only 2.8 percent of its Gross Domestic Product (GDP), only better to Cambodia's 1.4 percent. Malaysia registered 5.6 percent, Thailand 4.3 percent, and Brunei Darussalam 3.3 percent (ADB, 2013). In 2012, the Philippines' education spending slightly improved to 2.9 percent of GDP but remained behind Malaysia's 5.8 percent and Thailand's 3.8 percent (ADB, 2013). Similarly, the World Bank reported that Philippine spending on tertiary education only reached 0.34 percent of GDP as against 1.69 percent of Malaysia, 1.2 percent of Indonesia, and 0.71 percent of Thailand (Manila Standard, 2011).

State universities and colleges (SUCs) in the Philippines are funded by the national government, following the provisions of Republic Act 7722, also known as the Higher Education Development Act of 1994. Appropriations for all SUCs, including those completely focused and partially involved in teacher education, are granted annually through the General Appropriation Act (GAA). Thus, government investments in teacher education or preparation are imbedded in the budget allocation of a state university or college every fiscal year.

Passing the Licensure Examination for Teacher (LET) is a key indicator of success among teacher education graduates and their respective institutions. For the government, this signals the return of its investment as these successful graduates add to the growth of the country's teaching force.

This research examines the correlation between the government investment on teacher preparation and the performance in the licensure examination for teachers on the regional level. Specifically, it aims to establish whether regions with higher government allocations perform better in the LET.

**METHODOLOGY**

A total 56 out of 106 SUCs were sampled to carry out this regional study. Half of the number of SUCs in each region was randomly selected to represent the region. The budgetary allotment based on the approved appropriation for the selected SUCs, the enrolment from 2005 – 2011, and graduation data from 2006-2012 were used to estimate government investments in teacher preparation per region. For a given academic year, the budgetary allotment for each SUC for the past four years was considered to estimate the four-year spending of the government to support teacher education students in the selected SUCs. The LET performance of the graduates of the same SUCs from 2009 to 2012 was also analyzed on a regional level.

Cost analysis, an economic evaluation technique, was employed in the study. The cost of teacher preparation was estimated only in terms of the annual appropriations for the covered SUCs. Other budget sources (e.g., special trust fund or STF) of each of the SUCs were not accounted for in the study. Estimation of the total cost was limited to government investment via the annual budget allocation, which was considered as a fixed cost. Other variable costs on the conduct of teacher preparation program were not included in the analysis.

To obtain the costs of teacher preparation of a particular institution per year, the following formula was used:

$$Cost\ of\ TE_Y = \left(\frac{GAA_{Y1}}{TNE_{Y1}} + \frac{GAA_{Y2}}{TNE_{Y2}} + \frac{GAA_{Y3}}{TNE_{Y3}} + \frac{GAA_{Y4}}{TNE_{Y4}}\right) + TEG_Y$$

where:

*GAA* = General Appropriation Act's budgetary allocation on a particular SUC

*TNE* = Total number of enrolees in the SUC

*TEG* = Total number of teacher education graduates in the SUC

$_{Y1}$ = First year

$_{Y2}$ = Second year

$_{Y3}$ = Third year

$_{Y4}$ = Fourth year

*Y* = Particular year of graduation/completion of teacher

education programs

Hence, for the year 2008, the budgetary allocation for 2005 for a particular sampled SUC was divided by the total number of enrollees, irrespective of degree courses in 2005. The same procedure was performed for 2006, 2007 and 2008. These four years represent the assumed four-year period of completing a teacher education degree. The sum of the four quotients was then multiplied by the total number of graduates of teacher education programs for 2008.

To depict the regional trends on cost per year, the computed cost per SUC were summed up to get the total estimated cost on teacher preparation in each region.

On the LET performance, the average of the passing rates of both BSE and BEED degrees were taken for each sampled SUC. The mean of these LET passing rate averages for all sampled SUCs were computed to determine the LET performance of each region. To establish the trend in the LET performance of each region, this calculation was performed for years 2009 takers to 2012 takers.

Establishing the significant relationship between the cost of teacher preparation and the LET performance of sampled SUCs in across the 17 regions were undertaken with the computation of spearman rank order (rho) correlation.

## RESULTS

Table 1 presents the estimated cost of teacher preparation across regions in the Philippines. Data from the 56 sample SUCs indicated that the Government spent an estimated P4.386B to support 73,882 TEGs from SY 2008-2009 to SY 2011-2012. This means that an average of P59,366 was invested per graduate across their four-year stay in their respective universities. Notably, Regions 5, NCR, and ARMM consistently received the highest government support. From school year 2008-2009 to 2009-2010, Region 5 obtained the highest government support of Ph136.5 million and Php129.6 million, respectively, followed by ARMM and NCR in school year 2009-2009,

and NCR and ARMM in school year 2009-2010. For school year 2010-2011, the ARMM got the highest support of Php126.9 million, and for school year 2011-2012, the NCR with Php141.7 million. The NCR and Region 5 received the second and third highest government support in school year 2010-2011, respectively, and the ARMM and Region 5 in school year 2011-2012.

**Table 1**. Total Estimated Cost for Teacher Preparation across Regions from SY 2008–2009 to 2011–2012.

| Region | Cost of Teacher Preparation (in PHP million) | | | |
|---|---|---|---|---|
| | *SY 2008–2009* | *SY 2009–2010* | *SY 2010–2011* | *SY 2011–2012* |
| Region 1 | 108.5 | 72.1 | 76.5 | 92.2 |
| Region 2 | 101.5 | 69.1 | 66.1 | 75.5 |
| Region 3 | 96.2 | 76.7 | 74.1 | 80.5 |
| Region4A | 55.5 | 55.0 | 57.5 | 60.7 |
| Region4B | 34.0 | 34.4 | 30.8 | 38.6 |
| Region 5 | **136.5**[1] | **129.6**[1] | **100.3**[3] | **90.5**[3] |
| Region 6 | 110.0 | 67.0 | 64.4 | 70.5 |
| Region 7 | 39.8 | 38.7 | 41.2 | 46.0 |
| Region 8 | 81.4 | 81.8 | 70.0 | 75.0 |
| Region 9 | 37.1 | 58.3 | 50.2 | 37.5 |
| Region 10 | 24.5 | 34.9 | 44.6 | 25.1 |
| Region 11 | 37.7 | 30.7 | 42.6 | 48.5 |
| Region 12 | 8.9 | 17.6 | 19.9 | 23.6 |
| NCR | **110.6**[3] | **128.7**[2] | **126.2**[2] | **141.7**[1] |
| CAR) | 59.8 | 34.8 | 38.3 | 68.9 |
| Caraga | 11.8 | 11.5 | 11.1 | 8.8 |
| ARMM | **121.0**[2] | **125.5**[3] | **126.9**[1] | **119.6**[2] |
| **Total** | 1174.8 | 1066.6 | 1040.7 | 1103.2 |

*Note:* [1] – Rank 1; [2] – Rand 2; [3] – Rank 3

In Table 2, the percentage of passing rates in the LET across regions can be found. The ARMM consistently registered the highest percentage in the four study years. CARAGA registered the second highest percentages in 2009 and 2010 and Region 12 in 2011 and 2012. Regions 3, 4B, 9 and 4B posted the third highest percentages in 2009, 2010, 2011, and 2012, respectively.

**Table 2.** Percentage of LET Passers in Sampled SUCs across All Regions

| Regions | Participating SUCs | Average LET Performance | | | |
|---|---|---|---|---|---|
| | | *2009* | *2010* | *2011* | *2012* |
| Region 1 | 3 | 40.83 | 30.62 | 34.97 | 50.41 |
| Region 2 | 3 | 21.66 | 23.41 | 26.12 | 49.99 |
| Region 3 | 5 | 27.82 | 24.43 | 29.90 | 48.83 |
| Region4A | 3 | 25.62 | 23.31 | 21.06 | 44.22 |
| Region4B | 3 | 23.60 | 13.71 | 20.06 | 40.62 |
| Region 5 | 4 | 34.21 | 29.59 | 34.53 | 55.50 |
| Region 6 | 5 | 41.56 | 45.08 | **49.39**[3] | 60.40 |

| | | | | | |
|---|---|---|---|---|---|
| Region 7 | 3 | **54.38[2]** | **50.97[2]** | **59.68[1]** | **75.12[1]** |
| Region 8 | 5 | 22.98 | 19.28 | 26.82 | 48.16 |
| Region 9 | 3 | 25.09 | 20.23 | 20.02 | 41.12 |
| Region 10 | 3 | 27.12 | 19.53 | 25.46 | 46.84 |
| Region 11 | 2 | **45.13[3]** | **38.73[3]** | 48.80 | **64.53[3]** |
| Region 12 | 2 | 21.87 | 14.03 | 14.20 | 24.82 |
| NCR | 4 | **58.77[1]** | **52.81[1]** | **58.09[2]** | **69.28[2]** |
| CAR | 3 | 34.02 | 36.10 | 42.43 | 59.98 |
| Caraga | 2 | 18.18 | 13.68 | 21.98 | 43.00 |
| ARMM | 3 | 14.75 | 9.24 | 12.32 | 22.41 |

Note: **[1]** – Rank 1; **[2]** – Rank 2; **[3]** – Rank 3

In Table 2, the percentage of passers in the LET across regions can be found. It is shown that regions 7 and the NCR are the consistent top regions in terms of LET performance across four years, with the Region 7 as number one in 2009 and 2010 and the NCR in 2011 and 2012. Region 11 places almost consistent on the third spot except for year 2011. Meanwhile, the ARMM remains consistently the lowest percentage in the four study years. CARAGA region has the lowest passing rates in 2009 and 2010 and the Region 12 in 2011 and 2012. Regions 3, 4B, and 9 are also among the regions with the lowest percentage of passers 2009, 2010, 2011, and 2012, respectively.

As to average statistics, Table 3 presents the annual average of estimated cost in teacher preparation and the average rate in the LET per region. Noticeably, the participating TEIs in the National Capital Region received the highest government support of Php 126.8 million, followed by those in the ARMM and in Region 5. In terms of passing rate in the LET, TEIs in Regions 7, NCR and 11 are the top three in the LET passing rate. A striking finding is that the ARMM, which has the second highest cost in teacher preparation, has the lowest average passing rate. However, CARAGA and Region 12, both in the bottom of the rank in terms of cost, also end up among the regions with the weakest LET performance.

The relationship between the ranks of the regions as regards total cost and ranks of the regions in terms of percentage of LET passing rates from 2009 to 2012, as also shown in table 3, are analyzed. Regions with high annual average estimated cost of teacher education (i.e., government support) generally exhibited high passing percentage in the LET. Using Spearman's rho correlation,

the obtained correlation coefficients between ranks in the total cost and ranks in the percentage of passers in the LET among the regions per year (2009 to 2012) are as follows: 2009 = 0.29; 2010 = 0.23; 2011= 0.16; 2012 = 0.35, and; overall = 0.30. While none of these correlations are significant probably due to the small number SUCs in the regions, the results show a positive trend on the relationship between ranks in the total cost and ranks in the percentage of failures in the LET among the regions, indicating that the higher the education cost or government support, the greater the tendency to have higher percentage of passing in the LET.

**Table 3. Annual average of estimated cost and LET passing rate**

| Region | Annual average of estimated cost (in PhP millions) | Region | Annual average of passing rate in LET (in Percent) |
|---|---|---|---|
| NCR | 126.8 | Region 7 | 60.04 |
| ARMM | 123.3 | NCR | 59.74 |
| Region 5 | 114.2 | Region 11 | 49.30 |
| Region 1 | 87.3 | Region 6 | 49.11 |
| Region 3 | 81.9 | CAR | 43.13 |
| Region 2 | 78.1 | Region 1 | 39.21 |
| Region 6 | 78.0 | Region 5 | 38.46 |
| Region 8 | 77.1 | Region 3 | 32.75 |
| Region 4A | 57.2 | Region 2 | 30.30 |
| CAR | 50.5 | Region 10 | 29.74 |
| Region 9 | 45.8 | Region 8 | 29.31 |
| Region 7 | 41.4 | Region 4A | 28.55 |
| Region 11 | 39.9 | Region 9 | 26.62 |
| Region 4B | 34.5 | Region 4B | 24.50 |
| Region 10 | 32.5 | CARAGA | 24.21 |
| Region 12 | 17.5 | Region 12 | 18.73 |
| CARAGAA | 10.8 | ARMM | 14.68 |
| **Nationwide** | **1,096.5** | **Nationwide** | **35.20** |

## CONCLUSION

While the government has made significant investment in teacher education in state universities and colleges, it seems that this investment is not optimized, as a significant number of the graduates of the teacher education programs in SUCs do not meet the minimum requirement for professional teachers (passing the LET)

in the Philippines. The highest government funding goes to the National Capital Region (NCR), while the lowest government funding goes to CARAGA Administrative Region.

Albeit the weak correlation, the positive correlation between the government investment on teacher preparation and the students' success in the LET implies that teacher education graduates are likely to perform better in LET as government support to teacher preparation increases. Hence, it is sound to sustain or even strengthen the investments in teacher education in relation to the goal of enhancing the graduates' overall performance in the national licensure examination. Moreover, the results engender the formulation of funding strategies to ensure better performance of teacher education graduates in the LET.

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