

Report No: AUS14891

Republic of the Philippines

Alternative Learning System Study

Alternative and Inclusive Learning in the Philippines

May 10, 2016

GED02

EAST ASIA AND PACIFIC



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Alternative and Inclusive Learning in the Philippines

May 10, 2016

This report was prepared by a World Bank team, under the leadership and guidance of Motoo Konishi, Country Director, Philippines; Harry Patrinos, Education Practice Manager, East Asia and Pacific; Luis Benveniste, Education Practice Manager, Global and Knowledge Management; Aleksandra Posarac, Program Leader, Philippines; and Samer Al-Samarrai, Senior Economist, who led the Programmatic AAA in Education. The World Bank core team was led by Futoshi Yamauchi (Task Team Leader), Senior Economist, Development Research Group, and included Takiko Igarashi, Education Specialist; Lynnette Perez, Former Senior Education Specialist; Nicholas Tenazas, Education Specialist; and Kamanlee Suleiman, Consultant. The De La Salle University team led data collection for the National Capital Region-Plus Survey under the supervision of Marites Tiongco, Associate Professor, who also contributed to the contents of this report. The team included Catharine Adaro, Winona Bolislis, Violy Cordova, and Fe Gascon, all consultants. The team thanks Suhas Parandekar, Shwetlena Sabarwal, Peter Darvas (all peer reviewers), Harry Patrinos, Philip Purnell and Tereso Tullao for useful comments and suggestions. Corinne Bernaldez provided excellent administrative and logistical support from Manila and Anna Coronado and Van Tores provided administrative support from the World Bank headquarters.

The preparation of this report greatly benefitted from the excellent support provided by the Philippine government authorities in the Central Office of the Department of Education and, in particular, the Bureau of Alternative Learning System, through the leadership of Directors Carolina Guerrero, Edel Carag and Sevilla Panaligan. The Bureau of Alternative Learning System also funded and conducted the National Monitoring and Evaluation data collection, which was intensively used by the team to formulate this report. Many useful discussions with staff in the Bureau of Alternative Learning System substantially contributed to the contents of this report. Special thanks is given to Ms. Melissa Albino, who served as the main coordinator from the DepEd side and provided excellent technical and logistical support to the study.

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ABBREVIATIONS AND ACRONYMS

A&E	Accreditation and Equivalency
AAR	adjusted accomplishment rate
ADB	Asian Development Bank
ADM	alternative delivery mode
ALS	Alternative Learning System
AR	accomplishment rate
ARMM	Autonomous Region in Muslim Mindanao
BALS	Bureau of Alternative Learning System
BEIS	Basic Education Information System
BLP	Basic Literacy Program
BPOSA	Balik-Paaralan Para sa Out-of-School Adults
CAR	Cordillera Administrative Region
DALSC	district ALS coordinator
DepEd	Department of Education
EL	elementary level
ES	elementary school
FLEMMS	Functional Literacy, Education and Mass Media Survey
GTAPR	gross target age participation rate
HH	household
HS	high school
ILA	Individual Learning Agreement
IM	instructional manager
K-12	Kindergarten to Grade 12
LF	learning facilitator
LFS	Labor Force Survey
LIS	Learner Information System
LV	literacy volunteer
M&E	monitoring and evaluation
MIS	Management Information System
MT	mobile teacher
NAT	National Achievement Test
NCR	National Capital Region
NER	net enrollment rate
NFE	non-formal education
NSO	National Statistics Office
OBS	observations
OSYA	out-of-school youth and adults
PHP	Philippine peso
PLFR	potential learner-facilitator ratio
POPCEN	Population Census
PSA	Philippine Statistics Authority
PTR	pupil-teacher ratio
RPL	recognition of prior learning
SL	secondary level
TAPR	target age participation rate
TEEP	Third Elementary Education Project

TP	target population
TPR	target age participation rate
TTTR	total test taker rate
UIS	UNESCO Institute of Statistics
UNESCO	United Nations Educational, Scientific, and Cultural Organization
USD	U.S. dollar

1 EXECUTIVE SUMMARY

The Philippines has made remarkable progress in improving the quality of basic education in recent decades. Even so, despite significant improvements in primary and secondary education, the number of students who drop out of school remains worryingly high. More than five million youths have failed to complete a basic education (elementary and high school).¹

Alternative Learning System (ALS) is a second-chance, informal education program operated by the Department of Education (DepEd) for out-of-school youths and adults.² This report aims to assess the current implementation of ALS using a variety of sources³, including recent surveys, and analyzes (a) the target populations, (b) current beneficiaries, (c) delivery modes (with a focus on learning facilitators' contracting schemes), and (d) labor market returns to ALS.

Only a small proportion of the target population are enrolled in the ALS program. In 2014, only 10 percent of potential ALS learners were in the program.⁴ In fact, two-thirds of the target population (age 16-26) are currently employed.⁵ What is needed is an intervention policy to reduce the opportunity costs for these potential learners through a scholarship or conditional cash transfer, easing their participation in ALS or in an alternative program such as the Alternative Delivery Mode (ADM).

The first target group for ALS are students who drop out of high school for financial reasons.⁶ Students who leave school for financial reasons are the most likely group to enroll in ALS, complete the program, and pass the A&E test. For these students, dropping out of school is seldom related to ability or learning commitment. Students who stop school for marriage/pregnancy or behavioral reasons, however, are the least likely to enroll and succeed in ALS.

Performance-based payment is expected to improve performance.⁷ Revealingly, the study found no clear difference in work efficiency of learning facilitators who are directly employed by DepEd (DepEd-delivered facilitators) and those who are contracted under DepEd (DepEd-procured facilitators). Introducing performance-based payment, particularly to DepEd-procured facilitators, may create effective work incentives and improve learning outcomes. Currently,

¹ See Section 2.2 "Estimation Of The ALS Target Population Size"

² See Section 7.1 (Appendix) "Evolution Of The Alternative Learning System"

³ The findings reported are based on a variety of data sources of (i) recent national household surveys conducted by the Philippines Statistics Authority, namely the Functional Literacy, Education, and Mass Media Survey and Labor Force Survey (See Section 7.1 for its complete details) and (ii) two unique surveys that collected comprehensive information on the characteristics of the Alternative Learning System. These surveys are: (a) the ALS NCR-Plus Survey conducted in selected areas in NCR and Region 4A by the World Bank and (b) the ALS M&E National Data Collection conducted across the Philippines by the Department of Education. The details of these surveys are included in Chapter 3, Chapter 4, and Chapter 5 of the report.

⁴ See Section 7.3 (Appendix) "Performance Measurements"

⁵ See Section 2.2.7 "Ages 16-26: Basic Characteristics"

⁶ See Section 3.3 "Who Enrolls In And Completes ALS And Passes The A&E Secondary Test?"

⁷ See Section 4.5 "Relationship Between Performance And Willingness To Choose Performance-Based Payments"

DepEd-procured learning facilitators are paid substantially less than DepEd-delivered learning facilitators, regardless of individual effort and performance. However, DepEd-delivered facilitators have more teaching experience than procured facilitators, which generally improves teaching effectiveness and performance. The study found that learning facilitators prefer performance-based payment if they have performed well.

The current arrangement for monitoring activities within the ALS program can be improved.⁸ Monitoring activities performed by different supervisors from national and sub-national education management tiers are not well coordinated. Similarly, District ALS Coordinators (DALSC), who monitor other learning facilitators, perform less well than other facilitators for teaching learners in the field. Their dual role in teaching learners and monitoring facilitators needs to be reconsidered.

Labor market returns to ALS are significant only when learners successfully pass the Secondary A&E exam.⁹ The current pass rate, however, is very low, around 20 percent, which exacerbates the low enrollment observed in the ALS program since the present low pass rate means low expected returns in the future.

Small class size (fewer than 40 learners per facilitator) is more efficient.¹⁰ The report finds an inverse relationship between class size and the A&E pass rate, showing that a reduction in class size (below 40 learners per facilitator) significantly increases the A&E pass rate. Regardless of whether facilitators are DepEd-delivered or DepEd-procured, reducing the number of learners to below 40 per facilitator is a key instrument for improving A&E pass rates.

A holistic approach is required for a socially efficient solution for students who do not complete school and those who are at high risk.¹¹ In particular, a coordinated effort to harmonize ALS and ADM could present all options to school dropouts and non-completers. In the current setting, where grades 11 and 12 are newly introduced at high school in 2016, ADM could be more effective covering new senior high school curricula as the program is directly offered by (selected) high schools to address the learning needs of the marginalized students, those most at risk of dropping out as well as those who have stopped schooling. While redesigning the A&E examination and upgrading the contents of the ALS Secondary program, it is important to redefine the priority target populations for ALS and ADM based on their comparative advantages.

An expansion of ALS may distort incentives among students currently in school. Given the magnitude of the ALS target youth (ranging between five and six million), an expansion of ALS programs is needed to offer a second chance to those who did not start school or failed to complete it. The study accepts that an expansion of the program may not be an ideal solution, since the expansion itself may distort incentives among students currently in school. For example, those who are currently at high risk of dropping out might view a second chance as a

⁸ See Section 4.6 “Monitoring Activities”

⁹ See Section 5.4 “What Increases Earnings? Enrollement, Completion, Passing the A&E Test? ”

¹⁰ See Section 4.2 “Learner Size And Learning Outcomes”

¹¹ See Section 6.2 “Future Research Issues”

reason to postpone graduating. Indeed, they might see ALS as an easy path to a diploma and, therefore its expansion would have the unintended consequence of increasing the dropout rate. However, we believe that students who were deprived of basic education opportunities for any reason including conflicts and violence deserve a second chance and that ALS is their best hope for continuing and completing their schooling.

Early intervention guarantees greater returns. Though different programs need to be well coordinated, the most effective remedies are those that are applied when learners are still in school. In education, as in medicine, an ounce of prevention is worth a pound of cure.

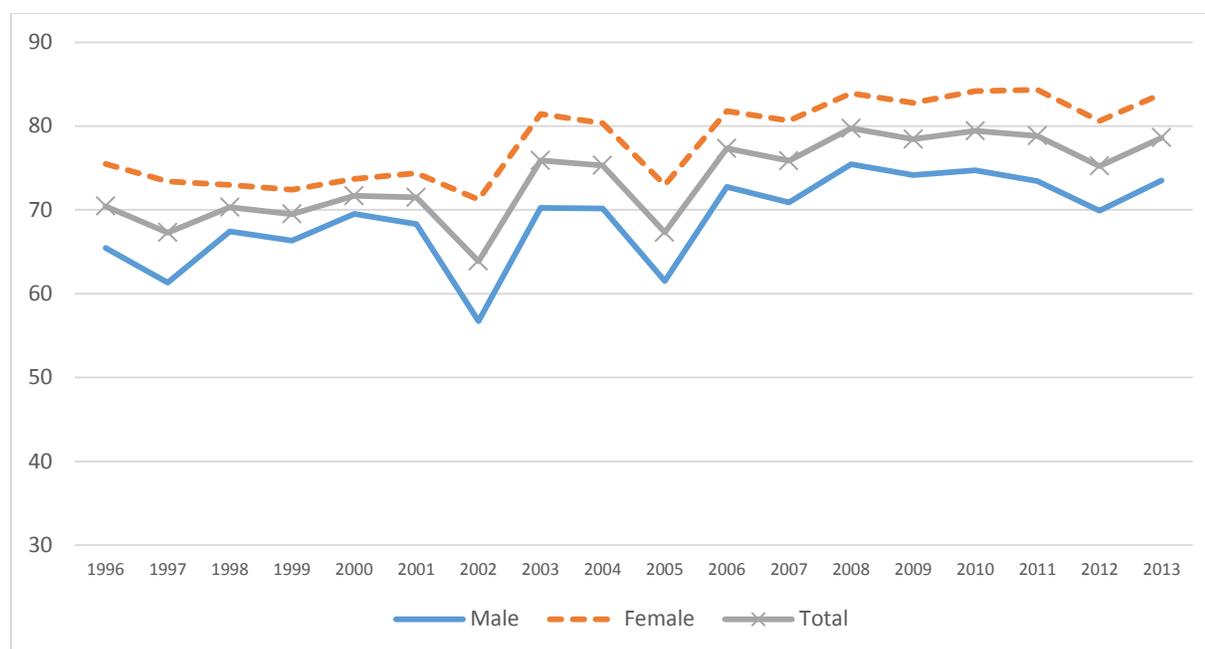
2 TARGETS¹²

2.1 PHILIPPINE SCHOOL SYSTEM

The necessity of having a second-chance program to certify educational attainment outside the formal school system in the Philippines comes from a unique feature of the system itself. The Philippines made remarkable progress in improving the quality of basic education in the past decades, demonstrated in various indicators, but at the same time, the system has faced many challenges. One of the nearly chronic problems observed in the past decades is the high school dropout rate.

The system observes a relatively high proportion of dropouts (or non-completers, interchangeably) at the secondary stage. It is also noteworthy that prior to the introduction of the K-to-12 Reform (scheduled to be implemented at full scale in mid-2016), the country's basic education is only 10 years, in which elementary (primary and intermediate) and high schools require six and four years, respectively. Thus, high school dropouts are ages 12–16, normally regarded as young teenagers who still have not acquired enough knowledge and skills to be competent in the labor market.

Figure 2.1: High School Year 4 Students' Cohort Survival Rate in 1996–2013 (%)



Source: BEIS, Department of Education.

Figure 2.1 shows the cohort survival rate of high school year 4 (grade 10) students in recent years. The figure shows that the magnitude of non-completers at the high school level is high in the Philippines, in addition to the relatively low enrollment rate at the high school level. Even in recent years, more than 20 percent of new students in high school cannot reach the fourth year. There has been a persistent gap between female and male students; female students perform consistently better than male students. A

¹² This section is drawn upon a policy note: Igarashi, T. and F. Yamauchi, 2015a, The Estimation of Philippine Alternative Learning System Target Population, Policy Note, World Bank.

couple of reasons are thought to be relevant in the Philippine context to explain the high prevalence of high school dropouts.

First, the 10-year span of the country's basic education cycle inevitably condenses standard basic education curriculums within a relatively short period, especially at the four-year high school stage, to produce a labor force that is technically competent in the industrialized world.

Second, as discussed in the next subsection, labor market earnings are not expected to increase substantially even with high school completion at age 15 or 16. This fact discourages teenagers, especially males, from staying in school. High (low) incidence of male (female) dropouts in high school is consistent with the returns structure in which females' marginal returns to schooling are higher than males' (increasing more steadily with educational attainment).

Third, the quality of the public school education that is available to the majority is generally much lower than that of private schools, where relatively few families can send their children.

Last but not least important, because of the relatively large income inequality in the country and high prevalence of poverty, the main reason for dropping out of school is always financial. However, long-lasting conflicts and violence in certain areas, such as the Autonomous Region of Muslim Mindanao and many areas in its surrounding regions in Mindanao, have deprived children of the opportunity to study in school under stable conditions.

A mirror image of the high prevalence of high school dropouts, now and past, is potentially the large number of people who wish to complete high school, outside the formal school system, to increase their prospects and be productive in the economy. This is exactly the area of hope that the Alternative Learning System (ALS) program addresses in the Philippines. As section 2.2 clarifies, the number of beneficiaries of the program has reached 4.5 million to 5.5 million, in the population ages 15 to 26 years, which is equivalent to the population size of a small country, such as Denmark, Lao People's Democratic Republic, or Singapore.

2.2 ESTIMATION OF THE ALS TARGET POPULATION SIZE

2.2.1 How Can the ALS Target Population Be Defined?

In principle, the Alternative Learning System (ALS) programs are open to anyone who meets the eligibility condition, which is only the age restriction at entry. The Accreditation and Equivalency (A&E) Elementary and Secondary Programs accept anyone who is above the school age of formal elementary and secondary education, respectively, but has not achieved the final years at each school cycle as mandated by the Philippine Constitution.

ALS implementers conduct a literacy mapping exercise once a year to identify potential learners in each community who may benefit from the ALS programs. ALS implementers carry out this mapping exercise in each municipality by visiting individual houses and interviewing individuals to assess their literacy levels. The results are reported each year. However, since the scale of this activity is rather limited (only a small number of barangays are covered in each municipality), it is difficult to figure out the actual size of the ALS target population at the macro level only from the literacy mapping. In addition, it is almost impossible to trace children and youth once they leave the formal school system under the current education information system. That is, it is difficult to capture out-of-school youth.

In this section, we first define the ALS target population using recent national household survey data and criteria to define the target population based on the highest educational attainment and literacy level. First, those who have not completed elementary school, are not currently attending school, but have already reached age 12 or above are defined as the ALS A&E elementary-level target population. Similarly, those who have not completed high school, are not currently attending school, but have already reached age 16 or above are defined as the ALS A&E secondary-level target population. Although in some cases school age children are admitted to the ALS programs, the analysis enforces the school age criteria to estimate a lower bound on the target population. Second, using literacy skills-based criterion, we define those who lack not only basic literacy, such as reading and writing, but also functional literacy skills (including computation and comprehension) as the target population.¹³

Another important condition we impose is an upper age limit. Using wage statistics from the Labor Force Survey, we calculated discounted sums of the benefits and costs of completing high school by attending the ALS Secondary Program (Figure 2.2). The cost is assumed to be foregone income (wages) for high school non-completers. The net benefit is the wage gap between high school completers and non-completers at different ages. Figure 3.1 identifies ages 26–27 years as the threshold above which people do not see dynamic gains from high school completion, as the sum of discounted future benefits is lower than the current opportunity cost. From this calculation, we conclude that the target population should be defined as below age 26 (inclusive). Surprisingly, the current implementation does not set such a threshold age when approaching potential beneficiaries, probably because the mandate of ALS, among many, is to develop life skills among those who were deprived of educational opportunities regardless of their age, but strategic targeting based on calculations of benefits and costs on the user side enriches the discussion on the budget allocation.

Figure 2.2: Estimated Upper Age Limit for the ALS Target Population



Source: Labor Force Survey 2011.

¹³ In this area, there are some delicate discrepancies between the Bureau of Alternative Learning System and the National Statistics Office definitions on basic and functional literacy.

Note: Future gains are the average wage gaps, calculated at different ages, between high school non-completers and completers. Ages in the five-year intervals shown in the graph are used with the annual discount factor of 0.96. The opportunity cost is the average wage for high school non-completers at different ages. A&E = Accreditation and Equivalency; PHP = Philippine peso. We assume that the A&E Secondary pass rate is 20 percent.

2.2.2 What Data Can We Use to Estimate the ALS Target Population?

In estimating the size of the ALS potential learner population in the Philippines, we use Functional Literacy, Education, and Mass Media Survey (FLEMMS) data.¹⁴ FLEMMS is a national survey that collects information not only on the latest educational status, mass media exposure, employment, and socioeconomic conditions of Filipinos, but also provides a basic assessment in five levels of the literacy of individuals aged 10 to 64 years.¹⁵ The survey is conducted by the Philippines Statistics Authority, in collaboration with the Department of Education (DepEd) and other government agencies every five years. FLEMMS 2008 and 2013 are used in the analysis in this study.¹⁶

2.2.3 Estimation Using Education Levels

First, we estimate the size of the ALS target population by educational attainment level. Figure 2.3 summarizes the sequential flows that define the target population at each school cycle.

In the initial step, we set lower age limits to omit people who have not reached the standard completion ages for elementary and high school in the Philippines. These lower age limits do not reflect the recent school reform to expand the years of schooling of basic education, known as the K to 12 Program.¹⁷

We then focus on those who have never attended school or completed any grade in the first stage. It is fairly safe to assume that this group of the population is likely to lack even basic cognitive skills. They are thus classified as the potential target group of the Basic Literacy Program (BLP), the most basic ALS program.

In the second stage, we group those who have ever attended school based on their attainment level and current schooling status. Those who have stopped or dropped out before completion of elementary and high school and are currently out of school are classified as the ALS target population, specifically those for ALS A&E for the Elementary Level or Secondary Level program. In addition, those who have completed elementary school but discontinued high school are also classified as the ALS A&E secondary-level target population.

In the final step, we define a “group at high risk” among those who are currently enrolled. This high-risk group includes those who are currently in the school system but are already older than the standard completion age at each school cycle by two years or more. Whether or not the high-risk group is included in the ALS target population is a policy option. Conceptually, the magnitude of such a high-risk group, either by repeating grades, temporarily dropping out, or starting schooling late, points to the inefficiency of the education system.

¹⁴ The original data sets used in the analysis were purchased from the Philippines Statistics Authority (<https://psa.gov.ph/content/functional-literacy-education-and-mass-media-survey-flemms>).

¹⁵ See Erica and Collado (2010).

¹⁶ PSA, “FLEMMS 2008 Data Description,” <https://census.gov.ph/nsoda/index.php/catalog/85/study-description#page=sampling&tab=study-desc>.

¹⁷ The target cohort of this study was not affected by the K-12 program. For information on the K-12 program, see <http://www.deped.gov.ph/k-to-12>.

Figure 2.3: Approach to Estimate the ALS Target Population Using Education Levels

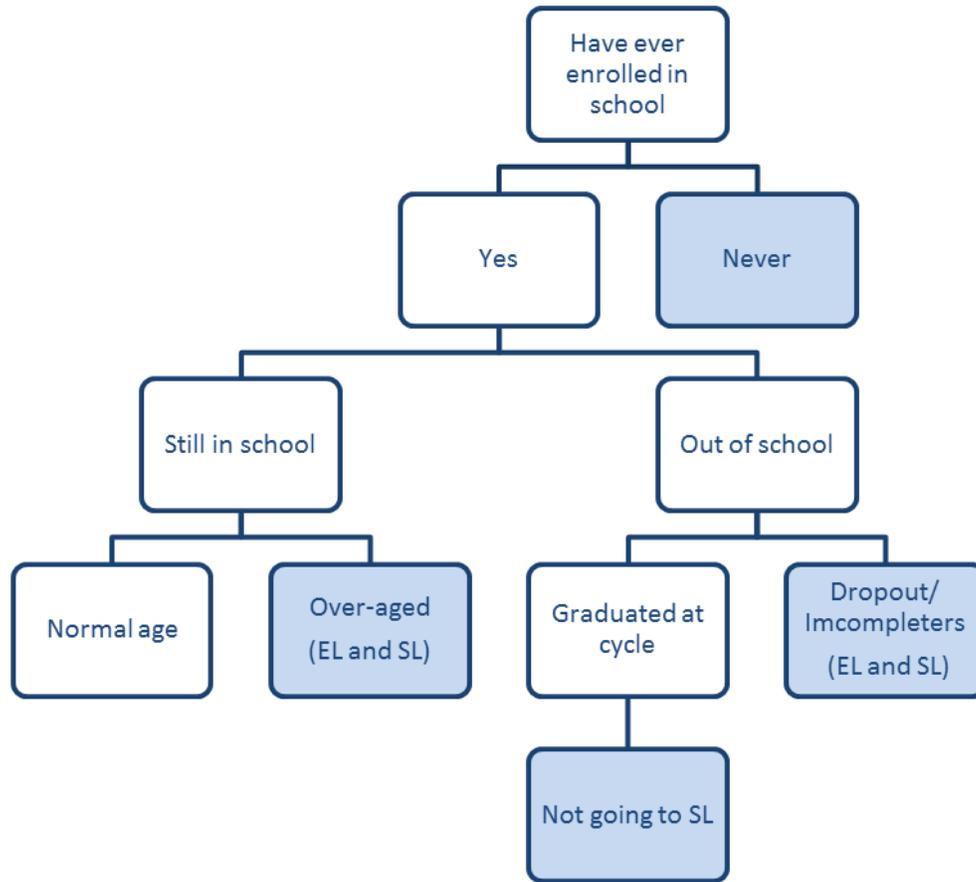


Table 2.1 summarizes the results for the ALS target population estimation based on educational attainment level using the 2008 and 2013 FLEMMS data. FLEMMS 2013 does not cover Region 8 because of the impact of Typhoon Yolanda. This exclusion affects the estimation using the 2013 data, resulting in an underestimation of the target population in 2013 (see the appendix).

By restricting the upper limit to age 26 years (inclusive), the ALS target population was about 5.5 million in 2008 and 4.8 million in 2013. On the surface, the proportion of the population age 26 years or younger in the total population declined from 20 to 17 percent over five years, but this could be largely explained by the exclusion of Region 8 in 2013.

Those who are already over age 26 do not find the ALS Secondary Program as an attractive investment, based on the comparison of future benefits from labor market earnings and the current cost of attending the ALS program. For reference, table 3.1 also shows “potential target populations” (by using the same criteria) above age 26. The table implies that the target population older than age 26 increased in the country, once the exclusion of Region 8 is taken into account.

Table 2.1: Estimated ALS Target Population Estimated by Education Attainment Level, 2008 and 2013

ALS Program	Highest education level attained	2008		2013	
		Ages 12–26	Ages 27–64	Ages 12–26	Ages 27–64
BLP	No grade completed	314,492	1,048,625	211,258	790,543
A&E elementary level	ES non-completers	1,753,475	4,833,763	1,332,342	4,460,267
A&E secondary level	ES completers	1,232,590	5,724,582	1,095,671	5,181,197
	HS non-completers	2,221,933	4,373,554	2,136,402	4,771,389
Total ALS TP		5,522,488	15,980,523	4,775,673	15,203,396

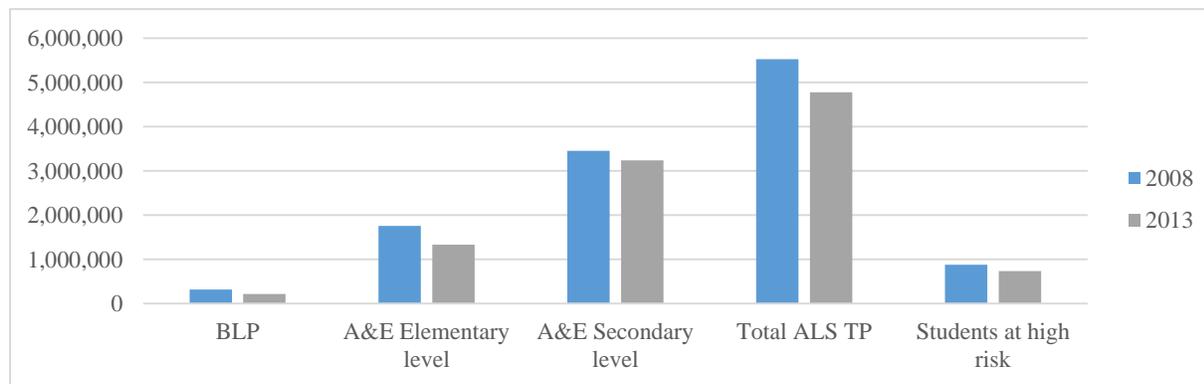
Source: 2008 FLEMMS and 2013 FLEMMS.

Note: A&E = Accreditation and Equivalency; ALS = Alternative Learning System; BLP = Basic Literacy Program; ES = elementary school; HS = high school; TP = target population.

The overall ALS target population younger than age 26 decreased by 13 percent between 2008 and 2013 (figure 3.3). The reduction was particularly large in the BLP target population (33 percent) and the A&E Elementary Program (24 percent), both perhaps related to improved efficiency in primary education. However, the reduction was relatively small in the A&E Secondary Program target population, which still faces challenges such as the low progression from elementary school and the high dropout rate in high schools.

The existence of students at high risk who may continuously fuel the target population also needs urgent attention. In our estimation, the high-risk group at the elementary level was around 0.84 million in 2008 and 0.73 million in 2013. The high-risk population has decreased but at a slower pace than the other categories (Figure 2.4).

Figure 2.4: ALS Target Population Estimated by Education Level (Ages 12–26 Years Only), 2008 and 2013



Source: 2008 FLEMMS and 2013 FLEMMS.

Note: A&E = Accreditation and Equivalency; ALS = Alternative Learning System; BLP = Basic Literacy Program; TP = target population.

2.2.4 Estimation Using Literacy Levels

Second, we use literacy skill levels to estimate the ALS target population. The FLEMMS data provide information on individual literacy skills, differentiated by five levels. Each individual between ages 10

and 64 in the sample households received a direct assessment by reading and writing a short passage and solving basic mathematics problems, and was scored by the enumerators. The scores are translated into five levels to indicate literacy skills as follows:

Level 0: Cannot read and write

Level 1: Can only read and write

Level 2: Can read, write, and compute

Level 3: Can read, write, compute, and comprehend

Level 4: Graduated from high school or completed a higher level of education.

The notion of “basic and/or functional literacy” is still evolving globally, and there has been no clear consensus about how literacy skills can be measured quantitatively. There are gaps between BALS and the National Statistics Office (NSO) in defining basic (or simple) and functional literacy skills using the information collected in FLEMMS. NSO defines basic and functional literacy skills as follows:

Basic or simple literacy is the ability to read and write, and understand a simple message in any language or dialect. The basic literacy status of an individual can be determined based on the respondent’s answer to the question “Can ___ read and write a simple message in any language or dialect?”

Functional literacy is a significantly higher level of literacy, which includes not only reading and writing skills, but also numeracy skills. The skills must be sufficiently advanced to enable the individual to participate fully and efficiently in activities commonly occurring in his/her life situation that require a reasonable capability of communicating by written language.

The Bureau of Alternative Learning System (BALS) of DepEd defines both literacy skills more comprehensively:

Basic literacy is an educational objective to enable a person to attain basic skills in reading, writing, speaking and listening, and numeracy.

Functional literacy (conceptual definition) is a range of skills and competencies—cognitive, affective, and behavioral—which enable individuals to live and work as human persons, develop their potential, make critical and informed decisions, and function effectively in society within the context of their environment and that of the wider community (local, regional, national, and global) to improve the quality of their life and that of society.

Functional literacy (operational definition) is a set of skills with which a person must be able to communicate effectively; solve problems scientifically, creatively and think critically; use resources sustainably and be productive; develop oneself and a sense of community; and expand one’s world view.

The NSO definition is narrower than the BALS definition as to the way to handle those who lack functional literacy, which implies that the NSO definition may lead to potential underestimation of the target population. Using the FLEMMS literacy scales, levels 0 and 1 fall into the ALS target population under the NSO definition, but a higher level can also be included under the BALS/DepEd definition. In this study, we adopt a broader definition by using the BALS/DepEd definition to estimate the ALS target population size.

Figure 2.5 shows a flow chart that defines the target population by literacy skills. In addition to literacy skills, we also used lower and upper age limits and current schooling status. Those who are younger than the standard school starting age for elementary education are excluded from the estimated ALS target population. Similarly, those who are currently attending school are excluded.

Figure 2.5: Approach for Estimating the ALS Target Population Based on Literacy Skill Levels

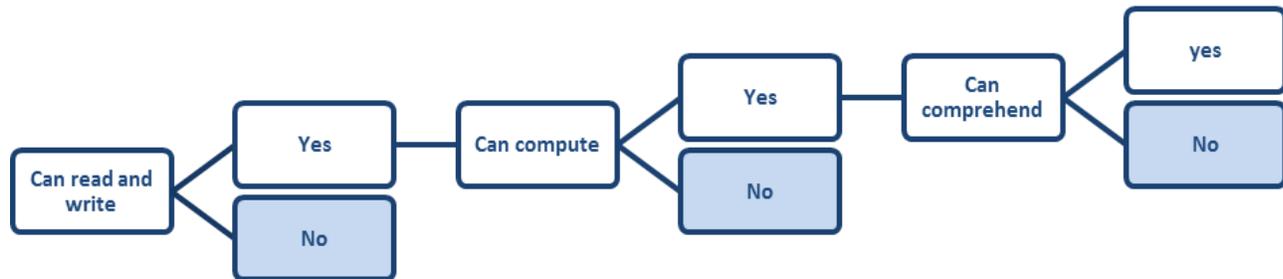


Table 2.2 summarizes our estimation results. Despite possible estimation errors caused by the FLEMMS indicators not fully corresponding to the BALS/DepEd literacy definitions and the resulting underestimation, we reach about 5.8 million in 2008 and about 4.9 million in 2013 (by using the same age threshold adopted in the educational attainment–based estimation), constituting 21 and 18 percent of the population younger than age 26, respectively. In essence, age limits are not required to do illiteracy-based estimations by definition, but the estimation reported in the table uses age 26 as the upper bound for comparison purposes.¹⁸ Interestingly, the literacy-based estimate is quite similar to the estimate based on education attainment, and it also decreased between 2008 and 2013 (Figure 2.6). Again, it is important to note that the 2013 data do not include Region 8, which might have substantially reduced the estimated population size for that year.

Table 2.2: Estimated ALS Target Population Using Literacy Skill Levels, 2008 and 2013

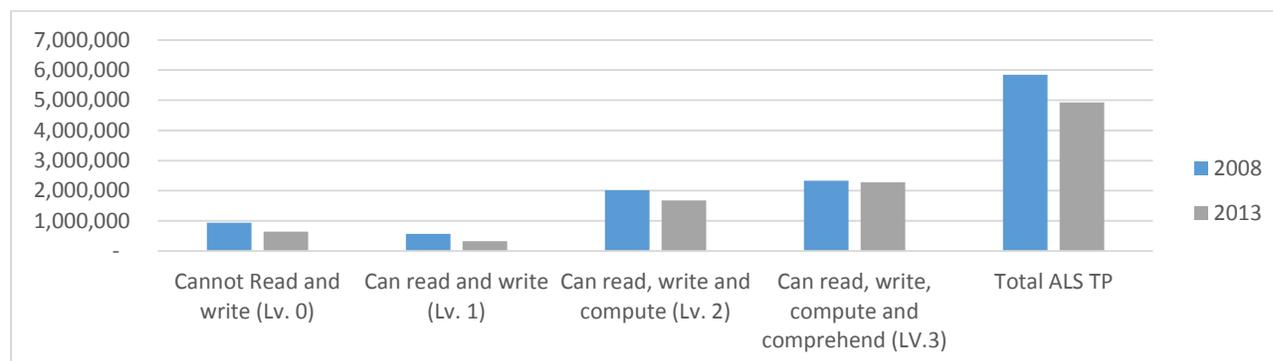
FLEMMS literacy indicator	Literacy	2008		2013	
		Ages 12–26	Ages 27–64	Ages 12–26	Ages 27–64
Cannot read and write (Lv0)	Basic illiterates	940,031	2,859,095	643,324	2,285,283
Can read and write (Lv1)	Functional illiterates	563,356	1,492,678	329,479	1,077,331
Can read, write and compute (Lv2)		2,013,724	5,241,909	1,678,878	5,338,898
Can read, write, compute and comprehend (Lv3)		2,328,327	5,682,405	2,273,682	6,035,078
Total ALS TP		5,845,438	15,276,087	4,925,363	14,736,589

Source: 2008 FLEMMS and 2013 FLEMMS.

Note: ALS = Alternative Learning System; FLEMMS = Functional Literacy, Education, and Mass Media Survey; TP = target population.

¹⁸ It is difficult to identify a similar age threshold above which future benefits are lower than current costs to acquire functional literacy.

Figure 2.6: ALS Target Population Estimated by Literacy Skill Level (Ages 12–26 Years Only)



Source: 2008 FLEMMS and 2013 FLEMMS.

Note: ALS = Alternative Learning System; FLEMMS = Functional Literacy, Education, and Mass Media Survey; TP = target population.

2.2.5 Regional Allocation

Table 2.3 shows the potential beneficiaries in the 16 regions in the Philippines. About 25 percent of total potential learners are concentrated in Regions III and IV-A.

Table 2.3: ALS Target Population by Age Group and Region (2008)

Region	Age 5-15		Age 16-26		Age 27 and above	
	2008		2008		2008	
I - Ilocos	55,703	2%	191,249	4%	911,297	5%
II - Cagayan Valley	75,438	3%	203,363	4%	791,923	4%
III - Central Luzon	197,576	9%	431,984	9%	1,883,596	10%
IVA - CALABARZON	139,194	6%	355,795	7%	1,326,675	7%
V - Bicol	202,156	9%	412,286	8%	1,540,612	8%
VI - Western Visayas	194,985	9%	396,639	8%	1,630,144	9%
VII - Central Visayas	131,897	6%	317,840	6%	1,118,170	6%
VIII - Eastern Visayas	132,177	6%	248,296	5%	765,186	4%
IX - Zamboanga Peninsula	112,554	5%	305,232	6%	888,887	5%
X - Northern Mindanao	140,732	6%	348,555	7%	969,129	5%
XI - Davao	135,853	6%	272,114	5%	860,416	5%
XII - SOCCSKSARGEN	126,489	6%	376,802	8%	1,307,984	7%
		1%		1%		2%

National Capital Region	25,915		68,003		287,958	
Cordillera Administrative Region	243,516	11%	300,572	6%	950,534	5%
ARMM	61,986	3%	159,155	3%	505,398	3%
XIII - Caraga	190,407	8%	456,437	9%	2,006,094	11%
IVB - MIMAROPA	97,584	4%	174,898	3%	659,600	4%
Total	2,264,161	100%	5,019,220	100%	18,403,602	100%

2.2.6 Ages 16–26: Gender Distribution by Region

Table 2.4 shows the distribution of the age 16 to 26 target population by region. Male and female potential learners are distributed in a similar manner, but the number of female potential beneficiaries is approximately 34 percent of the male counterpart.

Table 2.4: TP Ages 16–26 by Gender and Region (2008)

Region	Male		Female		Total
I - Ilocos	128,689	4%	62,560	3%	191,249
II - Cagayan Valley	139,550	4%	63,813	3%	203,363
III - Central Luzon	281,439	9%	150,545	8%	431,984
IVA - CALABARZON	293,378	9%	163,060	9%	456,438
V - Bicol	233,083	7%	122,712	7%	355,795
VI - Western Visayas	288,632	9%	123,654	7%	412,286
VII - Central Visayas	248,429	8%	148,210	8%	396,639
VIII - Eastern Visayas	205,752	6%	112,088	6%	317,840
IX - Zamboanga Peninsula	158,371	5%	89,926	5%	248,296
X - Northern Mindanao	190,132	6%	115,100	6%	305,232
XI - Davao	213,984	7%	134,571	7%	348,555
XII - SOCCSKSARGEN	155,324	5%	116,790	6%	272,114
National Capital Region	207,719	7%	169,084	9%	376,802
Cordillera Administrative Region	43,817	1%	24,185	1%	68,003
ARMM	162,157	5%	138,415	8%	300,572
XIII - Caraga	110,374	3%	48,781	3%	159,155
IVB - MIMAROPA	113,904	4%	60,994	3%	174,898

Total	3,174,733	100%	1,844,488	100%	5,019,220
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2.2.7 Ages 16–26: Basic Characteristics

Tables 2.5 to 2.9 provide detailed characteristics of the target population, with the non-target group as reference, by gender, marital status, family status, employment, and basic literacy skills.

Table 2.5: Gender (2008)

	Male		Female		Total	
No-target	6,203,422	46%	7,358,776	54%	13,562,198	100%
Target	3,174,733	63%	1,844,488	37%	5,019,220	100%

Table 2.6: Marital Status (2008)

	Single		Married		Total	
No-target	11,264,871	83%	2,297,327	17%	13,562,198	100%
Target	3,651,499	73%	1,367,722	27%	5,019,220	100%

Table 2.7: Having a Child or Not (2008)

	No child		With child(ren)		Total	
No-target	12,970,081	96%	592,117	4%	13,562,198	100%
Target	4,415,146	88%	604,074	12%	5,019,220	100%

Table 2.8: Employment Status (2008)

	Not employed		Employed		Total	
No-target	8,209,644	61%	5,352,555	39%	13,562,198	100%
Target	1,631,952	33%	3,387,268	67%	5,019,220	100%

Table 2.9: Basic Literacy Skills (2008)

	Not able to read/write		Able to read/write		Total	
No-target	3,697	0%	13,558,501	100%	13,562,198	100%
Target	416,462	8%	4,602,759	92%	5,019,220	100%

The tables show that the majority of the ALS target populations are male, single, childless, and likely to be currently employed. These observations point to the importance of opportunity costs in decision making about enrolling in the ALS Secondary Program. Singlehood and childless status mean that the demographic costs of enrolling in the program are relatively small. However, the fact that the majority are currently employed indicates that they would have to give up their current income to enroll in the

program. In other words, many of the youth school non-completers are facing a situation in which they have to pay economic and/or sociological opportunity costs related to their current works to finish their schooling if they decide to enroll in the ALS program. How to bring those who have relatively high opportunity costs into the program is a real challenge.

2.2.8 Out-of-School Ages 6–15: Distributions by Gender and Region

Table 2.10 shows the distribution of out-of-school children ages 6–15 by region and gender. In this group, the gender distribution by region looks different from that of the primary target group. A large female population is concentrated in the Autonomous Region of Muslim Mindanao (ARMM). Again, the absolute number of female potential learners is less than half that of male learners.

Table 2.10: Out-of-School Children and Youth Age 6–15 by Gender and Region (2008)

Region	Male		Female		Total
I - Ilocos	38,978	3%	16,725	2%	55,703
II - Cagayan Valley	45,371	3%	30,068	3%	75,438
III - Central Luzon	120,616	9%	76,960	9%	197,576
IVA - CALABARZON	104,151	8%	86,256	10%	190,407
V - Bicol	86,253	6%	52,942	6%	139,194
VI - Western Visayas	136,840	10%	65,316	7%	202,156
VII - Central Visayas	126,569	9%	68,416	8%	194,985
VIII - Eastern Visayas	83,352	6%	48,545	5%	131,897
IX - Zamboanga Peninsula	78,587	6%	53,590	6%	132,177
X - Northern Mindanao	64,301	5%	48,252	5%	112,554
XI - Davao	85,831	6%	54,901	6%	140,732
XII - SOCCSKSARGEN	82,779	6%	53,074	6%	135,853
National Capital Region	76,773	6%	49,717	6%	126,489
Cordillera Administrative Region	14,337	1%	11,578	1%	25,915
ARMM	128,201	9%	115,315	13%	243,516
XIII - Caraga	41,094	3%	20,893	2%	61,986
IVB - MIMAROPA	65,255	5%	32,330	4%	97,584
Total	1,379,284	100%	884,877	100%	2,264,162

2.2.9 Discussion

Carefully estimating the actual population size of ALS potential learners following two approaches yields slightly different figures than the conventional wisdom, clearly indicating that the target population is

relatively large. The size of the target population has been decreasing slowly over time (partly because of the exclusion of Region 8 in 2013). However, the size of the target population is around 5 million to 6 million, which is equivalent to the population size of a small country, such as Denmark, the Lao People's Democratic Republic, or Singapore. This population needs urgent policy attention (5.5 million (2008) to 4.8 million (2013) based on educational attainment and 5.8 million (2008) to 4.9 million (2013) based on literacy skills). The existence of high-risk groups that may continuously enter the target population (about 0.7 million to 0.8 million) also needs policy attention.

Given the magnitude of the ALS target population, an expansion of ALS programs seems important to offer a second chance to those who did not have a chance to enter school or could not complete their schooling. However, several delicate issues need careful consideration. First, the expansion of ALS may distort incentives among students currently in school. For example, those who are currently in high-risk groups can have a second option prematurely, losing their motivation to graduate. Second, a coordinated effort to harmonize with the alternative delivery mode (ADM) implemented by formal schools is important, so as not to distort options for school dropouts and non-completers.

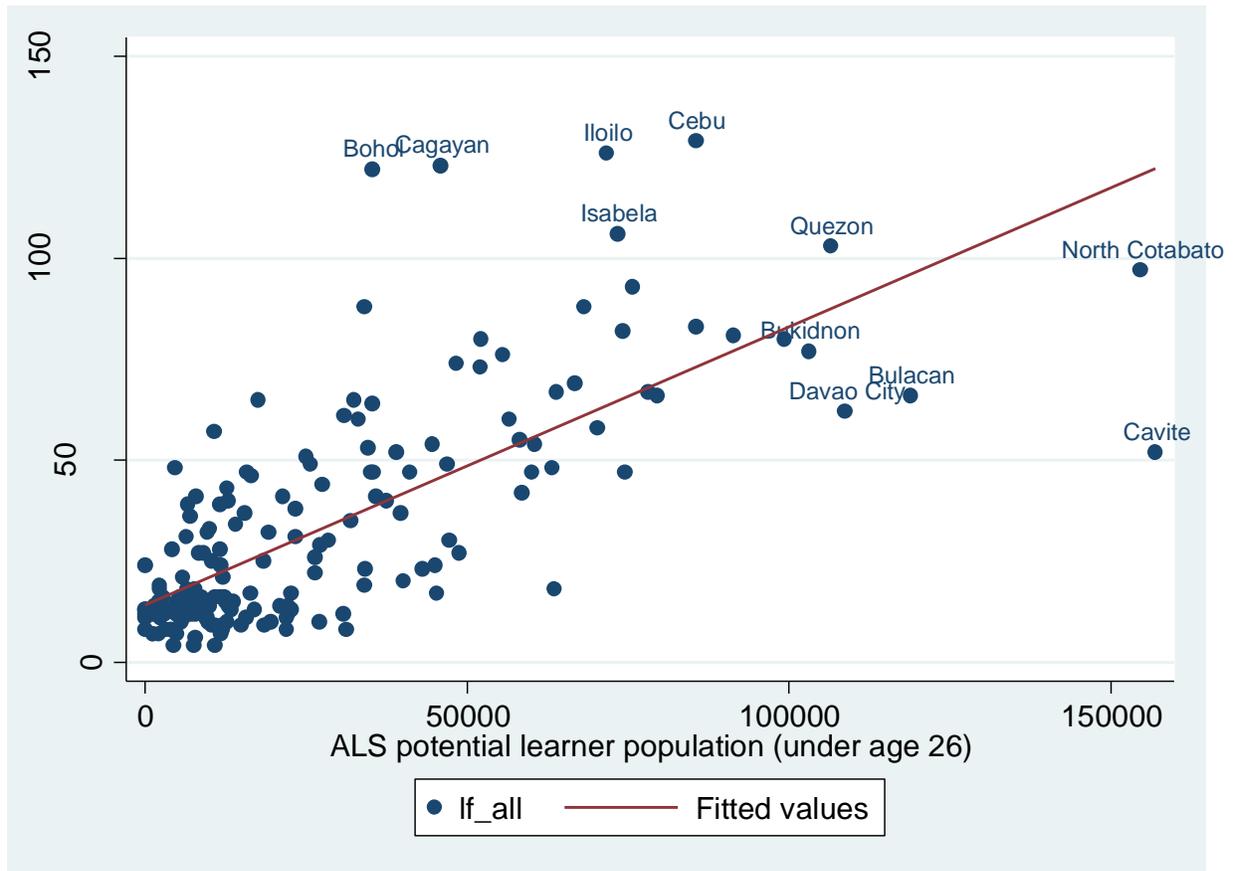
We also found that many youth school non-completers are facing the situation where they have to pay economic and/or sociological opportunity costs to finish their schooling if they decide to enroll in the ALS program. How to bring those who have relatively high opportunity costs into the program is a real challenge.

2.3 FACILITATOR ALLOCATION

2.3.1 Distribution of ALS Teachers Relative to Potential Learners

We present the relationship between the actual numbers of ALS learning facilitators (LFs) and potential learners by division.¹⁹ Potential ALS learners younger than age 26 are aggregated at the division level using the 2013 FLEMMS data. In Figure 2.7, the slope represents the ALS potential learners-to LFs ratio (PLFR) at the division level. Overall, there is a positive correlation between the numbers of LFs and potential learners, although the slope differs across divisions.

Figure 2.7: ALS LFs and TP Younger at Age 26 or Below (Division Level)



¹⁹ In our analysis, we use basic classifications provided by DepEd as follows. Note that partner-funded ALS facilitators are omitted because of the lack of information.

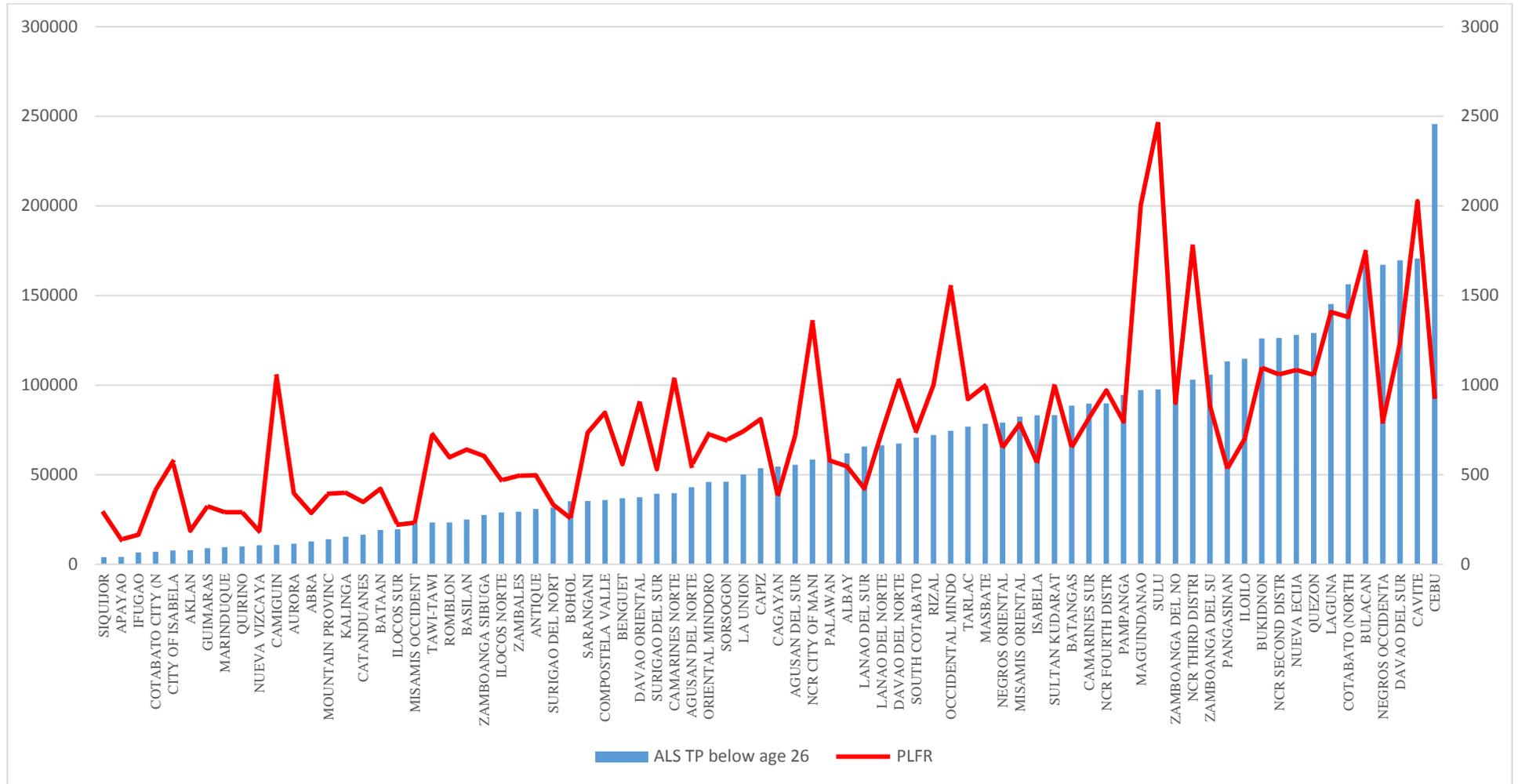
- DepEd-delivered LFs include district ALS coordinators and mobile teachers, who are directly appointed by DepEd and have permanent positions.
- DepEd-procured LFs include instructional managers and literacy, who are hired at the decentralized level using financial resources from DepEd for ALS and short-term positions.

Source: 2013 FLEMMS, 2012 BALS.

Note: ALS = Alternative Learning System; BALS = Bureau of Alternative Learning System; FLEMMS = Functional Literacy, Education, and Mass Media Survey; LFs = Learning Facilitators; TP = target population.

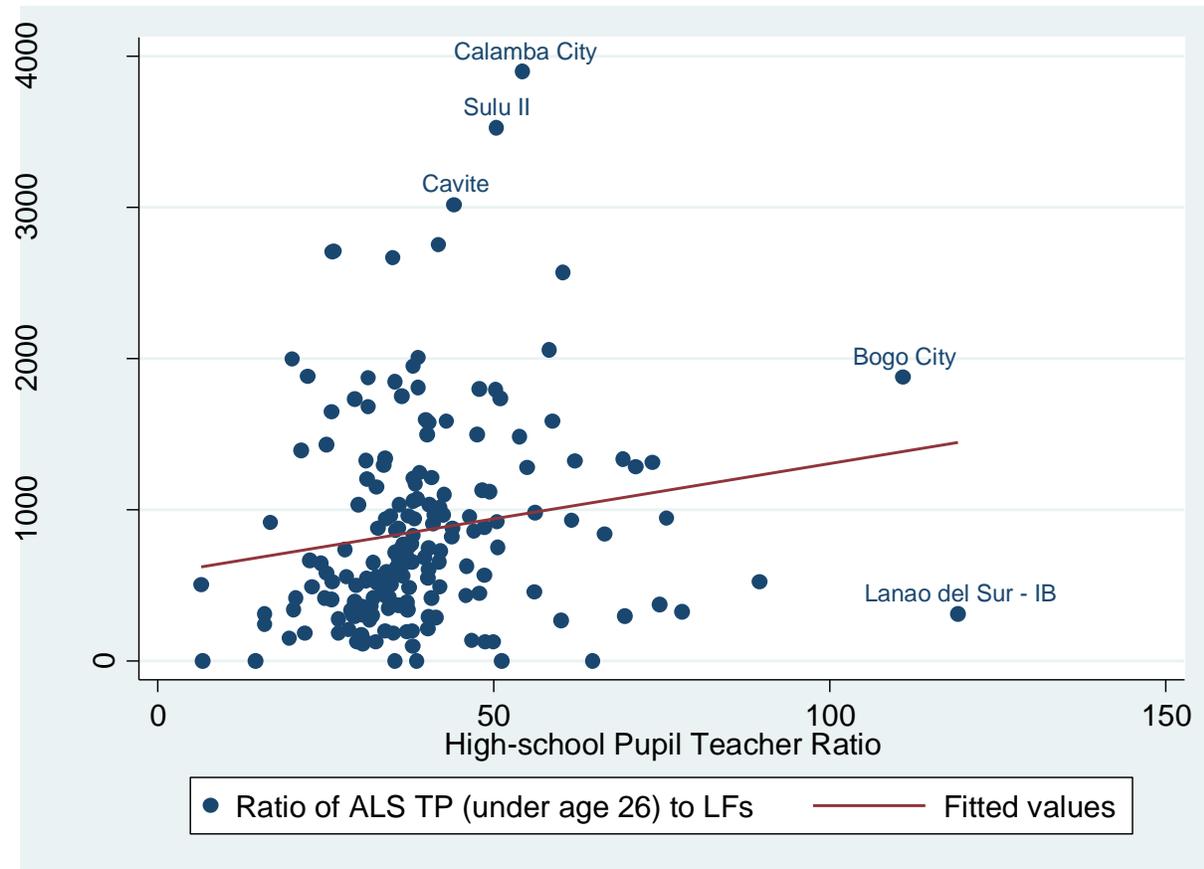
Next we compare the PLFR with the number of potential learners at the province level to present graphically the allocation of ALS facilitators (supply) relative to the demand side (Figure 2.8). Provinces are ordered by the target population size. The slope across provinces is relatively flatter for the PLFR than for the target population size, which indicates that more facilitators are allocated to provinces that have a large number of potential learners. An effort is made to equalize the burden on facilitators across provinces. However, the average PLFR remains very high, at more than 800 potential learners younger than age 26 to one facilitator in our estimation.

Figure 2.8: Potential Learner Facilitator Ratio and ALS Potential Learners (Younger Than Age 26), by Province



Next we compare pupil-teacher ratios between the ALS non-formal education and the formal school system. Figure 2.9 shows the relationship between the PLFR for ALS and the pupil-teacher ratio (PTR) in formal high schools, where each dot represents a division. There is a positive correlation, implying that in both indicators, resource rich and poor divisions show similar conditions. That is, in resource rich divisions, ALS and formal high schools are in good hands, but both are under poor conditions in resource poor divisions. In other words, there are no clear preferences for ALS or formal education at the division level under the given budget constraint.

Figure 2.9: Scatterplots of PLFR and PTR with a Fitted Line (by Division)



Source: 2013 FLEMMS, 2012 BALS.

Note: ALS = Alternative Learning System; BALS = Bureau of Alternative Learning System; FLEMMS = Functional Literacy, Education, and Mass Media Survey; LFs = learning facilitators; PLFR = potential learner-facilitator ratio; PTR = pupil-teacher ratio; TP = target population.

2.4 SUMMARY

It is important but challenging to estimate correctly the actual size of the ALS potential learner population and its trend over time in the country. Without knowing the target populations, it is difficult to improve targeting. The size of the potential learning population, that is, the beneficiaries of the ALS programs, also has a direct implication on the optimal budget (resource) allocations to support the ALS operations.

In this section, we quantified the size of the target population (interchangeably, potential learners) in 2008 and 2013 and linked it to the actual allocation (assignments) of ALS facilitators over provinces or education divisions. Our analysis shows a relatively large population that can be targeted by the ALS programs. That is, currently, around 5 million to 6 million people deserve the ALS interventions, although we also observe a decreasing trend of the target population size over time.

Many of the youth school non-completers have relatively high economic and/or sociological opportunity costs of enrolling in the ALS program. In other words, unless a policy intervention is designed to reduce their opportunity costs, we can only expect a small number to enroll voluntarily in the program. How to bring those who have relatively high opportunity costs into the program is a real policy challenge.

A coordinated effort to harmonize with the ADM implemented by formal schools is important, so that options for school dropouts and non-completers will not be distorted.

3 BENEFICIARIES

In the previous section, we estimated the population size of the ALS potential beneficiaries. Though the target population reaches more than 5 million below age 27, the ALS enrollment has remained low. Specifically, this section aims to answer the following questions:

- What are the characteristics of people who have been enrolled in ALS? What are the common characteristics of non-enrollees?
- Is there any significant difference in characteristics between ALS enrollers, non-enrollers, completers, and A&E test passers?
- Any hint to target groups who are likely to enroll and succeed? Any group who needs a policy intervention to enroll?

First, we describe the data and sample used in analysis. Second, we provide descriptive statistics about ALS enrollees compared with non-enrollees by describing their basic characteristics, formal education experience, ALS non-formal education experience, and incomes after completing ALS. Finally, we use Probit model to analyze the conditions and characteristics that affect enrollment, completion and A&E pass.

3.1 DATA AND SAMPLE

We utilize the learner and non-learner data collected in the ALS National Monitoring and Evaluation activity conducted by the Department of Education (DepEd) of the Philippines in 2014 in collaboration with the World Bank's education team. The learner/non-learner data include 1,369 individuals who are ALS former learners and non-learners originally listed in the community literacy mapping that identifies potential beneficiaries. The sample consists of 67 percent enrollees and 33 percent non-enrollees in regions except the Autonomous Region Muslim Mindanao (ARMM) region.

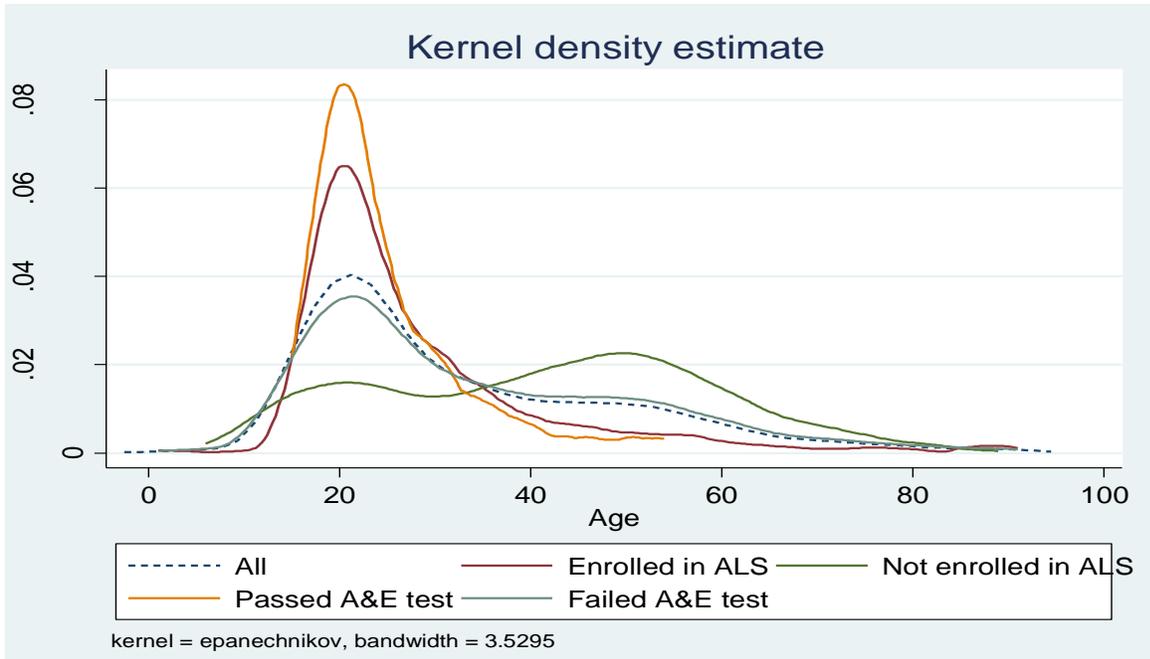
3.2 CHARACTERISTICS OF ALS BENEFICIARIES

3.2.1 Basic Characteristics of Former ALS Enrollees

We first describe basic characteristics, such as age, gender, and migration history of former ALS learners compared with non-learners.

We find that the ALS learners are significantly concentrated in the 20s to early 30s. The average age of the ALS learners is about 28 years, and that of the non-learners is about 41 years. The age distribution shows a clear contrast between enrollers and non-enrollees (Figure 3.1). By adding other groups, such as the A&E test passers and non-passers, the concentration of the young cohort becomes more significant among the passers, while non-learners and those who failed the A&E test in turn spread out evenly, similar to the ALS non-learners.

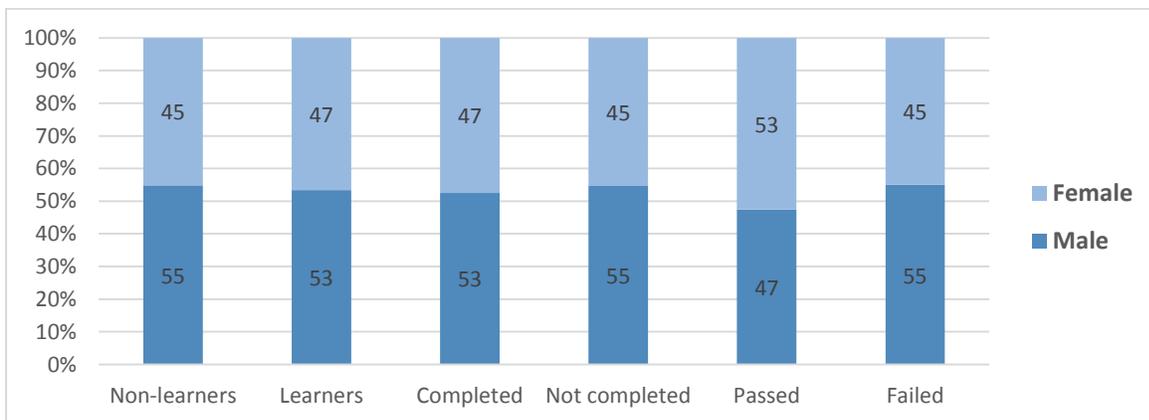
Figure 3.1: Age Distribution by Enrollees, Non-Enrollees, Passers, and Non-Passers



Note: A&E = Accreditation and Equivalency; ALS = Alternative Learning System.

Figure 3.2 shows the gender composition of the three groups: (a) ALS non-learners and learners; (b) ALS completers and non-completers; and (c) those who passed and those who failed the A&E test. The overall main sample (and in the recovered sample) is 54 percent males and 46 percent females. There is no significant difference in gender composition across these groups, except for the A&E test passers, among which females clearly surpass males in share.

Figure 3.2: Gender Distribution across Learners, Non-Learners, Completers, Non-Completers, Passers and Non-Passers (%)



Overall the ALS learners tend to stay in the same province where they were born, compared with non-learners, but the magnitude of migration differs substantially across regions. Figures 3.3 and 3.4 compare the place of birth with the place where they were enumerated as potential learners in the community literacy mapping. Those who moved from their original province of birth to the current province are about slightly over 20 percent among the former learners and close to 30 percent among the non-learners.

Figure 3.3: ALS Learners Who Have Moved from Their Original Province, by Region (%)

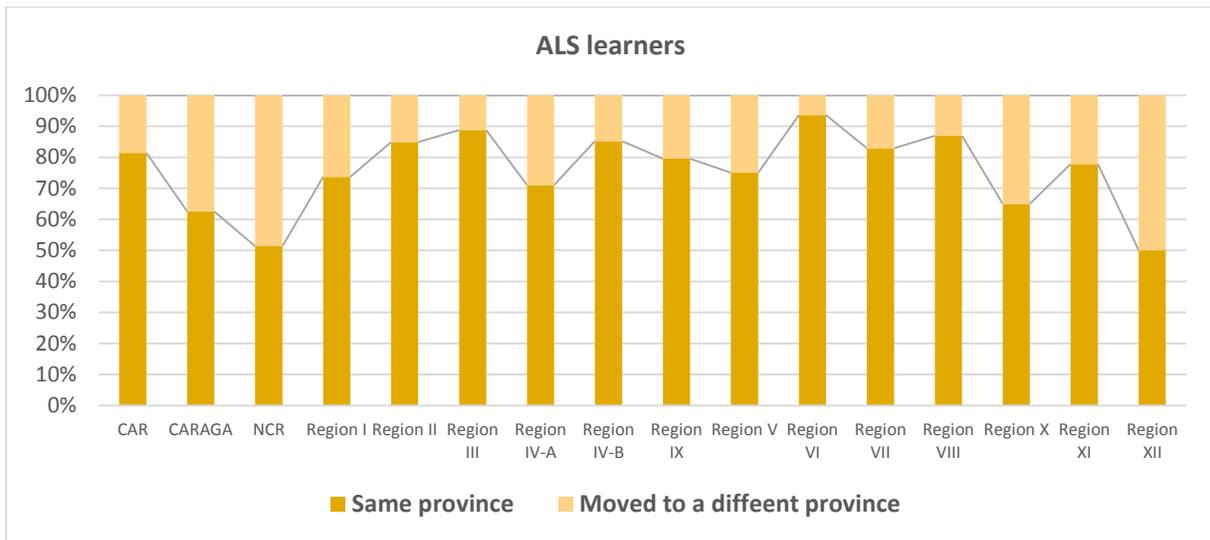
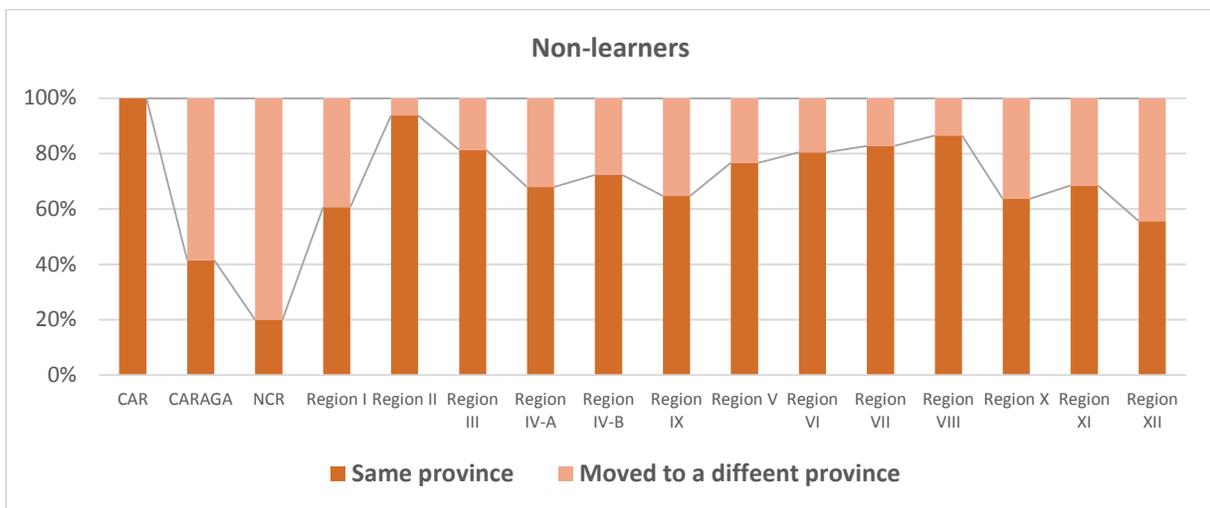


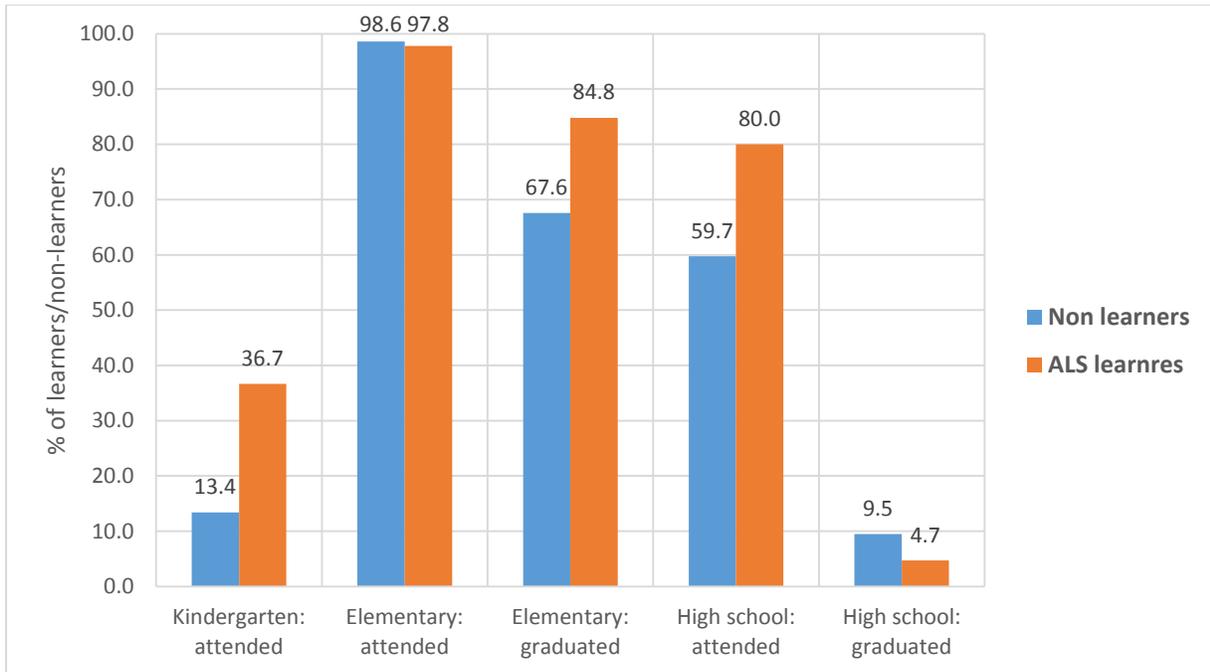
Figure 3.4: Non-Learners Who Have Moved from Their Original Province, by Region (%)



3.2.2 Formal Education Experience of ALS Enrollees

Figure 3.5 shows patterns of formal schooling history for ALS learners and non-learners. The figure was generated by computing the share of attendees and graduates at each school stage. ALS learners clearly show higher performance compared with non-learners throughout.

Figure 3.5: Schooling History of ALS Learners and Non-Learners at Each School Cycle (%)



Difference in education history starts in preschool stage. More than 35 percent of ALS learners attended kindergarten, while less than 15 percent of non-learners had access to preschool. At the entry of elementary school, there is no significant difference between the two groups, but the gap starts to emerge at the graduation of elementary school and becomes larger at the entry of high school. About 65 percent of those who did not finish elementary school reported that they could not afford the expenses or had financial problems in their family as the primary reason for incompleteness.

Although the majority of ALS potential beneficiaries entered high school, they left high school before graduation. Completion of high school has remained the most significant challenge. Those non-completers who reported financial difficulty as the main reason for not completing high school reach about 30 percent. The second reason reported for not completing high school was the influence of others, including interruption, bad influence by peers, and romantic relationship. This group is about 15 percent of the total. About 5 percent reported marriage and/or pregnancy as the reason for leaving high school.

3.2.3 ALS Non-Formal Education Experience of Enrollees

Enrollees constitute 67 percent of the overall sample, and this subsection focuses on characteristics of actual enrollees only. The enrollees are further grouped into those who were enrolled in the ALS Secondary Program (75 percent), ALS Elementary Program (13 percent), and Basic Literacy Program (12 percent).

3.2.3.1 Entry into the ALS Program

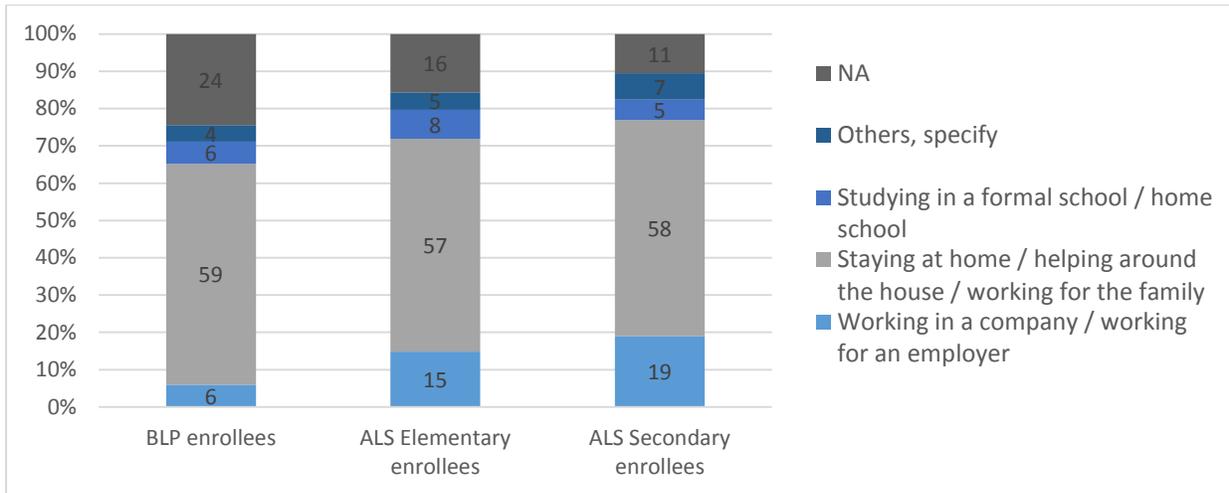
Before discussing their entry into the ALS, we find a few interesting facts. First, the main channel by which these enrollees learned about the programs was the field visit by ALS implementers. The second most common channel was reference from family members, friends, and peers. Other channels, such as

posters, radio, TV, and newspaper, were used to reach potential learners, but were not very important in our sample.

Motivations for participating in the programs also differ between programs. For the enrollees in the ALS Secondary Program, the main motivation was primarily to continue schooling in the formal system (50 percent) and, second, to improve chances for employment (17 percent). For the ALS Elementary Program enrollees, the primary motivation was to continue schooling in the formal system (44 percent) and to continue education through ALS without returning to the formal track (22 percent). For the Basic Literacy Program (BLP) enrollees, the key motivations were to obtain basic life skills (40 percent) and continue education through ALS (25 percent).

The employment status of enrollees at the first enrollment in each ALS program is shown in Figure 3.6. In all the programs, being inactive (neither in employment nor in education) is the most common status among the enrollees. However, in the ALS secondary program, about 20 percent were working when they were enrolled in the program for the first time.

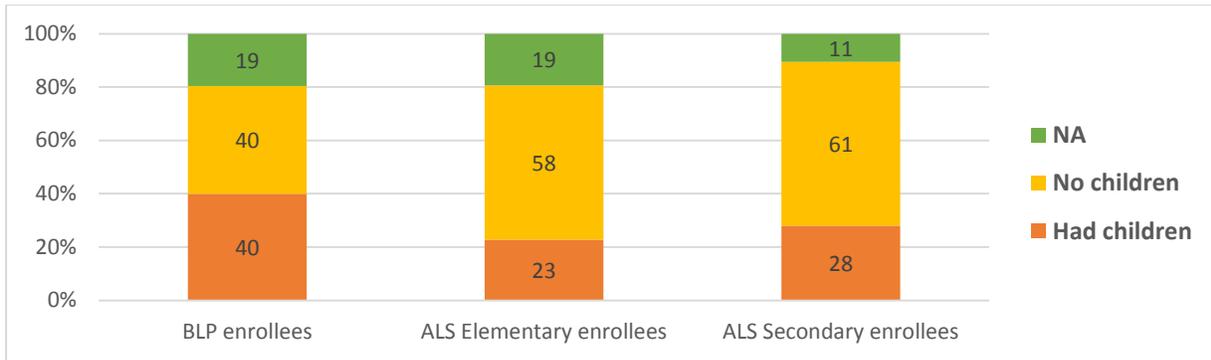
Figure 3.6: Status at the First Enrollment in an ALS Program (Enrollees Only)



Note: ALS = Alternative Learning System; BLP = Basic Literacy Program; NA = not available.

The family status of enrollees, particularly whether or not they have children, at their first enrollment in either of the ALS programs, is shown in Figure 3.7. Of the former BLP learners, 40 percent already had children when they enrolled in the program, which is significantly high compared with the enrollees in the other programs. The proportion of enrollees who had children when they first enrolled is a lot lower among those in the ALS Elementary Program and Secondary Program.

Figure 3.7: Family Status at the First Enrollment in an ALS Program (Enrollees Only)



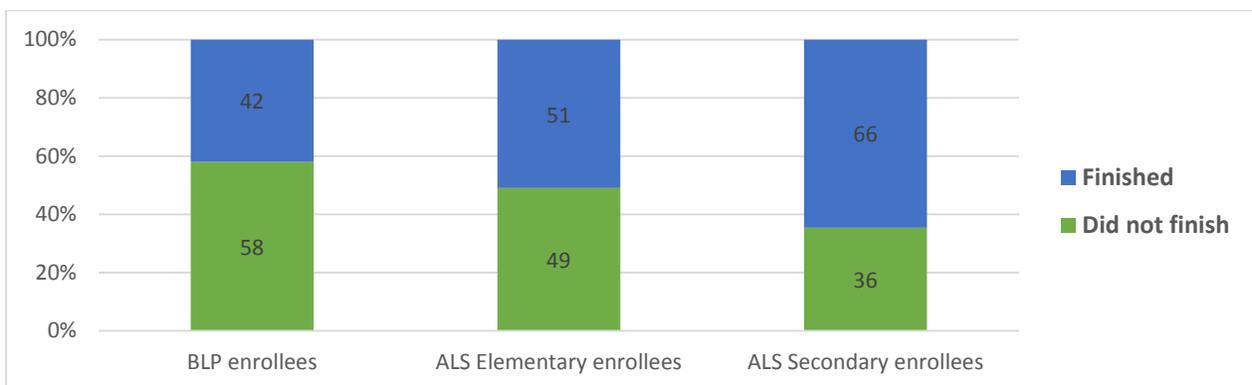
Employment status and family status at the time of enrollment seem to be important factors for potential learners to decide to participate by giving up their time and income for the ALS. We will analyze these factors, which constitute the opportunity cost of ALS enrollment, in the next section.

3.2.3.2 Completion of the ALS Program

Figure 3.8 shows the proportions of completers and non-completers in the ALS programs. Completion in the ALS programs is basically the achievement of an individual learning agreement developed by the learning facilitators and enrollees based on the placement test conducted at enrollment and the enrollee’s education background prior to ALS.

The completion rate is particularly higher among the ALS secondary-level learners compared with the other two programs’ enrollees. Incompletion is significantly higher among the BLP enrollees. The most common reason for non-completers to discontinue learning in the ALS program was that they decided to work. About 25 percent of the ALS secondary- and elementary-level non-completers reported this as the reason, while only 13 percent of the BLP non-completers reported this reason. The next most common reason for the BLP non-completers was financial difficulty. The next reason among ALS elementary- and secondary-level non-completers was distraction by peers, bad influence, or romantic relationship.

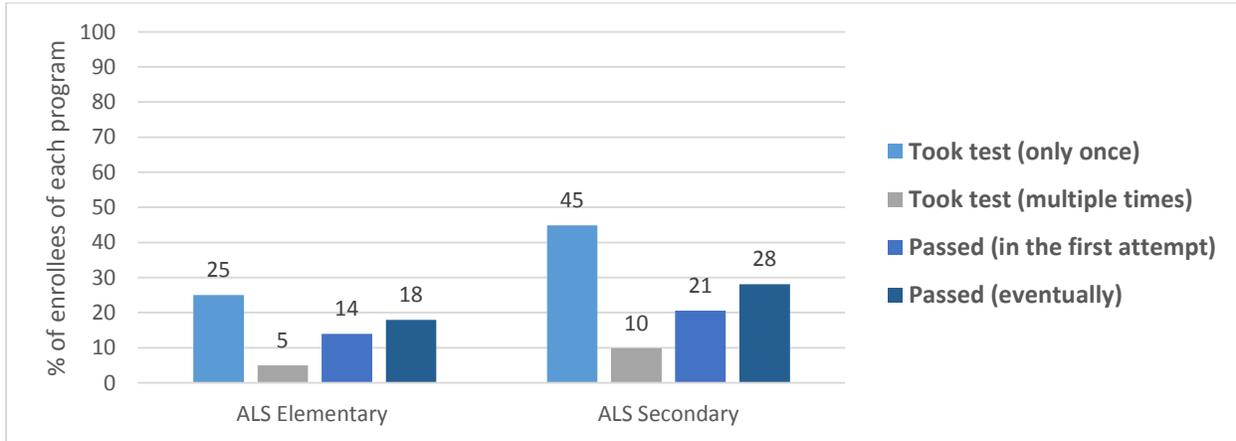
Figure 3.8: Completion by Program (%)



Note: ALS = Alternative Learning System; BLP = Basic Literacy Program.

Figure 3.9 summarizes the results of the A&E test at the ALS elementary and secondary levels, as the proportion of test takers and passers to enrollers in each program. Approximately 30 percent of the ALS elementary enrollees attempted this certification test at least once, and 18 percent eventually passed the test. In contrast, 55 percent of the ALS secondary enrollees took the test and 28 percent eventually passed it. A large share of learners did not try to take the A&E test and remained unaccredited.

Figure 3.9: Results of the A&E Test (%)



3.2.4 Status after the ALS Program

Regardless of the results of the ALS programs, about 15 percent of the former enrollees proceeded to further education as the next step, of which 9 percent entered college or university, and 6 percent undertook technical and vocation education.

Figure 3.10 presents employment status and income. The employment bar graph shows the proportion of those who have worked at least for one month, and the income line is the average monthly income of their most recent job if employed. There seem to be increasing labor market opportunities for enrolling in ALS, finishing ALS, and passing the A&E test, compared with non-learners. Average monthly income increases significantly with the level of achievement in the ALS program.

Figure 3.10: Work Probability and Most Recent Monthly Income (% , PHP)



Note: A&E = Accreditation and Equivalency; PHP = Philippine peso; SL = secondary level.

As their future plan, more of ALS enrollees (15 percent) wish to move within the Philippines or overseas to look for work, compared with non-learners (9 percent).

3.3 WHO ENROLLS IN AND COMPLETES ALS AND PASSES THE A&E SECONDARY TEST?

We predict enrollment, completion and A&E pass using individual characteristics including reasons for stopping high school, such as financial difficulty, labor market opportunity, distraction by peers, and marriage and pregnancy, as well as gender, age, years of schooling, and marital status.

Table 3.1 presents Probit estimation results (marginal effects). First, financial reason significantly predicts enrollment, completion and A&E pass. The result make sense since their school incompleion is unlikely to be correlated with their own ability, but mostly caused by their parents’ economic ability. Second, the reason related to bad influences from peers also predict enrollment and completion but not A&E pass. This is because, most likely, they were discouraged by the circumstantial factors in high school and wish to complete high school in a different mode. However this group is less likely to pass A&E.

Third, those who stopped high school education because they got married or became pregnant are also likely to enroll among males. The effect is opposite among females; they are not likely to come to ALS. Females who have already had children by the time of enrollment are unlikely to enroll in ALS.

Fourth, basic characteristics, such as age, formal education experience, and migration are also impotent predictors. Younger cohorts tend to enroll. Those who reach higher grades tend to enroll, complete and pass A&E. Migration from birthplace (province) similarly has a positive effect on enrollment, completion, and passing the test.

Table 3.1: ALS Secondary Enrollment, Completion, and A&E Pass: Probit/Marginal Effects

Dependent variable	(1) Enrollment	(2) Completion	(3) A&E Pass
Reason for HS dropout 1: Could not afford	0.0883* (0.0513)	0.0985** (0.0490)	0.110** (0.0544)
Reason for HS dropout 2: Decided to work	0.0247 (0.0802)	-0.0103 (0.0992)	0.0590 (0.0955)
Reason for HS dropout 3: Bad influences from friends	0.127* (0.0669)	0.115* (0.0631)	0.0483 (0.0605)
Reason for HS dropout 4: Got married/ became pregnant	1.027*** (0.203)	0.185 (0.229)	0.147 (0.261)
Interaction term: (stophs_marrypreg==1)*female	-0.917*** (0.244)	-0.0263 (0.257)	-0.138 (0.281)
Female	0.0488 (0.0489)	0.0726 (0.0468)	0.0810 (0.0516)
Age	-0.0197*** (0.00692)	-0.0119* (0.00695)	0.0103 (0.00963)
Age squared	0.000125 (8.54e-05)	5.70e-05 (8.46e-05)	-0.000264** (0.000131)
Years of schooling	0.0269*** (0.00988)	0.0511*** (0.0114)	0.0652*** (0.0112)
Current marital status	-0.201*** (0.0520)	-0.0650 (0.0470)	-0.0638 (0.0493)
Came from other province	0.0981* (0.0570)	0.142** (0.0570)	0.327*** (0.0614)
Municipality dummies	yes	yes	yes
Observations	369	460	348

Note: Standard errors are in parentheses. A&E = Accreditation and Equivalence; ALS = Alternative Learning System; HS = high school.

*** p<0.01, ** p<0.05, * p<0.1

Last, we generate the predicted probabilities of ALS enrollment and completion values for individuals' ages 10 to 60 years in increments of five years. The mean predicted probability of being enrolled in ALS is 80 percent for those around age 20 years, and decreases to less than 50 percent after age 35. The decline in the predicted probability is slower for completion. This result supports the finding that it may be advisable to prioritize age groups in targeting potential learners.

3.4 SUMMARY

In this section, we characterized the ALS beneficiaries by comparing the characteristics of ALS enrollees and non-enrollees using the ALS national monitoring and evaluation data. Through descriptive analysis, we found clear differences in some of the key characteristics. We found that the reasons for leaving formal education before graduation can well explain ALS enrollment and completion and passing the A&E test. Based on our findings, we can summarize policy solutions to enhance the transformation of the out-of-school youth and adult population to more education through ALS.

The results show that it is important to target specific groups who need support in enrolling in ALS. Females who left high school for marriage or pregnancy are the least likely to be enrolled in ALS compared with males in the same situation. These women are likely to spend a large proportion of their time taking care of children at home and doing household chores, which increases their opportunity costs. However, this group was small in number.

It was also found that those who could not stay in high school because of financial problems are likely to continue education through ALS. As their dropping out of high school was not related to their ability, they are likely to complete their learning in ALS and earn official accreditation. We also found that one of the major reasons for leaving the ALS programs was the inability to afford the expenses of the learning sessions, so some may face financial difficulty even in attending ALS sessions. In addition, their forgone incomes could be an important issue, as they stopped schooling to work.

4 DELIVERY: CONTRACT SCHEMES

This section first reviews the distributions and basic characteristics of the facilitators delivered and procured by the Department of Education (DepEd). Second, the section examines the relative efficiency of the two types of facilitators by looking into learner-assignment rules applied to the two groups and learners' outcomes. In the current system, DepEd-delivered facilitators are required to have at least 75 learners per year, while DepEd-procured facilitators need only 50 learners. The gap in the required number of learners is imposed by rules, so if all conditions are equal, it is a rule-imposed instrument that is useful for looking at the effect of the number of learners on learning outcomes. However, as we discuss below, there are some differences in the characteristics between the DepEd-delivered and DepEd-procured facilitators, such as years of experience. After characterizing the key observations on learning outcomes, we examine whether there remains an efficiency gap between the two types of facilitators once controlling for the number of learners and conventional human capital factors, such as age, years of experience, and schooling.

4.1 BACKGROUND

Table 4.1 shows the spatial the distributions of learning facilitators by regions. Although the survey objective was to conduct a census of all learning facilitators, various empirical issues, such as uncovered regions and divisions, absences, and spoiled questionnaires, have to be considered in understanding the figures. Nonetheless, the table represents the best estimate of existing learning facilitators, and the majority of facilitators are DepEd-delivered.

Table 4.1: Summary of 2014 Learning Facilitator Survey Respondents

Respondent's Region	DepEd-delivered	DepEd-procured	Total
CAR	140	56	196
CARAGA	264	86	350
NCR	236	95	331
REGION I	221	50	271
REGION II	173	76	249
REGION III	342	141	483
REGION IV-A	397	125	522
REGION IV-B	120	47	167
REGION V	235	73	308
REGION VI	266	151	417
REGION VII	348	110	458
REGION VIII	359	102	461
REGION IX	225	55	280
REGION X	280	187	467
REGION XI	208	82	290
REGION XII	256	80	336
TOTAL	4,070	1,516	5,586
%	73	27	100

Note: ARMM not included in survey due to logistical issues

Table 4.2 shows the basic characteristics of the surveyed learning facilitators. First, it shows that DepEd-procured facilitators are significantly younger than DepEd-delivered facilitators. This finding was expected, as all DepEd-procured facilitators are not regular DepEd employees and most of them are contracted while waiting for a chance to enter the regular government or private teaching workforce. This age aspect has major implications for work effort and intentions, as well as the tendencies of their other basic characteristics. Second, the gender ratio of DepEd-procured facilitators is more skewed toward females, compared with the DepEd-delivered ones. This result is a function of the gender ratio of graduates of teaching courses, wherein more females traditionally enter and graduate from teacher education institutions. The more equal gender ratio among DepEd-delivered facilitators is a function of the overall DepEd employee gender ratio. Third, half of the DepEd-procured facilitators work on a full-time basis. These facilitators are assigned to the Accreditation and Equivalence (A&E) Elementary Program and A&E Secondary Program, and have more concrete targets. Lastly, and mostly as a function of age, DepEd-procured facilitators have fewer years of schooling (nonetheless 89 percent are college graduates) and fewer years of experience teaching ALS. This finding again points to the fact that being a contracted ALS staff represents a good stepping-stone into the regular teaching profession.

Table 4.2: Selected Basic 2014 ALS Learning Facilitator Characteristics (%)

Age	D	P	Sex	D	P	Appt	D	P	Exp	D	P	Sch	D	P
10-19	0.0	0.1	M	42.7	29.6	Part	12.4	51.0	0-4	40.7	76.8	0-5	0.1	0.0
20-29	12.4	40.6	F	57.3	70.5	Full	87.6	49.0	5-9	38.3	16.0	6-9	0.2	0.3
30-39	36.8	32.9							10-14	13.4	4.1	10-13	0.9	5.7
40-49	31.0	15.4							15-19	6.4	2.6	14-15	82.0	88.6
50-59	16.7	6.9							20-24	0.9	0.2	16-19	16.4	5.2
60-69	3.0	3.5							25-29	0.2	0.3	20+	0.6	0.2
70-79	0.0	some							30-34	0.1	0.0			
									35-39	0.1	0.0			

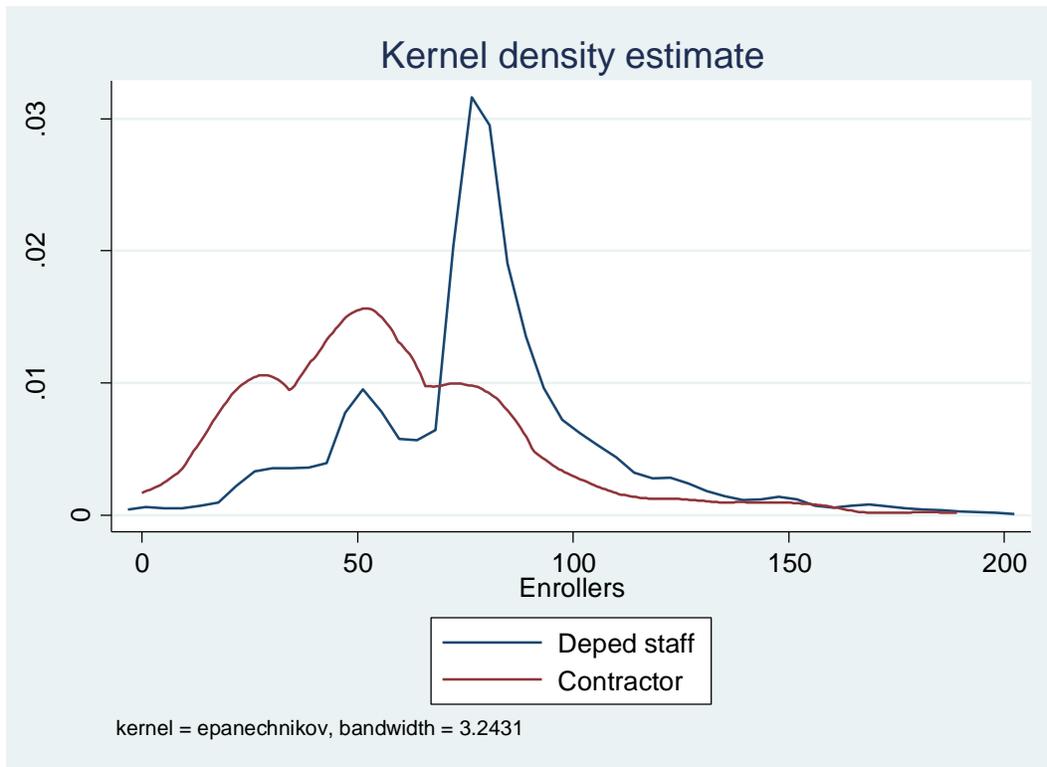
Legend: D – DepEd Delivered; P – DepEd Procured; Sex – Gender; M – Male; F – Female; Appt – Type of appointment; Part – Part Time; Full – Full Time; Exp – Years of Experience teaching ALS; Sch – Years of schooling

Another important aspect of the contract scheme is its payment methods. The ALS service contract states, among other things, that the service provider will be paid 50 percent upon contract signing and 50 percent upon the end of the contract. Unfortunately, there is no payment condition linked to performance, either for achievement below or above the agreed target number of learners, or for non-submission of the required reports. And nothing is linked to learning outcomes, such as completion and passing the A&E test. Therefore, this setting implies that (a) DepEd-procured facilitators are not properly incentivized to exert their best efforts, and (b) as discussed in the appendix, monitoring activities by supervisors play a potentially important role in controlling the quality of the facilitators’ work, and this similarly applies to DepEd-delivered facilitators, given that many of them are working in environments where supervision is not necessarily easy.

4.2 LEARNER SIZE AND LEARNING OUTCOMES

Figure 4.1 shows the number of learners by contract type. It is clear that DepEd-delivered facilitators have a mass point at and above the required number of learners, which is 75. Although the distribution does not show a clear mass point in the case of DepEd-procured facilitators, it is centered at the required number of learners, which is 50. The DepEd-delivered type distribution stochastically dominates that of the DepEd-procured type.

Figure 4.1 Number of Learners



Next we compare the numbers of completers and A&E passers between DepEd-delivered and DepEd-procured facilitators (Figures 4.2 and 4.3). Interestingly, the two distributions seem to converge, especially in A&E passers. From these graphs, it may be conjectured that, if the median of A&E passers is similar in the two groups, the A&E pass rate could be higher for DepEd-procured facilitators than for DepEd-delivered facilitators, given that the number of learners is, according to the rules, higher for the DepEd-delivered facilitators than the DepEd-procured facilitators.

Figure 4.2 Number of Completers

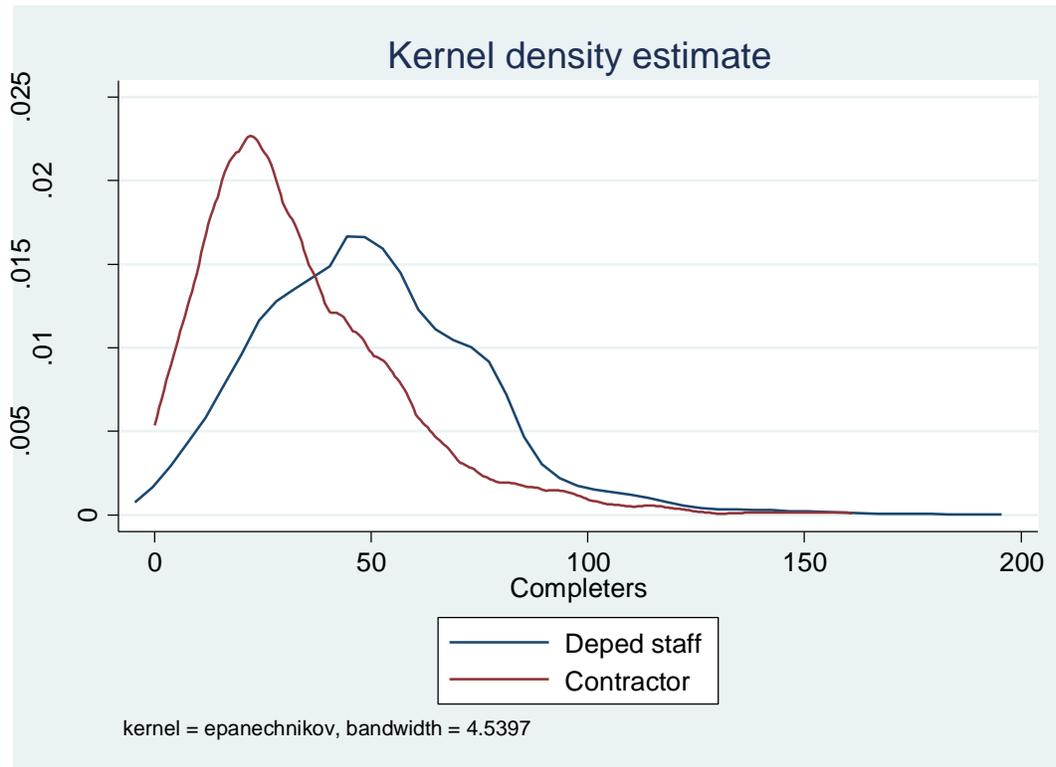
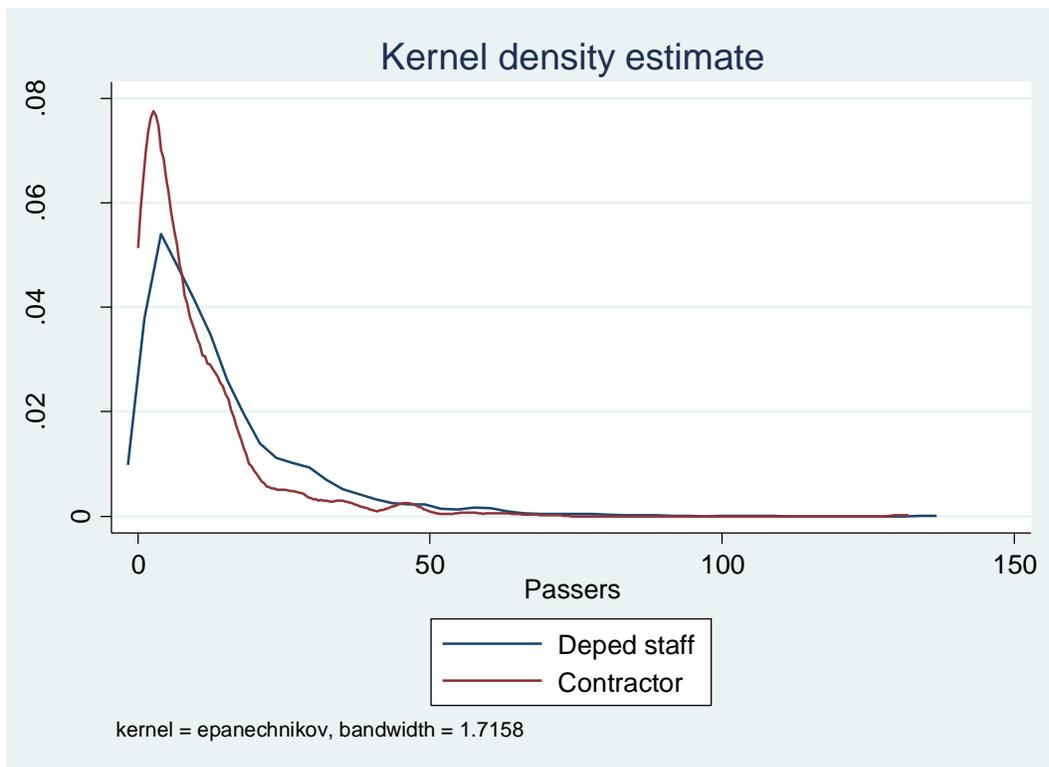


Figure 4.3 Number of Passers



Figures 4.4 and 4.5 show completion and A&E pass rates, respectively. Through these measures, we find that the two types of facilitators look surprisingly similar, although the actual number of learners was different. For completion rate, DepEd-delivered facilitators perform better than DepEd-procured ones, but they look very similar for A&E pass rate. At this stage, we do not have any strong evidence to suppose that there is an efficiency difference between the two types of facilitators.

Figure 4.4 Completion Rate

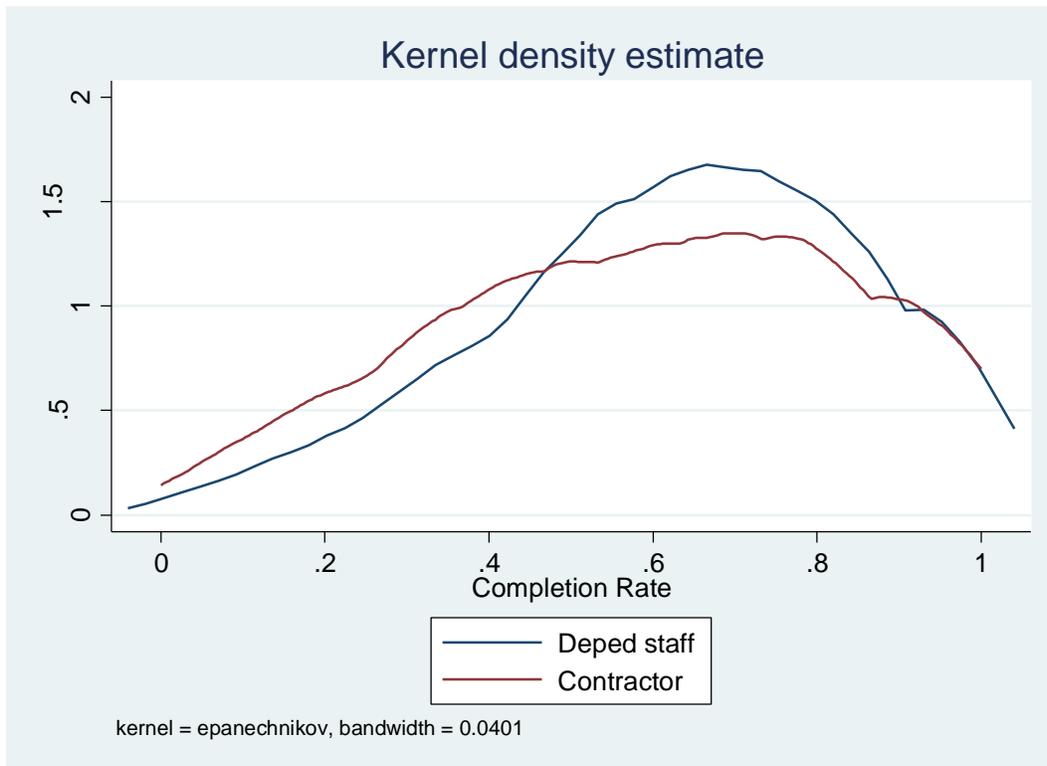
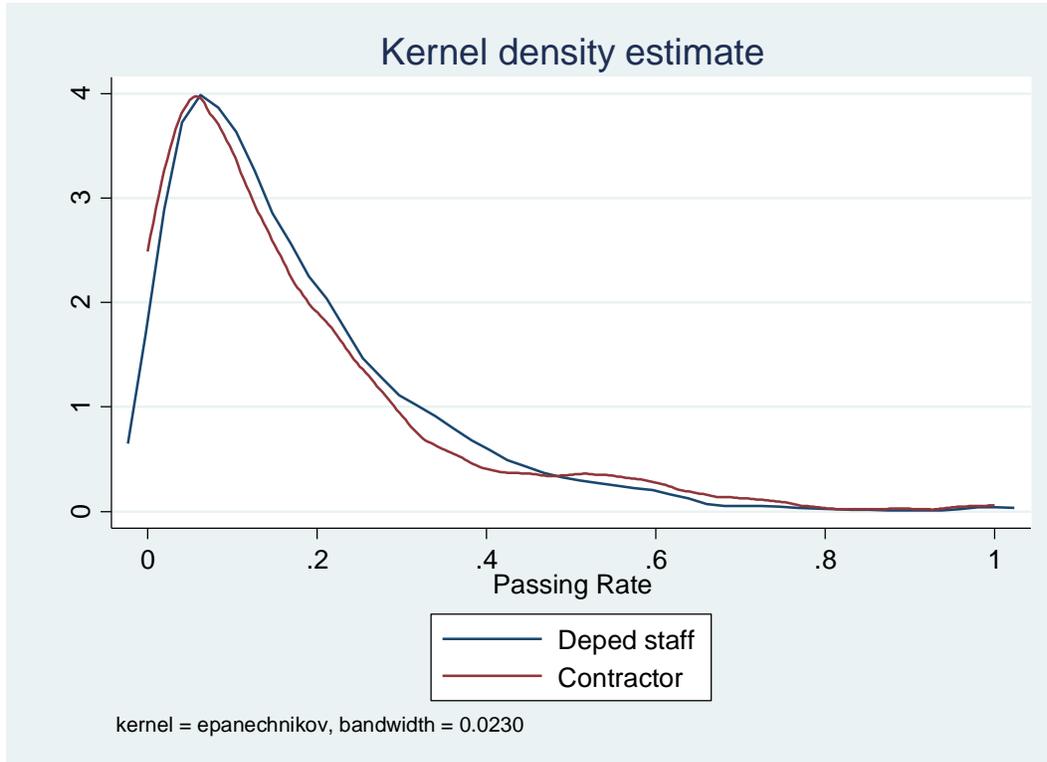


Figure 4.5 A&E Pass Rate



The negative effect of the number of learners (class size) on learning outcomes is often reported in the literature. We examine the relationship between the number of learners and learning outcomes. Figures 4.6 and 4.7 show the relationships for completion and A&E pass rates, respectively. First, in both measures, we observe a negative slope, which indicates a negative effect of number of learners on the two outcome measures. Second, in both measures, DepEd-delivered facilitators perform slightly better than DepEd-procured ones. This finding is true in all domains of number of learners. Third, for A&E pass rate, the negative relationship looks very clear if the number of learners is less than 50. This threshold is incidentally the minimum required number of learners imposed on DepEd-procured facilitators to meet. This observation indicates that an improvement in the A&E pass rate is not substantial if the number of learners is already quite large, that is, more than 50. The median gap in number of learners between the two groups, 50 and 75, therefore may not imply a large gap in the A&E pass rate.

Figure 4.6 Completion Rate and Number of Learners

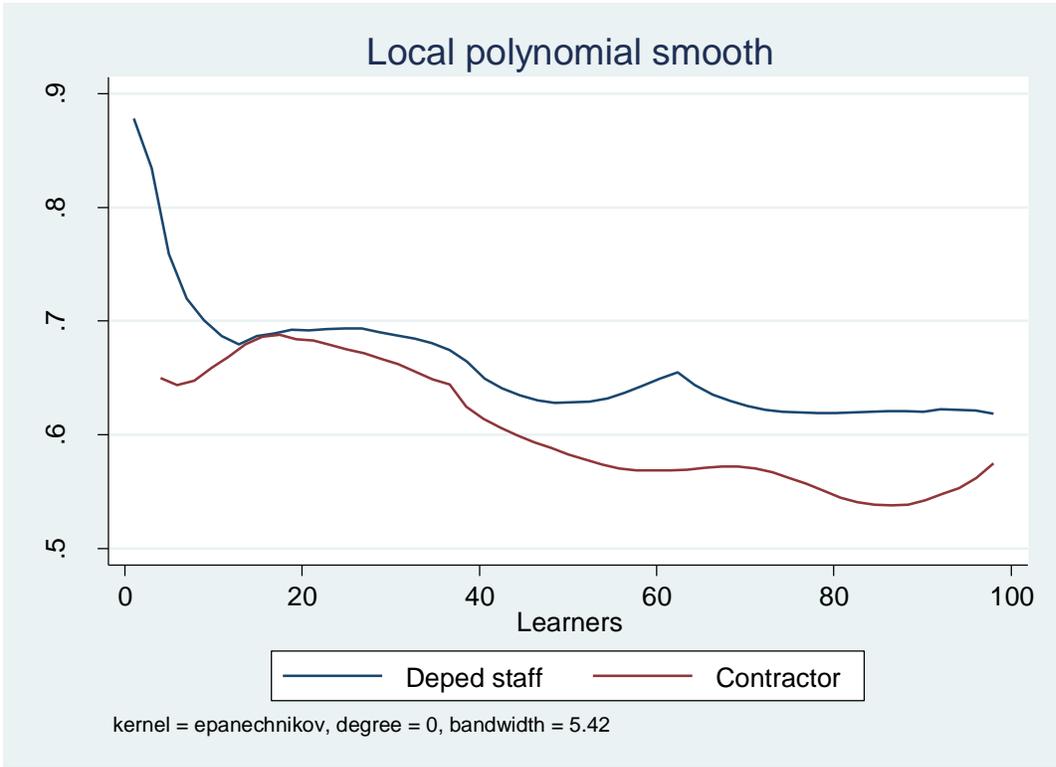
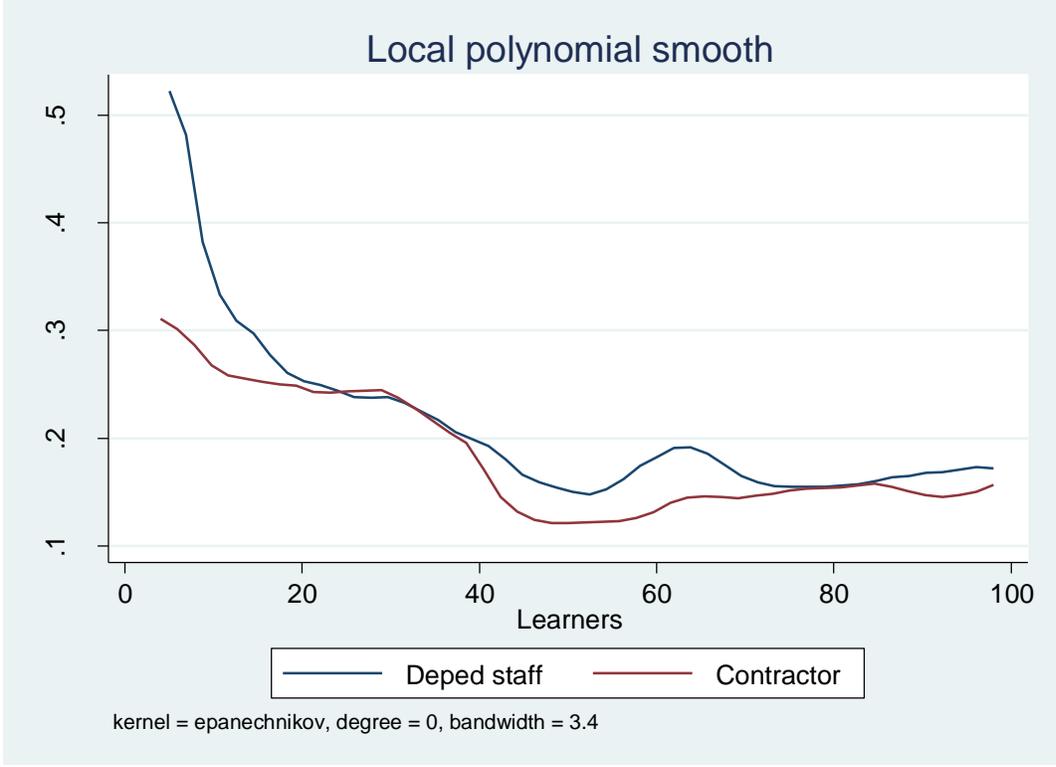


Figure 4.7 A&E Pass Rate and Number of Learners



4.3 TEACHING EXPERIENCE

Next we investigate the distributions and roles of teaching experience in ALS using reported years of experience. Figure 4.8 shows the distribution of years of experience. Interestingly, DepEd-procured facilitators are less experienced than DepEd-delivered ones. In Figure 4.9, we also compare the relationship between the number of learners and years of experience between the two groups. Strikingly, the gap in number of learners is persistent regardless of the facilitators' years of teaching experience in ALS. It is also interesting that the average number of learners increases steadily as the facilitators accumulate more experience. In this respect, more learners are assigned to more experienced facilitators according to the rules, to equalize the outcomes if teaching experience has a positive effect on outcomes.

Figure 4.8 Years of Experience

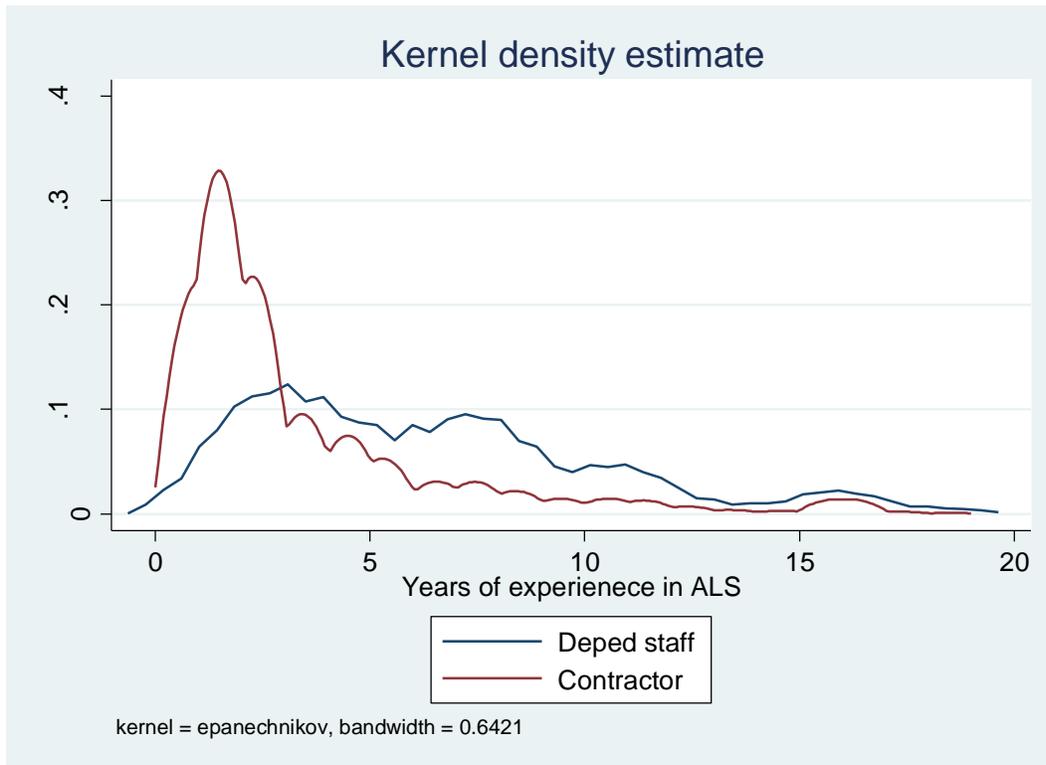
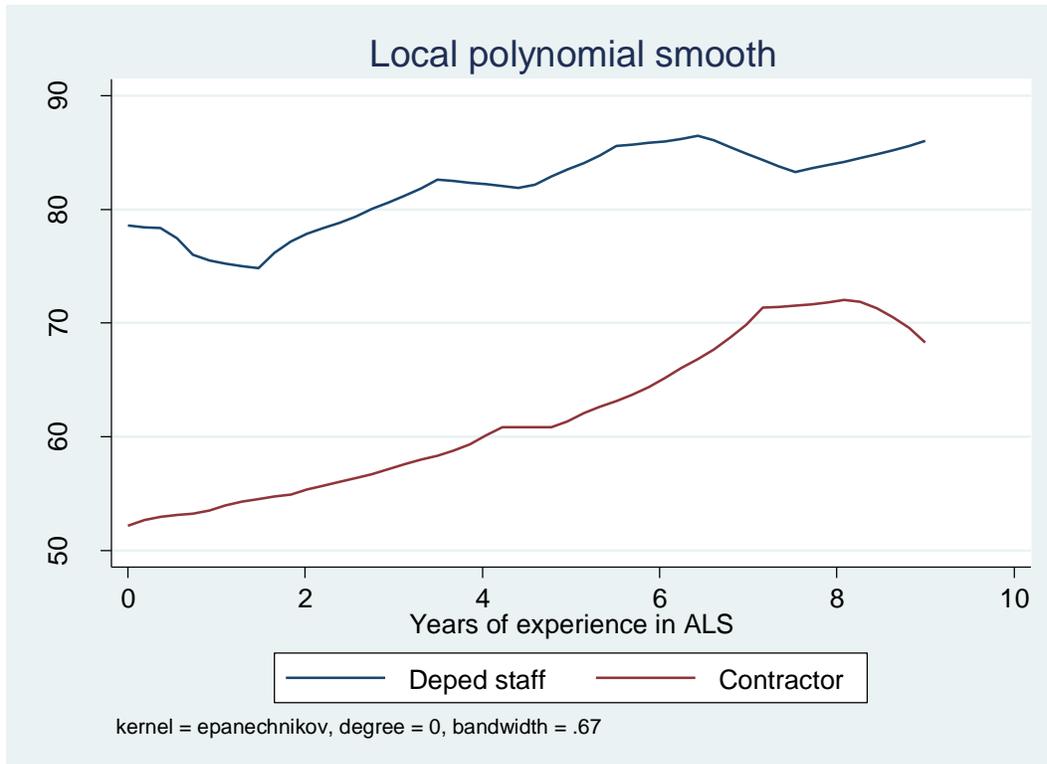


Figure 4.9 Years of Experience and Number of Learners



Finally, our descriptive analysis looks at the returns to experience. It is expected to see positive returns to experience, since more learners are assigned to more experienced facilitators in both groups. Figure 4.10 shows the relationship between years of experience and completion rate. We observe a positive slope only for more than three years of experience. For relatively inexperienced facilitators (less than three years), the completion rate decreases as they become more experienced. This observation is subject to selection bias because of endogenous decision making to stay teaching, that is, more and less experienced facilitators have different characteristics, observed and unobserved. Our conclusion has to await regression analysis. Figure 4.11 shows a monotonic relationship in the case of the A&E pass rate. Both types of facilitators have positive returns to experience, but, interestingly, the slope is higher for DepEd-procured facilitators. We do not see a significant difference between the two types for fewer than six years of experience, but returns to experience persist only among DepEd-procured facilitators after six years.

Figure 4.10 Years of Experience and Completion Rate

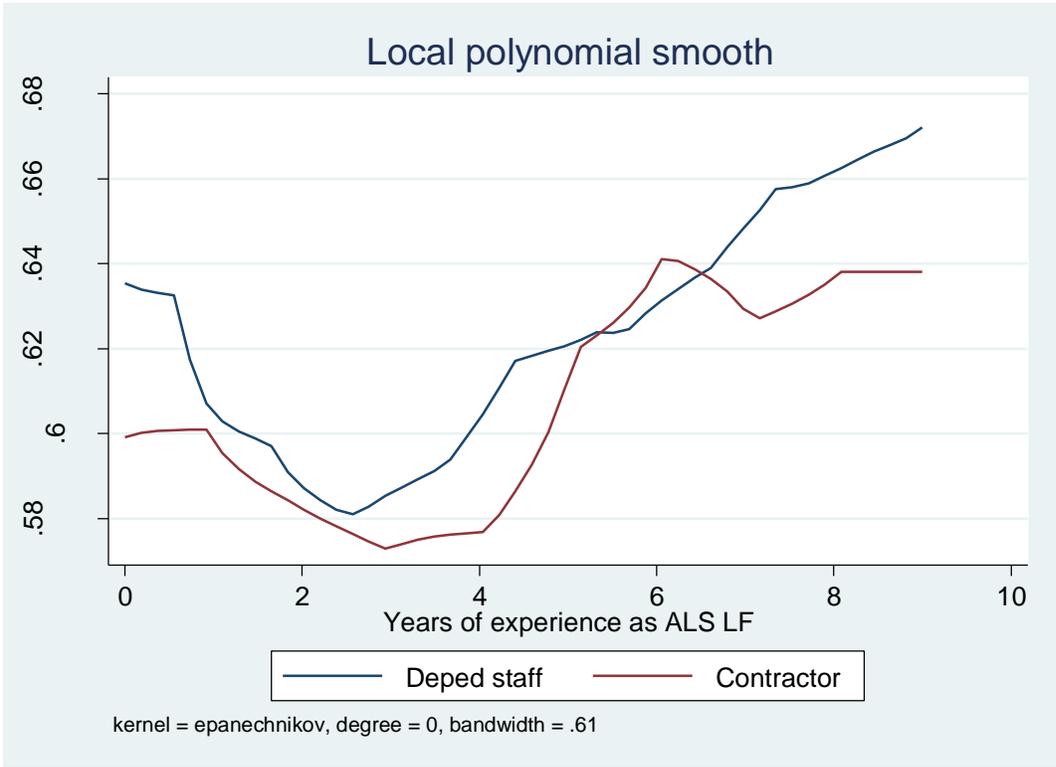
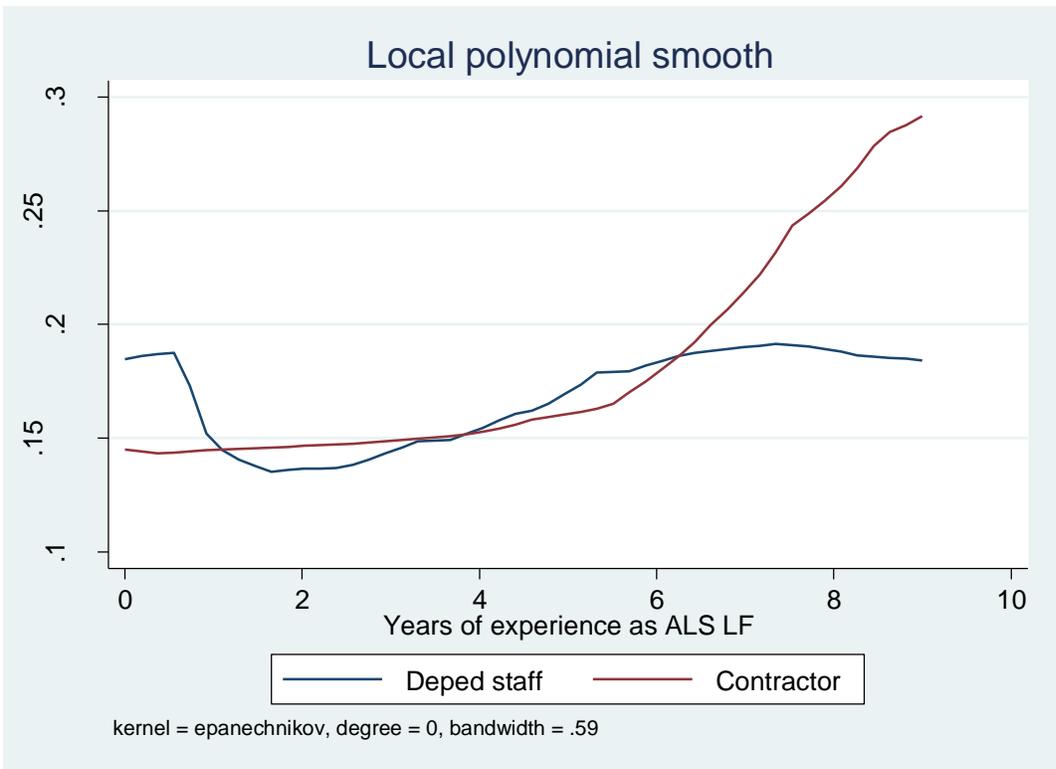


Figure 4.11 Years of Experience and A&E Pass Rate



4.4 DETERMINANTS OF LEARNING OUTCOMES

A regression analysis is performed to understand the determinants of two learning outcomes, completion and A&E pass rates. We include as explanatory variables the number of learners (and its square term), age, years of experience, years of schooling completed, and female and municipality dummies. In addition to these variables, we include an indicator variable that takes the value 1 if the facilitator is DepEd-delivered and zero if DepEd-procured. Table 5.3 reports the estimation results. Municipality dummies are included to control for specific local factors, such as the average quality of potential learners and public schools, economic activities, etc. In this way, the two types of facilitators are compared in a small geographic unit (however, this does not mean the two are ex ante similar, that is, our estimates are still subject to bias).

Column 1 in Table 4.3 shows the results for completion rate. As expected from our descriptive analysis, the effect of the number of learners is insignificant. The only significant variable is years of experience. In contrast, the results for the A&E pass rate are more interpretable. As indicated earlier, the effect of the number of learners is significantly negative but diminishing (convex) as the number increases. The effect is largest when the number of learners is small. The three variables that represent the facilitator's human capital are all significant. In particular, teaching experience and educational attainment have significantly positive effects. In the light of our previous analysis, DepEd-procured facilitators, who are relatively inexperienced, teach fewer learners. The two effects of the number of learners and experience offset each other. Once the analysis controls for these factors, we do not find a significant difference between the DepEd-delivered and DepEd-procured facilitators.

Table 4.3 Determinants of Learning Outcomes: Completion and A&E Pass Rates

Dependent:	Completion rate	A&E pass rate
Sample: Number of learners<100		
DepEd delivered	0.0319 (1.35)	0.0175 (1.23)
Number of learners	-0.0027 (1.17)	-0.0054 (2.65)
Number of learners squared	9.96e-06 (0.54)	0.00003 (2.15)
Age	0.0008 (1.06)	0.00097 (1.96)
Years of experience	0.0060 (3.44)	0.0053 (4.07)
Years of schooling	0.0034 (0.57)	0.0080 (2.06)
Female	0.0246 (1.57)	0.0042 (0.51)
Municipality dummies included	yes	yes
R squared	0.4802	0.5502
Number of observations	2587	2620

Numbers in parentheses are absolute t values.

4.5 RELATIONSHIP BETWEEN PERFORMANCE AND WILLINGNESS TO CHOOSE PERFORMANCE-BASED PAYMENTS

In the NCR-Plus survey, we included an experimental question in the learning facilitator module that elicits a possible relationship between the past-year learning performance and willingness to choose performance-based payments. Here a variable portion of their payments is linked to A&E pass rate. Learning facilitators were asked to choose one of the following options: (A) Contract A: A one-year contract with a constant/fixed amount of ₱50,000, or (B) A one year contract which guarantees the amount of ₱25,000 regardless of your learners' performance, but with an additional component, which is proportional to your learners' A&E passing rate (defined as the number of passers divided by that of takers). That is, salary is $\text{₱}25,000 + \text{₱}50,000 * \text{Passing Rate}$. Here, it is assumed that the average passing rate is 0.5. A similar question was also asked with the expected value of ₱75,000.

Though the sample size is small in this experiment, the following results show a significant positive correlation between the two variables.

Table 4.4 Relationship between Performance and Willingness to Choose Performance-Based Payments

VARIABLES	(1) Completion rate	(2) Take rate	(3) Pass rate
Prefer performance-based pay (50K)	0.175** (2.678)	0.164** (2.790)	0.0632* (2.072)
Prefer performance-based pay (75K)	-0.197* (2.189)	-0.0795 (1.191)	-0.0272 (0.826)
Female dummy, age, and division dummies are included			
Observations	89	89	89
R-squared	0.369	0.311	0.414

Numbers in parentheses are absolute t values.

The results indicate that good performers prefer performance-based payments linked to (net) A&E pass rate, and the introduction of such an incentive system may improve their performance, at least, among those who are relatively confident in their capability.

4.6 MONITORING ACTIVITIES²⁰

We examine differences in the frequency of monitoring by these classifications. For example, if DepEd-delivered facilitators, such as district ALS coordinators and MTs, are internally disciplined, there is not a strong need to monitor them. For example, if their future promotions are linked to their performance, they have potentially good incentives to work hard, although they are not necessarily frequently monitored. District ALS coordinators have dual roles in ALS, teaching and monitoring, which may create a conflict

²⁰ This sub-section is drawn upon a manuscript: Igarashi, Takiko and Futoshi Yamauchi, 2015b, Effectiveness of Monitoring Activities in Philippine Alternative Learning System, Manuscript, World Bank.

of interests internally in the system. DepEd-procured facilitators do not have any internalized incentives. It is likely that monitoring by supervisors is important for this group of facilitators.

Table 4.5: Monitoring Frequency by Position (%)

Frequency per month	DepEd-delivered		DepEd-procured				All
	DALSC	MT	IM	LV	BPOSA	Other	
0 time	7.0	6.7	14.9	14.4	16.3	45.0	9.4
1-4 times	64.3	49.3	45.2	50.5	55.8	30.0	53.9
5-9 times	25.1	36.9	32.8	29.9	22.5	25.0	31.1
10-14 times	3.4	6.9	7.0	4.9	5.4	0.0	5.4
15-19 times	0.2	0.3	0.1	0.3	0.0	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: BALS ALS national survey.

Table 4.5 shows relative frequencies of monitoring by types of facilitators. In contrast to the above conjecture, the proportion of facilitators who reported no monitoring is higher among DepEd-procured than DepEd-delivered facilitators. The average frequency among DepEd-procured facilitators is lower than that of MTs (district ALS coordinators cannot be a good benchmark, since they teach and monitor others at the same time). This tendency could be explained by an uneven distribution of facilitators assigned to different locations. That is, DepEd-procured facilitators could be assigned to more challenging places where monitoring is also challenging to implement.

Table 4.6: Who Monitored (%)

Frequency per week	Monitored by				
	DALSC*	District supervisor	Division supervisor	Region supervisor	National monitor
0	35.9	25.1	37.4	84.1	93.3
1	16.6	36.4	39.2	13.3	5.9
2	15.9	21.7	13.3	1.9	0.5
3	8.1	6.9	4.6	0.5	0.1
4	23.5	9.9	5.6	0.3	0.2
Total	100.0	100.0	100.0	100.0	100.0

Source: BALS ALS national survey.

* excludes DALSC.

Table 4.6 shows who monitors the facilitators. District supervisors play very important roles in monitoring. This is followed by district ALS coordinators and division supervisors. District ALS coordinators show a mixed picture: many facilitators are very frequently monitored by them or not monitored at all. Regional supervisors and national monitors seldom come to monitor.

The question remains as to how monitoring activities are coordinated, especially among district ALS coordinators, district supervisors, and division supervisors. In other words, a facilitator does not have to be monitored by multiple supervisors at the same time.

Table 4.7: Coordination of Monitoring Activities across ALS Monitors (Pearson correlation coefficient)

	DALSC	District supervisor	Division supervisor	Region supervisor	National monitor
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DALSC	1				
District supervisor	0.1179	1			
Division supervisor	0.0729	0.3076	1		
Region supervisor	0.0712	0.1824	0.3038	1	
National monitor	0.036	0.1181	0.165	0.5262	1

Source: BALS ALS national survey.

Table 4.7 shows the extent of monitoring activity coordination between different monitors (the Pearson correlation coefficient). The analysis omits facilitators who are not monitored by supervisors at all. If supervisors are coordinating monitoring activities, the correlation coefficients should be negative. Strikingly all the coefficients are positive, which implies that those who are monitored by one of these monitors are repeatedly monitored by other monitors. The correlation coefficients are statistically significant. However, the correlation coefficients also show that monitoring of DALSCs is much less correlated with others, which implies that DALSCs are monitoring independently and/or without coordination with other supervisors. Interestingly, this simple finding is also consistent with some of our findings on the effect of monitoring on learning outcomes.

The next subsection investigates the relationship between the difficulty in reaching learning sites and monitoring frequency, and that between monitoring and facilitators' time inputs in different activities.

4.7 SUMMARY

This section showed several clear observations and findings on the current contractual arrangements of the ALS service delivery. The starting point was the fact that the average number of learners is significantly larger for DepEd-delivered than DepEd-procured facilitators regardless of their teaching experience. This fact is dictated by the current learner assignment rules. However, we observed that the difference converges from learners to completers and from completers to A&E passers. Despite the above naïve observations (which clearly motivate us), the distributions of completion and A&E pass rates are in fact similar between DepEd-delivered and DepEd-procured facilitators, and in both groups the completion and A&E pass rates are negatively correlated with the number of learners, especially if the number of learners is less than 40.

Another fact that attracts our attention is the difference in years of experience, that is, DepEd-procured facilitators are less experienced than DepEd-delivered ones. Interestingly, however, returns to experience are higher among DepEd-procured facilitators than DepEd-delivered facilitators.

Regression analysis showed that the number of learners and conventional human capital variables, such as age, years of experience, and years of schooling, significantly explain the A&E pass rate. Once these factors are controlled, we do not see a difference in completion and A&E pass rates between DepEd-delivered and DepEd-procured facilitators.

Based on the nonparametric and parametric analyses, reducing the required number of learners from 75 (DepEd-delivered) to 50 (DepEd-procured) generates only a very small increase in the A&E pass rate, because the effect of the number of learners on the A&E pass rate is negative and convex (diminishing). An improvement in the A&E pass rate is expected only when the number of learners is reduced to substantially less than 50.

5 POST-ALS LABOR MARKET OUTCOMES

5.1 LABOR MARKET CONDITIONS FOR ADOLESCENTS

As the Alternative Learning System (ALS) stands at the intersection of the school system and the labor market, it is equally important to understand the labor market structure. Those who do not complete high school, for example, inevitably enter the labor force to seek job opportunities. In principle, the structure of the labor market determines two important parameters that affect student behavior, that is, returns to schooling and opportunity costs. These are key factors that affect the behaviors of school enrollers and labor force participants who may consider entering the ALS program.

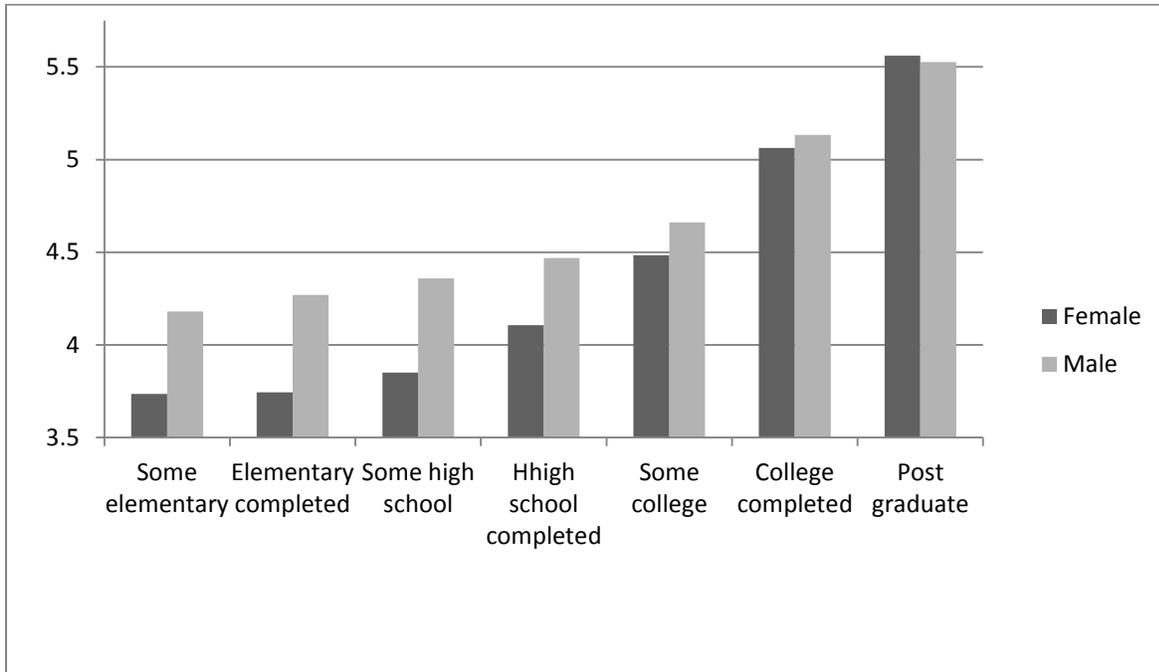
In the Philippine labor market, returns to schooling show two unique features. First, labor market earnings only increase at educational attainment higher than high school completion. That is, convexity is very clear in the returns structure (Shady 2003; Yamauchi 2005). Second, in contrast to most other low- and middle-income countries, females have traditionally been better educated than males (see, for example, Yamauchi and Tiongco 2013). In the current context, the convex shape of the returns to schooling is particularly important, as it implies that those who want to gain in earnings by schooling need to complete high school and possibly some college. In other words, those who drop out of high school do not gain significantly relative to elementary school completion.

Sakelariou (2004), Schady (2003), Lanzona (1998), and Yamauchi (2005) show estimates of returns to schooling in the Philippines.²¹ These studies have different focuses while estimating returns to schooling. For example, Sakelariou (2004) decomposes gender wage gaps and Lanzona (1998) points out the importance of migration selectivity. For the objective of this report, Schady (2003) and Yamauchi (2005) are highly relevant, in that both report significant convexity in the return structure.²² That is, the labor market returns increase only at higher levels of educational attainment, for example, after high school completion (some college). Yamauchi (2005) also shows a contrast between public and private school education. Higher returns to private school education are in fact spurious in the sense that high-ability students are simply screened into private schools. Whether this is a result of human capital investments or ability screening, returns to schooling generally show convexity in the Philippines.

Figure 5.1: Returns to Schooling in the Philippines (log of daily wage in pesos)

²¹ On estimation issues in returns to schooling, see also Card (1999, 2001).

²² Orbeta (2002) summarizes observations on labor force participation and education in the Philippines.



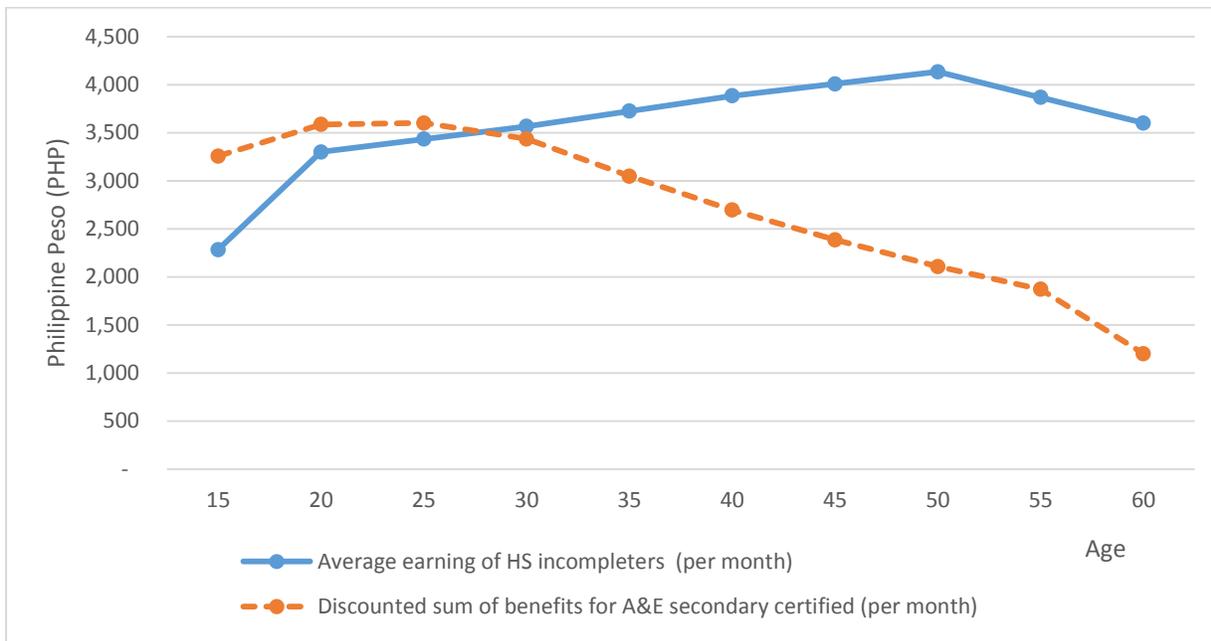
Source: Yamauchi and Liu (2015) originally based on Labor Force Survey, October 2009 round.

Note: Using the pooled sample, the log daily wage regression was estimated with the female indicator; educational attainment indicators (shown in the graph, “no education” being omitted) interacted with the female indicator; and age, age squared, and region dummies. The graph shows estimated coefficients of constant term + female effect (zero if male) + education effects (differentiated by gender). The estimation sample consists of men and women ages 20 to 49.

Figure 5.1 displays the convexity and gender difference in the returns to schooling (measured in log wages), based on estimation using the October 2009 round of the Philippine Labor Force Survey. Females experience higher (marginal) returns to schooling (that is, the slope of the wage profile), especially above high school completion. The return function is steeper for females than males, which creates a greater incentive for females to study. Consistently, school dropouts are more prevalent among males than females. The returns are flat up to high school completion, especially among males, although their earnings are higher than those of females.

Figure 5.2 compares the dynamic benefits of completing high school with the opportunity cost (discussed in section 2). Here we do not include direct costs, but only the opportunity cost, defined as the foregone income (wages) for high school non-completers. The gain is calculated as the sum of the average earning gaps between high school completers and non-completers discounted over different ages between 15 and 60. The figure identifies the threshold point, the age above which an attempt to complete high school does not pay off. This happens at age 26.

Figure 5.2: Returns and Opportunity Cost of High School Completion



Source: Labor Force Survey 2011.

Note: Future gains are the average wage gaps, calculated at different ages, between high school non-completers and completers. Ages in the five-year intervals shown in the graph are used with the annual discount factor of 0.96. The opportunity cost is the average wage for high school non-completers at different ages. A&E = Accreditation and Equivalency; PHP = Philippine peso. We assume that A&E Secondary pass rate is 20 percent.

5.2 LABOR FORCE PARTICIPATION: RETURNS AND OPPORTUNITY COST

The ALS Secondary Program aims to grant high school diplomas to those who were deprived of the opportunity to complete high school or chose not to complete it. The expected immediate goal in such a program is to impart the knowledge and skills that are necessary to compete in today's labor market. More generally, the program also intends to endow such a population with the life skills required in modern society, and encourages individuals to move forward despite their lack of a high school diploma from the formal school system.

Because of the nature of the program in providing a second chance to school non-completers, the target population is engaged in activities other than school education, especially working in the labor market. In other words, the target population has opportunity costs to participate in the program. One of the major challenges is how to invite those who are involved in other activities into the program. As section 2 clarified, the comparison between the discounted sum of future gains from completing high school with current labor market earnings (as a high school non-completer) pinpoints the age threshold below which it would be beneficial to join the ALS program. After the threshold, those high school non-completers would not find it attractive to join the ALS program.

To encourage learners to join the program voluntarily, participation in ALS will need to result in sufficiently high returns in the labor market. Is enrollment or completion of the program enough to generate a sufficient income gain in the labor market? Is passing the Accreditation and Equivalency (A&E) test the necessary condition for premiums in the labor market? In this section, we present some evidence on the returns to ALS using our survey data collected near the National Capital Region (NCR), where demand for labor is stronger and more stable than in other regions, and thus the returns to schooling are relatively high.

Our estimate shows that 30 of the enrollers, who were sampled in the NCR and two provinces in Region 4A, were working at the time they decided to enroll. A large sample that covers the entire country also shows a similar proportion of the enrollers were working right before they enrolled. To compensate for foregone incomes while studying in the ALS program, the future labor market has to guarantee a larger income gain after the program.

5.3 NCR PLUS: NEAR MANILA WHERE RETURNS TO SCHOOLING ARE RELATIVELY HIGH

We estimate returns to ALS in the regions near the NCR, in Manila, since this is the area that offers a greater number of job opportunities than any other region. In other words, we will present an upper bound on returns to ALS.

The sample from the NCR-Plus survey comes from areas that surround Laguna Lake, which is not nationally representative but provides a great opportunity to study the roles of ALS, especially the labor market returns to ALS under circumstances where labor demand is relatively strong as well as easily accessible. This is not always the case in many of the Philippine provinces. In addition, the survey served as a pilot for the national data collection that was scheduled to come later.

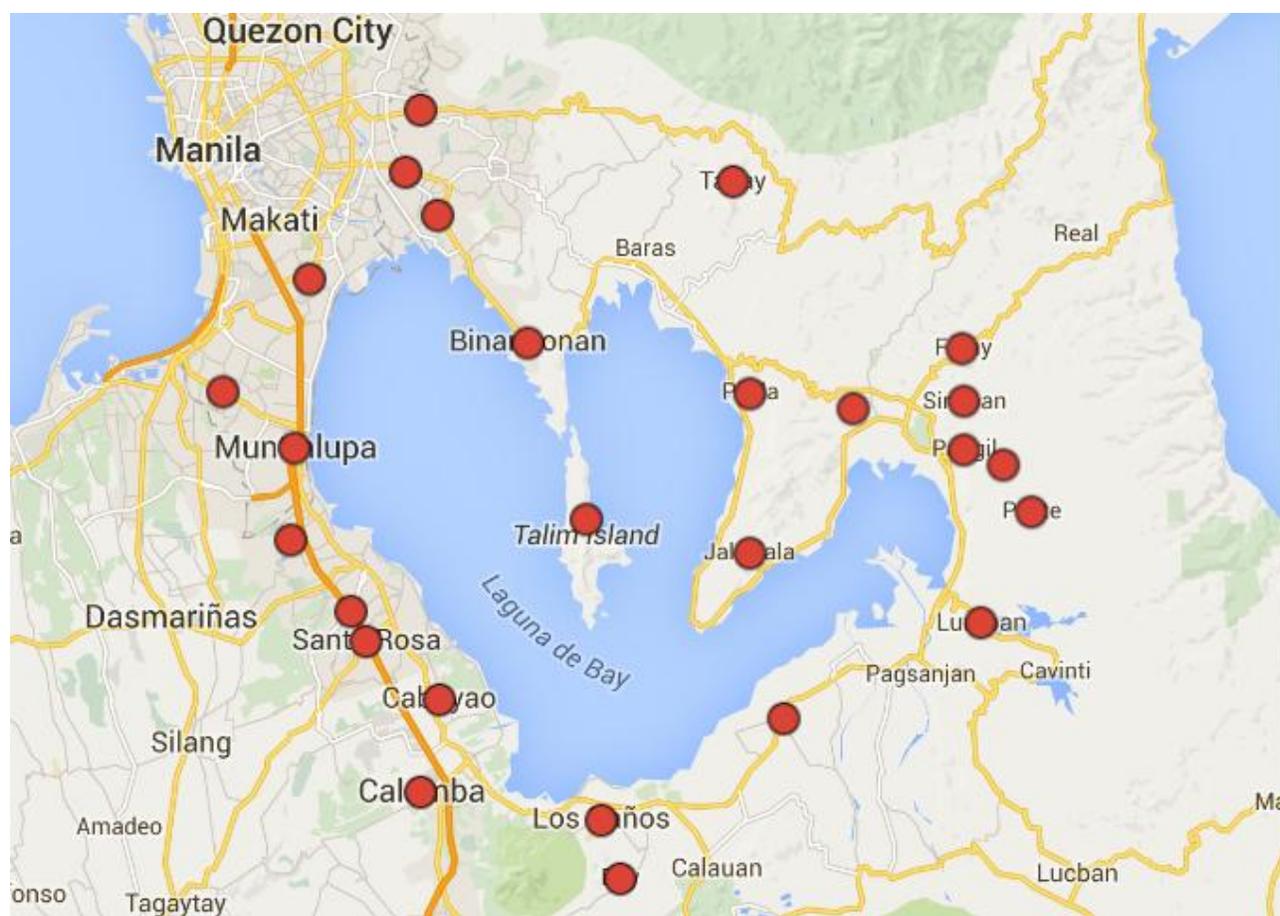
Table 5.1 and Figure 5.3 show the profile of the areas covered by the NCR-Plus survey and their locations, respectively.

Table 5.1: NCR-Plus Survey: Municipalities

DepEd division	Municipalities	Income class	Urban / rural	Rough description of economic activity
Calamba City	Calamba City	1st	Urban	Manufacturing, tourism, agriculture, and services
Laguna	Bay, Binan, Cabuyao, Fami, Los Banos, Lumban, Mabitac, Paete, Pakil, Pangil, Pila, San Pedro, Santa Cruz, Siniloan, Victoria	1st – 5th	Urban and Rural	Manufacturing, agriculture, fishery, and forestry
Las Pinas City	Las Pinas City	1st	Urban	Commercial and industrial
Muntinlupa City	Muntinlupa City	1st	Urban	Commercial and industrial
Rizal	Angono, Antipolo, Binangonan, Cainta, Cardona, Jalajala, Pililia, Tanay	1st, 3rd & 4th	Urban and Rural	Manufacturing, agriculture, fishery, and forestry
Santa Rosa City	Santa Rosa City	1st	Urban	Commercial and industrial
Taguig - Pateros	Taguig City	1st	Urban	Commercial and industrial

Note: NCR = National Capital Region.

Figure 5.3: Map of the NCR-Plus Survey Locations



Source: Authors' calculations.

The survey covered 502 individuals (352 former ALS learners and 150 non-ALS learners without high school diplomas) and 150 ALS implementers. It is important to note that there was no attrition among the 500 individual respondents. The survey team took all the necessary steps to track and locate all the randomly selected individuals, although the team had difficulty in initially identifying individuals who were listed in the literacy mappings.

Next we briefly characterize the sample. Table 5.2 shows enrollment rates by municipality. Enrollment rates vary across municipalities and are likely correlated with ALS resources and local backwardness.

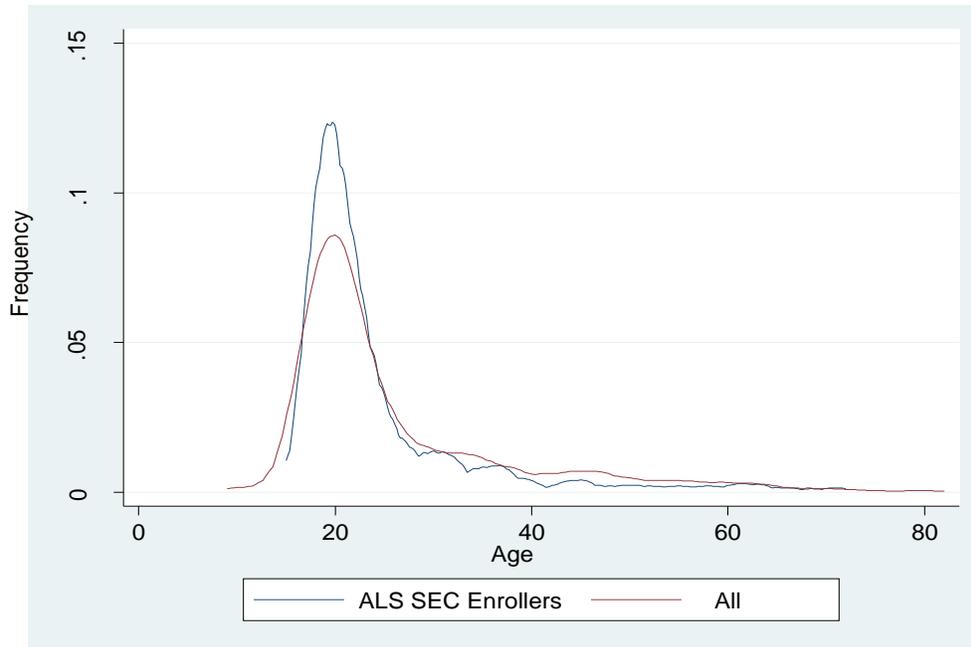
Table 5.2: Sample Locations and Enrollment: Laguna Loop

Municipality	Have you been enrolled in ALS secondary?				Total
	No		Yes		
	N	(%)	N	(%)	
ANGONO	5	36	9	64	14
ANTIPOLO	13	32	28	68	41
BAY	12	38	20	63	32
BINANGONAN	2	14	12	86	14
BIÑAN	12	63	7	37	19
CABUYAO	2	17	10	83	12

CAINTA	4	16	21	84	25
CALAMBA	1	10	9	90	10
CARDONA	0	0	11	100	11
FAMY	18	90	2	10	20
JALAJALA	2	20	8	80	10
LAS PIÑAS	4	13	26	87	30
LOS BAÑOS	1	10	9	90	10
LUMBAN	8	89	1	11	9
MABITAC	9	90	1	10	10
MUNTINLUPA	2	7	26	93	28
PAETE	0	0	11	100	11
PAKIL	1	10	9	90	10
PANGIL	6	67	3	33	9
PILA	1	5	18	95	19
PILILLA	13	43	17	57	30
SAN PEDRO	9	47	10	53	19
SINILOAN	4	20	16	80	20
STA. CRUZ	1	10	9	90	10
STA. ROSA	8	27	22	73	30
TAGUIG	5	29	12	71	17
TANAY	0	0	10	100	10
TAYTAY	2	100	0	0	2
VICTORIA	5	25	15	75	20
Total	150	30	352	70	502

In Figure 5.4, many individuals are ages 15 to 27, although there is a wide age range. ALS secondary school enrollers are slightly more concentrated in their 20s than potential learners.

Figure 5.4: Age Distribution of the NCR-Plus Survey Sample



Note: ALS = Alternative Learning System; NCR = National Capital Region; SEC = secondary.

5.4 WHAT INCREASES EARNINGS? ENROLLMENT, COMPLETION, PASSING THE A&E TEST?

As a second-chance program to grant high school diploma, the ALS Secondary Program is expected to guarantee sufficient impacts on its enrollers. However, as section 4 clarified, actual performance among enrollers varies. A subset of enrollers complete the program (although the concept of completion itself is ambiguous, as discussed in section 4), a subset of completers take the A&E test, and a subset of them pass the test. Therefore, enrollment in reality does not guarantee a high school diploma after 10 months in the program. In this setting, we are interested in the question of what levels of achievement render sufficient returns in the labor market to catch up with counterparts in the formal school system (that is, those who did not drop out of high school).

Our regression analysis using the sample of 500 potential learners (those who were identified as potential beneficiaries in the literacy mapping) shows some interesting but quite intuitive results. We conducted two types of regressions, looking into (a) the likelihood of working (Table 5.3), and (b) the amount of earnings (Table 6.4).

A reservation follows, although the findings may seem clear. Indicators such as whether enrolled or not, completed or not, and passing the A&E test or not are all endogenous in the sense that such an event is not assigned to the potential learners, but is their choice or a result of their efforts. It is likely that more able learners want to enroll and can complete and pass the A&E test, so the results of the regression analyses are driven by so-called “ability bias.” That is, significant returns to passing the A&E test could be an artifact that reflects that those who pass the A&E test are simply more able than the others, so they earn more in the labor market too. However, if we take a more balanced position in looking at the above results, it is also safe to say that our estimate is an upper bound on returns to passing the A&E test.

Table 5.3: Work Probability

Variable	(1) Probit	(2) Probit
ALS secondary - enrolled	-0.296 (1.530)	-0.284 (1.459)
ALS secondary - completed	-0.0168 (0.0999)	0.0287 (0.168)
A&E secondary - passed	0.386* (1.856)	0.370* (1.765)
Years of schooling	-0.00716 (0.158)	-0.00828 (0.180)
Age	0.0156** (2.217)	0.0146** (2.037)
Female	-0.369*** (2.671)	-0.209 (1.076)
Reason financial		0.427** (2.169)
Reason financial * female		-0.447 (1.614)
Birth order		-0.0480 (1.207)
No. of siblings		0.0447 (1.375)
Constant	8.782*** (10.98)	8.337*** (9.407)
Observations	425	425
Current Province FE	Yes	Yes
Municipality FE	Yes	Yes

Numbers in parentheses are absolute t values.

Note: A&E = Accreditation and Equivalence; ALS = Alternative Learning System; SEC = secondary.

FE = fixed effects

*** p<0.01, ** p<0.05, * p<0.1

Table 5.4: Monthly Earnings

Variable	(1) Tobit	(2) Tobit	(3) Tobit
ALS secondary - enrolled	699.7 (0.467)	-430.9 (0.517)	-468.7 (0.562)
ALS secondary - completed	-738.0	656.8	696.5

A&E secondary - passed	(0.520) 2,784**	(0.855) 2,360**	(0.903) 2,424**
Years of schooling	(2.036) 68.49	(2.450) 1.196	(2.514) -0.495
Age	(0.191) 187.6***	(0.00619) 102.6***	(0.00257) 101.9***
Female	(3.498) -6,604***	(3.618) -4,360***	(3.597) -3,919***
Reason financial	(4.329)	(6.539) 801.7	(3.871) 1,161
(Reason financial) * female		(1.282)	(1.440) -876.8
Birth order		-301.1*	(0.680) -299.2*
No. of siblings		(1.745) 280.7**	(1.739) 276.9*
Constant	7,939 (1.487)	(1.967) 7,726**	(1.940) 7,094*
Observations	502	499	499
Current Province FE	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes

Numbers in parentheses are absolute t values.

Note: A&E = Accreditation and Equivalence; ALS = Alternative Learning System; SEC = secondary.

FE = fixed effects

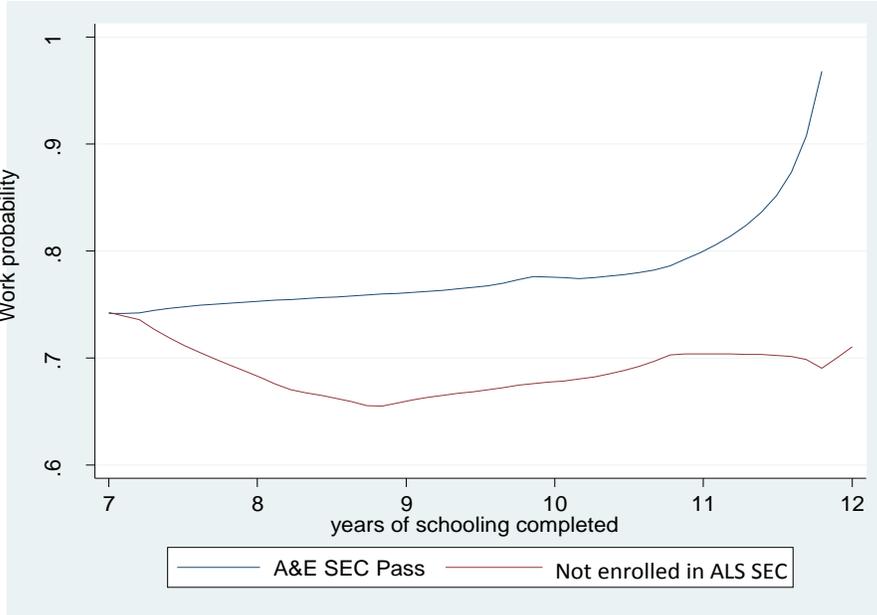
*** p<0.01, ** p<0.05, * p<0.1

Our findings are summarized as follows. First, enrollment and completion do not affect the likelihood of working after the program, implying that just being enrolled in or completing the program is not sufficient to impact the probability of working in the labor market. Second, it appears that it is important to pass the A&E (secondary) test to have a significant impact on the probability of working. This is intuitively appealing, since passing the test can signal to employers the equivalence of high school graduates. Third, interestingly, the probability of employment is lower among females, but this effect does not seem to be robust, as it disappears if we include more control variables. Instead, the financial reason for dropping out of high school looks very important. Those who dropped out of high school purely for financial reasons (thus, mostly external to them) have a higher tendency to be able to find a job in the labor market, probably because they are more able than those who dropped out for academic reasons.

How about earnings? Our findings are quite similar to those for employment. That is, enrollment and completion do not significantly change future earnings. Instead, it is necessary to pass the A&E test to increase future earnings. Interestingly, we observe an earnings penalty among females, as reported in Yamauchi and Tiongco (2013). The common structure of labor market returns shows up in this relatively small sample of ALS potential learners. Females suffer from lower wages in general, so passing the A&E test is strongly desired to catch up with and surpass male counterparts. Educational attainment is higher among females in the Philippines, which is caused in part by the wage penalty imposed on females.

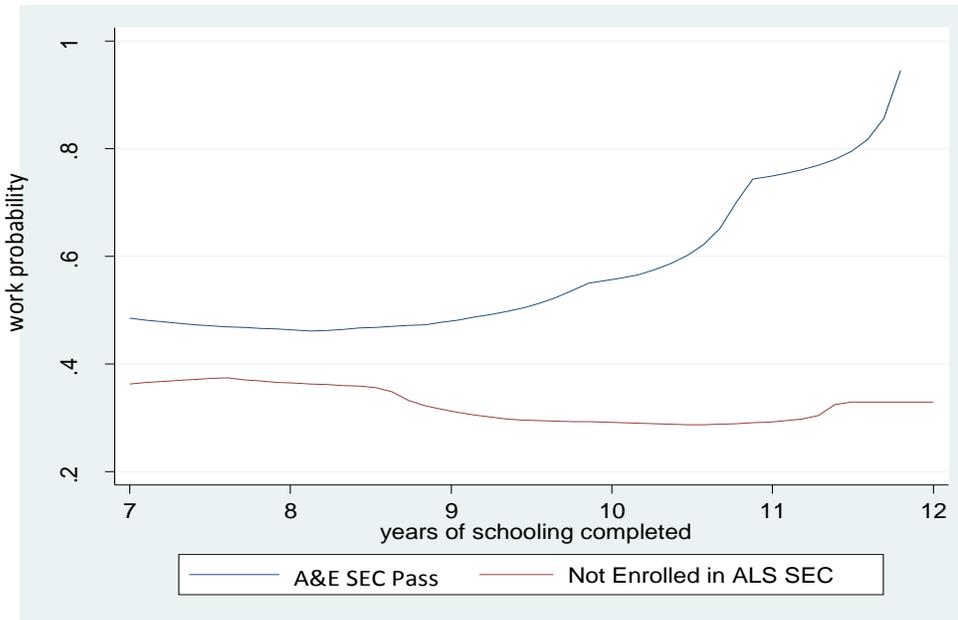
Next we compare earnings profiles (returns to schooling) between those who did not enroll in ALS and those who passed the A&E test. Figures 5.5 and 5.6 show the relationship between employment probability and the highest grade completed. The gap between the two lines shows returns attributed to passing the A&E test (after being enrolled in and completing the program). The two graphs clearly show a diverging gap between those who did not enroll and those who passed the test, as the highest level of education attained increases. For the A&E passers, the earnings profile has a positive slope, while the non-enrolled suffer from constancy of earnings.

Figure 5.5: Work Probability: Main Sample Only



Note: A&E = Accreditation and Equivalence; ALS = Alternative Learning System; SEC = secondary.

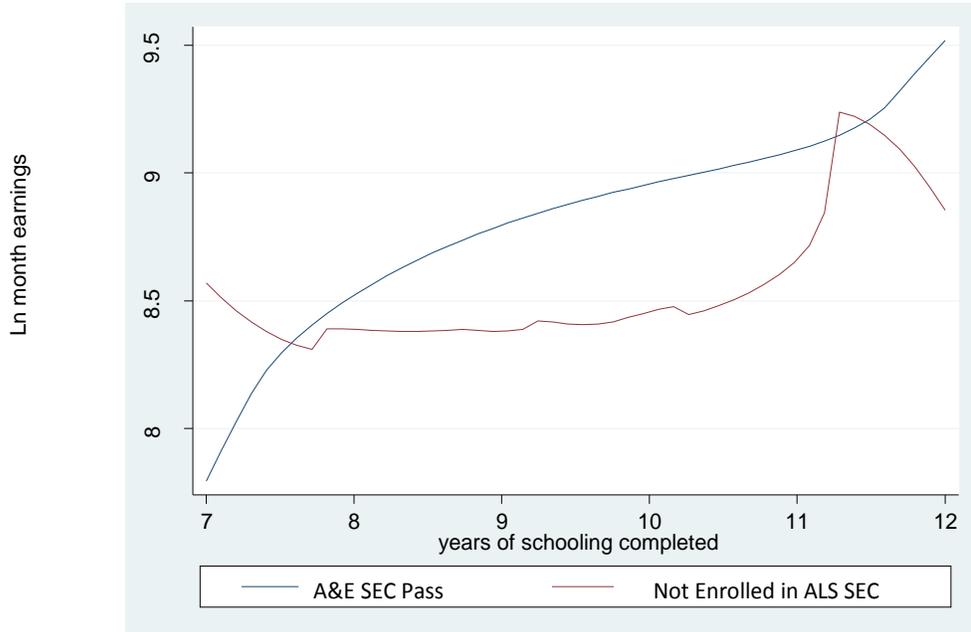
Figure 5.6: Work Probability: Sibling Sample



Note: A&E = Accreditation and Equivalence; ALS = Alternative Learning System; SEC = secondary; Sibling sample = siblings of the main respondent.

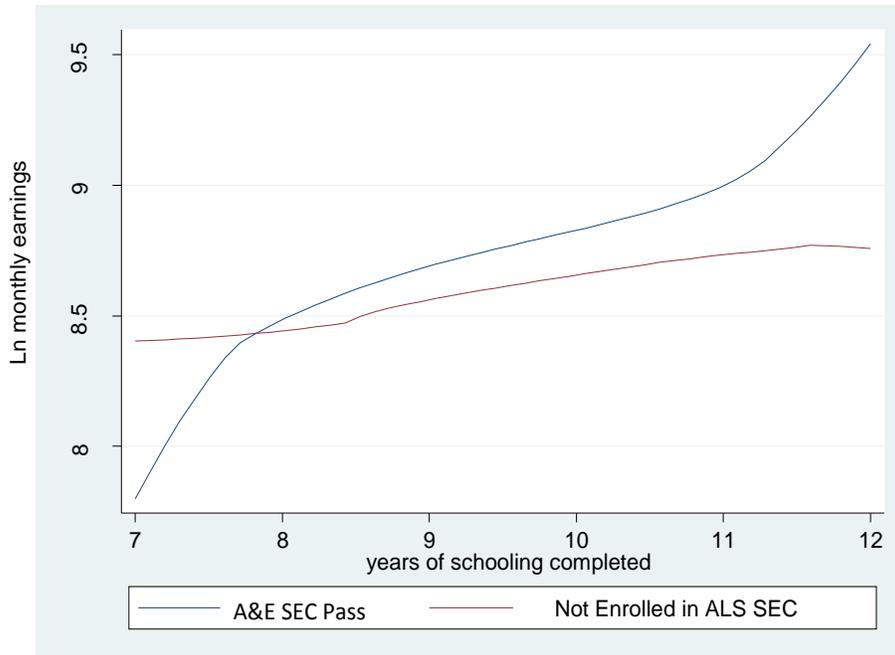
Earnings show a similar picture (Figures 5.7 and 5.8). The A&E passers experience an earnings profile with a positive slope. The slope is clearly steeper among the A&E passers than the non-enrolled, indicating higher returns to schooling among the passers.

Figure 5.7: Monthly Earnings: Main Sample Only



Note: A&E = Accreditation and Equivalence; ALS = Alternative Learning System; SEC = secondary.

Figure 5.8: Monthly Earnings: Sibling Sample



Note: A&E = Accreditation and Equivalence; ALS = Alternative Learning System; SEC = secondary; Sibling Sample = Siblings of the main respondent.

The national survey also collected basic information from a random sample of potential learners. Although we do not display this information, it is more or less consistent with the relationships observed near the NCR, especially in the determination of employment probabilities. On log monthly earnings, we observe a too large divergence between A&E passers and ALS non-enrollers, which is alarming and indicates that comparability between the two groups is highly questionable in the national survey sample.

5.5 HOW MUCH DOES INCOME INCREASE AFTER PASSING THE A&E TEST?

Our estimate attributes an increase of approximately ₱2,400 per month to passing the A&E test, that is, ₱28,800 in a year. If we use the exchange rate of ₱45 for US\$1, the A&E passers gain US\$640 more annually. In today's labor market situation in the Philippines, this amount is substantial, especially compared with the average earnings among high school non-completers.

For comparison, a similar exercise was conducted using the 2009 October Labor Force Survey. Once incorporating consumer price index to reflect inflation from 2009 to 2014, we have an estimate of monthly earnings increase of ₱1,203 (₱679) for males if the highest level of schooling completed changes from elementary school completion (some high school) to high school completion. In the case of females, it is ₱1,959 (₱1303). Our estimate of returns to passing the A&E test is higher than these estimates.²³

²³ In the estimation of marginal returns to high school completion relative to elementary school completion or some high school, we used use all those who completed different levels of schooling and use those relevant parameter estimates to calculate earnings gains attributable to high school completion. On the other hand, the analysis of ALS enrollers/completers/A&E passers uses those who were listed in literacy mappings, that is, potential beneficiaries listed by BALS. Since the publicly available database such as LFS do not have information on ALS or A&E, we cannot use the same reference group in analysis. Those who could not complete high school in LFS are comparable to the ALS potential beneficiaries in the NCR-Plus survey but we do not have interventions or counterfactual to

Some of the A&E passers go to college after receiving their high school diploma from the ALS program. Therefore, the returns include a variety of cases, ranging from working right after receiving the high school diploma to progressing to college and having a job after college graduation.

Despite the encouraging finding that passing the A&E test generates sufficiently large returns in the labor market, the passing rate is very low. The total passing rate is only 17 percent in the national data and 21 percent in the NCR-Plus. Given the relatively small population that participate in the ALS program, increasing the passing rate would not cause an adverse effect in decreasing the wage rate for the passers.

5.6 SUMMARY

Our ultimate question on the effectiveness of the ALS program converges to its returns in the labor market. Does participation in the program generate sufficient returns in the future to more than offset the initial cost, largely opportunity costs, of joining the program? Is completion of the program enough to have a higher income than before, or is it absolutely important to pass the A&E secondary test to earn more? This section answered these question using individual data collected near Metropolitan Manila.

Our answers are clear. Unless program participants pass the A&E test to send a positive signal to potential employers in the labor market, the gain is little. That is, learners need to pass the test to earn significantly more. A contradiction here is the currently very low performance on the A&E test, that is, the total passing rate of around 20 percent. It is important to make a collective effort to improve the passing rate, to materialize the gains at the individual as well as institutional levels.

them. One possible way is to use matching to compare high school non-completers and completers (say, PSM) but we think this is something a bit too far in the report. Similarly, we are aware of selectivity bias that arise from school progression and dropout in both estimations, as we discussed in the report, and instruments for the first stage selectivity are scant and mostly irrelevant and Heckman two-step that solely depends on non-linearity in distribution assumptions to correct for selectivity bias is not our choice due to its inherent identification problem.

6 SUMMARY OF FINDINGS AND FUTURE AGENDA

6.1 SUMMARY OF FINDINGS

This report assessed (a) the target populations, (b) beneficiaries, (c) delivery modes with focus on facilitators' contract schemes, and (d) labor market returns to the program. Our discussion started with the recognition that despite recent and rapid improvements in the Philippine school system, individuals who drop out of school without completing basic education (particularly high school dropouts) remain a significant issue and there were more than five million youth who had failed to complete basic education in elementary and high schools. In 2014, only 10 percent of potential learners were enrolled in the program.

Many of the youth school non-completers have relatively high economic and/or sociological opportunity costs in enrolling in the ALS program. Two third of the target population in age 16-26 are currently employed. Unless a policy intervention is designed to reduce their opportunity costs through a scholarship or conditional cash transfer, we can only expect a small number to enroll in the program.

To effectively target, the following finding provides a hint. The reasons why individuals stopped going to school significantly explain enrollment in ALS, completion of the program, and eventually passing the A&E tests. Those who left school for financial reasons are the most promising group who are likely to enroll, complete the program, and pass the A&E test, as their school incompleteness is not related to their ability. Those who stopped school for marriage/pregnancy or behavioral reasons are the least likely to enroll and succeed in ALS.

The study found no clear difference in work efficiency between facilitators delivered and procured by the Department of Education (DepEd). This is a surprise to us since DepEd-procured facilitators are paid substantially less than DepEd-delivered facilitators regardless of their efforts and performance. By introducing performance-based payment particularly to DepEd-procured facilitators (on contract), we may create sound work incentives that potentially boost their work efforts and improve learning outcomes. Consistently, facilitators prefer performance-based payment if they have performed well.

Our study suggests that monitoring activities within the ALS program could be improved. First, monitoring by different supervisors are not necessarily well coordinated. Second District ALS Coordinators (DALSC) play dual roles in teaching learners and supervising other facilitators. This seems to lower their performance as a learning facilitator in the field.

Labor market returns to ALS are only significant when learners pass the secondary school equivalency (A&E) test. However, the passing rate remains very low, around 20 percent. Financial support to those who stopped school with financial constraints and already reached higher grades looks like a promising method to improve the A&E pass rate. Regardless of whether facilitators are DepEd-delivered or DepEd-procured, a reduction in the number of learners below learners 40 per facilitator is also an important instrument to improve the A&E pass rate.

6.2 FUTURE RESEARCH ISSUES

Our study points to three future research issues that deserve special attentions. First, we need a deep lens into the question of why the A&E pass rate is so low. Empirical evidence is again scant on this phenomenon. DepEd is advised to conduct a detailed study on this issue and come up with a remedy to

improve the A&E pass rate. Currently available data are not sufficient to answer this critically important question, though a few sections in the report showed some evidence on what factors explain the observed variations of the A&E pass.

Second, empirical evidence remains still scant on adolescent behavior in and out of school (and between in and out), especially those who are considered to be at high risk of stopping school. This issue is increasingly important currently as Grades 11 and 12 are newly introduced to high schools and the overall impact of the reform is still not empirically clear. A careful longitudinal study that involves experimental interventions is required to understand effective interventions that aim to transform students at high risk and recent dropouts into high school completers.

Third, the recognition that a wholistic approach to school non-completers (and students at high risk) is required to provide a socially efficient solution urges us to better understand actual incentives faced by individuals. Addressing this issue needs a systematic analysis. Uncoordinated interventions by different programs including ALS may worsen the incidence of school incompleteness at equilibrium as they can easily distort incentives to study (or continue studying). For instance, a unilateral expansion of the last resort can increase the number of school incompleters by providing an easily-accessible second chance option outside the formal school system. It seems important to return to the golden rule in the area of human capital formation and returns. That is, an early intervention generates the largest returns. An effective remedy has to be sought while they are in school and that is the time in which the most effective intervention is supposed to work.

7 APPENDIX

7.1 EVOLUTION OF THE ALTERNATIVE LEARNING SYSTEM

Although almost all children enter elementary school in the Philippines, only about 70 percent of them successfully complete grade 6 (BEIS 2011). Only about 60 percent have access to secondary education, and 25 percent of secondary students still do not complete high school.²⁴ Thus, a large proportion of children and young adolescents do not complete basic education in the country.

To support those who could not complete school for various reasons, the Philippine Department of Education (DepEd) has been offering a second-chance program through ALS for more than two decades. In the ALS program, basic education non-completers and dropouts can receive certificates if they pass the Accreditation and Equivalency (A&E) test.

In assessing a complex program such as ALS, it is important first to understand how it has evolved over the years. The Philippine government in general and the leadership of the DepEd are not particularly strong in system continuity. Follow-through of the major programs of the previous administration does not always factor highly in the reform agenda of the succeeding administration. In the rare instances when this does happen, the original program designs are tweaked and rebranded by the incumbent administration. Occasionally, prolonged periods of uncertainty occur, and DepEd leadership changes as often as twice a year, further exposing the department to stunted reform cycles.

DepEd's triple goals of improved basic education governance, access, and quality are useful conceptual instruments to analyze the growth of the ALS program, and enable us to highlight the context within which the program operates, and not necessarily each aspect of ALS, which will be discussed in detail later. This discussion will lead to better appreciation of the current program design, and will set the tone for the study findings and recommendations.

7.1.1 Governance

DepEd has operated non-formal education programs under the Bureau of Non-Formal Education since 1948.²⁵ In addition, local government units and nongovernmental organizations have been engaged in many non-formal education programs.²⁶ The objective was for these programs to serve those who dropped out of the formal school system, by offering a less stringent learning environment that combines literacy and practical education.

In 1990, the World Conference on Education for All was held in Jomtien, Thailand. That event paved the way not just for the Education for All initiative, but also for what was later to become the ALS. In 2000, the World Education Forum, held in Senegal, adopted the Dakar Framework for Action, which re-affirmed international commitment to Education for All. The forum also identified six education goals, three of which are very relevant to non-formal education (ALS):

Goal 2. Provide free and compulsory primary education for all.

Goal 3. Promote learning and life skills for young people and adults.

Goal 4. Increase adult literacy by 50 percent.

²⁴ Expanded Basic Education Information System (SY2010–2011).

²⁵ World Bank: Skills for the Labor Market in the Philippines.

²⁶ World Bank: Skills for the Labor Market in the Philippines.

In line with the momentum building up since the Jomtien Declaration and in anticipation of the Dakar Declaration, the Philippines Non-Formal Education Project was launched in 1999 with the help of the Asian Development Bank (ADB). This project helped define the key components of non-formal education (ALS) and brought it into wider public consciousness by implementing the program and reaching around 71,000 learners within three years.

In addition, Republic Act 9155, or the Governance in Basic Education Act (Republic of the Philippines, 2001), was signed in 2001. It focused on the decentralization of the sector and school-based management. However, the act also recognized ALS as “a parallel learning system to provide viable alternative to the existing formal education instruction; it encompasses both the non-formal and informal sources of knowledge and skills.” It is important to note that this is a major policy declaration and it defines the country’s perspective on ALS. The declaration has important implications that have shaped the implementation of the program over the past 15 years. Another important result of this law was the renaming (reorganization) of the Bureau of Non-Formal Education into the Bureau of Alternative Learning System (BALS) by 2004.

The latest policy change involves Republic Act 10533, or the K to 12 Law, which was signed in 2013. The law reaffirmed that ALS was part of the basic education sector, and thus covered by the law. However, the law did not specifically state two very important things. First, it did not repeal the notion of ALS being a “parallel learning system,” thereby preserving this policy direction. Second, the law was also silent on the relationship between ALS and the proposed program for senior high school, leaving for later discussion design details, such as curriculum, staff, and budget. The current policy environment represents a major crossroads for the program.

The last item under governance is the amount of resources provided by the national government to implement the ALS program (Figures A7.1a and A7.1b). In 2000, non-formal education received a total allocation of ₱57.964 million, excluding the budget allocation of the ADB-funded Non-Formal Education (NFE) project. This allocation represented 0.07 percent of DepEd’s ₱82.692 billion budget (Figure A7.1a).²⁷ In real terms by adjusting with the inflation (Figure A7.1b), the allocation grew to ₱64.1 million in 2006, ₱177.0 million in 2007, and ₱197.0 million in 2010.²⁸ By 2015, BALS received a budget of ₱468.79 million in nominal terms, representing 0.14 percent of the DepEd’s ₱319 billion budget.²⁹ That is, the ALS budget increased by almost five times, but the proportion of the ALS budget in the overall DepEd budget only doubled.

²⁷ General Appropriations Act 2000.

²⁸ World Bank: Skills for the Labor Market in the Philippines.

²⁹ General Appropriations Act 2015.

Figure A7.1a: ALS Operational Budget in 2001–2015 [Nominal, million pesos]

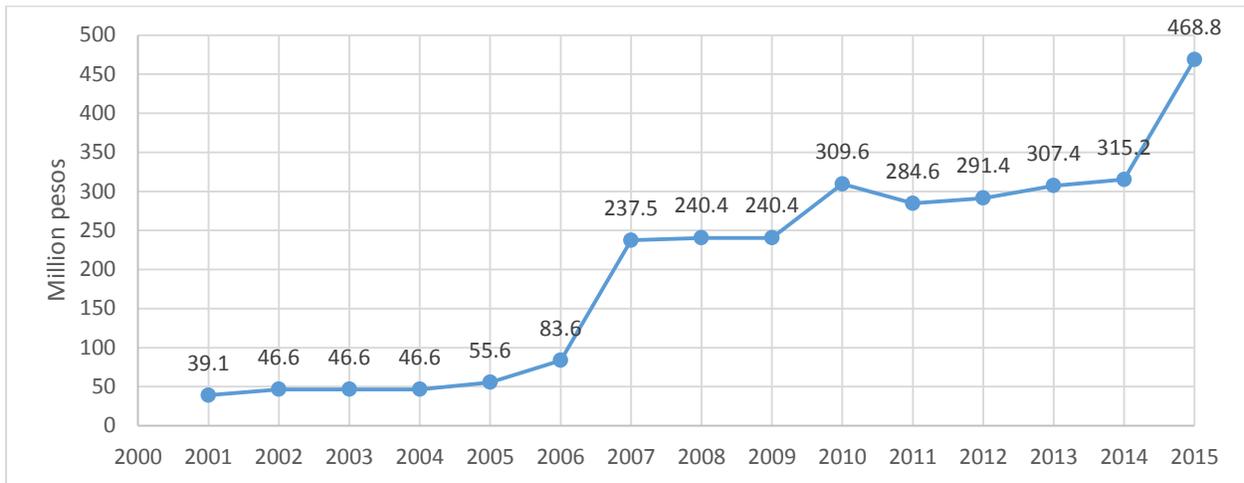
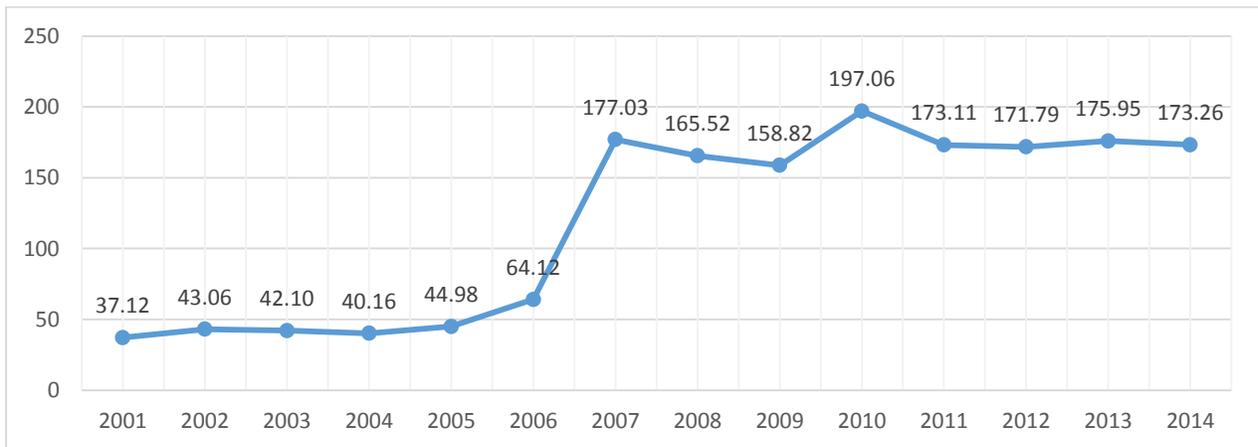


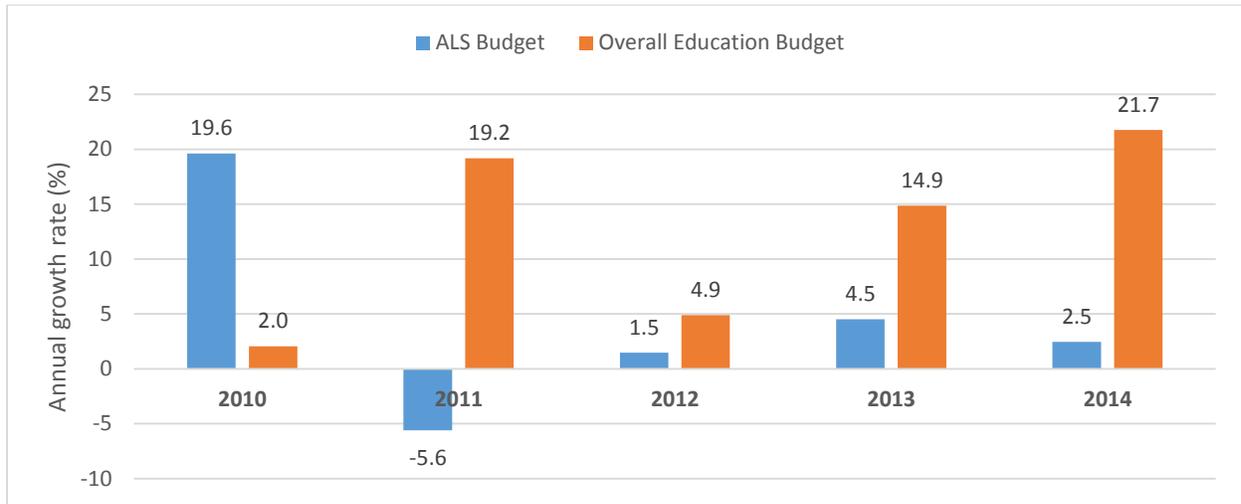
Figure A7.1b: ALS Operational Budget in 2001–2015 [Real, inflation adjusted, million pesos]



Source: Department of Budget and Management.

Although there has been a constant increase in the ALS budget, it has grown more slowly relative to the total DepEd budget. Figure A7.2 compares the annual growth rates of the budgets for ALS and DepEd overall. The overall budget has grown dramatically over the past five years; however, growth of the ALS budget has been marginal.

Figure A7.2: Annual Growth Rate of Budgets for ALS and the Overall Education Sector

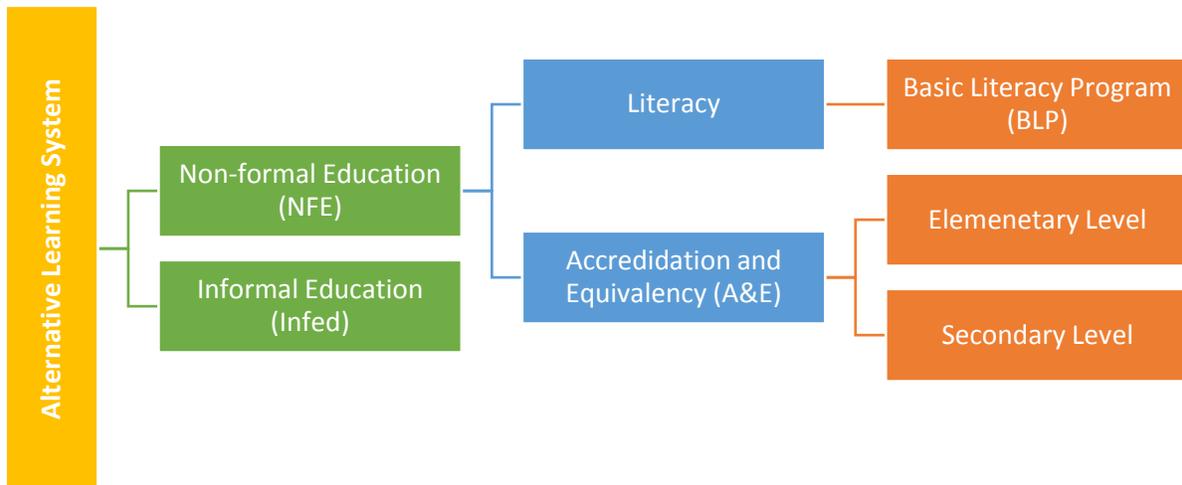


Source: Department of Budget and Management.

7.1.2 Access

BALS operates Informal Education³⁰ and Non-formal Education, which is further divided into two major ALS programs: literacy and accreditation and equivalency (Figure A7.3). The first program, the Basic Literacy Program (BLP), is a program designed to eradicate illiteracy among out-of-school children and out-of-school youth and adults who cannot read and write. BLP is an intensive community-based program designed to develop basic literacy skills for reading, writing, and numeracy. The second program is designed to provide structured learning opportunities comparable to elementary or secondary school. It includes the administration of the A&E test, which awards an elementary or secondary level diploma to all test passers.

Figure A7.3: ALS Overall Program Structure

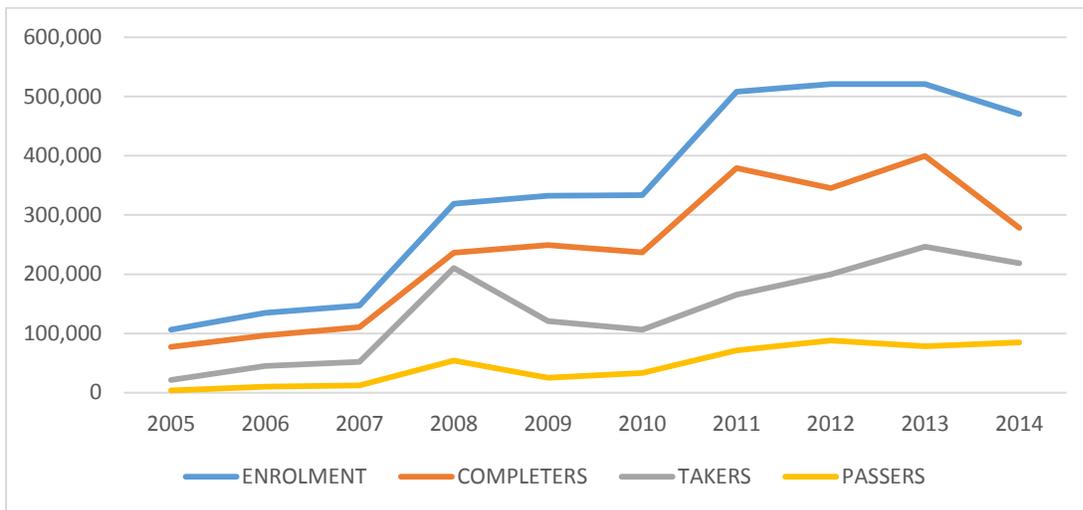


³⁰ There is a third major program called Informal Education, but it is still in the nascent stage and thus not substantially discussed in this report.

The ALS programs (A&E for Elementary Level and Secondary Level programs) are offered free of charge for anyone. Learning facilitators instruct learners, normally in groups, using self-learning modules developed by DepEd’s BALS. Learning sessions are held at various types of locations, such as community learning centers, school classrooms, barangay halls, churches, prisons and detention centers, etc. Learners can choose modules according to their preparedness and are encouraged to take the A&E test once a year. Each ALS program continues for 10 months, from January to October, but learners can begin their learning session anytime and adjust sessions flexibly.

Figure A7.4 shows the growth of ALS enrollers and completers, as well as A&E test takers and passers. The ADB-funded NFE project reached around 71,000 learners by 2003, 134,697 in 2005, and 470,276 in 2014. It is clear that public awareness of and demand for ALS has been gradually increasing, as reflected in the numbers of enrollers and completers. The total number of ALS learners was about 162,600 in 15 regions³¹ in 2010 and has continued to grow. The number of A&E examinees has also increased, from 73,936 in 2009 to 218,628 in 2014, tripling over five years. Nearly 90 percent of all the A&E examinees are at the secondary level (Figure A7.5). However, the A&E passing rate (using the number of enrollers as the base) has been decreasing over time.

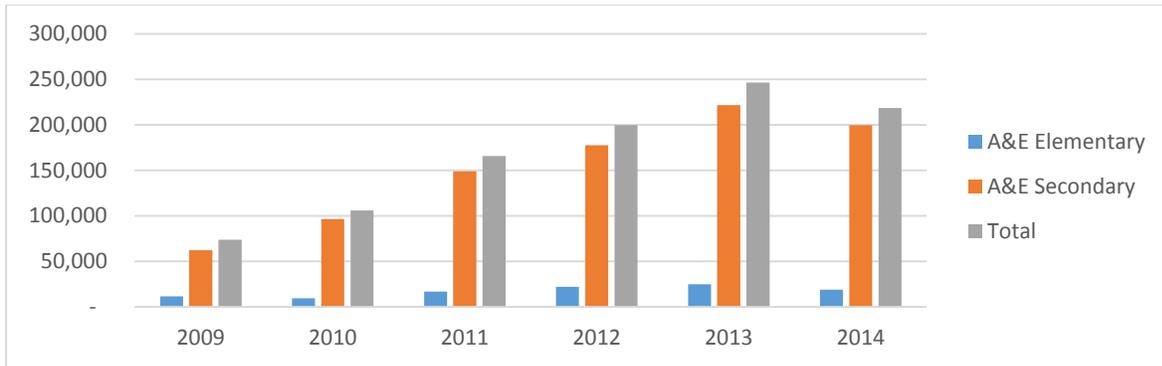
Figure A7.4: Enrollers, Completers, A&E Test Takers, and Passers



Source: Bureau of Alternative Learning System, DepEd.

³¹ The data of the ALS learners of Region II and ARMM was missing.

Figure A7.5: Growth of ALS Accreditation and Equivalency Examinees, 2009–2014



Source: Bureau of Alternative Learning System, DepEd.

The two major programs—BLP and A&E—have various subprograms, for various target beneficiaries, modes of delivery, and materials used to deliver learning opportunities. Table A7.1 summarizes the modes used in the ALS programs. There are quite a few combinations, but the extent of their actual implementation is still unclear.

Table A7.1: ALS Beneficiaries, Delivery Modes, and Materials

Based on Beneficiaries	Based on Modality	Based on Materials
<ul style="list-style-type: none"> • Illiterates • Dropouts • Indigenous people • Disabled • Muslims • Special interest groups (Adolescent, street children, parents, etc) 	<ul style="list-style-type: none"> • Face to face • Radio-based instruction • Computer-based instruction/ eSkwela • Independent learning • TV episodes 	<ul style="list-style-type: none"> • Print materials • Digitized modules • Radio script

Source: Bureau of Alternative Learning System, DepEd.

To implement these programs, ALS employs a combination of DepEd-hired and DepEd-procured personnel. Table A7.2 provides a summary of the ALS learning facilitators (LFs) in the Philippines in 2012. In total, there were around 9,200 LFs involved in implementing the ALS program in the country. About two-thirds of them are directly employed by the DepEd, so called DepEd-delivered LFs, or contracted with financial resources from the DepEd budget, DepEd-procured LFs; the rest, partner-funded LFs, are hired by local governments, churches, nongovernmental organizations, or other partners.

Table A7.2: ALS Facilitators Classified by Position, 2012

Classification	Position	sub total
Management	ALS Supervisors	263
	<i>region</i>	44
	<i>division</i>	219
Deped-delivered LFs	District ALS Coordinators (DALSC)	2,509
	<i>full-time</i>	2,196
	<i>part-time</i>	313
	Mobile Teachers (MT)	2,409
Deped-procured LFs	Instructional Managers (IM)	872
	<i>IM</i>	378
	<i>IM for BPOSA</i>	494
	Literacy Volunteers (LV)	917
	Indigenous People Program Facilitators (IP)	51
Partner funded LFs	Others	2,190
	Total	9,211

Source: BALS, DepEd.

Among the LFs, there are several types of positions. First, there is the supervisory function in regional and division education department offices, which are staffed by educational program supervisors, who are permanent DepEd officials. Under their guidance, there are ALS implementers who reach out to potential learners and provide non-formal education for learners on the ground. These field staff are further grouped simply by position: district ALS coordinators (DALSCs), mobile teachers (MTs), instructional managers (IMs)³², Literacy Volunteers (LVs), and Indigenous Program facilitators. Only the first two positions are permanent DepEd employees. There does not seem to be a standard practice for assigning LFs to subprograms in the ALS in the field. From what we observed, any LFs, regardless of positions, are in charge of any ALS programs purely depending on the learning needs of the ALS learners or local communities.

7.1.3 Quality

During the NFE project, the ALS program observed five types of “learning strands” according to the concept of learning defined by the United Nations Educational, Scientific, and Cultural Organization. The first strand focuses on the communication skills of the learner. Usually this strand teaches and challenges the listening, speaking, reading, and writing skills of the learner. The second strand is on numeracy and scientific thinking; here the learner faces problem-solving and critical thinking. The third strand aims to make the learner see his/her ability to be sustainable as an individual by the use of available resources

³² Includes IMs for the Balik Paaralan Para Sa Out-of-School Adults Program.

and/or simply by being productive. This strand hopes to equip the learner to earn a living through self-employment, regular employment, or entrepreneurship, and the use of appropriate technology. The fourth strand is the development of self and a sense of community. It is expected to improve self-development, a sense of personal/national history and identity, cultural pride, and recognition and understanding of civil and political rights. The last strand aims to expand the learner's view of the world in general. At this stage, the learner is exposed to topics on knowing, respecting, and appreciating diversity, peaceful and nonviolent resolution of conflict, and global awareness and solidarity. The learning strands ultimately hope to equip the learner to meet the minimum requirements of basic education by being functionally literate.

The main materials used to deliver the curriculum are the learning modules. The program started initially with a total of 535 learning modules. The following list shows the breakdown by program (Tables A7.3 and A7.4):

Table A7.3: ALS Learning Modules (Non-formal education)

Type	No. of Materials	Language	Format
Basic Literacy Learning Modules <ul style="list-style-type: none"> Basic Reader Neo-Literate Post Literate 	21 33 14	Tagalog, Ilokano, Bikol, Hiligaynon, Cebuano, Kapmpangan, Waray, Pangasinan, Tausug, Maguindanao, Maranao	Print Braille
Accreditation and Equivalency (A&E) Modules <ul style="list-style-type: none"> Elementary Level Secondary Level Academic Focused Bridging Module 	154 287 94	English and Filipino	Print
Indigenous Peoples Learning Materials <ul style="list-style-type: none"> Basic Literacy Level Magbukun Learning Materials 	14 11	Region IV-B- Iraya, Hanunuo, Region IX- Subanen Ctrl & Western, Region XI-Bagobo, Mandaya, CARAGA-Butuanon, Manobo Ata Ayta, agta, Isneg, Magukun	Print Print
eSkwela Modules (Computer-based Instruction) <ul style="list-style-type: none"> Elementary Level Secondary Level 	89 194	English and Filipino	Digitized
Radio-Based Instruction (RBI) <ul style="list-style-type: none"> Elementary & Secondary Levels 	56 6	Filipino Filipino	Print (scripts) Produced scripts (CD)
Television Episodes (Knowledge Channel) <ul style="list-style-type: none"> Elementary & Secondary Levels 	3		Print (scripts) TV episodes
Arabic Language and Islamic Values Education (ALIVE)	16	Arabic and Filipino	print

Table A7.4: ALS learning modules (Informal education)

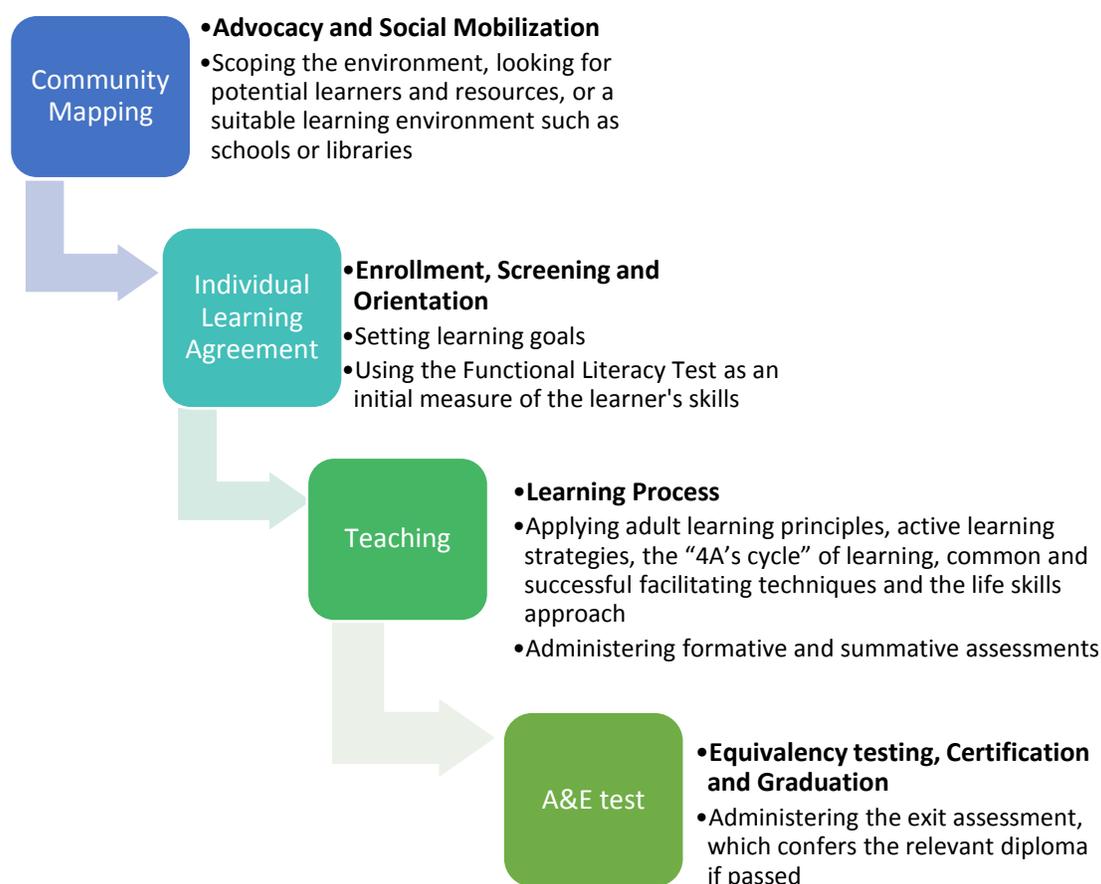
Type	No. of Materials	Language	Format
For Parents (modules, comics, flyers, pamphlets, posters)	24	Filipino	print
For Mothers (*syllabus based on the concept of “Pagsasarili” or Mothercraft	5	Filipino	print
For Street Children (modules, comics, flyers, pamphlets, posters)	30	Filipino	print
For Adolescent (Secondary Level)	17	Filipino	print

One can imagine that there are simply too many modules to be covered in such a non-formal setting. Therefore, the modules were consolidated and trimmed down to 283, with 80 being the “core” modules and the rest used depending on the specific learning needs of the individual. This consolidation made the implementation of the curriculum somewhat easier, but certain trade-offs can be expected in quality. The loss of fidelity from reducing 535 modules down to 80 will be further explored later.

As of November 2015, DepEd is in the process of matching the ALS curriculum to the K to 12 curriculum. The covered competencies are being mapped and the curriculum gaps are being identified.

The steps in the implementation of the program significantly affect its quality. A brief schematic of the process is shown in Figure A7.6.

Figure A7.6: Schematic of the ALS Operation Process



The last item under quality is to take a closer look at the number of learners passing of the A&E test. Figure A7.7 shows a generally upward trend, which shows that A&E test passers are seemingly responsive to certain shocks surrounding test administration (for example, increases in the budget, changes in test items, and changes in test dates). However, although access figures are growing at an encouraging rate, actual passing rates are not improving as quickly, indicating major challenges in the program in the quality of teaching and learning.

Figure A7.7: Number of A&E Registrants, Examinees, and Passers, and the Passing Rate



Source: Bureau of Alternative Learning System, DepEd.

7.2 DATA FOR SECTION 2

The analysis uses the following national household survey data sets, which were obtained from the Philippines Statistics Authority: 2008 Functional Literacy, Education, and Mass Media Survey (FLEMMS), 2013 FLEMMS, 2009 Labor Force Survey (LFS), 2011 LFS, 2013 LFS, 2010 Population Census, and Family Income and Expenditure Survey. The analysis also uses the following administrative databases of the Department of Education (DepEd): 2008 Basic Education Information System (BEIS), 2013 BEIS, 2008 National Achievement Test (NAT) score data, 2009 Accreditation & Equivalence (A&E) test score data (Bureau of Alternative Learning System, BALS), 2013 A&E test score data (BALS), 2012 Alternative Learning System (ALS) facilitator division data (BALS), and 2010 ALS Micro Information System (BALS).

The DepEd data are organized either by school, school district, education division, province, or region. The national household data sets, such as FLEMMS and LFS, do not provide small area information beyond provinces because of confidentiality. In the division-level analysis of the ALS facilitator allocation, we generated indicators computed at the division level or province level, if the division's values were missing, by assuming that different divisions in a province face the same average conditions. In the individual-level analysis, we computed the incidence of school dropouts, if necessary, by aggregating division-wise conditions or ALS conditions within a province.

The following are the definitions of the key variables used in the analysis:

Potential learner-facilitator ratio. The number of ALS potential learners younger than age 26 years divided by the number facilitators at the province level (computed using 2013 FLEMMS and BALS data).

Proportion of ALS facilitators per high school age population. The number of all ALS facilitators divided by the high school age population at the division level (computed using BEIS and BALS data).

Proportion of ALS DepEd-delivered facilitators per high school age population. The number of DepEd-delivered facilitators (DALSCs) and mobile teachers (MTs) divided by the high school age population at the division level (computed using BEIS and BALS data).

Proportion of ALS DepEd-procured facilitators per high school age population. The number of DepEd-procured facilitators (instructional managers (IMs), literacy volunteers (LVs), and indigenous people) divided by the high school age population at the division level (computed using BEIS and BALS data).

Pupil-teacher ratio (PTR), net enrollment rate (NER), and dropout rate. Available from BEIS.

National Achievement Test. Available from the NAT score database.

A&E secondary-level pass rate. The number of learners passing the A&E test divided by the number of the examinees (computed using BALS data).

Proportion of ALS target population. The ratio of the estimated ALS target population (younger than age 26 years) to the population in the provinces (computed using FLEMMS data).

Difference in the probability of employment between high school graduates and non-completers. The difference in the probability of being employed between those who completed high school or a higher degree and those who did not complete high school, for those ages 16–25 at the province level (computed using LFS data).

Difference in the wage between high school graduates and non-completers. The difference in the actual daily earnings between those who completed high school or a higher degree and those who did not complete high school, for those ages 16–25 at the province level (computed using LFS data).

Average employment probability. The average probability of being employed, among those ages 15–25 at the province level (computed using LFS data).

Population density (ages 12–15). High school age population divided by the area (in square kilometers) at the province level (calculated using BEIS and Philippine Statistics Authority data).

Urban dummy. This dummy variable takes the value 1 if for a city division or 0 if otherwise (rural) (generated using BEIS data).

Female dummy. This dummy variable takes the value 1 if female or 0 if otherwise (male) (available in the FLEMMS data).

Poverty dummy. This dummy variable takes the value 1 if the household is below the poverty line or 0 if otherwise (available in the 2008 FLEMMS data).

Wealth index. The wealth index classifies households into 10 percentiles according to their wealth status. With this index, the dummy variable takes the value 1 or 0 for each value (generated using the 2013 FLEMMS data).

Secondary-level target population dummy. The dummy takes the value 1 if an individual is classified as an ALS potential learner at the secondary level based on education attainment level, or 0 if otherwise. The analysis in Table 8.1 uses the secondary-level ALS target population status. See section 2 for details in defining the ALS secondary-level target population (generated using FLEMMS data).

Proportion of people with a certain occupation at the province level. The number of those who are engaged in a certain occupation according to the Philippine Standard Occupational Classification (one-digit code) divided by the population ages 10–64 in the province (computed using FLEMMS data).

Asset holding. Dummy variables constructed using FLEMMS data, to define whether the household owns a particular asset or durable goods.

Age, age squared, and marital status. This information is available from the FLEMMS data.

Final weight-adjusted factor. This information is available from the FLEMMS data.

Region VIII in FLEMMS 2013

Region VIII is not included in FLEMMS 2013 because of the impact of Typhoon Yolanda, which results in the underestimation of the target population for the entire country in 2013. With FLEMMS 2008, the target population younger than age 26 estimated for Region VIII was 6.16 percent (Table A7.5). It is possible that a fraction of the population in Region VIII might have moved out of the area after Yolanda.

Table A7.5: ALS Target Population (Younger Than Age 26) by Region Based on FLEMMS 2008

Region	N	(%)
I - Ilocos	200,639	3.6
II - Cagayan Valley	219,432	4.0
III - Central Luzon	476,191	8.6
V - Bicol	376,139	6.8
VI - Western Visayas	476,381	8.6
VII - Central Visayas	442,436	8.0
VIII - Eastern Visayas	340,295	6.2
IX - Zamboanga Peninsula	277,213	5.0
X - Northern Mindanao	337,841	6.1
XI - Davao	397,841	7.2
XII - SOCCSKSARGEN	280,961	5.1
National Capital Region	407,108	7.4
Cordillera Administrative Region	72,032	1.3
ARMM	347,391	6.3
XIII - Caraga	169,213	3.1
IVA - CALABARZON	495,137	9.0
IVB - MIMAROPA	206,240	3.7
Total	5,522,488	100

7.3 PERFORMANCE MEASUREMENTS

This section critically assesses the performance indicators that are currently used as monitoring and evaluation (M&E) tools for ALS implementation and performance. Since alternative, non-formal, or informal education in the country has not been studied extensively, we do not have widely agreed on performance measurements to use. In this section, we calculate the indicators currently used in the system, discuss potential problems in the way in which the ALS facilitators are incentivized, and propose some alternative measures to correct the problems. It is also important to emphasize that the current and new indicators are not substitutable but complementary to improve our understanding of the status quo.

In essence, we propose the use of an indicator that measures the survival rate within the same cohort. For example, the notion of completion has to be anchored on those who were enrolled, so that the completion rate measures the proportion of enrollers who subsequently complete. Similarly, the A&E passing rate has to be calculated on the basis of the initial enrollers or completers. Similar improvements are proposed at different stages of learning in the ALS secondary program. In this fashion, facilitators internalize the sense of a production process from enrollment to eventually passing the A&E test. Along with the proposal on performance indicators, we also discuss some important conceptual issues, such as to how to define “completion,” reflecting the very nature of ALS as a flexible, open, second-chance program.

7.3.1 Problems with the Current Indicator Regime

There is a tacit agreement among the ALS implementers that the program is being wrongfully assessed using formal school concepts and indicators. Specifically, many of the implementers think that current methods of computing traditional measures, such as enrollment, completion, test taker, and passing rates, are inappropriate, unfair, or both. Ideally, the measures should reflect the survival rate, tracing one particular cohort. But, as the definitions of these indicators show, they are rather a snapshot of one particular stage in the ALS program, for example, the number of test takers divided by the number of completers.

$$\textit{Participation Rate} = \frac{\textit{number of enrolees}}{\textit{number of OSYA}}$$

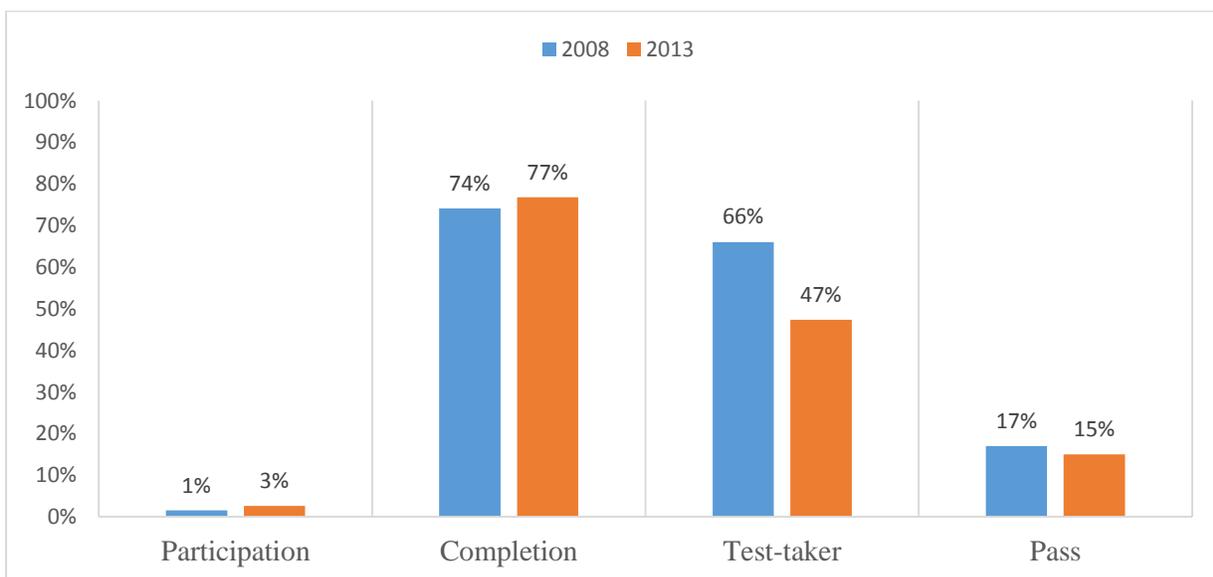
$$\textit{Completion Rate} = \frac{\textit{number of completers}}{\textit{number of enrolees}}$$

$$\textit{Test Taker Rate} = \frac{\textit{number of test takers}}{\textit{number of completers}}$$

$$\textit{Passing Rate} = \frac{\textit{number of passers}}{\textit{number of test takers}}$$

where OSYA refers to out-of-school youth and adults, which are the ALS target populations estimable based on the latest national household survey data. The most recent rounds of FLEMMS showed that the population size of OSYA ages 26 years and younger was 5.2 million in 2008 and 4.8 million in 2013. Figure A7.8 shows actual calculations of the indicators (rates) using the 2008 and 2013 data.

Figure A7.8: Current ALS Performance Indicators Computed for Using the 2008 and 2013 Data



Source: Calculations using the BALS/DepEd administrative data and FLEMMS 2008 and 2013.

There are two major criticisms of the current set of performance indicators. First, the indicators do not adhere to the concept of survival (or progression) within a cohort. What is the proportion of enrollers who eventually take the A&E test (and, of course, completed the program)? What is the proportion of enrollers who eventually pass the A&E test?

Second, the target population has potentially large opportunity costs in enrolling and continuing in ALS. That is, some are willing to enroll and complete the program, but the others are not, although all of them wish to have a certificate. As section 2 clarifies, not all OSYA who do not have a high school certificate think it is optimal to enroll in the ALS Secondary Program, because they have to give up their current earning opportunities to enroll. Although this conceptual question is relevant at each stage in the program, we think this issue is particularly important when calculating the participation rate (currently the rate is very low).

There are some important implications of using snapshot-type indicators. Implementers are motivated by such an indicator to focus on a stage-specific input-output relationship. For example, if the test-taker rate is measured by the ratio of takers to completers, the implementers may be tempted to focus on those who complete the program, and thus only good performers in the program. In other words, it is necessary in the current system to integrate different indicators to grasp a more comprehensive (and more correct) picture. In this case, we have to combine the completion and test-taker rates.

Although ideally it is important to use “cohort-specific” measures to track the performance of one particular cohort, the core nature of ALS makes it very challenging to capture the system’s performance only from such revised concepts. That is, since the ALS program is essentially a second-chance (and highly flexible) educational program in contrast to the formal school system, it does not compel learners to finish the entire cycle at one time. Some learners enroll in multiple years to complete and take the A&E test not necessarily soon after completing the program. Under the current circumstances, our measures can be at best an approximation of the cohort-specific progression (involving errors coming from those multiple-year enrollers).

Starting in 2015, ALS has been included in the Learner Information System (LIS) of the Department of Education. Individual-level longitudinal data in the LIS can solve the problem of flexible multiple entries in the program. Similar to the existing ALS practices, basic information will also be collected on all ALS beneficiaries. The data will be entered directly into the existing information system with necessary support structures. There is a higher probability that more complete information will be submitted to the central office. By finally being part of DepEd’s main information system, the ALS data can also benefit from data quality protocols being developed for the LIS and the Expanded Basic Education Information System.

In general, however, the challenge of accurately and fairly measuring ALS performance is exacerbated by the questionable quality of the data currently being used to compute these indicators. The accuracy of the ALS performance measurements is always questioned if the following issues are not seriously addressed: (a) weak incentives in proper data management, (b) inefficient data submission channels, and (c) ineffective database management practices.

7.3.2 New Performance Indicators

This subsection discusses modifications that can be made in the current indicators to reflect cohort tractability and actual target populations. Four indicators are considered: (a) participation rate, (b) completion rate, (c) test-taker rate, and (d) passing rate.

7.3.2.1 Participation Rate

Currently, this indicator is computed by assuming that all those without a high school diploma should be reached by ALS. This is a worthy goal in the light of the Education for All 2015 initiative. However, the goal is unrealistic, since only a subset of the above population believes that it is optimal to enroll. In addition, the current ALS program does not have the capacity to accommodate all of this population.

Section 2 identified age 26.5 as the upper age limit, above which enrolling in ALS does not provide a positive net discounted gain. Thus, the primary target age for ALS in this study is from the end of school age at each cycle (12 years for primary school non-completers and 15 years for secondary school non-completers) to age 26 years. The current official data show that ALS enrollment is concentrated in this age group. Unless labor market returns to the ALS Secondary Program (that is, returns to high school completion) increase substantially, it is rational to focus on this age group.

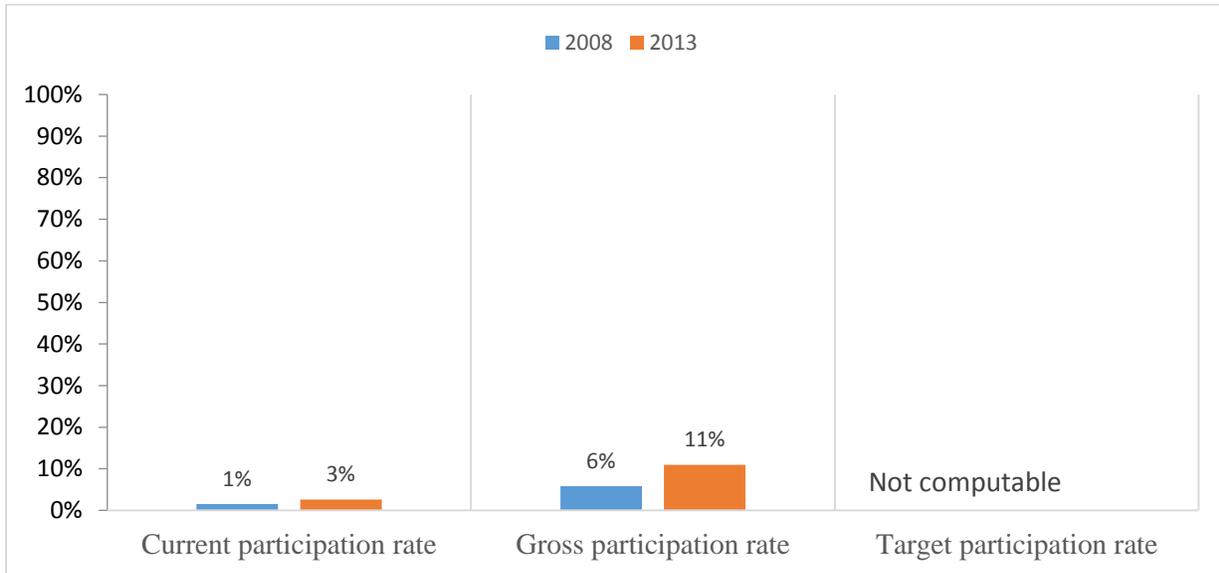
$$\text{Target Age Participation Rate (TPR)} = \frac{\text{Number of ALS enrolees in the target age group}}{\text{Number of OSYA in the target age group}}$$

The main difference between TAPR and the current participation rate is its explicit reflection of the target age group. The proposed modification ranged from 5.2 million people in 2008 to 4.7 million in 2013. This will increase the size of the indicator, as the denominator is substantially smaller than the entire population without a high school diploma. This indicator can be viewed as the ALS counterpart of the “net enrollment rate” in the formal education system. The variables in the formula will only consist of out-of-school youth and adults in the target age group. However, this does not mean that ALS will no longer serve individuals outside this age range; instead, any enrollment from the 27-and-above age group should be considered in an alternative way:

$$\text{Gross Target Age Participation Rate (GPR)} = \frac{\text{Number of ALS enrolees regardless of age}}{\text{Number of OSYA in the target age group}}$$

GTAPR is a hybrid of the current and the proposed net estimation methods, as it counts all ALS learners (numerator in the current system) but refines coverage as only those with a high probability of participation (denominator of the proposed net coverage rate). Figure A7.9 shows the current indicator and the newly proposed indicators: TAPR and GTAPR.

Figure A7.9: ALS Participation Rates in 2008 and 2013 (proposed, %)



Source: Calculations using the BALS/DepEd administrative data and FLEMMS 2008 and 2013.

In light of the program’s targeting, it is important to disaggregate the indicators geographically. This attempt has to be supported by geographically disaggregated small-unit estimates of population statistics, such as the age distribution, educational attainment, and labor market participation. Section 2 displayed the size of target population (age 26 or younger) by province, but municipality-level data are ideally required to do fine geographical targeting (through resource reallocations across divisions and municipalities).

7.3.2.2 Completion Rate

Next we describe completion in the context of the ALS program. The theoretical underpinnings are exactly the same as for the completion rate computed for the formal school system.

7.3.2.2.1 What Is “Completion”? Issues in Defining Completion in ALS

There are two major issues with the current definition of this indicator. First, because of the flexibility that ALS offers, there is no reliable definition of “completion.” The prescribed operational procedures states that mapping exercises should be done in November and December of every year so that learning sessions can begin in January the following year and end in October of that same year. This 10-month period is deemed as the official ALS “school year,” which is exactly as long as the official formal school year, albeit for a different set of months. The A&E test is always targeted to be conducted in November to December, corresponding to the mapping period. In theory, this should allow appropriate lead time for finalizing the test results and processing graduation (test passing) certificates in time for March, which is traditionally the graduation period for public schools and the beginning of the recruiting period for post-secondary institutions and employers.

Unfortunately, in reality, the ALS implementers do not have a complete roster of 50 (for DepEd-contracted personnel) or 75 (for DepEd-hired employees) learners once sessions start in January. Learners come and go within the 10-month period and the official enrollment list that reaches the central office depends on when the data are requested and reported. They are usually reported around the second quarter of the year, when the agency budget proposal is being finalized, or during the A&E test registration period in the third quarter of the year, when estimates are being prepared about potential numbers of test takers.

In addition, the stock as well as flow of learners are complicated by the fact that each individual has varying degrees of learning prior to ALS. The prescribed procedure is that a learning facilitator should assess the educational level of the learner first, then craft a detailed learning plan that is tailored to the needs and aspirations of the learner. The program is grounded on the principle of individualized learning, which is exactly what the target clients need.

Furthermore, not all ALS implementers adhere to this standard of recognition of prior learning. Often, it is the documentary proof (usually the diplomas or report cards) that determines what program the learners will undergo. Once the learners are categorized within these major groupings (Basic Learning Program, A&E S Elementary, and A&E Secondary), the learning facilitator designs collective and individual programs depending on his/her teaching preferences.

Considering all the complexity that the flexibility of the program provides, it is difficult to design a single official program of activities for the 10-month period, and more difficult to standardize attendance and course (module) requirements for all learners, all of which make it difficult to define “completion.” To pass the A&E test, one learner who joined in January might only require a minimal number of sessions in contrast to another learner who joined in September and needs almost daily supervision. Moreover, defining completion by attendance will contradict the main principle of the program.

The second issue with the current definition of completion rate is a recurring theme in this section, that is, not everyone who enrolls in ALS sets out to complete the program. Granted, 78 percent of learners (2014 ALS M&E national survey) stated that they enrolled in ALS to acquire a diploma (this implies that they intend to learn as much as they can to be able to increase their chances of passing the A&E test). Nonetheless, the remaining 22 percent originally did not intend to finish the 10-month course, because of various considerations, and it might be difficult to convince them otherwise. In this scenario, the current computation method almost ensures that the resulting indicator is understated. This might be construed as unfair for ALS implementers, especially if it has implications on certain incentive packages.

7.3.2.2.2 Proposed Approach to Address Issues with ALS Completion

Considering all of these issues, any attempt to refine this indicator first needs to define “completion” specifically in the ALS context. A possible solution requires redesigning the two major program aspects: the Individual Learning Agreement (ILA) and its program timeframe.

The ILA is the learning plan that is mutually agreed by the learning facilitator and the learner, based on the initial educational assessment by the facilitator and the stated objectives of the learner. It is actually a formal tool that has a prescribed set of procedures and documentation and it serves a very important purpose in ALS implementation. However, the 2014 ALS national survey data show that while over 90 percent of facilitators conducted the placement test (Functional Literacy Test) at enrollment and developed the ILA, slightly more than 25 percent actively use the ILA in monitoring the learners’ progress, and 32 percent conduct a post-test, and over 60 percent do not even bother to check the individual’s portfolio to evaluate achievement (2014 ALS national survey).

The proposal is to redefine the ILA as the *ALS Report Card* (ARC), which can serve as the interim performance record of the individual. Initially, the idea is that the ARC can contain the following:

- (A) Unique ID assigned to an individual learner in the LIS
- (B) List of competencies and modules the learner already knows coming into the program, based on initial assessment or *recognition of prior learning* (RPL)
- (C) List of competencies and modules the learner has completed, with a corresponding “grade” or proficiency level or “pass-fail” assessment

- (D) List of competencies and modules the learner still needs to take, based on progress in relation to the agreed learning plan and advice of the learning facilitator
- (E) List of competencies and modules the learner does not have to take, as defined by his or her stated goals.

This proposal assumes that the ALS curriculum is fully aligned with the K-12 curriculum and that the learning modules have been updated accordingly. The proposal also assumes that the Functional Literacy Test and all other assessment tools have been improved to provide accurate initial measurement of competencies. Lastly, it requires that only learners who have successfully passed all the core or required modules, either through RPL or completion, will be allowed to register for the A&E test (with a duly accomplished ARC as a documentary requirement for test registration). If the learner does not intend to take the test, a certified ARC can still be used as proof of participation in ALS and as proof of possessing the competencies successfully passed through either RPL or completion.

The second change required to solve the definition of completion has to do with the multi-year enrollment framework. As a second-chance education program, ALS is very attractive, because an individual might be able to gain a diploma within 10 months or less, provided that he/she is able to pass the A&E test. However, learners vary in prior learning and cognitive potential. With the proposed changes to the ILA, the multi-year enrollment framework for ALS can be formalized as a quality assurance strategy. Specifically, ALS participation should now be viewed as an ongoing educational program that prioritizes mastery of competencies no matter how long it takes, with periodic assessments (not just yearly) to ascertain who are qualified to receive the relevant certification (elementary or high school diploma). The credible assessment and work plan provided in the ARC provide a binding framework that emphasizes advanced planning, patience, and hard work even across calendar years.

First, there is an incentive for learners to enroll early in the program, attend as many sessions as possible, and study during their free time so that there is a higher probability of learning all the necessary competencies/modules to pass the test. Second, there is an official guide for learners to determine how much effort they need to invest if they want to complete the program and/or qualify for the test as soon as possible. Third, there will be a formal process for facilitators to determine who can and should register for the test, instead of the arbitrary practice currently pervading field implementation. Fourth, if a learner is not immediately eligible to take the upcoming test, the next test is no longer one year away and waiting will not discourage continued participation, but instead provide an incentive to intensify efforts to meet a fast-approaching opportunity to acquire a diploma. Not yet qualifying for the test will not reduce morale (at least, not as much as it already does), because the ARC can still be used as a proof of efforts for potential employers.

This proposal requires a new way to look at enrollment statistics, specifically the tracking of “continuing” learners from one year to the next and the accompanying change in mindset to remove the negative connotation and pressure on ALS implementers to pass everybody as soon as possible and prioritize review sessions. The proposal also aims to provide a sense of structure and fairness to the current practice of screening to determine who is allowed to take the test, by having accurate performance assessments and reducing the stigma of not qualifying immediately for the test. Lastly, holding the A&E test only once a year makes it seem like a high-stakes test. Twice a year or quarterly tests should be explored, with the conditions that only regional offices be used as venues for the majority of the test dates and that many parallel versions of the test are available to avoid item leakages and rote memorization of answers from expected questions.

Considering all of these aspects, the proposed definition of completion is “the state of successfully passing all the required sessions/modules specified in the learner’s ALS Report Card.” Framing it this way provides the following advantages. First, it provides a clear structure on the process of joining, staying in, and finishing the ALS program while maintaining flexibility for each individual circumstance. Second, it makes the ILA central to learner progress, facilitator performance, and even external supervision and program management, therefore improving the behavior surrounding the development and use of ARCs. Third, it aligns the incentives of learners and facilitators to have much of prior learning accredited and implement a more learner-centric approach to the teaching-learning process.

However, it is possible that ALS stakeholders still shortcut the proposed new process. Some possibilities include learners and implementers trying to accredit more skills than is actually possessed to lessen the number of sessions and modules required for completion; agreeing on shorter, less demanding learning objectives³³ to increase completion; or total disregard of the new process and still focusing on review sessions. The proposal is often self-regulating and has to be supported by additional safeguards.

For example, shorter and less demanding learning objectives are fine, but if the frequency of this practice increases, an investigation becomes warranted. The average percentage of learners who enroll in ALS to acquire a diploma is 78 percent (2014 ALS M&E national survey). If the reported figures are more than one standard deviation lower than this (for example, less than 55 percent), the implementer should justify why this is the case. The new process is also self-regulating in the sense that less-demanding learning objectives will not qualify the learner to take the A&E test, so the majority of learners will not be likely to accept an irrelevant and useless ARC. Lastly, for this and other negative behavior caused by the new definition of completion, more structured supervision and investigation will be aided by the existence (or absence) of ARCs for each learner.

7.3.2.2.3 Proposed Indicators

Given the proposed definition of completion, two contextualized statistics are also proposed. The change in names is deliberate, so that these can be distinguishable from formal school concepts. A quick scan of the UNESCO Institute of Statistics (UIS) Glossary of Education Statistics³⁴ reveals that there is no official indicator labeled as “accomplishment rate”.

$$\textit{Accomplishment Rate (AR)} = \frac{\textit{number of completers}}{\textit{number of ALS enrolees}}$$

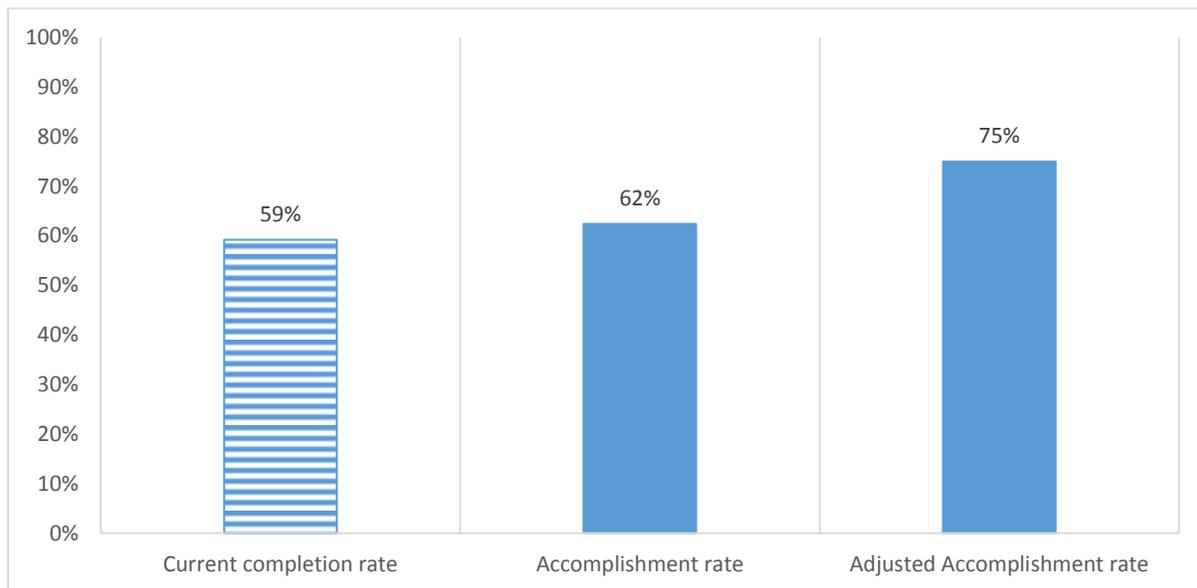
The accomplishment rate (AR) measures how many of the enrollees go on to complete the program. Like the original equation, a value near 100 percent is desirable, as it would mean the learning facilitator is able to convince most of the learners to aim higher and try to acquire a diploma. The next modification considers that not everybody who enrolled in ALS actually set out to finish the program. The study found that only 78 percent of learners enrolled (2014 ALS national survey) with the aim of acquiring a high school diploma. If this figure is correct, an adjusted accomplishment rate can be computed to determine a refined measure of performance.

³³ Learning objectives are defined as specification of learning outcomes to be achieved upon completion of an educational or learning activity. These encompass improving knowledge, skills and competencies within any personal, civic, social or employment related context. Learning objectives are typically linked to the purpose of preparing for more advanced studies and/or for an occupation or trade or class of occupations or trades.

³⁴ UNESCO Institute of Statistics Glossary of Education Statistics, <http://www.uis.unesco.org/Pages/Glossary.aspx>, September 10, 2015

$$\text{Adjusted Accomplishment Rate (AAR)} = \frac{\text{number of completers}}{\text{number of enrollees who enrolled to acquire a high school diploma}}$$

Figure A7.10: Current and Proposed ALS Completion Rates, 2014 (%)



Source: ALS national survey, 2014.

Figure A7.10 shows the comparison of the current and proposed indicators. The size of the divisor for the AAR (more specifically, its numerical distance from the total number of enrollees) makes a significant difference. It is important to identify which learners said they aim to complete the program for a certificate.

7.3.2.3 Test-Taker Rate

Completing the required learning sessions under the program alone will not provide the most benefit to the learners. It is clearly desired that those who complete the program will become eligible to take the A&E test. The current way of computing this indicator does not consider the preferences of the students. The ALS A&E test is the culminating activity of participating in the program, and the gateway to acquiring a diploma. As such, many learners would opt to take the test if circumstances allowed.

The major criticism of this statistic is related to the fact that not all those who complete the ALS program intend to take the A&E test. The study found that only 63 percent of ALS completers intended to take the test. Not only their initial intention, but also events that are external to completers can easily affect the decision to take the test.

An important confounding factor is the phenomenon of test “walk-ins.” This represents a group of people who did not undergo the program but nonetheless want to take the A&E test. DepEd discourages walk-ins because it creates a moral hazard by changing the reputation of the A&E test into a shortcut to a diploma. It also devalues the program itself, as completing it may or may not be an assurance of passing the test anyway. Lastly, it may expose the implementer to a greater risk that he/she will not meet passing rate targets set by the district, division, or regional offices. However, DepEd also recognizes that there are

many individuals who are almost ready to take and pass the test even without participating in the program. In addition, on the day of the test, a significant number of ALS completers who registered for the test fail to make it to the testing center and their slots and test materials are wasted. Because of these considerations, the status quo is simply to remain silent on the phenomenon so that walk-ins are not openly encouraged (or discouraged), but public resources are not wasted as well.

Given these considerations, two contextualized statistics are again proposed.

$$\text{Total Test Taker Rate (TTR)} = \frac{\text{number of A\&E test takers}}{\text{number of ALS enrollees}}$$

TTTR measures all program completers who actually took the A&E test in relation to all who enrolled in the program. This cumulative statistic intends to measure how effective each learning facilitator is in retaining, teaching, and encouraging as many learners as possible to complete the program, learn as much as they can, and be confident enough to be officially assessed through the A&E test. The TTTR has many characteristics similar to the AR: (a) a value near 100 percent is desirable; (b) a value over 100 percent is questionable, except if explained by significant numbers of walk-ins; and (c) it can be computed for any and all DepEd administrative levels.

Figure A7.11: Current and Proposed Test-Taker Rate, 2014 (%)

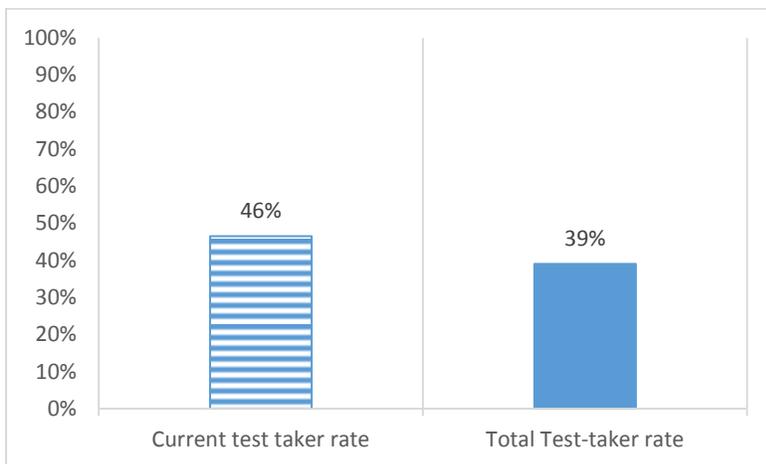


Figure A7.11 shows the comparison of the current and proposed indicators. The size of the divisor for the ATTR (more specifically, its numerical distance from the total number of completers) makes a significant difference in how the tendency to take the test is viewed. It will then be important to monitor the trend of this figure, as it is expected that the continued redesign and popularity of ALS might attract more learners who aim to completely benefit from the program, that is, to complete the program and take the A&E test because they want to obtain a diploma. If the number of completers who still want to take the test is equal to or almost the same as the total number of completers, the current indicator and ATTR will have very close, if not the same, estimates.

7.3.2.4 Passing Rate

The final step in the ALS cohort analysis is to know how many passed the test. The proposal in this section is geared toward refinement of the indicator, consistency with the rest of the proposed cohort analysis indicators, and ALS-specific rebranding of the indicator.

$$\text{Total Passing Rate (TPR)} = \frac{\text{number of AandE test passers}}{\text{number of ALS enrollees}}$$

The total number of ALS enrollees retains the denominator of the major indicators proposed in this section. It is an ultimate measure of the effectiveness of the program, as it compares the original enrollment figures with those who actually benefit from ALS by finishing the program and passing the A&E test.

Figure A7.12: Current and Proposed A&E Pass Rates, 2014 (%)

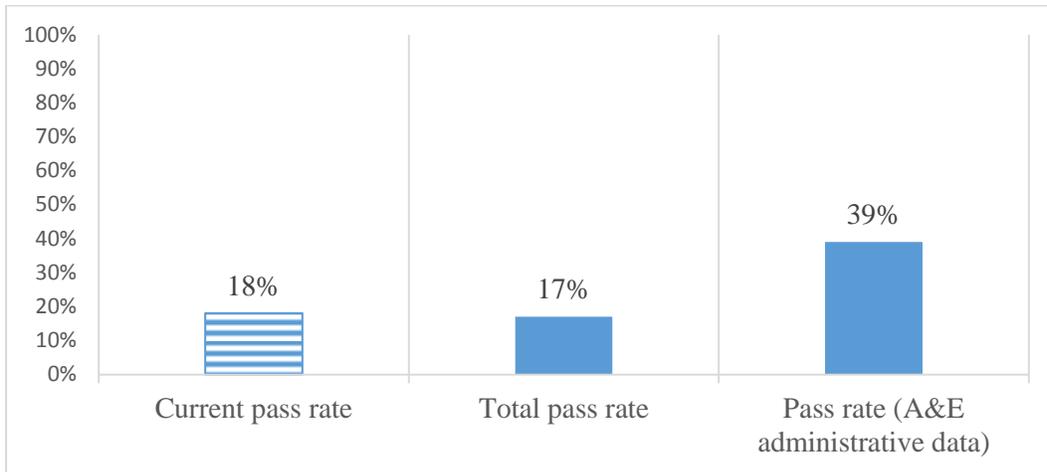
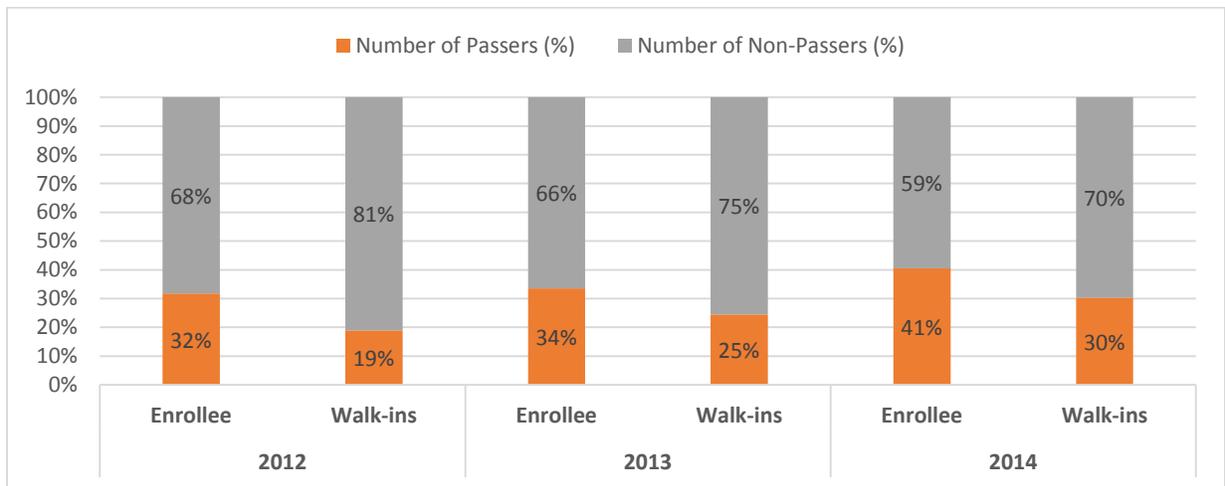


Figure A7.12 shows the comparison of the current and proposed indicators. The main difference from the current computation of pass rates is purely the source of data: the current figure uses the official data from BALS, while TPR uses data from the survey. If the DepEd/BALS data collected in the ALS Micro Information System (MIS) are also used to compute the passing rate, the result will be 18 percent, which is very close to the TPR estimate of the study. As a comparison, we present the passing rate obtained from the A&E test administration data, which does not distinguish between ALS enrollees and walk-ins.

7.3.3 Walk-Ins: Non-Enrollees Taking the A&E Test

A better official policy on test walk-ins is required. Specifically, walk-ins are allowed to take the test only if they have satisfactory ratings on their ARCs. Figure A7.13 shows pass rates for ALS enrollees and walk-ins (non-enrollees) between 2012 and 2014. The walk-ins are still less than 10 percent of total A&E examinees, but have been increasing and performing better year by year.

Figure A7.13: A&E Test Pass and Fail Rates between ALS Enrollees and Non-Enrollees



Source: BALS/DepEd administrative data.

Framing it this way transforms walk-ins into provisional completers and creates a subsystem defined by the following:

1. Once the test date is announced (ideally long before the test registration period), individuals not enrolled in ALS have sufficient number of days to approach their local ALS implementer to undergo RPL and acquire satisfactory ratings on all the required modules for taking the A&E test, as evidenced by their official ARC.
2. If there is enough time and the learning facilitator allows, individuals may still register for the program so that they can still learn the competencies they have not passed yet.
3. RPL and the issuance of ARCs can happen even during the day of the test, since ALS implementers are not allowed near the testing centers anyway. After ensuring that all their registered learners are in the examination rooms already, they no longer have official functions regarding the test.

Point 2 is self-regulating in the sense that ALS implementers would not want an influx of individuals asking for RPL and ARCs on the day of the test itself. Waiting that long to get the required documents would also be a risk to aspiring walk-ins, since no extra time would be given to them if they were allowed to take the test.

Notwithstanding points 2 and 3, priority would still be given to full-fledged ALS learners in the assignment of slots to take the test. Walk-ins who would only be “transformed” into completers (that is, have themselves assessed to acquire an ARC without undergoing the program) would actually only qualify for the “waiting list” and the final decision for them to take the test would happen on the day itself.

A possible equilibrium scenario if this policy is adopted is that ALS implementers will schedule RPL for walk-ins before the test day. They will then have a priority list to call upon depending on the number of test registrants who fail to show up on test day. If many walk-ins still come on the day itself, ALS implementers will probably help each other in assessing these walk-ins and issuing ARCs, but only up to the point that maximizes the remaining slots because of absent test registrants.

The best case scenario is if DepEd announces the test dates at least three to six months in advance (and sticks to it), more individuals will be attracted to have themselves assessed and more of them will know that they do not possess the necessary competencies to take the test. They might then be convinced to enroll in the program to make up for this deficit, therefore reducing the possible number of test takers without any form of ALS intervention.

As a safeguard, proper tracking of disaggregated walk-in data (number, ARC ratings, and test results) should be conducted and negative behavior and/or outcomes should be discovered and reprimanded.

A final safeguard is to provide ALS implementers with an effective RPL tool and the related training, as well as to ensure that the A&E test is really aligned with the K-12 curriculum so that passing the test without mastering key competencies taught in the regular ALS program will be almost impossible.

7.4 NATIONAL MONITORING & EVALUATION DATA COLLECTION

Aside from a systematic review of the program, DepEd requested the World Bank to consider capacity building to build a credible database of ALS operations. BALS already has Management Information Systems (MIS) forms and a growing database of program implementations, but their usefulness was hindered by inaccurate data and low submission rates from the field offices. As a result, the credibility of all reports utilizing this database was always questioned. To respond to this request, and with assurance of resource support from BALS, the World Bank decided to adopt a census-style data collection strategy, but with many quality assurance measures.

The study is unique in the sense that it is a major evaluation of a government program jointly conducted by the proponent and an external partner. Specifically, DepEd is involved not just in coordination and consultation on details of the study, but more so in the conduct of all major stages of the research. At the same time, the World Bank provided extensive analytical and practical supports. The study was also designed to serve as an on-the-job training course on program evaluation for BALS staff.

Forms

Various M&E forms were previously developed to gather information on the implementation of ALS. The team revised the MIS forms to enrich the information captured through the activities. Table A7.8 shows the main data collection tools for the study.

Table A7.8: ALS M&E Instruments

Form	Description	Respondent
Form 1: Financial	Asks details on budget allocation, execution and liquidation	Division ALS Supervisor (one form); Division Accountant (another form)
Form 2: Management and Supervision	Asks details on management and monitoring practices	Form 2a: Division ALS Supervisor Form 2b: District ALS Coordinators and BPOSA principals
Form 3: ALS Implementer	Asks details on the personal and professional life of all ALS implementers	All ALS implementers regardless of status
Form 4: Client satisfaction	Asks ratings on various aspects of ALS implementation	Form 4a: Division ALS Supervisor Form 4b: All ALS implementers Form 4c: Individuals identified for Form 3, and any stakeholders present during the field visits

Form 5: Individuals³⁵	Asks details on the personal and professional life of randomly selected potential ALS beneficiaries	12 randomly selected individuals per Division who are over 16 years old and still do not have a high school diploma regardless of whether they have been enrolled in ALS or not
Form 6: Tracking	Lists down all randomly selected individuals who cannot be interviewed, the reason for such and their current contact details, if possible	To be filled up only by Lead monitor

Inter-Regional Monitoring and Evaluation

National data collection was funded by DepEd and conducted during October to November 2014. To maximize available resources, the national data collection coincided with the regular M&E activity of BALS, but with the improvements listed in Table A7.9.

Table A7.9: Data Collection

Component	Original design	Revised design
Independent monitoring	Direct exchange of monitors between divisions	Rotation of monitors ³⁶ to avoid direct exchanges between divisions
Actual duration of monitoring	1-2 days	4-5 days
Selection of site visits	Pre-identified by Division office	Randomly selected on day of visit; actual household visits to a maximum of 12 individuals
Monitoring tools	BALS M&E forms	Revised BALS M&E forms including plenty of questions helpful in quantitative analysis
Relevant expenses	Shouldered by divisions being monitored (meals and interviewees)	Shouldered by BALS through cash advances to monitors (meals and transportation of the interviewees)
Debriefing	Sharing of experiences, submission of accomplished survey forms and reports and liquidation of cash advances	Sharing of experiences, submission of accomplished survey forms, liquidation of cash advances and providing suggestions for the study

³⁵ Household rosters were recorded incompletely in the survey, which limits the scope of analysis using the individual data, since the information on some key individual characteristics has to be extracted from the roster data. For this reason, the analysis in section 5 uses data from the NCR-Plus Survey. A strong justification for using the NCR-Plus in the estimation of labor-market returns to ALS comes from the unique feature of its sample locations, that is, labor demand is relatively strong in the regions surrounding NCR.

³⁶ Rotation of divisions ensured that no two divisions will simply exchange monitors; however, for efficiency, monitors were only rotated to divisions within their geographic cluster. For example, monitors from Aurora division can only be assigned to a division in the North Luzon cluster comprised of Regions 1-3 and CAR. There were a total of four clusters: North Luzon, South Luzon including the NCR, Visayas, and Mindanao.

Protected Sites

Another important strategy employed by the study was to introduce the concept of a protected subsample from the overall sample. That is, a half of the divisions were randomly assigned as “protected” sites and thus needed to be provided with the following elements:

1. Assignment of “high performing” division ALS supervisors to help ensure adherence to the data collection protocol
2. Additional staff for data collection from BALS
3. Priority in resources for back-checking activities.

These protected sites can serve as a safe sample in terms of data quality. However, the protected sites were only known to the core team of DepEd and World Bank staff to avoid any negative effects.

Data Entry and Cleaning

After the last batch of back-checking activities, all survey forms were collected, categorized, and organized by BALS staff in preparation for data entry. DepEd hired 30 encoders for two person-months to encode all the information captured in the forms. The encoders were under the direct supervision of DepEd and World Bank staff for further quality assurance. Table A7.10 summarizes the number of observations.

Table A7.10: Overall Responses in the ALS National M&E

Form	Number of observations
Form 1: Financial	325
Form 2A: Management	264
Form 2B: Management	1,939
Form 3: ALS Implementers	5,788
Form 4A: Client Feedback	1,796
Form 4B: Client Feedback	4,779
Form 4C: Client Feedback	2,615
Form 5: Individuals	2,196
Form 6: Tracking	207

After data were entered into Excel templates jointly developed by the DepEd and World Bank team, the workbooks were migrated into Stata format for further cleaning by World Bank staff.

Sample size and geographical coverage. The sample size is 5,586 individual facilitators, comprising about 4,000 DepEd-delivered facilitators and 1,500 DepEd-procured facilitators. The ratio of DepEd-delivered to DepEd-procured facilitators is roughly 7:3 across regions (Table A7.18). The overall coverage of the survey sample is 82.3 percent based on the 2012 BALS facilitator data.

Table A7.18: ALS Facilitator Survey Sample Size by Region and Mode

Respondent's region	DepEd-delivered	DepEd-procured	Total
CAR	140	56	196
CARAGA	264	86	350
NCR	236	95	331
REGION I	221	50	271

REGION II	173	76	249
REGION III	342	141	483
REGION IV-A	397	125	522
REGION IV-B	120	47	167
REGION IX	225	55	280
REGION V	235	73	308
REGION VI	266	151	417
REGION VII	348	110	458
REGION VIII	359	102	461
REGION X	280	187	467
REGION XI	208	82	290
REGION XII	256	80	336
Total	4,070	1,516	5,586
(%)	(73)	(27)	(100)

Source: ALS national survey, 2014.

Table A7.19 presents the geographic coverage of the survey sample. Overall, 16 regions were covered in the sample, but no facilitators from Autonomous Region in Muslim Mindanao (ARMM) were surveyed because of logistical challenges. At the province level, almost all the provinces, except those in ARMM, were covered. There are 188 divisions and 1,157 municipalities and cities in the survey sample. These locations are based on where the facilitators work, not necessarily where they live.

Table A7.19: Geographical Coverage of the ALS Facilitator Data

	Overall Philippines*	ALS national survey sample	(%)
Region	17	16	94.1
Province	81	76	93.8
Division	218	188	86.2
Municipality/city	1,634	1,157	70.8

Source: ALS national survey, 2014.

* Data are as of the data collection in 2014.

Major characteristics of the facilitators by DepEd-delivered and DepEd-procured type. Table A7.20 compares the basic characteristics and qualifications of DepEd-delivered and DepEd-procured facilitators in age, gender, appointment type, years of experience as ALS facilitators, years of schooling, and urban/remote-ness where they are assigned. First, DepEd-delivered facilitators are older than DepEd-procured facilitators on average. Second, gender is more balanced among the former than the latter group. Third, almost all DepEd-delivered facilitators work full-time with regular appointments, while the other facilitator group works part-time. Fourth, DepEd-delivered facilitators have more years of experience in delivering ALS (on average more than five years), while DepEd-delivered facilitators are less experienced in ALS. Fifth, the level of education is high for both types of facilitators, but particularly very high among DepEd-delivered facilitators (about 17 have a master's degree). Lastly, there is a higher proportion of the DepEd-delivered facilitators who are assigned to rural areas relative to the DepEd-procured facilitators.

Table A7.20: Basic Characteristics and Qualification of ALS Facilitators

	DepEd-delivered		DepEd-procured		Total	
	N	%	N	%	N	%
<i>Age group</i>						
10-19	0	0.0	2	0.1	2	0.0

	DepEd-delivered		DepEd-procured		Total	
	N	%	N	%	N	%
20-29	489	12.4	586	40.6	1075	19.9
30-39	1,455	36.8	475	32.9	1930	35.8
40-49	1,225	31.0	222	15.4	1447	26.8
50-59	660	16.7	100	6.9	760	14.1
60-69	119	3.0	51	3.5	170	3.2
70-79	0	0.0	7	0.0	7	0.0
<i>Gender</i>						
Male	1,738	42.7	448	29.6	2,186	39.1
Female	2,332	57.3	1,068	70.5	3,400	60.9
<i>Appointment type</i>						
part-time	506	12.4	773	51.0	1,279	22.9
full-time	3,564	87.6	744	49.0	4,308	77.1
<i>Years of ALS teaching experience</i>						
0-4	1,559	40.7	1,048	76.8	2,607	50.2
5-9	1,468	38.3	218	16.0	1,686	32.4
10-14	513	13.4	56	4.1	569	11.0
15-19	244	6.4	36	2.6	280	5.4
20-24	33	0.9	3	0.2	36	0.7
25-29	9	0.2	4	0.3	13	0.3
30-34	3	0.1	0	0.0	3	0.1
35-39	4	0.1	0	0.0	4	0.1
<i>Years of Schooling</i>						
0-5	2	0.1	0	0.0	2	0.0
6-9	7	0.2	4	0.3	11	0.2
10-13	37	0.9	86	5.7	123	2.2
14-15	3,332	82.0	1,339	88.6	4,671	83.8
16-19	665	16.4	79	5.2	744	13.3
20-	23	0.6	3	0.2	26	0.5
<i>Rural/urban</i>						
Rural	2,745	67.44	901	59.39	3,646	65.26
Urban	1,325	32.56	616	40.61	1,941	34.74

Source: ALS national survey, 2014.

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