



## Education Policy Note

# A Second Chance to Develop the Human Capital of Out-of-School Youth and Adults:

## The Philippines Alternative Learning System<sup>1</sup>

### Introduction

Worldwide, approximately 781 million adults are unable to read or write in any language.<sup>3</sup> While adult literacy rates have increased significantly over the past several decades, recent progress largely reflects a more-educated younger generation replacing a less-educated older generation. Achievements within age cohorts have been far more modest, as adult learning programs in both developed and developing countries have yielded mixed results. Meanwhile, illiteracy remains an important barrier to poverty alleviation, and lifetime earnings are closely correlated with educational attainment across countries and regions. For many students, completing secondary school is an especially critical educational milestone, as applying to higher-education institutions, technical and vocational training programs, and formal-sector jobs often requires a secondary-education diploma. Individuals who do not complete secondary school often face limited options to both further develop and leverage their human capital.

The Philippines has made remarkable progress in improving its public basic education system over the past decade, yet half of Filipino students fail to complete the full cycle of basic education.<sup>3</sup> Currently, almost all Filipino children enter primary school at age 6, but only about 80 percent of primary students complete the sixth grade. At the secondary level, only one-third Filipino children start junior high school on time, and one-third of those drop out before reaching the tenth grade. Students who drop out of primary or secondary school are often unable to obtain further formal education or vocational training, and many go on to work in



unskilled occupations that offer low wages and little job security. While lowering the dropout rate is a top priority of the Philippine Department of Education (DepEd), much can be done to improve the educational and employment prospects of those who have already dropped out.

For the past five decades, DepEd has operated parallel education systems for youth and adults who did not complete basic formal education. The current incarnation of the ALS includes two core components, the Basic Literacy Program and the Accreditation and Equivalency (A&E) Programs. The former aims to eradicate illiteracy among out-of-school youth and adults by teaching basic literacy and numeracy. The latter targets people who are functionally literate but did not complete basic education, and it offers programs at both the primary- and secondary-school levels. The goal of the A&E Programs is to equip participants with the knowledge and skills necessary to pass the national A&E exam, which provides an academic credential equivalent to formal school's diplomas in the elementary and junior high school education. Obtaining this credential enables ALS participants to apply to higher education and training institutions or to jobs that require a high school education.

The ALS has made substantial progress toward its objectives, especially in recent years, yet it faces several persistent challenges. It attracts only a fraction of the country's large out-of-school population, and outcomes indicators have plateaued. Moreover, the diverse circumstances of participants and potential participants greatly complicates ALS implementation and outreach efforts.

Globally, adult learning or alternative learning programs targeting out-of-school youth and adults face a common set of challenges. These include a higher opportunity cost for adult learners, as well as reduced brain plasticity, which inhibits the acquisition of new knowledge and skills, and uncertainty among prospective participants regarding the economic returns to completing the program. Overcoming these challenges requires adequate programmatic resources combined with sound technical design.

In partnership with DepEd, the World Bank conducted a series of assessments of the ALS designed to shed light on the obstacles it faces and assist the government in developing a strategy to address them (Box 1). This policy note summarizes the empirical evidence obtained from these assessments and other program data and presents policy options to increase the effectiveness of the ALS.

This policy note is divided into six sections. Following the introduction, the second section describes the ALS and its target population. The third section examines demand-side challenges and identifies strategies for supporting ALS participants. The fourth section considers supply-side challenges and outlines priorities for strengthening the implementation of the ALS. The fifth section evaluates the returns generated by the ALS, and the sixth section recommends policies to expand its scope and enhance its impact.

## Alternative Learning System

Since 1948, DepEd's Bureau of Non-Formal Education has operated parallel education programs outside of the standard formal school system. In 2004, it was renamed the Bureau of Alternative Learning Systems. When DepEd was restructured in 2016, the Bureau of Alternative Learning Systems was consolidated with elementary and secondary education bureaus. To date, the program has been managed by two newly consolidated bureaus—Bureau of Curriculum Development, which is responsible for instructional content, and the Bureau of Learning Delivery, which is responsible for managing teachers and operations.

As noted above, the ALS offers programs focusing on literacy and equivalency assessments. While the secondary-level A&E exam is broadly comparable to the General Educational Development (GED) exam offered in the United States and Canada, the ALS's A&E programs differ from GED programs in several important ways. Enrollees establish their own learning objectives and plans, and the program spans 10 months, with the overall objective of instilling the minimum competencies required to complete basic education. In addition to the Basic Literacy Program (BLP) and the A&E Programs, the ALS also includes an Informal Education (InFed) component, which is less structured compared to BLP and the A&E and offers short training programs focusing on livelihood and entrepreneurship skills (Figure 1). The content of InFed programs is based on the interests of enrollees and the available resources.<sup>6</sup>

ALS programs are delivered by "learning facilitators." Learning facilitators include teachers directly hired by DepEd for the ALS (district ALS coordinators and mobile teachers), regular school teachers, other educational service providers contracted by DepEd (instructional managers), literacy volunteers who receive small allowances from DepEd, and teachers funded by other sources. Learning facilitators implement ALS interventions

## Box 1: ALS Surveys and Other Data Sources

DepEd collects data on ALS enrollees and program operations every year as a part of routine program monitoring. However, the official data were insufficiently comprehensive to support a rigorous analysis. The most important gap was in the available information on potential ALS participants, who are primarily school dropouts. Because they tend to move frequently and have few official records, potential participants are difficult to track and evaluate. To address this gap in the data, the World Bank study team designed and implemented three surveys in collaboration with DepEd: the 2013 ALS Survey, the 2015 National Data Collection Survey, and the 2017 ALS Snapshot Survey.

The 2013 ALS Survey was a tracking survey conducted in the Laguna Lake area near Metro Manila. The survey was designed to (i) obtain updated economic information on individuals previously identified as having incomplete basic education in a 2010 literacy-mapping exercise and (ii) collect comprehensive information on ALS facilitators. The survey sample included about 500 randomly selected individuals, including former ALS enrollees, prospective enrollees, and ALS facilitators. The facilitator data was not published due to inadequate sample size, and that element of the survey served primarily as a pilot for the 2015 ALS National Data Collection Survey.

The 2015 ALS National Data Collection Survey was a modified version of the 2013 survey scaled up nationwide. The World Bank team received extensive support from DepEd's network of ALS supervisors and implementers. The survey sample included about 1,300 former and prospective ALS enrollees (67 percent were former enrollees and 33 percent were prospective enrollees) and 5,500 ALS facilitators (73 percent were DepEd staff facilitators and 27 percent were contracted facilitators). Respondents were randomly selected 81 school divisions in 16 regions across the country. The Autonomous Region in Muslim Mindanao (ARMM) was excluded.

The 2017 ALS Snapshot Survey was a brief supplemental survey to designed to collect information on (i) ALS operating costs, facilities and supplies, (ii) the employment, education, and training status of current and former ALS enrollees, and (iii) the time commitment and associated opportunity cost of participating in the ALS. The survey was conducted in five regions,<sup>5</sup> which were selected to represent a range of geographic areas, including remote rural areas and urban centers. In each location, samples were randomly selected. The survey included roughly 110 facilitators, 18,000 former ALS enrollees, and 210 current enrollees.

The findings from the first and second surveys were reported by Yamauchi et al. (2016) in "Alternative and Inclusive Learning in the Philippines." This policy note builds on that report by analyzing the additional findings produced by the most recent survey.

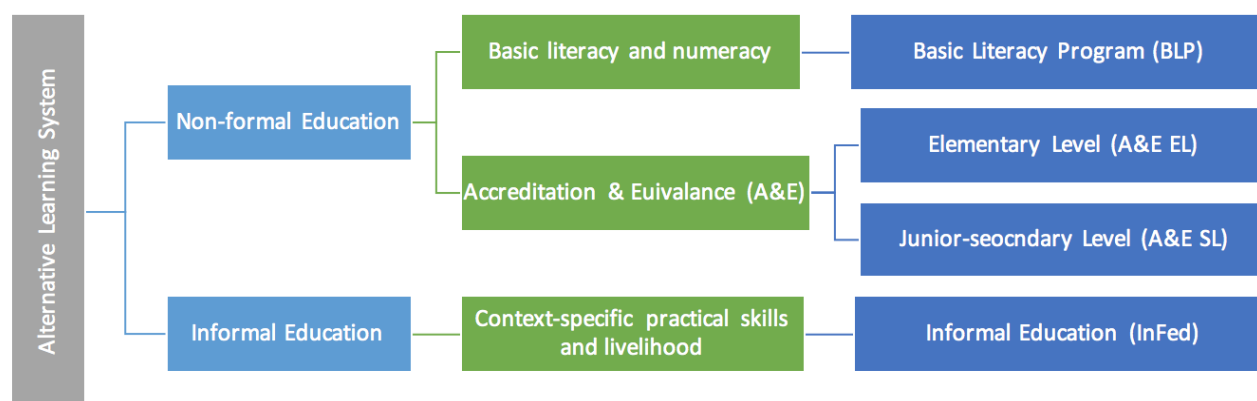
during a 10-month period from January to October, after which the A&E exam is administered. After completing one program cycle in October, learning facilitators conduct community-mapping exercises designed to identify and reach out to potential ALS participants. ALS enrollment begins around January and remains open throughout the year.

The ALS programs are tailored to the needs of individual students. New ALS enrollees take an initial placement test, called the "Functional Literacy Test," to assess their current education level. Enrollees then develop Individual Learning Agreements (ILAs) in consultation with their learning facilitators. Each ILA lists the competencies that the ALS curriculum will provide. Participants use ALS self-instructional learning modules, and progress is recorded in their ILAs. To successfully complete an ALS cycle, participants must demonstrate that

they have completed all required learning modules in their ILAs. Participants who do not complete the cycle can reenroll in the program the succeeding year.

Learners can take the A&E test, and if they pass, are granted a government certificate that is the equivalent of school diplomas in the formal education system. This will allow them to return to formal schooling, pursue further skills training (postsecondary levels) and tertiary education, which is only offered to graduates of basic education, or they can apply for formal sector jobs that often require high school graduation. Through the ALS, learners who once dropped out from the human capital development path can be granted a second chance to return to the mainstream, where they can strive to improve their productivity or pursue further formal education and training.

**Figure 1: Major ALS Components**



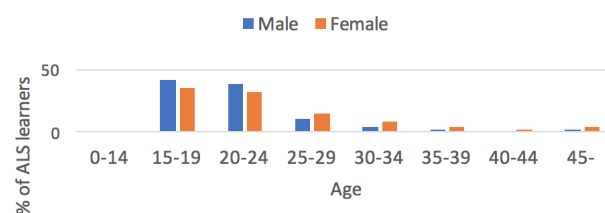
## ALS Target Population

In principle, the ALS offers a second chance to former students who did not complete basic education in the formal school system. Its mandate is consistent with the right to education enshrined in the 1987 Philippine Constitution. The ALS target population includes both youth and adults who either did not enroll in formal school or who dropped out before completing the basic education cycle. Recent statistics indicate that about 24 million Filipinos over the age of 15 years did not complete basic education. Of these, about 6.6 million (or roughly 30 percent) are between the ages of 15 and 30. In addition, about 2.4 million children between the ages of 5 and 14 are not currently attending school and have fallen more than three years behind their standard grade level. These children are defined as a high-risk group. While in principle they could return to school, these children are highly likely to drop out before completing basic education.

While there is no explicit cost to enrolling in the ALS, many prospective participants are already employed and face a significant opportunity cost in terms of foregone income. An equation estimating the net economic gain from participating in the ALS, through comparing discounted sums of benefits of completing high schools and the foregone income for high school incompleters, suggests that

only relatively young enrollees are likely to benefit from it. According to this calculation, the estimated threshold age for receiving a positive net return is 26. In other words, ALS enrollees under 26 will likely garner an increase in future earnings that exceeds the income they did not earn while participating in the program, whereas for enrollees over age 26 the benefits of additional education may not fully offset the opportunity cost of participating in the ALS.<sup>10</sup> The 2017 data reveal that the majority of ALS enrollees are also between the ages of 15 and 24, suggesting that the program is indeed more appealing to younger people (Figure 2).

**Figure 2: Age Distribution of ALS Enrollees**

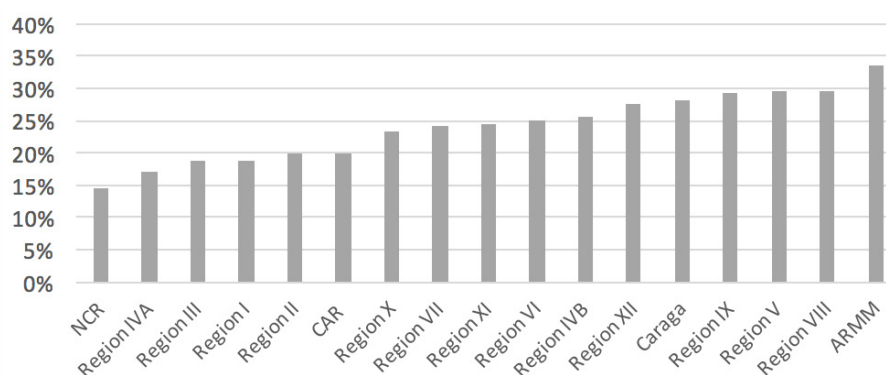


Source: ALS Snapshot Survey 2017; World Bank.





**Figure 3: Prospective ALS learners (% of population age 15-29 years old)**



Source: LFS 2015 (October), Philippines Statistics Authority (PSA).

The projected returns to ALS participation are systematically larger among younger enrollees, but they are also influenced by the likelihood that enrollees will complete the program successfully. The threshold age at which participating in the ALS tends to generate a positive economic return is sensitive to the performance of the ALS program itself. If the ALS becomes more effective, the pass rates for the A&E exam will rise, increasing the likelihood that participation will yield a positive economic return. This would lower the threshold age at which the anticipated returns to ALS participation justify the opportunity cost.

The share of prospective ALS participants in the total population reflects the school dropout rate, which varies by region. The largest share of prospective ALS participants among the total population of 15–29-year-olds ranges

from 34 percent in the ARMM to 14 percent in the National Capital Region (NCR) (Figure 3). Within regions, prospective participants are distributed differently in urban centers and rural areas. It should be noted that these estimates do not include children in the high-risk group defined above.

While younger members of the target group stand to gain the most economically from enrolling in the ALS, completing the program can also yield important improvements in quality of life for people of all ages. In addition to their material rewards, becoming literate and obtaining economic credentials can have powerful psychosocial benefits. Completing the ALS can have a profound impact on the personal confidence, dignity, and self-esteem of all participants, regardless of age.

## Box 2: International Literature on Challenges in Adult Education

The international literature<sup>7</sup> highlights two common challenges faced by adult education programs.

The first challenge is biological or related to neuroscience. Adults' learning process differs from those of children and young adolescents. Adult brains are less malleable and have begun deteriorating, making it more difficult for adults to assimilate new information and learn new skills. However, the research shows that, if proper stimulation is provided, adults can develop skills like literacy and numeracy but at a slower pace compared to children. Thus, more practice is required for adults to achieve automaticity and eventually comprehension to develop literacy<sup>8</sup>.

The second challenge is socioeconomic, as adults who participate in education programs bear a higher opportunity cost in terms of foregone revenue or deferred domestic responsibilities. For adults, time spent in a classroom is time not spent earning income or managing a household. Also, high uncertainty about the economic returns to education affect adults' decision making and capacity for learning.

The international research<sup>9</sup> analyzing the GED found that there were minimal benefits among the majority of the GED takers, in terms of gaining economic opportunities or using the certificate as a path to pursue higher academic credentials. The research explains that while the GED takers are able to demonstrate scholastic aptitudes in reading, writing, language, and mathematics as equivalent to high school graduates, their opportunities are still limited because they have lower socioemotional skills (or non-cognitive skills) such as persistence, motivation, and reliability. While the context in the United States and Canada, where the GED is implemented, clearly differs from developing countries, policy insights should be eventually relevant.

More recent work suggests a set of possible approaches to address these challenges. This include (i) proper sequencing of subjects and learning contents; (ii) greater emphasis on practice and repetition; (iii) a focus on developing high-order thinking (or meta-cognitive) skills; (iv) offering incentives and support to enable adult learners to manage high opportunity costs; (v) proper learning environment to stimulate motivation with a mechanism to provide timely feedback on performance; and (vi) ensuring that teachers understand the ways in which techniques for teaching adults (andragogy) differ from techniques for teaching children (pedagogy).

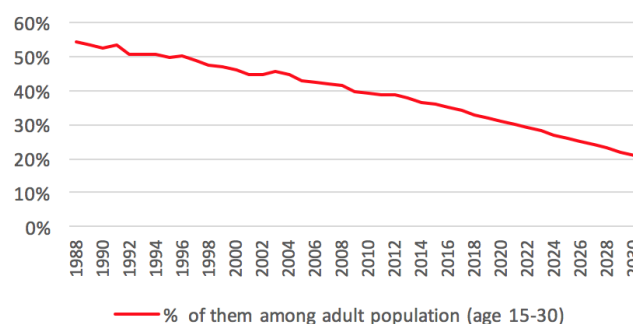
For the ALS to succeed, its implementation must reflect these fundamentals. This study focused on practical challenges related to the ALS programs; thus, further analysis is needed to analyze the strategies for skills acquisition for ALS learners.

## Trends in the Target Population

The average education level of Filipino adults has risen steadily over the past several decades. In the late 1980s, more than half of the population did not graduate from high school, but that share has since declined to about 35 percent. If current trends continue apace, the share of the population that does not complete high school drop below 20 percent by around 2030 (Figure 4).

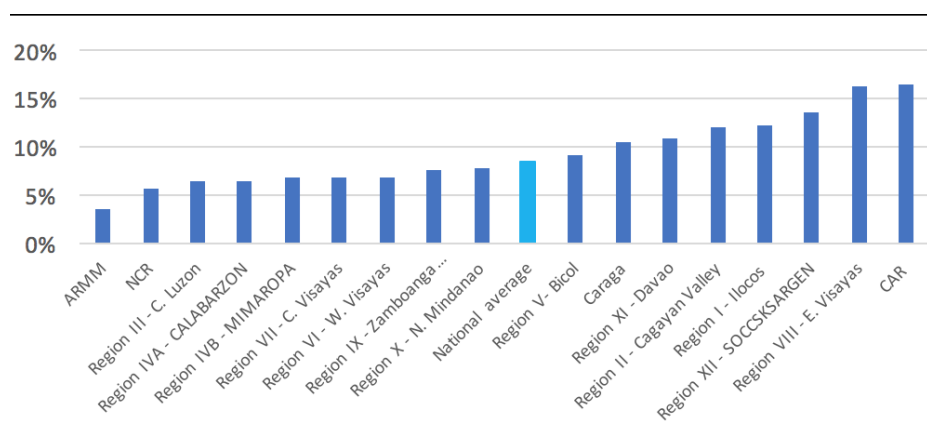
However, due to population growth, the absolute number of Filipinos who do not complete basic education has remained broadly stable over time. While the ALS target population is projected to decline over the long term, this process will be very slow unless population growth or graduation rates change significantly. In the meantime, expanding ALS coverage remains a priority as DepEd strives to address the needs of the current target population.

**Figure 4: The share of Adults Who Did Not Complete Basic Education, Recent and Projected**



Source: LFS, multiple years, PSA.

**Figure 6: Prospective ALS learners (% of population age 15-29 years old)**



Source: DepEd administrative data, 2014 (number of enrollees) and LFS 2015 PSA (ALS target population).

## Demand-Side Challenges

### Enrollment Rates

The number of ALS enrollees increased fivefold over the past decade, reaching 0.7 million in 2017. However, this is still a small fraction of the target population: less than 10 percent of 15–29-year-olds who have not completed basic education are currently enrolled in the ALS. Moreover, the ALS participation rate varies substantially by region (Figure 6).

### ALS Outcomes

While many employers and higher-education institutions regard passing the A&E exam as a significant qualification, the same is not true of merely completing the ALS. Because the completion of the program itself has little impact on employment opportunities and earnings, the A&E pass rate of ALS participants is a more meaningful outcome indicator. In 2014, 18 percent of ALS enrollees passed the A&E exam (Figure 7). While this rate is relatively low, it represents a significant improvement from 2005, when just 4 percent of enrollees passed the exam. The ALS completion rate remained generally stable between 2004 and 2013, never exceeding 80 percent or falling below 60 percent until 2014, when it dropped to 59 percent. The share of ALS enrollees who sat for the A&E exam more than doubled between 2005 and 2014, but remained below 50 percent.

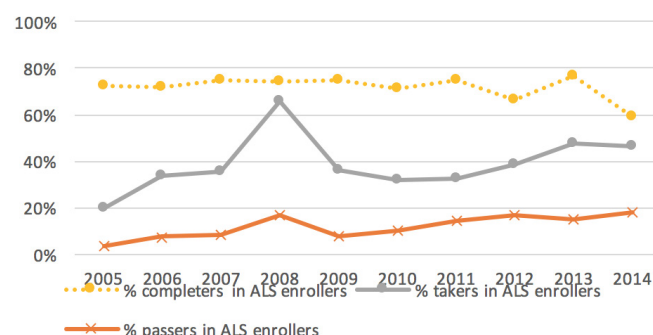
The A&E pass rate varies significantly by region, which suggests serious disparities in the quality of ALS programs. In 2014, less than 2 percent of ALS enrollees in the ARMM passed the A&E exam, compared to over half of enrollees in the NCR (Figure 8). Regional pass rates are closely correlated with the share of enrollees who sat for the A&E exams.

### Opportunity Cost for ALS learners

The 2017 ALS Snapshot Survey asked current enrollees focusing on the opportunity cost of time spent studying in the ALS program as one of the main challenges for adult education (Box 2). Respondents were randomly selected, and samples were taken from both rural and urban areas.

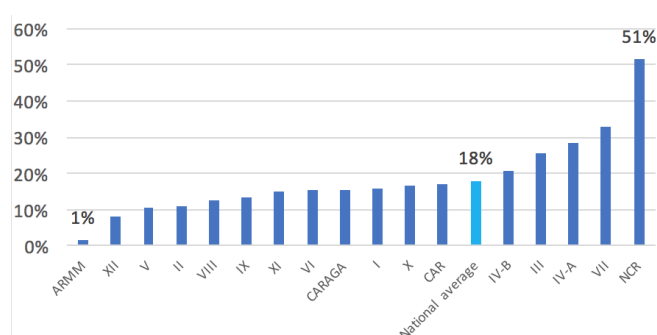
The data confirmed that enrollees face significant opportunity costs. The respondents reported that participating in the ALS reduced the time available for paid work, childcare, and household labor. The data also showed that 55 percent of current ALS enrollees remained employed in paid jobs while participating in the ALS. This share is well below the overall employment rate reported in national labor-force surveys (LFS) (Figure 9), and ALS enrollees reported working fewer hours than the average employed worker (Figure 10).

**Figure 7: ALS Outcome Indicators**



Source: DepEd administrative data, 2014.

**Figure 8: A&E Exam Pass Rates by Region**

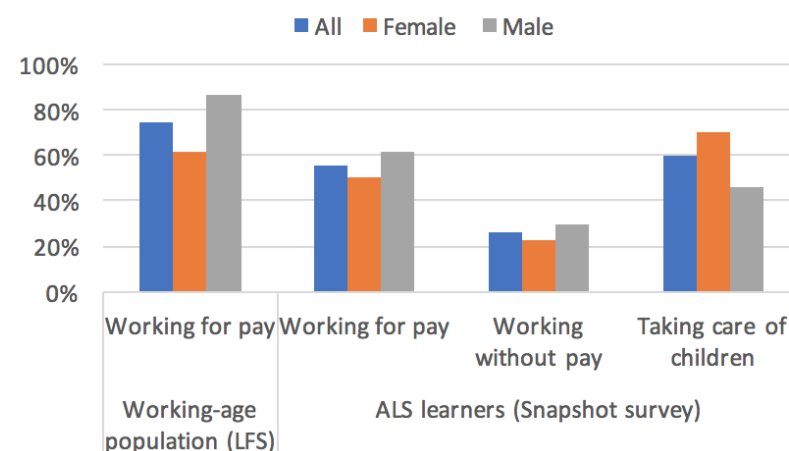


Source: Administrative data 2014, DepEd.

ALS enrollees spend a substantial amount of time attending sessions. The survey found that 60 percent of enrollees attend ALS sessions once or twice a week, and 35 percent attend even more regularly. On average, male participants attend more sessions than female participants, and urban participants attend slightly more sessions than rural participants (Figure 11). Urban participants also spend more time studying outside of ALS sessions,<sup>11</sup> but there is no difference by gender (Figure 12).

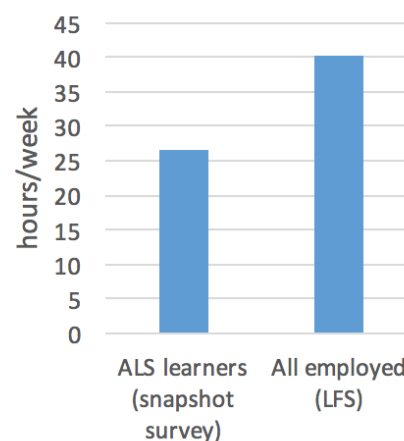
Despite attending fewer sessions, rural participants spend more time each week attending sessions. This may reflect longer travel times for rural enrollees, as travel time is included in the definition used in the survey.<sup>12</sup> Urban enrollees tend to spend more time working for pay than rural enrollees, and female participants tend to work more hours for pay than male participants. Overall, many enrollees spend 20 hours per week or more attending ALS sessions.<sup>13</sup>

**Figure 9: Paid Employment, Unpaid Employment and Childcare Responsibilities, ALS Enrollees and the Total Working-Age Population (%)**



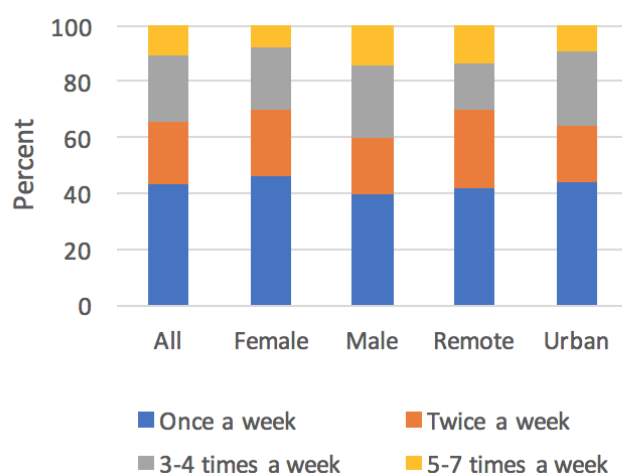
Source: ALS Snapshot Survey 2017; World Bank; and LFS 2015 (October), PSA.

**Figure 10: Number of Hours Worked Each Week, ALS Enrollees and All Employed Workers (hours/week)**





**Figure 11: Frequency of Attendance (sessions per week)**



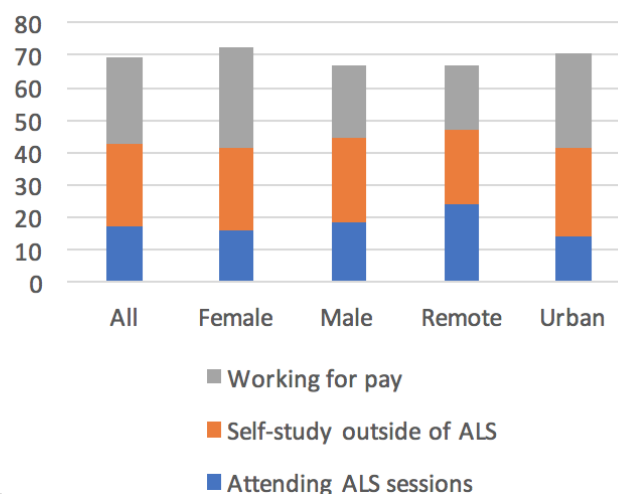
Source: ALS Snapshot Survey 2017; World Bank.

ALS participation entails both explicit costs and opportunity costs. While there is no tuition fee for the ALS program, enrollees often need to pay for transportation, meals, stationery and other supplies, and other costs of participation. Survey respondents reported having difficulty covering these expenses, which compound the opportunity cost of foregone earnings.

### Determinants of ALS Enrollment and Performance

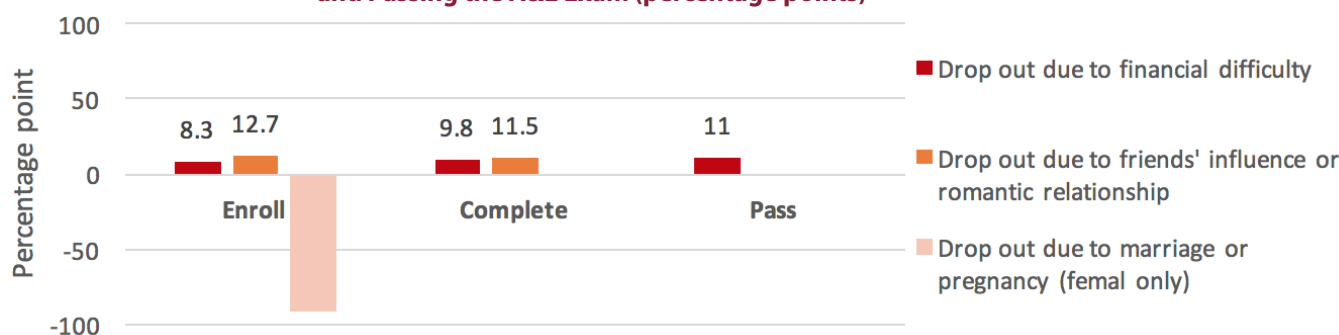
The reasons why individuals dropped out of school significantly affect their likelihood of enrolling in the ALS, completing the program, and passing the A&E exam. Individuals who dropped out for financial reasons were

**Figure 12: Hours Spent Participating in ALS Sessions, Studying, and Working for Pay (hours per week)**



the most likely group to enroll in the ALS, complete the program, and pass the A&E exam (Figure 13). For these students, dropping out of school is not necessarily related to ability or learning commitment, but mostly caused by their parents' economic ability. Second, if students drop out for the reasons related to bad influences from peers, they are also likely to enroll and complete the program but unlikely to pass the A&E. This is most likely because they may be easily discouraged by the circumstantial factors in high school. Finally, women who dropped out of school due to early marriage or pregnancy were far less likely to enroll in the ALS than those who dropped out for any other reason. Females who have already had children by the time of enrollment are unlikely to enroll in ALS.

**Figure 13: Reasons for Leaving School and their Marginal Effect on ALS Enrollment, Completion, and Passing the A&E Exam (percentage points)**



Source: Yamauchi et al. 2016; ALS National Data Collection 2015; DepEd; and World Bank.  
Note: The estimation controls for gender, age, age-squared, province dummies.

## Supply-Side Challenges

DepEd faces a range of challenges as it strives to implement the ALS effectively in diverse communities across the Philippines. Adult learning programs must be responsive to the different conditions and motivations of prospective participants, and the practical implementation of the ALS varies by region and between rural and urban areas. Rural ALS programs are especially problematic, as numerous small programs spread over a wide area are inherently difficult to monitor, staff, and supply efficiently. The following section analyzes the distribution of operating costs, learning centers, educational materials, and facilitators and assesses its impacts on ALS attendance, completion, and pass rates for the A&E exam.

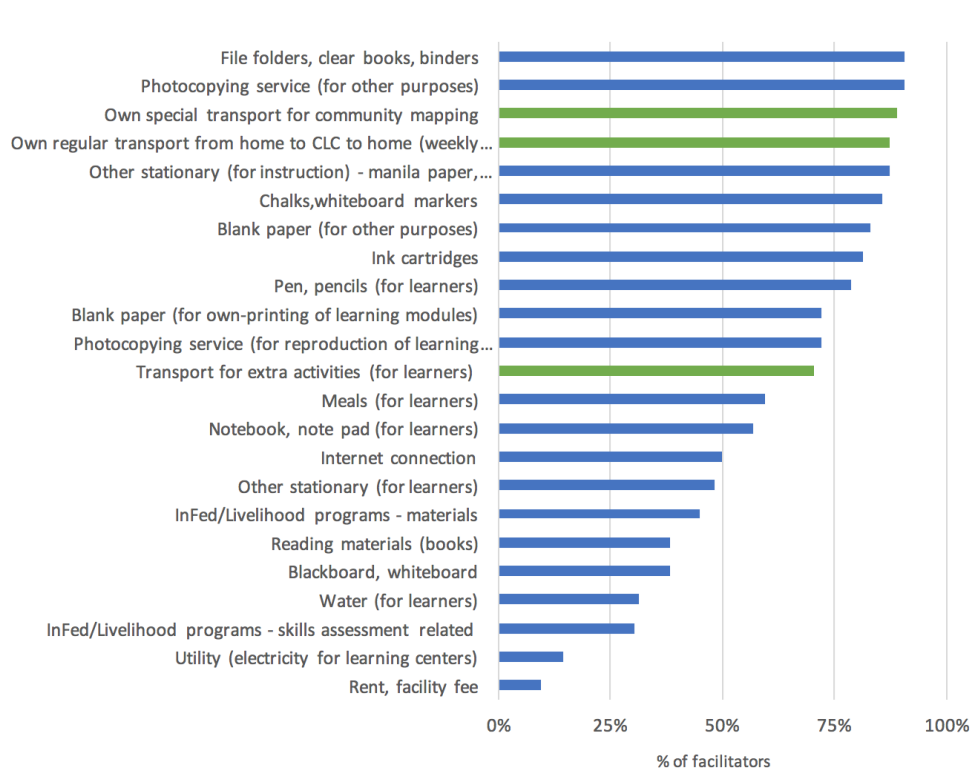
### Operating Expenses for ALS Facilitators

Formal schools in the Philippines receive funding from the national budget to cover their operating expenses, but

the government finances the ALS by providing resources to individual facilitators. Most ALS funding is spent on educational materials and transportation costs. DepEd does not provide the ALS with dedicated facilities, equipment, or supplies other than the standard learning modules. Facilitators receive two kinds of allowances, for “teaching aid” and “transportation”. Transportation allowance (including gas for motorcycles) is necessary as commuting to work place (learning centers) is non-routine, and cost a lot for facilitators to meet learners. Facilitators can raise additional funds from other stakeholders, such as local governments, but facilitators often report using their own money to cover financial gaps. Many facilitators who participated in the survey cited lack of financial resources as a key constraint on service delivery.

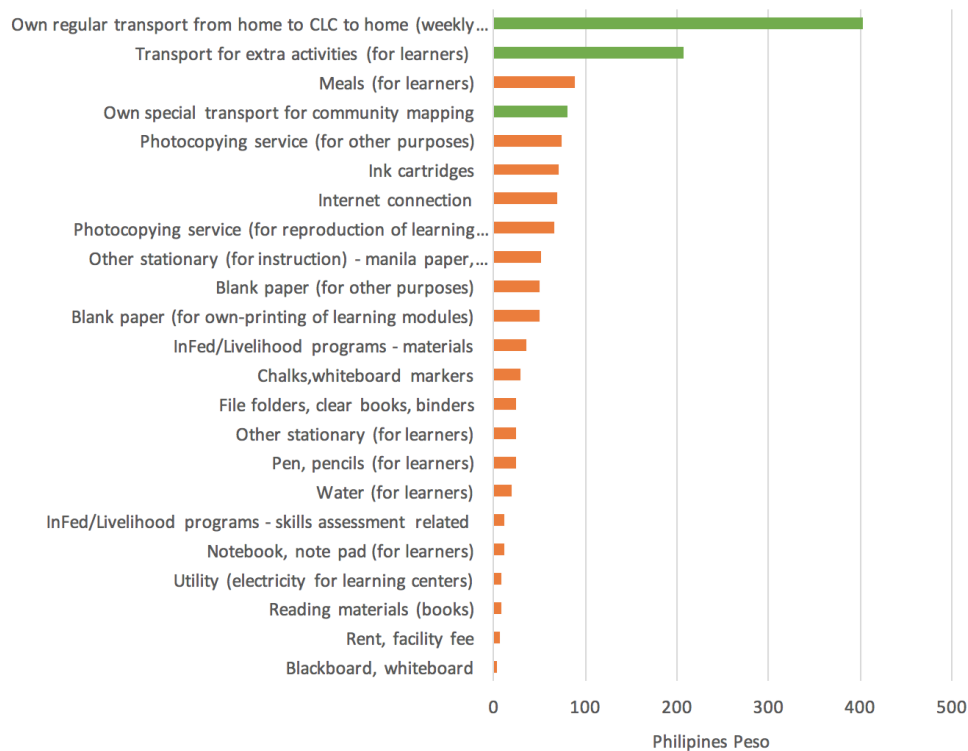
The 2017 ALS Snapshot Survey included a module, developed in collaboration with the DepEd Quezon City School Division, designed to assess ALS expenditures. The survey module was administered to 118 randomly selected facilitators in seven locations across the country, including

**Figure 14: Facilitator Expenses by Type, 2016 (% of facilitators who reported spending a share of their budget on each item)**



Source: ALS Snapshot Survey 2017; World Bank. Note: 1. CLC = Community learning Center. 2. Transportation-related expenses are in different colors for comparison)

**Figure 15: Amount for each expense item per week in 2016 (PHP)**



Source: ALS Snapshot Survey 2017; World Bank. Note: 1. CLC = Community learning Center. 2. Transportation-related expenses are in different colors for comparison.

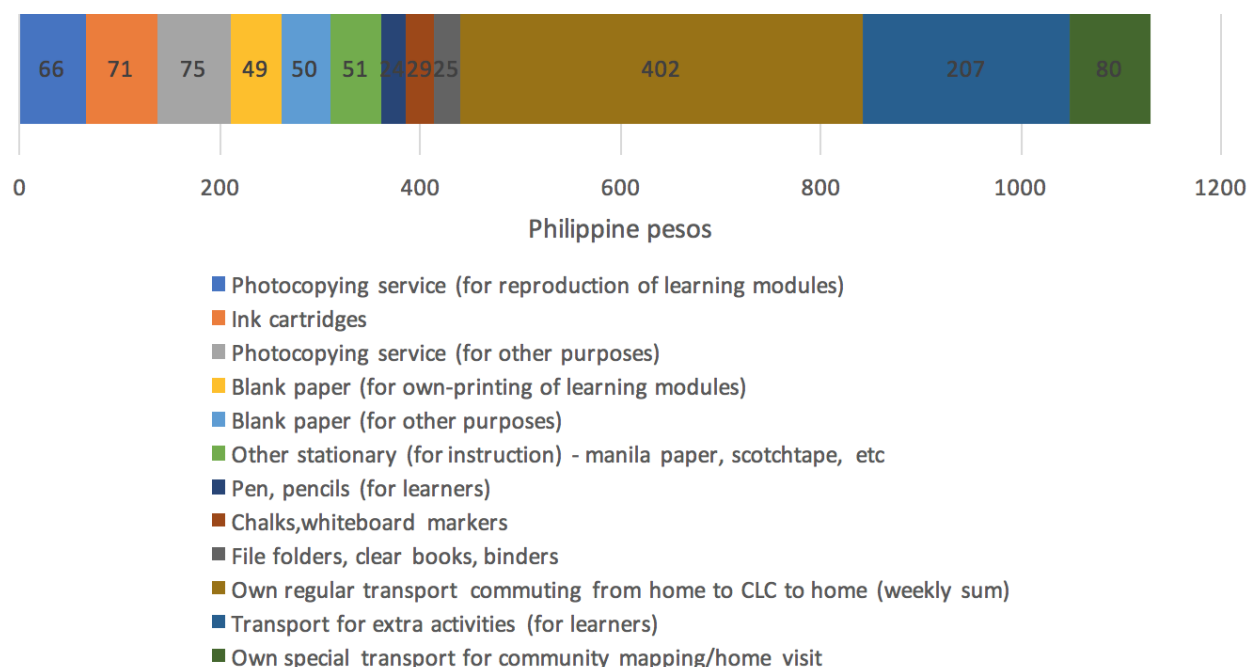
facilitators in both rural and urban areas. A large majority of facilitators reported spending funds on basic school supplies and photocopying services to print learning modules and other materials (Figure 14). In addition, more than half of the facilitators reported using a share of their budget to provide meals and stationery to participants to encourage their continued attendance. Relatively few facilitators reported purchasing supplemental learning materials. An even smaller number of facilitators reported covering expenses incurred for InFed skills training, such as purchasing materials, compensating instructors, and conducting the government assessment for occupation-specific skills regulated by the Technical Education and Skills Development Authority. Facility rent and utility costs were the least common expenses.

Transportation costs were by far the largest daily expense reported by facilitators. Three of the top four expenses were transportation-related. Facilitators reported spending the most on their own transportation to and from the learning center, while transporting participants to educational

activities was the second-largest expense (Figure 15). Other significant costs included meals for program participants and photocopying expenses. Although most facilitators reported purchasing stationary and other basic school supplies, these items are relatively inexpensive and represented only a small share of total costs.

The data indicate that facilitators typically spent about 1,100 Philippine pesos (PHP) per week to deliver ALS sessions, and more than half of that amount went to cover their own transportation costs (Figure 16). This estimate is based on the total amount facilitators spent on the items that over 70 percent of them purchased. However, differences in transportation costs result in a significant disparity between spending in urban and rural areas. Rural facilitators reported spending 1.5 time more on transportation than did urban facilitators. Meanwhile, non-transportation costs did not differ significantly between rural and urban areas. As noted above, the estimates of total operational spending exclude items purchased by less than 30 percent of facilitators.

**Figure 16: Total Weekly Spending by ALS Facilitators, 2016 (PHP)**

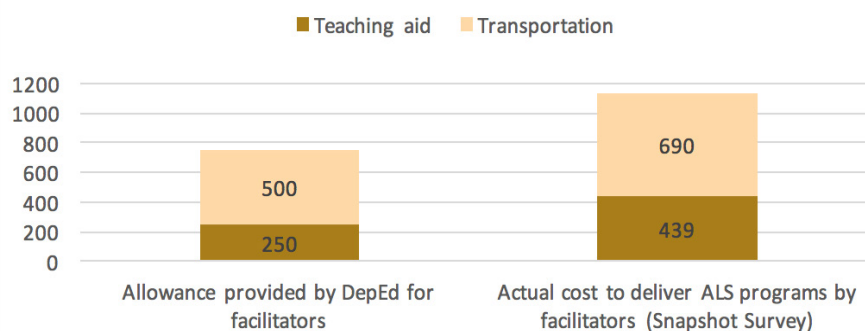


Source: ALS Snapshot Survey 2017; World Bank.

These expenditure estimates significantly exceed the amount of funds allocated to ALS facilitators.<sup>14</sup> The financing gap averages about PHP 400 per week, including both transportation and non-transportation spending (Figure 17). On an annual basis, expenditures could exceed funding by as much as PHP 16,000 (US\$320) per facilitator. Moreover, since expenditures differ significantly between facilitators, some may face a substantially larger financing gap.

Most facilitator expenditures are devoted to covering basic operational costs, leaving few resources to purchase supplemental learning materials. Beyond the DepEd training modules and essential school supplies, the use of additional textbooks, exercise books, and computers could greatly enhance educational outcomes. However, few facilitators have the resources to purchase supplementary materials. Instead, most ALS funding is spent on essential educational materials and transportation costs.

**Figure 17: DepEd Funding and Actual Expenditures by ALS Facilitators (PHP)**



Source: ALS Snapshot Survey 2017; World Bank.

## ALS Learning Modules

DepEd provides facilitators with ‘learning modules’ consisting of short printed self-learning materials based on the content of their programs.<sup>15</sup> These learning modules are divided into five subject areas covered by the ALS curriculum, which reflect the minimum requirements of the K-12 formal basic education system.<sup>16</sup> There are currently 283 ALS learning modules, of which 80 are core modules and the rest are used based on the specific needs of individuals. Despite past efforts to consolidate the number of modules, 283 is still far too many modules for an informal educational system.

The limited availability of these learning modules is a key bottleneck to ALS implementation. The survey data show that the supply of learning modules is insufficient to effectively deliver ALS programs (Table 2). About half of all surveyed facilitators lacked even one complete set of learning modules in 2016. About 70 percent of facilitators reported sharing modules with other facilitators or using limited programmatic funds to photocopy additional modules. Among ALS components, learning modules for the Basic Literacy Program are in especially short supply.

Current enrollees also reported shortages of ALS learning modules. Only one in three participants was able to take home the modules to study between learning sessions. Because adult learners typically require more practice than younger students, the ability to study outside of ALS sessions is especially critical, and the inadequate supply of learning modules significantly reduces the effectiveness of the ALS.

## Quality of the Learning Environment

Because the ALS does not use dedicated public facilities, ALS facilitators convene classes in a range of venues. The learning environment for ALS enrollees varies substantially. ALS programs are held in public schools, community centers, and other public buildings, as well as private homes, churches, sports fields and other outdoor spaces, and other temporary and permanent locations. Of these facilities, only public schools are owned by DepEd. All other venues are provided by local governments, community organizations, or private individuals. DepEd classifies ALS learning environments into five types, ranging from the most basic to the most sophisticated (Table 3).

**Table 2: Reported Availability of ALS Learning Modules by Subprogram, 2016 (% of facilitators)**

	BASIC LITERACY PROGRAM (%)	A&E ELEMENTARY (%)	A&E SECONDARY (%)
<b>In 2016, did you</b>			
...have at least one complete set of learning modules?	<b>32</b>	<b>57</b>	<b>62</b>
...receive new learning modules from DepEd?	<b>14</b>	<b>30</b>	<b>32</b>
...have enough learning modules?	<b>15</b>	<b>29</b>	<b>30</b>
...have soft copies of learning modules for photocopying?	<b>68</b>	<b>82</b>	<b>82</b>
...reproduce learning modules?	<b>56</b>	<b>66</b>	<b>70</b>
...share learning modules to meet the shortage?	<b>72</b>	<b>78</b>	<b>79</b>

Source: ALS Snapshot Survey 2017; World Bank.



ALS facilities differ sharply between urban and rural areas. In rural areas, the most common learning centers are basic structures and temporary locations, while most urban learning centers are permanent, relatively secure, and dedicated to learning (Figure 18). Type 1 and Type 2 facilities tend to host smaller learning groups and are the most likely to be rendered unavailable by extreme weather or other adverse conditions. In principle, effective ALS programs could be held in any facility type, but in practice differences in the venue tend to affect both attendance and program quality.

A simple regression analysis revealed key supply-side challenges to improving the quality of ALS programming. The analysis controlled for facilitators' gender, age, years of ALS experience, and administrative division. The outcome variable was the attendance rate per facilitator. The analysis showed that spending on teaching supplies and the type of facility both affected the attendance

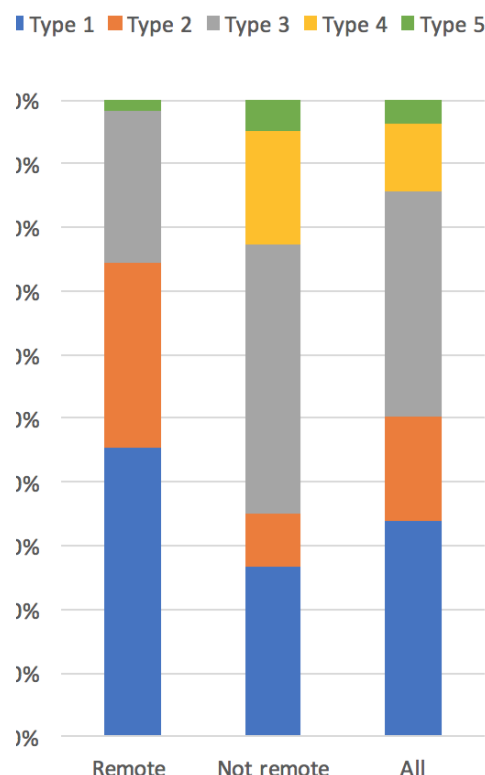
rate (Figure 19). The most well-equipped facilities (Type 5) were associated with a 19 percentage-point increase in the likelihood that participants would complete the program. Moreover, an additional PHP 100 per week in non-transportation spending was associated with a 2 percentage-point increase in the completion rate.<sup>18</sup> The results clearly indicate that better learning environment and increased funding for educational materials may have a significant impact on program attendance and completion. This is consistent with the international literature, which found that noise, distractions, or uncomfortable environment cause deficits in cognitive performance among adult learners<sup>19</sup>. While it should be noted that the analysis in this note did not definitively establish a causal relationship, it is reasonable to infer that the quality of learning facilities and educational materials influences whether participants are willing to continue making the sacrifices necessary to complete the program.

**Table 3: Classification of ALS Learning Facilities**

<b>Type 1</b>	A simple, temporary meeting place with tables and chairs, or any open multipurpose area or any private property temporarily lent for learning purposes
<b>Type 2</b>	A semi-permanent structure made mostly out of light materials (e.g. bipa, softwood) and equipped with basic furniture and learning equipment, which is dedicated to ALS learning sessions and related activities
<b>Type 3</b>	A typical barangay <sup>17</sup> learning center, permanent and secured, mostly made of cement and other heavy building materials and equipped with basic furniture and learning equipment, which is dedicated to ALS learning sessions and related activities
<b>Type 4</b>	A two- or three-story building fully equipped with basic furniture and advanced information and communication technologies for learning (e.g., computers), which is dedicated to ALS learning sessions and related activities
<b>Type 5</b>	A permanent building equipped with ALS and other learning materials, utilized by learners and other members of the community and functioned as a resource centers where materials are either transported from house to house or borrowed by individual interested community members

Source: ALS Snapshot Survey 2017; World Bank.

**Figure 18: Distribution of ALS Learning Facility by Type**



# ALS Implementation Models

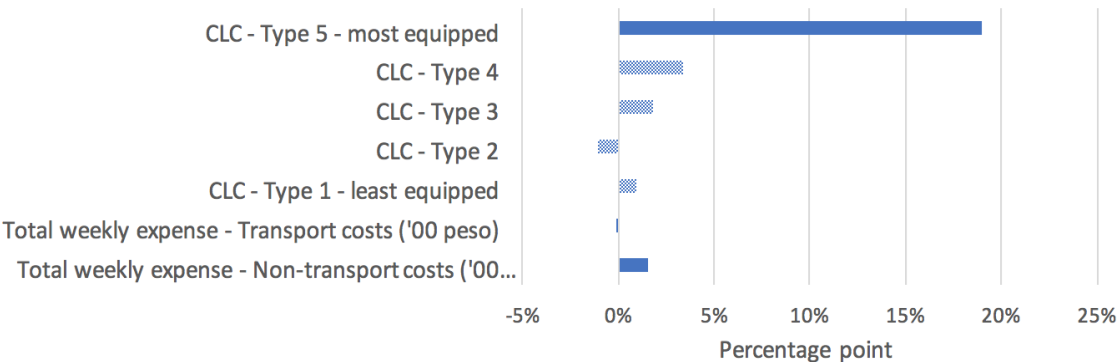
DepEd implements the ALS through two models operating in parallel. “DepEd-delivered” programs are implemented directly by DepEd through its mobile teachers and ALS district coordinators. “DepEd-procured” programs are implemented through service providers contracted by DepEd based on the ALS Unified Contracting Scheme.<sup>20</sup> Under the latter model, DepEd hires service providers such as public organizations, private and public universities, local government agencies, or community groups to deliver ALS programs. DepEd guidelines specify minimum requirements for hiring and training facilitators, time spent on ALS sessions, core educational content, and monitoring and reporting.

In addition to the two DepEd-managed delivery models, local governments and nongovernmental organizations partner with DepEd to deliver ALS programs using other sources of funds.<sup>21</sup> These partner-funded ALS programs use the same learning materials and follow the same instructional guidelines as DepEd-managed programs, but they are smaller in scale. The available data are not sufficient to rigorously analyze partner-managed ALS programs, and thus this group was excluded in this analysis.

Regular supervision of learning facilitators is essential to ensure program quality.<sup>22</sup> However, the diverse environments in which ALS facilitators operate—which include isolated indigenous communities, remote mountain regions, and conflict-affected areas—greatly complicate oversight. The ad hoc nature of many ALS program exacerbates this challenge, as ALS facilitators are not part of a local administrative hierarchy overseen by a school principal or superintendent. ALS supervisors have difficulty monitoring programs in communities that are remote or difficult to access or which hold sessions very early in the morning or late in the evening. A challenging oversight environment can increase the risk of moral hazard, and measures to mitigate this risk are essential to ensure service quality.

Different delivery models require different monitoring strategies, and DepEd’s current approach is inefficient. Learning facilitators in DepEd-delivered programs, including district ALS coordinators and mobile teachers, are trained and vetted DepEd employees. Their careers at DepEd are linked to their performance, and they have strong incentives to deliver high-quality work even without frequent monitoring. By contrast, facilitators in DepEd-procured programs are external contractors and are not subject to the same institutional incentive structure. However, Yamauchi

**Figure 19: The Marginal Impact of Supply-Side Factors on ALS Attendance Rates (percentage points)**



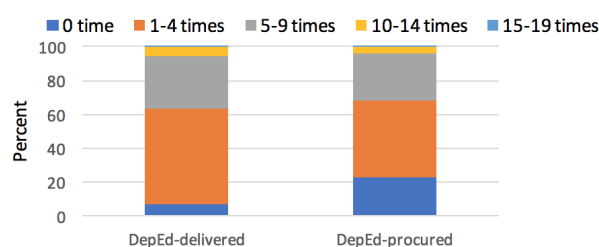
Source: ALS Snapshot Survey 2017; World Bank.

et al. (2016) found that facilitators in DepEd-procured programs are monitored less often than facilitators in DepEd-delivered programs (Figure 20). The amount of time facilitators spend leading ALS sessions is closely linked to positive outcomes, and effective monitoring can encourage facilitators to invest time in the program.

Despite their different facilitator incentive structures and monitoring frequencies, Yamauchi et al. found no clear difference in the outcome indicators of DepEd-delivered and DepEd-procured delivery modes, and DepEd-procured delivery mode has a lower per-enrollee cost. However, it is important to note that service providers may be less willing to work in areas with high structural costs, and relying too heavily on service providers may reduce program access in remote, marginalized, and conflict-affected communities. While service providers appear to be roughly as effective,

on average, as DepEd staff, increasing supervision and establishing performance-based incentives could further enhance program quality (Box 3).

**Figure 20: Number of Facilitator Monitoring Visits per Month by Program Model**



Source: Yamauchi et al. 2016; ALS National Data Collection 2015; DepEd; and World Bank.

### Box 3: Performance-Based Incentives and ALS Outcomes Indicators

While DepEd has adopted a Results-Based Performance Management System, it operates solely on a group basis and does not reward individual performance. Moreover, the system only covers DepEd-delivered facilitators and does not yet include DepEd-procured facilitators.

To shed light on the potential impact on individual performance-based payments, the 2013 ALS Survey (see Box 1) asked facilitators to choose which of the following payment options they would prefer: (i) a one-year contract for a fixed amount of PHP 50,000 or (ii) a one-year contract for a minimum amount of PHP 25,000, plus an additional amount determined by their participants' A&E pass rate. Under option two, each facilitator's salary would be  $\text{PHP } 25,000 + \text{PHP } 50,000 \times \text{the A\&E pass rate}$ .<sup>23</sup> The survey question assumed an average A&E pass rate of 50 percent, or 0.5 in the payment formula.

The results revealed a positive and statistically significant correlation between the performance of facilitators and their preference for performance-based payment. High-performing facilitators consistently preferred performance-based payments linked to participants' A&E pass rate. The introduction of such an incentive system could improve overall facilitator performance, particularly to the DepEd-procured delivery mode (contracted facilitators).

However, performance-based incentives may also tend to reward facilitators who work with groups of participants that would tend to have a higher A&E pass rate regardless of the facilitator's ability. Establishing a performance-based incentive system that does not reflect local A&E pass rates could create a disincentive for facilitators to work with more challenging groups of participants. A regression analysis presented in the following section identifies the impact of various individual and contextual variables on A&E pass rates. Using this analysis as a basis for assessing local pass rates could help adjust the incentive formula to reflect the average performance of ALS participants in different regions and communities.

# Returns to ALS Participation

As discussed above, one of the key common challenges facing adult learning programs is the high opportunity cost of participating, coupled with uncertain economic returns. In contrast with the large body of research on the returns to formal schooling, the literature on economic returns to non-formal education and adult learning programs is relatively modest. However, studies have found that these programs generate both economic and noneconomic returns, as education helps to develop life skills and fosters social confidence. Research on the GED program found that majority of the GED takers had in fact limited impacts on economic opportunities due to deficits in socioemotional skills (also called non-cognitive skills, such as behavior or attitude) even though they achieved the equivalent level of cognitive skills.<sup>24</sup> The context of the GED in the US and Canada differs from that of ALS, but the policy insights obtained from the studies on the GED should be eventually important to the Philippines. Other recent assessments—including studies conducted in developing-country contexts though still limited—have

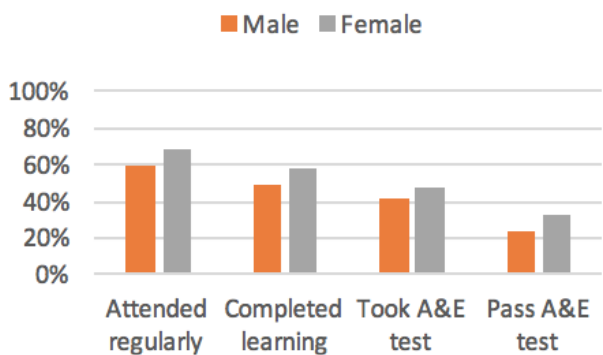
found that learning programs in in the non-formal setting generate positive intergenerational impacts, as they are associated not only with improvements in the cognitive and socioemotional skills of participants, but also in their children’s educational outcomes and in participants’ level of involvement with their children’s education.<sup>25</sup>

Two questions are examined in this section: (a) whether the ALS enrollees are performing toward achieving their goals in the program and (b) whether they can expect meaningful benefits after completing the ALS program.

## Performance of ALS Enrollees and the Program’s Goals

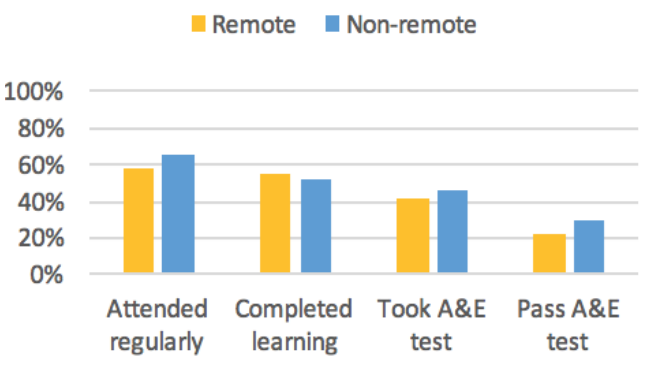
Between 2014 and 2016, about 60 percent of ALS enrollees attended learning sessions regularly, about 50 percent achieved their individual learning objectives, about 40 percent sat for the A&E exam, and about 30 percent passed the exam and earned their high school equivalency credentials. Female participants consistently outperformed their male counterparts, and urban participants passed the A&E exam at a higher rate than rural participants (Figure 21 and Figure 22).

**Figure 21: ALS Performance Indicators by Gender**



Source: ALS Snapshot Survey 2017; World Bank.

**Figure 22: ALS Performance Indicators in Rural and Urban Areas**



**Table 4: Correlation Coefficient between ALS Learning Sessions, Completing the Program, Sitting for the A&E Exam, and Passing the A&E Exam**

	(1)	(2)	(3)	(4)
(1) Regularly attended learning interventions	1	<b>0.6018*</b>	<b>0.4858*</b>	<b>0.3915*</b>
(2) Completed individual learning plans	<b>0.6018*</b>	1	<b>0.6815*</b>	<b>0.5326*</b>
(3) Took the A&E test	<b>0.4858*</b>	<b>0.6815*</b>	1	<b>0.6701*</b>
(4) Passed the A&E test	<b>0.3915*</b>	<b>0.5326*</b>	<b>0.6701*</b>	1

Source: ALS Snapshot Survey 2017; World Bank.

Note: \* Indicates significance at the 95% confidence level

Attending learning sessions, completing the ALS program, taking the A&E exam, and passing the A&E exam are all closely correlated. Participants who attended learning sessions regularly were more likely to complete their individual learning plans, sit for the A&E exam, and eventually pass the A&E exam (Table 4). Participants who signed up for the ALS but did not regularly attend learning sessions were significantly less likely to obtain positive outcomes in the program. These findings suggest that increasing attendance rates, particularly among male participants and in rural areas, could substantially improve the overall effectiveness of the ALS.

### Post-ALS Education, Training, and Employment

About 60 percent of ALS participants who passed the A&E exam went on to enroll in tertiary education or vocational training. Only 30 percent of those who did not pass the A&E exam pursued any kind of further education, and a negligible fraction attended colleges or vocational training institutions (Figure 23). In addition, over 70 percent of ALS participants who passed the A&E exam reported being employed or self-employed after completing the program, compared to just half of those who did not pass the A&E

exam (Figure 24). Self-employment was equally common among the two groups, but those who passed the A&E exam were twice as likely to report being formally employed as full-time wage earners.

These correlations suggest that participating in the ALS successfully helped many former students return to mainstream education and skills training and meaningfully enhanced their employment prospects. However, both effects were much stronger for participants who passed the A&E exam, and participants who did not pass the exam do not appear to have garnered any substantial economic returns. Increasing the rate at which ALS participants pass the A&E exam would greatly enhance the economic opportunities generated by the program. Due to the close correlation between attending learning sessions and passing the A&E exam, supporting regular attendance is critical to deepening the positive impact of the ALS.

### Determinants of ALS Returns

A simple regression analyses revealed several factors that influence the performance of ALS participants both during and after the program, including attending



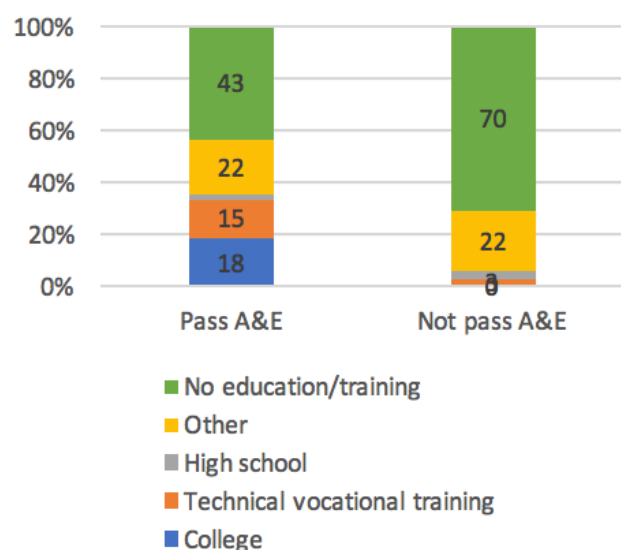
learning sessions, completing the program, and passing the A&E exam. The analysis controlled for participants' prior education level, gender, and age, as well as proxies for the learning environment such as operational expenses and the type of learning center. To control for other local contextual factors, the model included dummy variables at the school-division level. The full results of the regression are presented in the annex (Table 1.2 and Table 1.3). The coefficients in these tables show additional percentage-point changes in performance.

Participants with higher levels of prior education tended to perform well in the ALS. Specifically, participants who had some amount of high school education were more likely to pass the A&E exam than those who had never enrolled in high school or did not graduate from elementary school. The difference in pass rates between participants with some high school education and those with no high school education was about 6 percentage points. In addition, the

average pass rate of urban enrollees exceeded the rate for rural enrollees by 8 percentage points.

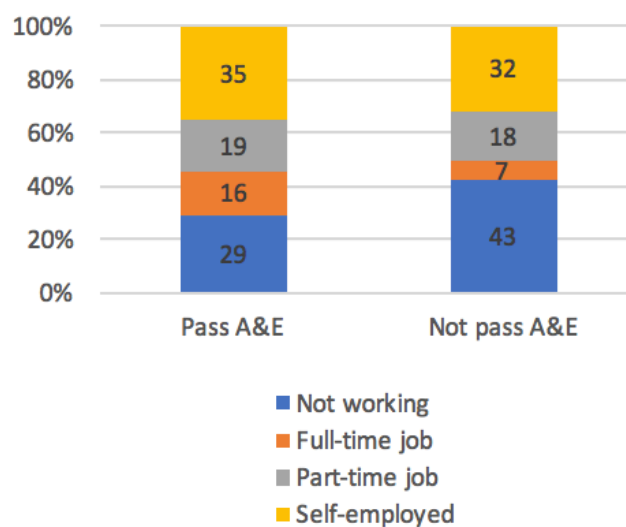
Supply-side inputs were also strongly correlated with learners' performance, especially in terms of completing individual learning objectives and passing the A&E exam. Participants tended to perform better when facilitators spent more on operational expenses such as photocopying educational materials or purchasing school supplies. Enrollees also tended to perform better when learning sessions were held in well-equipped facilities rather than makeshift structures or outdoor spaces. This may be intuitive to many and is consistent with other empirical studies. Boosting the supply of educational inputs and enhancing the quality of learning facilities, where needed the most, could motivate participants to attend more sessions, complete the ALS program, and eventually pass the A&E exam.

**Figure 23: Enrollment in Further Education and Training after the ALS**



Source: ALS Snapshot Survey 2017; World Bank.

**Figure 24: Employment Status after the ALS**



Prior education levels and supply-side factors also appeared to play an important role in determining whether ALS participants would continue on to higher education or obtain formal employment after the program. Participants who had some high school education prior to enrolling in the ALS were more likely to pursue formal post-secondary education or skills training after the program. Prior education levels had no impact on the likelihood of employment in the formal sector, but high levels of operational spending and better facilities were associated with an increased probability of formal employment.

In addition to teaching the standard curriculum, many facilitators reported organizing InFed skills-training sessions to incentivize participants. In some cases, facilitators invited assessors from the Technical Education and Skills Development Authority to offer participants a chance to be officially certified in the mastery of these additional skills. Obtaining these credentials can help ALS enrollees gain employment or pursue more advanced training certificates. However, the ability of facilitators to offer skills training depends on their available resources, including the allowances they receive from DepEd.

### ALS Participation and Income Levels

Passing the A&E exam was correlated with significant improvements in future earnings and employment prospects, while merely enrolling in the ALS and completing individual learning plans had no significant impact.<sup>26</sup> Passing the A&E exam was associated with a PHP 2,400 per month increase in earnings, or US\$640 per year at the current exchange rate.<sup>27</sup> Workers who had passed the A&E exam earned more than the average for workers who did not complete secondary education.

While some enter the labor force immediately, many ALS participants who pass the A&E exam go on to formal post-secondary education or vocational training. While their average wages also reflect the returns to additional education, most higher-education options are not available to individuals without a high school diploma or equivalent credential. Passing the A&E exam is therefore essential to realizing the economic benefits of the ALS.

## Conclusion and Policy Recommendations

**Despite the inherent challenges in implementing effective adult learning programs, the findings revealed that the ALS has potential for enabling the proportion of enrollees to further develop their human capital, with positive effects on their long-term educational outcomes and employment prospects.**

However, given the low pass rate, only a small portion is seeing benefits. Also, it is hard to see any substantial accomplishments in some places such as ARMM. This report suggests that addressing key supply- and demand-side issues could enhance the impact of the ALS. The ALS is large and complex, and successful reform will require well-designed and prioritized policies coupled with rigorous monitoring and evaluation. Before proceeding to the conclusions and recommendations, it is important to note that the analysis presented in this policy note is based primarily on statistical correlations, and causal relationships are largely inferred.

**On the demand side, DepEd should strive to support ALS enrollees in managing the tradeoffs necessary to complete the program.** The time that adult learners devote to the ALS comes at a high opportunity cost, but regular participation in learning sessions is critical to success. Measures that ease participants' opportunity cost in terms of foregone wages and deferred household labor could boost attendance and increase the rates at which participants complete the program and pass the A&E exam. ALS attendance has been included as an eligibility condition for the "4Ps" conditional cash transfer program, and it is recommendable to partner the Department of Social Welfare and Development to study its impact on attendance and enrollment in the program.

**DepEd could further encourage enrollment and attendance in ALS by reducing the uncertainty that participating in the ALS will yield positive economic returns.** While the survey shows that completing the ALS can improve participants' wages and employment prospects, these benefits are contingent on passing the A&E exam. Expanding opportunities to obtain context-

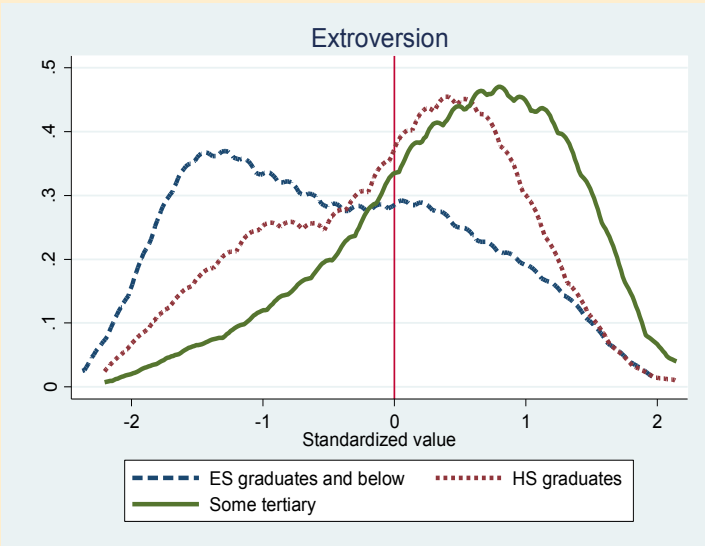
**Box 4 :The Importance of Socioemotional Skills Development among ALS Participants**

Recent studies have shown that high school equivalency programs such as the ALS can help bring participants' cognitive skills into line with those of high school graduates. However, the same may not true for socioemotional skills such as persistence, motivation, and reliability.<sup>28</sup>

Emerging international evidence (including the Philippines) suggests that socioemotional skills plays a very important role for employment and earnings, and the importance is increasing particularly for the types of jobs created by the recent global economy. Numbers of employers in the Philippines and elsewhere report difficulty finding workers with an adequate work ethic or appropriate interpersonal and communication skills and provide worker training that is focused on developing socioemotional skills.

A recent World Bank report showed that Filipinos with limited formal education tended to score poorly on indicators of socioemotional skills, particularly grit, decision making, agreeableness, and extroversion, as compared to peers who had a high school education or above (Figure 25).<sup>29</sup> The study also found that socioemotional skills are strongly correlated with increased employability among individuals at all education levels. The same study found that one standard deviation in socioemotional skills is associated with a 9 percent increase in average daily earnings (approximately US\$2). Particularly large increases are associated with socioemotional skills among women, young workers, and less-educated workers.

**Figure 25: Distribution of Extroversion Skill by Educational Level**



Source: Acosta et. al 2017.

specific skills training and certifications during ALS learning sessions could increase the probability that participating in the ALS will yield higher wages in the future. DepEd should assess the current InFed skills trainings offered by ALS facilitators and explore potential training partnerships with local industries and relevant government agencies such as the Technical Education and Skills Development Authority and the Department of Labor and Employment. ALS participants who pass the A&E exam and those who do not both stand to benefit from the additional skills certification provided by InFed trainings.

**Reviewing how the A&E exam could be better administered and the use of technology could be improved could further help reduce the opportunity cost of time and uncertainty faced by ALS participants.**

Prospective ALS participants may be intimidated by the prospect of committing a full 10 months to the program before taking a single exam that will largely determine whether that commitment was worthwhile. DepEd should consider options such as piloting a more frequent A&E exam schedule or introducing modular credit system. Holding more exams each year, by adding at least another round in a year in limited locations, could potentially increase the A&E pass rate at a very low cost to DepEd. Also, it is worth looking into how technology could be better used to improve the reach of the programs given high opportunity cost of time. Radio and e-learning modules have been used to deliver ALS programs in certain locations, but the use is still limited across the country. Although there are surely infrastructure limitations, e-delivery of learning materials coupled with using text messages to give timely feedback and quizzes/games or send reminders could be explored and improved, which can have benefits for motivating and retaining adult learners.

**On the supply side, DepEd should strive to increase the availability of educational materials, boost operational spending, and improve the quality of ALS learning facilities.** Facilitators who spend more on educational supplies and who have access to well-equipped facilities tend to have higher attendance, completion, and A&E exam pass rates. The recent increase in the ALS budget is a positive step, but a more holistic approach will be necessary to enhance the effectiveness

of ALS implementation. Identifying cost savings elsewhere in the budget could enable DepEd to increase both the operational resources available to facilitators and the capital budget for upgrading learning facilities, particularly those classified as Type 1 and Type 2.

**DepEd should take immediate steps to address the shortage of learning modules and devise a plan to sustainably improve the ALS procurement system, and also assess the instructionally appropriateness.**

This process should begin with an inventory of core ALS learning modules. Decentralizing the provision of learning modules could enable DepEd to respond more quickly to requests from facilitators in the field. Besides, it is recommendable for DepEd to review and, as needed, update and revise the existing learning modules of ALS in the light of reducing the number of modules and ensuring that they are more instructionally appropriate for adult learners. The persistently low A&E pass rate as an outcome may suggest that that ALS may be failing to prepare the majority of the learners as it intends.

**DepEd should analyze the relative cost-effectiveness of DepEd-delivered and DepEd-procured ALS programs and formulate a comprehensive service-delivery framework with a sound incentive mechanism.**

A preliminary comparison revealed that DepEd-procured learning facilitators were paid less than DepEd-delivered facilitators, but that DepEd-delivered facilitators had more teaching experience. In addition, DepEd-delivered facilitators, particularly district ALS coordinators, play an important role in monitoring and coordinating other facilitators. DepEd should update and clarify its operational standards, including the administrative division of responsibilities, requirements for facilitators, program quality standards, facilitator training arrangements, and data-driven monitoring systems. Given the different delivery modes, it is also recommendable to experiment with an element of performance-based incentive system based upon the pass rate.

**Over the mid- or long-term, DepEd should thoroughly assess, update and monitor the ALS modules to improve relevance to the labor market and pursuit of further formal education.** Collaborating with other government agencies, civil society, and the private sector

could enhance the practical applicability of learning modules. An assessment system should be put in place to continuously monitor and evaluate the relevance and effectiveness of the new curriculum and modules. As suggested by international evidence, offering vocational counseling and piloting interventions designed to enhance socioemotional skills among ALS learners could magnify the impact of the ALS on participants' educational outcomes, employment prospects, and lifetime earnings.<sup>30</sup>

**Any effort to expand the program must complement to the more critical task of keeping students in school and ensuring their learning and be careful not to create perverse incentives for students currently in school.**

The most efficient and effective remedies are interventions that are applied when students at high risk of dropping out are still in school. DepEd should assess implementation of the Alternative Delivery Mode (ADM) and harmonize the ALS with ADM and regular classrooms. Students who are currently at high risk of dropping out may view the second chance offered by the ALS as a reason to postpone graduating, or they may even regard the ALS as an easier alternative to formal high school. In either case, expanding the ALS could inadvertently increase the dropout rate. However, demand for the ALS will likely diminish over the long run as the quality of the Philippine educational system continues to improve. The government has recently launched an ambitious basic education reform program, and focusing interventions on students at high risk of dropping out should gradually reduce the number of future ALS enrollees.



## References

- <sup>1</sup> A team led by Takiko Igarashi (Education Specialist, WB, [tkoyama@worldbank.org](mailto:tkoyama@worldbank.org)) and consisting of Pablo Acosta (Senior Economist, WB, [pacosta@worldbank.org](mailto:pacosta@worldbank.org)), Marites Tiongco (De La Salle University), and Vicente Paqueo (Philippine Institute for Development Studies) prepared this report. The team is grateful to the Department of Education for their wholehearted support and guidance.
- <sup>2</sup> See UNESCO, 2015. "Education for All 2000–2015: Achievements and Challenges. EFA Global Monitoring Report."
- <sup>3</sup> Basic education in the Philippines comprises one year of kindergarten, six years of elementary school, four years of junior high school, and two years of senior high school.
- <sup>4</sup> See Knowles, Malcolm S. 1980. "The Modern Practice of Adult Education, From Pedagogy to Andragogy." Cambridge Adult Education.; Lauglo, Jon. 2001. "Adult Education in Sub-Saharan Africa." Africa Region Findings No. 195, World Bank, Washington, DC.; and Aker, Jenny C. and Melita Sawyer. 2016. "Adult Learning in Sub-Saharan Africa: What Do and Don't We Know?" Background paper for the World Bank Africa Regional Study on Skills. Forthcoming.
- <sup>5</sup> These regions were the Cordillera Administrative Region, the National Capital Region, the Negros Island Region, the Northern Mindanao Region, and the Davao Region. In each region, an urban division and a remote rural division were selected; mobile teachers and ALS district facilitators were randomly selected with each division. Survey sampling and administration were supervised by the study team.
- <sup>6</sup> DepEd offers no standard InFed programs, curricula, or support. Facilitators are solely responsible for obtaining the financial resources, education materials, instructors, and facilities necessary for each InFed program.
- <sup>7</sup> For example, Aker and Sawyer 2016; Knowles 1980; Lauglo 2001.
- <sup>8</sup> Aker and Sawyer (2017) summarize findings of international studies on challenges for adult education both in the neuroscience and economics fields.
- <sup>9</sup> See Heckman, Humphries, and Mader 2011. "The GED." NBER (National Bureau of Economic Research) Working Paper 16064.
- <sup>10</sup> Yamauchi, Futoshi, Takiko Igarashi, Nicholas M Tenazas, and Marites Manlangit Tiongco. 2016. *Alternative and Inclusive Learning in the Philippines*. Washington, DC: World Bank Group.
- <sup>11</sup> Both individually and in study groups.
- <sup>12</sup> The survey also includes time spent consulting with learning facilitators outside of regular sessions.
- <sup>13</sup> No correlation was found between participants' pre-ALS education levels and the amount of time spent in ALS sessions.
- <sup>14</sup> See DepEd Order Series. No. 59, s. 2016.
- <sup>15</sup> Each module is designed to facilitate independent study and contains a complete description of the module, its objectives, learning activities, and tests. Digital modules and radio-based modules are also available, but are not commonly used nationwide.
- <sup>16</sup> The five subject areas are communication skills (English/Filipino), scientific literacy and critical thinking, mathematics and problem-solving, life and career skills, and understanding the self and society. The 2017 K-12 ALS curriculum added digital literacy as a sixth subject area.
- <sup>17</sup> A "barangay" is the smallest administrative division in the Philippines, typically denoting a village or neighborhood.
- <sup>18</sup> More detailed estimation results can be provided as requested.
- <sup>19</sup> See Aker and Sawyer, 2016.
- <sup>20</sup> See DepEd Order No.77, 2012.
- <sup>21</sup> These include nongovernmental organizations working in conflict-affected areas of the ARMM.
- <sup>22</sup> See Yamauchi et al., 2016.
- <sup>23</sup> The pass rate is defined as the number of participants who passed the exam divided by the number who sat for it.
- <sup>24</sup> See Heckman, Humphries, and Mader, 2011; and Heckman, James J., John Eric Humphries, Paul A. LaFontaine, and Pedro L. Rodriguez. 2012. "Taking the Easy Way Out: How the GED Testing Program Induces Students to Drop Out." *Journal of Labor Economics* 30 (3): 495–520.
- <sup>25</sup> See Banerji et al. 2017, Aker et al. 2012, Ksoll et al. 2014, Sawada et al. 2017, etc.
- <sup>26</sup> See Yamauchi et al., 2016. These correlations can be provided as requested.
- <sup>27</sup> PHP 45: US\$1.
- <sup>28</sup> See Heckman, Humphries, and Mader, 2011.
- <sup>29</sup> Noncognitive skills are also referred to as "socioemotional skills" or "soft skills." See Acosta, Pablo, Takiko Igarashi, Rosechin Olfindo, and Jan Rutkowski. 2017. *Developing Socioemotional Skills for the Philippines' Labor Market*. Directions in Development—Human Development. Washington, DC: World Bank.
- <sup>30</sup> See Acosta et al., 2017.