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Primary Education: Barriers to Entry and Bottlenecks to Completion

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Philippine Institute for Development Studies
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Primary Education: Barriers to Entry and Bottlenecks to Completion

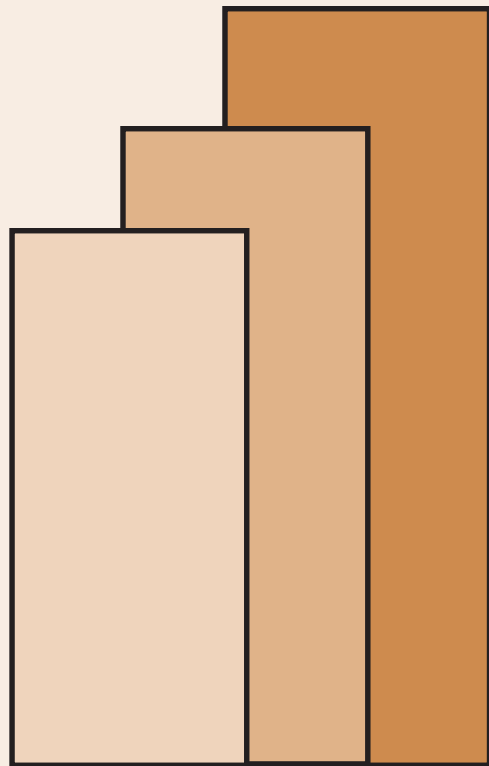
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PRIMARY EDUCATION: BARRIERS TO ENTRY AND BOTTLENECKS TO COMPLETION¹

by

Clarissa C. David and Jose Ramon G. Albert²

ABSTRACT

To improve the country's standing on achieving the Millennium Development Goals on Education and Education for All targets, it is important to examine various economic and socio-cultural demand-side factors that hinder children from attending and completing primary school, as well as maximizing their learning when they are in school. In this report, we look into two major issues regarding universal primary education, viz., late school entry and dropping out before completion of elementary, which are tied to a variety of factors related to demand for education. This paper focuses on a select few that appear to have substantial consequences on school attendance: perceptions about school readiness of children, economic factors (poverty and costs of education), differences in expectations between boys and girls, and education of mothers. Supply barriers also exacerbate these problems, particularly in a system that suffers continuous shortages of various education inputs. The examination in this paper includes reports using available national survey data and primary observations made during field visits and interviews in various areas of the country. This paper identifies and discusses the most pertinent factors related to why pre-primary aged children not in school are viewed as being too young for schooling, why primary aged children not in school reportedly lack interest in schooling, and what puts some primary aged students more at risk of dropping out than others.

Key words: out of school children, dropouts, primary education, school readiness, gender disparities, poverty, input deficits

¹This discussion paper will get published as the second chapter of the report on the Philippine Country Study on Out of School Children (OOSC). The country study is undertaken together with the Department of Education (DepEd), and the United Nations Children's Fund (UNICEF).

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1. Introduction: The problem of OOSC

Household interviews in the national Annual Poverty Indicator Survey (APIS), and FLEMMS reveal that about three fifths of primary aged children in 2008 do not attend school either because the children are thought to be too young or lack personal interest in schooling. Age is the more frequently cited reason, particularly for 6 and 7 year old children. About one in ten primary aged children are not in school because of cost issues, while one in twenty are not in school due to school accessibility issues. Among primary-aged boys not in school, the reason most often given for not being in school is lack of interest, while among girls of the same age group; it is being too young for school.

According to APIS, among pre-primary aged out-of-school children (OOSC) in 2007 and 2008, four out of every five are reported as being too young to be in school (Table 1). The most recently available data (in 2010) suggests that this percentage has gone down to seven in ten five-year-old children viewed as too young to attend school. Among five-year-old OOSC, about one out of twenty five are reported to lack interest, slightly to one out of fifteen in 2008, and further to one in eight in 2010. The percentage distribution of reasons for non-attendance of pre-primary aged children varies only slightly by sex: the proportion of boys (82.9%) that are reported as being too young for schooling is just a little over the corresponding rate for girls (77.5%). There is more variation between urban and rural areas. In both 2007 and 2008, a common reason cited for non-attendance in urban areas is cost of schooling, but in rural areas, school accessibility (either schools being too far, no schools within the village, or no regular transportation to school) is the more common reason for non-attendance of pre-primary aged children.

Table 1. Percentage of Pre-primary aged and Primary aged OSSC (in 2007, 2008 and 2010) by Reason for Non-Attendance in School, by Data Source.

Reason for Non Attendance	Pre-primary aged Children			Primary Aged Children			
	APIS 2007	APIS 2008	APIS 2010	APIS 2007	APIS 2008	FLEMMS 2008	APIS 2010
Lack of Personal Interest	3.83%	6.94%	13.31%	24.49%	31.68%	23.78%	42.92%
High cost of Education	4.53%	3.62%	3.54%	12.90%	11.52%	13.32%	11.36%
Too young to go to school	83.52%	80.46%	70.45%	34.03%	29.21%	34.86%	18.36%
Illness/Disability	0.54%	1.06%	1.36%	8.08%	9.48%	6.76%	10.08%
Lack of Nearby Schools	4.53%	3.88%	6.06%	8.61%	7.45%	7.66%	10.08%
Employment	0.00%	0.00%	0.0%	0.31%	0.13%	0.09%	0.30%
Other Reasons (incl. School Records, Marriage, Housekeeping)	3.05%	4.04%	5.28%	11.55%	10.53%	13.53%	6.9%

Source: APIS 2007, APIS 2008, APIS 2010, and FLEMMS 2008; NSO.

This discussion paper looks into the most prevalent and consequential barriers and bottlenecks to pre-primary and primary education in the Philippines by systematically reviewing findings in the existing local literature, examining available data as presented in Albert et al (2012), and augmenting these with qualitative interviews conducted in 24 schools around the country (see Annex for details of method). It discusses factors that influence access, attendance, dropouts, and retention in pre-primary and primary schooling. Interviews and school observation visits were conducted in the National Capital Region (NCR), Tabaco City (Albay), Negros Oriental, and Maguindanao to probe the barriers and bottlenecks to schooling and learning. In each of these four zones, 6 schools were visited. In total the research team interviewed (92) children, (89) parents, (62) teachers, (23) principals, (23) other officials, and additionally a number of barangay officials, daycare workers, and Alternative Learning Systems (ALS) coordinators. This sampling scheme was designed to capture various exclusion dimensions of children of pre-primary and primary ages. Details of the sample make-up are presented in the Annex and findings from these interviews are discussed in appropriate sections below.

A review of the literature suggest that there may be many different cultural, social, economic, and institutional factors that influence the lack of participation in pre-primary and primary schools. However, based on the description of out of school children (OOSC) presented in Albert *et al.* (2012), coupled with information on the reported reasons why children are not in school (shown in Table 1) and

the logistic regression analysis presented in Albert *et al.* (2012), there are a handful of highly consequential factors that deserve greater focus: economic status, age of child, sex of child, mother's education, and school inputs. A select number of specific variables are discussed more broadly in this discussion paper as indicative of "demand side barriers", that is factors that stem from the child or parent's desire for and commitment to complete elementary education: poverty, parental and teacher perception about school readiness of children, parental education, and household perceptions about whether boys or girls and younger or older children are more likely to produce returns on investments in education given economic constraints.

There are also "supply side constraints" such as school system input deficits. Supply issues reflect how the public school system's ability to provide elementary education impacts on children's access to as well as motivations for attending primary school. Each of these factors can influence access or entry into primary school, continuous attendance, attainment of complete education, and student achievement. Among others this paper presents information on inputs such as infrastructure, learning materials, teacher supply and quality.

Finally, this paper discusses the importance of effective governance in the education sector. Other potential barriers identified in existing studies and even in the qualitative research conducted for this report are excluded from the discussion because these either do not target the most prevalent problems of school entry and retention, or there is a lack of sufficient information to provide a real picture of its impacts on OOSC³.

2. Socio-Cultural Demand Side Barriers

National 2008APIS estimates indicate that of the 1.3M primary school-aged children not attending elementary school, 61.7% are six-year-old children, and a little over 13% are 7 year-old children (Albert *et al.*, 2012). The most recent APIS (2010) results show a smaller magnitude (about 530 thousand) of primary school aged children not attending elementary, with the bulk still being comprised of 6 and 7 year old children. This suggests that late entry into primary school should be a priority behavior change target for improving the country's standing on achieving universal primary education. If all 6 and 7 year old children in 2010 enter the primary school system, school attendance of those between 6 and 11 would increase from 92.1% to 98.2%. As suggested by Albert *et al.* (2012), late entry into grade one and dropping out prior to completion of basic education have interlocking socio-cultural causes, including confusion about the official age of entry into grade one, educational attainment of parents, and parental perceptions about whether girls or boys and younger or older children are more worthy of investment in education given economic impediments on a family. This section presents some of these most pertinent social and cultural reasons for parents and children electing to not attend school.

Parental and Teacher Perceptions on Children's School Readiness

That the majority of children 5-7 year-olds not in school were reported as being "too young" for school (Table 1), may be the reason behind the high dropout and repetition rates across the country in Grades 1 and 2 compared to the higher grades of 3-6. When are young children considered to be "old enough" to attend school? Field reports indicate that views of both the teachers and parents are consequential to the decision to send young children to their first year of elementary education.

According to teachers, school readiness at Grade 1 is indicated by children being able to write their names, recognize letters and numbers, being comfortable in the classroom, having developed fine motor skills, able to socialize with other children, and being potty trained. Teachers' opinions of the now

³For instance, while there may be interest in examining challenges related to linguistic or ethnic diversity, as pointed out in Albert *et al.* (2012), there is currently a dearth of data sources for close investigation of such education inequities.

largely implemented 6-year old entry into Grade 1 (strictly applied in most areas visited for this study) are mostly negative. They observe that children at 6 years old are not mature enough to be left in school by parents, they are not able to pay attention and sit in class for the length of time of a Grade 1 class, and most importantly they do not possess the fine motor skills that will be needed to hold a pencil and learn how to write. There are testimonies that the first week or two of class is really spent trying to calm down crying children, playing nanny to the really young ones and cleaning up after them rather than on any part of the curriculum, problems that do not happen when children enter at age 7 or 8.

Teachers report that very young girl students are more likely to be crying in class, while the boys display disciplinary problems as they have a difficult time sitting still and listening to instructions. Such differences in teacher perceptions about boys and girls ultimately suggest that there may be wide scope for teachers to improve on classroom instruction by using more experiential and kinesthetic learning methods, including providing movements such as mini-breaks to simply get up and move about, stretch, or jump in place. Sitting still for long-periods of time may be far from being developmentally-appropriate for young children (aged 5 to 8 years old), whether boys or girls.

Interviews with parents reveal the same problems with entry into Grade 1 at age 6. In the first weeks of attending school their children would cry and refuse to be left in class, so for several days, mothers have to stand outside the school gates every day until classes are dismissed. Many parents interviewed whose children dropped out at these grades say the main reason their children did not continue is because of the emotional trauma of being left in school when they were not ready. Many parents cannot afford to take this time off from work to watch over their young children in school, or they cannot cope emotionally with seeing their children clearly unhappy in school. Mothers who work or have younger children at home to take care of do not have the luxury of time to wait near the school to calm their children. After a few attempts, if the children cannot adjust and are not much older than the other students, it is easier for parents to withdraw their children and re-enroll them in the next school year. Teachers will reinforce this decision often because children who cannot adjust disrupt progress for the rest of the class. Many of these children eventually do go back, and they are easier to handle in Grade 1 when they are 7 or 8 years old.

Generally it is held by teachers that the recently implemented Universal Kindergarten program will help make children more school ready, but this is under the assumption that developmentally and age-appropriate teaching-learning approaches are utilized in Kindergarten. It should also be noted that play and active learning figures in strongly within the new DepEd Kindergarten curriculum. Many teachers believe that if all students of age 6 have some form of pre-primary education, even some day care center (DCC) services, they will be prepared to be in Grade 1. According to DCC workers, the time children spend in DCCs is spent on achieving school readiness. Children aged 3 to 4.5 years old who are in DCCs are taught how to socialize with others in a classroom environment, how to recognize letters, numbers, and colors. They are taught values, helped to develop their fine motor skills, fostering good behavior in an environment of storytelling and play. Parents and teachers acknowledge that this helps in getting children ready for formal schooling, however not all children make it to daycare. According to DSWD, in 2009, only about one in five (19.5%) children aged three to four years old are in DCCs, while among the 2.4 million five year old children, 20.7% were in DCCs. The 2008 APIS suggests that nearly all children aged three to four years old are not in school because they are viewed as being too young for schooling, with only 1.1% of these children are not in school because of school accessibility.

There may be valid financial reasons for parents not sending their children to daycare centers, as many mothers would be rendered unable to work if they are to bring children to centers and wait for them there for 3 or 4 hours. That mothers are often blamed by school administrators for not taking their young children to DCCs and Kindergarten even if it is only for minimal pay reflect attitudes by teachers that mothers should spend their time only on child care. Only one DCC worker of those interviewed mentioned that the purpose of this program is to give working mothers support as they engage in economic activity, most others seem to expect that women should be free to devote the time needed to take their children to and from the school in the middle of weekdays (for instance, 2pm-4pm).

Observations of DCCs reveal that many mothers wait for their children the entire length of the program, which means when working mothers send their children to DCCs, it makes them even busier as they also need to make a living.

Parental Education

Parents' educational attainment has been shown in many studies to positively affect different outcome indicators, including school attendance (Maligalig et al, 2010), as well as math and science test scores (Quimbo, 2003). The relationship between parental educational attainment and a child's likelihood of success in the educational system is one of the most frequently cited causal relationships in the local literature. However, little has been done by way of interventions to help parents who have limited or no formal education.

As discussed above, many respondents with primary aged children who are not in school say that the reason why these children are not in school is "lack of personal interest (Table 1)." A logistic regression model predicting lack of interest was run with income, age, pupil-teacher ratio (PTR), urban residence, and a number of other variables as predictors. Results in Table 2 suggest that the *mother's level of education is associated with* some of this lack of interest along with advancing age, and being male.

Table 2. Log Odds of Logistic Regression Model Predicting Lack of Interest

Explanatory variables	Lack of interest
Log per capita expenditure of household	-0.02
Indicator for Age = 7 (base Age = 6)	1.45***
Indicator for Age = 8	1.59***
Indicator for Age = 9	1.56***
Indicator for Age = 10	1.69***
Indicator for Age = 11	1.60***
Mean pupil teacher ratio in Region	0.00
Urban indicator (rural base)	-0.26
Female Child Indicator (male base)	-0.37**
Number of children in household	0.01
Number of adults in household	0.09
Number of retired persons in household	0.00
Mother has some secondary education (base mother at most primary)	-0.57**
Mother has beyond secondary education (base mother at most primary)	-0.91**
Indicator for Male Household head	-0.29
Age of household head	0.00
Constant	-1.16

Source: Calculation on Data from BEIS 2008-2009 and APIS 2008

Note: *p<.05; **p<.01; ***p<.005

While parents, principals and teachers interviewed for this study report that some parents do not support their children's schooling, most of the parents do. Mothers, in particular, spend time with children who are in the younger grades, helping them with assignments, projects, and accompanying them to school everyday. At least in grades 1-2, the most vulnerable in terms of dropouts, guidance of mothers in school lessons is possible even if the mother has limited formal schooling. For most couples, it is the mother who guides their children through school assignments until at least the middle of primary school. Field work and Table 2 suggests that the lack of a child's interest is a capacity issue on the part of the parent, especially the mother, which ultimately affects the child's interest in schooling. Special school-based interventions like remedial classes are sometimes conducted for children who are behind in progress toward reading or math skills, which can augment shortcomings in home-based support. In the higher grades parents who have little education need to provide at least emotional and resource support, for those who can afford it, mostly in urban areas. Specifically, when students refuse to attend school it is the parents' responsibility to find ways to get them there on a daily basis. Local government units (LGUs) will, however, need to do their share of enforcing child truancy laws, especially when parents do not fulfill their responsibilities.

In very poor rural communities such as those covered by this study in Maguindanao there are still parents with as little as zero years of education, and many have fewer than 5 years of formal schooling. Not only do parents not have the experience to support their children's education at home in terms of helping with lessons, they also are extremely poor and cannot afford to provide the basic needs of their children. In these cases it is unreasonable to expect parents to be able to provide similar quality support as those that can be provided by a more educated set. Teachers lament that the uneducated parents do not like to attend PTA meetings or do not show up when guidance counselors call them in. This is sometimes interpreted by school administrators⁴ as parents not caring about their children's education, but upon prodding it was evident that often when they do attend meetings they cannot really understand what is going on and feel alienated, and more importantly, they do not have the luxury of taking a morning off from working in the farm to see a guidance counselor. These are understandable situations and we should be able to recognize when schools need to fill in where parents can truly not provide. Good and especially responsible teachers do remedial classes; they provide individual guidance and advice to students in these situations, creating an individualized mentorship relationship that can help students sustain the motivation to continue schooling. This kind of tutelage is possible in small schools but not so much in very crowded environments such as those in many schools in NCR.

3. Economic Demand Side Barriers and Bottlenecks

The most pressing and common problem among students who drop out, those who enter late, those who do not attend preschool, and those whose performance in school is low is poverty. Practically all studies that explore reasons for not attending school find evidence that economic pressures on household resources weigh significantly on the decision to either drop out of school or delay entering (e.g. Maligalig et al, 2010; EdWatch, 2007; SEAMEO, 2007; UPEduc, 2010).

Albert *et al.* (2012) provides an econometric analysis showing the importance of household expenditure for predicting school attendance (as well as the importance of income as a predictor for drop out or overage status). Maligalig *et al.*, (2010) also illustrate with a multivariate model predicting "being in school", that household expenditure is a good predictor of school attendance: each 1% increase in expenditure increases the odds of attending school by 1.03%. Also, with every year increase in education attainment of the household head, the odds of a child in that household attending school increases by 13%. The proportion of household income spent on education likely increases as income increases, as families find that their meager money can pay for little else other than food. Edillon (2008) finds, for instance that the share of education in the budget of non-OFW families is 5.4%, significantly lower than those for OFW households which is at 7.2% (FEIS). Spending for education among OFW families is nearly double the spending that non-OFW families are able to afford, P15,400 vs P8,200 per capita (FEIS). Thus, *the more income there is available to the family, the more money they tend to spend on investments in education of their children.*

Dire poverty has direct effects on schooling -- children cannot attend because they do not have money to pay for transportation or to buy school supplies -- but even more sinister are its indirect effects in terms of overall pressures on the resources and time of parents and children who are poor. Household income or expenditures are robust predictors of schooling, and the manners through which poverty can prevent a child from completing her education are numerous and should be considered closely. The poor, especially the extremely poor are net dissevers (Albert, 2011) and thus have higher exposure to risks, in contrast to the non-poor: data from the FIES 2006 suggests that the nearly poor save about 1 percent of their income, while those not nearly poor save as much as 11.5% of their income, and the poor, on average have negative savings. A bulk of the expenditures of the poor go already to food expenditures, while family expenditures on education constitute around 1.5% of their total expenditures.

⁴A study by SEAMEO (2007) goes so far as to question whether the DepEd may be discouraging parents with little education from being involved in their child's education, which is both detrimental to the child's motivation and disconnects an important segment of the community from the local schools.

Income shocks

Albert (2011) points out that among panel households in the FIES and APIS, those that had income shocks were more likely not to send their children to school. Field interviews for this present study reveal that for poor families, incomes are often irregular. In farming households cash is available only during harvest season when men, women, and children can all be employed as farm labor. Even in urban areas income is frequently irregular and unpredictable, men employed as drivers or construction workers can suffer stretches of over 3 months with no cash income. When income is as sparse and intermittent as this, which is fairly common among the families interviewed, shocks to the family's expenses can have catastrophic effects on children's education. Shocks come in many forms like job loss, serious illnesses, loss of harvest because of natural disasters, displacement due to conflicts or floods, unplanned pregnancies, deaths, marital separation, or withdrawal of external support (i.e. cash support from other family members). Teachers often point to "family problems" as being the reason for a student dropping out, and they typically tell stories of marital separation or spousal abandonment that leaves the family with little to no income, leading them to pull all children out of school.

Migration

Another barrier to schooling results from migration (Edillon, 2008). It is not uncommon for parents to periodically move from the city to the province or the reverse to find employment. Some parents would stay in the city and send their children to the province when they run out of money, pulling them out of school in the middle of the year. Teachers and school administrators in public schools have learned to cope with this by accepting students in the middle of an academic year, but not all parents understand that this is possible so they end up holding back their child a year. Situations where mothers are away from children, and children are being cared for by extended family oftentimes can lead to dropouts because guardians and even fathers are not as patient with providing care (i.e. through help with homework, making sure children are bathed and dressed for school every morning, making sure they have all supplies) as mothers.

Disasters and conflicts

Since the Philippines lies in the typhoon belt, and "the Pacific Ring of Fire", the country is very prone to natural disasters, especially, typhoons, floods, landslides, volcanic eruptions, and earthquakes. The country also experiences a number of man-made disasters, such as those arising from conflict and environmental degradation. Disasters, both natural and man-made, can have devastating effects on household income (Albert, 2011), and consequently attendance of children in school. In 2009, the Philippines experienced the highest number of natural disasters in the world, totaling 25 major disaster events, landing the country third in rank for natural-disaster-caused mortality (with its 1,334 disaster related deaths in 2009).

The extent of exposure to disasters is diverse across the regions. In Luzon Island, Bicol and Southern Tagalog, are usually the most visited by typhoons, and has the largest number of persons affected by storms. Some regions in Mindanao experience the largest number of floods, while Metro Manila, with its enormous population, has the most frequent incidence of fires (and casualties from fires), while ARMM has the most reported events of armed conflict. When examining income distribution and vulnerability to income poverty (see Albert and Ramos, 2010), we readily observe disparities across the regions, with some regions in Mindanao such as ARMM, Caraga, and Zamboanga Peninsula, as well as some regions in Luzon such as Bicol, and Mimaropa having about 60 percent or more of their population falling in the bottom 40 percent of real income distribution. We can thus observe a nexus between being prone to natural disasters or civil strife, on one hand, and poverty and income shocks as well as the lack of school participation, on the other. Even the urban-rural disparities in school participation may be directly related to poverty. It is, however, not a simple exercise to decompose the impact of risks from conflict and disaster on school participation with those of economic barriers and bottlenecks.

Absenteeism for work

In rural farming communities, children, especially boys, start helping out in farms at the age of 10, when they are physically large enough regardless of what grade they are in (although typically they are in Grades 4 and 5). Parents and teachers interviewed in Maguindanao and Albay say that boys start having frequent absences during months of harvest, which lasts about 2 months. Boys help their parents harvest rice or vegetables or coconuts, in some cases they just are asked to tag along to pick through the remaining kernels of *palay* in the fields after harvest so they can take it home to eat. This is not evident among fishing communities incidentally, and also of course, in urban areas. When boys start disappearing from schools at this time teachers then begin doing home visits to talk to parents and try to understand the situation, many say that these parents really have no choice since they are so poor. Teachers often are able to convince the boys to come back to school even with many absences after the harvest season is over, and they are given extra school work to make up for the time they were away.

School administrators know that teachers will not report many of the absences in order to avoid having the child drop out, and this behavior is sanctioned in order to support children from indigent families. Frequently boys will not return to school if they are ashamed of coming back or upon coming back they flunk a test because they have missed so many days of school. Some return the next year, the reason why in schools that are in the middle of rural farming communities, the problem of overaged children starts in earnest at Grades 5 and 6. Then the older the children get, the less likely they are to want to continue schooling and eventually decide not to finish the elementary cycle.

For the above-described situation, of which there probably are many across the country (e.g. Nava, 2009), it may be worthwhile to examine the international experience or even small innovations in local communities for how to cope with seasonal needs for labor during harvest. Perhaps schools can offer classes with a different academic calendar, or use the summer months if possible for students who have to miss a few weeks during the academic year, just enough to get promoted to the next year without scrimping on lessons. One school principal innovatively designed a special program for children who have to work during the week, teachers volunteer to hold classes during Fridays and Saturdays so the special cohort of students do not have to drop out, and these truncated classes are augmented by home-based learning materials. Such innovations point to the importance of School Initiated Interventions (SII) and School Based Management (SBM), in general, as there are local conditions that the DepEd central office may not be able to prescribe solutions for. Information on such innovations can be disseminated and possibly adopted for the schedule of farming communities to allow very poor families the opportunity to both support their subsistence living with help from children without completely compromising their education.

Demand on mother's time

Mothers very clearly remain the primary family member in charge of child care in the household, regardless of whether they are heading the household or relying on their husband's income. Poor families often have mothers who work practically all day every day in the farm, and to exacerbate the pressures on her time; these are families that tend to have many children as well. When mothers engage in economic activity their time devoted to supporting their children's schooling is drastically reduced. This includes time spent guiding their children through homework, getting them ready for school every morning, taking them to school every day, attending PTA meetings, and even purchasing the supplies they need throughout the school year. When mothers have to make money for the family, in general the father appears to not be able to provide equal quality child care regardless of the time he has available (i.e. many fathers have, at best, intermittent work). Thus, demands on the mother's time have negative effects on the likelihood that children will enter, continue, and perform in school.

What more, when both parents are not able to care for very young children because of the imperative to work, the family may decide to pull older siblings out of school or let them be absent periodically to

step in for child care. Teachers talk of students as young as 10 years old not being able to go to school because they have to care for a 2-year old in the home alone while the mother leaves to vend or engage in other economic activities. This is evident in both the cities and provinces, where mothers are active partners in farms, do laundry, or cook and vend for a living.

Family size

For any intervention designed to reduce dropouts, absenteeism, or encourage children to return to school it is important to take into account the economic impact on the family, particularly the extremely poor and large families. Many of the parents of dropouts interviewed have more than four children; in extreme cases there are those with 7-10 children. For many large families it is simply unaffordable to send all children to school at the same time, so parents find different ways of coping. Some end up sending each child to at least up to Grade 2 or some other grade in elementary, while others forego education entirely for some children and prioritize the education of others. When a poor family has more than two children of school age then the continued schooling of all children are in peril. Choices are sometimes made to prefer one child over another, with the younger children preferred over elder ones, and girls preferred over boys given the expectation that girls are more likely to perform well academically.

Conditional cash subsidy programs such as the *Pantawid Pamilyang Pilipino Program* (4Ps) currently under implementation do not work the same way for large families as for small. While the experience with 4Ps has been positive in terms of encouraging school attendance (see Manasan, 2011) when families have 4 or less children, the cap on subsidies per child means that money is spread out across many children for large families and even with subsidies these families cannot afford to send all children to school without sacrificing on basic needs. Over the long run, it is imperative for the national government to provide competent and complete reproductive health services to allow families the opportunity to have only the number of children they want. Without such maternal health services the cycle of generational poverty and the lack of school participation of children among large families threaten to continue.

Poor health and nutrition of children

Children who are at risk of dropping out or who have already dropped out are often identified by teachers as those who would come to class in the morning without having eaten anything, or would have no snacks for the day and no money to purchase snacks. Those who come to school hungry would often sleep in class and be unable to concentrate. Poor nutrition makes them more vulnerable to illness and therefore to absences (e.g. Monse et al, 2006). Children who have no “*baon*” (allowance) either in cash or kind will refuse to go to school or their parents will decide not to send them to school for fear that they will feel shame during recess.

Numerous school-feeding programs are in place in many different forms; these are funded either by the school canteen or external donors. Principals and teachers attest that feeding programs help keep children focused and motivated in addition to providing incentives for parents to encourage their children to go to class on a daily basis. School-based feeding programs provide highly targeted and therefore efficient means of providing subsidies, enrolling only those who are classified as “wasted” or “severely wasted” according to the World Health Organization (WHO) standards upon weighing in the beginning of the school year.

Household’s perceived benefits of schooling: A problem of poverty

The expected returns from educating children have often been examined in both the international and local literature. In Philippine-based research in particular there are available quantitative studies that investigate the perceived benefits of schooling and the differences by sex (Manasan & Villanueva, 2005), however many use indirect measures such as decisions of inheritance and preferential investments in

one over the other child's schooling (e.g. Quisumbing et al, 2004). On this score qualitative interviews with parents can offer a deeper understanding of the kind of value they place on education and the reasoning that goes into decisions to keep a child in school or pull them out. Hunt (2008, p.22) refers to the 'myth of parental indifference' (cited from PROBE, 1999) whereby teachers and community leaders blame uneducated poor parents for dropouts because they allegedly do not value education. However an in-depth analysis of the reasons for dropouts among poor families in select countries (e.g. Bangladesh, Nepal, Sri Lanka) indicate that even the poorest parents place much value in education and demonstrate 'clear and rational reasons for not participating (p.23).'

In the Philippines parents undervaluing education is not among the common reasons for students dropping out. While it may be hypothesized that the lack of interest in going to school reported in Table 1 may reflect more a lack of parental interest to send their children to school, and that there are some anecdotes from teachers about parents not caring enough to watch over their child's daily attendance in school, field work suggests that the vast majority of dropouts have economic or family disruption reasons for leaving. Child motivation and ability issues are even more common than parents not valuing education. Interviews with parents reveal the same patterns; most parents will prioritize expenses in education over other costs save for the most basic ones such as food and shelter. When they pull children out of school it is usually because they experienced a financial squeeze.

When parents cannot afford to send all children to school is when they have to consider potential returns on investments of one child over another. Typically they consider school performance, the child's strong desire to attend, and the proximity to completing an education cycle. In addition they of course have to consider which child can contribute to household income and resources more effectively and immediately. Hence, older children can sometimes be the first to be pulled out (as indicated also by the regression results in Table 2), as they are the ones who can watch over younger siblings or generate income. Boys may also not be in school as much as girls, in part, because of lower achievement expectations from boys than girls.

All parents value education as an end in itself as well as for the returns expected from it. When directly asked many parents expect that their girl children have a higher likelihood of finishing school and are therefore better investments for education. Regardless of what job they might end up in or how much they will end up making, the widespread belief is that girls, in general, are more likely to finish and are therefore the better investment.

All parents want to send all their children to school all the way up to at least second year of college, because it is at this point that they expect real returns. Particularly in urban areas, parents believe that without at least some years of education beyond high school their children will not be employable. Parents want education for their children so they can go on to work in offices, or go abroad, or find regular salaried jobs, anything to avoid ending up as a farmer or fisherman. It is abundantly clear to all parents interviewed that without education none of these goals are attainable. They do not want their children to have to start working before getting at least 2 years of college, but for all of them, this is just not affordable in terms of money or time. They feel badly for their children when there is no money to pay for uniforms, school supplies, and daily allowances especially when many parents know that their children also want to continue schooling. Consequently, cash transfers provided by government's CCT, and other forms of assistance targeted to poor families are promising interventions to address lack of participation of children in school.

A note on the special circumstances of the urban poor. Interviews suggest that for most cases in urban areas and some cases in rural areas for younger children (below 10 years old), the decision to drop out comes before children are put to work, not the other way around. That is, boys are not pulled out of school permanently to work; instead they are put to work because they have already dropped out. The main reason for leaving school is poverty/income related, no money for allowance, or transportation, or school supplies. The reason is not to use their children to make money. Parents will tell their children they no longer have money or time resources to continue their education, the child can start again next

year. It is after this decision is reached that children start helping out in the house, and then eventually work outside. This is a very important distinction for the purposes of designing interventions. It is an argument that should be considered when policymakers and educators say that parents *choose* to put their children to work instead of sending them to school because they do not value education; none of the interviews conducted for this study support this. Instead, parents who are poor *have no choice but to stop their children's education because they don't have money*, after that happens, children end up working.

4. Supply-side Barriers and Bottlenecks

In Albert *et al.* (2012), it was pointed out that the primary net enrolment ratio (NER) correlates with education spending. From 2005-2010, the Department of Education (DepEd) budget has been ranging from only 1.8 to 2.3 percent of GDP, with real expenditures per student of DepEd (in 2000 prices) decreasing from PHP 6,601 in 1997 to PHP 5,022 in 2005, although spending per student recovered partially and rose to PHP 6,154 in 2009 (PIDS, 2011). Public expenditure in the entire education sector has been wanting, especially when compared to corresponding education investments made by some neighboring countries (See Table 3). Low spending points to chronic shortages in inputs.

Table 3. Public Expenditures on Education, Primary Net Enrolment Ratio and Primary Pupil to Teacher Ratio in Philippines and across selected neighboring countries.

Country	Public Expenditures on Education (% of GDP)			Primary Net Enrolment Ratio			Primary Pupil to Teacher Ratio		
	1990	2000	2009	1990	2000	2009	1990	2000	2009
Cambodia	0.8	1.3	1.4*	66.6	83.4	88.6***	32.5*	50.1	53.2**
Indonesia	1.7	2.5**	2.8**	96.7	98.3	98.4	...	22.4	20.3**
Malaysia	5.5	5.6	7.3	93.7	96.8	94.1***	20.1*	19.6	16.9**
Philippines	3.1	3.5	2.9	96.5	92.7	89.4****	32.9*	35.2	34.6**
Singapore	4.0	3.9	3.1*	96.4	26.4*	25.6	22.6**
Thailand	2.8	4.0	4.4	75.9	86.8	90.1	22.1	20.8	18.3**

Main Data Source: Asian Development Bank Key Indicators

Note: *1991; **=2006; ***=2008

The DepEd reports that of the over forty thousand barangays, only a rare group, about half of one percent (267 of them) did not have public elementary schools in 2006, and this was further brought down to four barangays in 2007. Among children aged six to eleven years old, the APIS suggests that in 2008, about one in twenty children are not in school due to school accessibility issues. While school accessibility is only affecting about 76,000 primary aged children and another 27,000 five year old children, that a substantial share (19%) of primary aged children, especially boys, are said to lack interest in going to school, highlights the importance of examining potential causative factors for such low motivation, such as quality of education. Feedback from the field suggests a lack of learning approaches in school that take account of personal interests of children. For instance, there appears to be little use of spatial-visual representation. For writing tasks among the young (grades one to three), lessons must be accompanied by visual stimuli such as comic strips or even allow children to write composition with comic strips, and adopt flexible learning approaches to accommodate more of the children's preferences, such as use of reading materials from sports and computer magazines, biographies of sports heroes, and the like, which are typically not incorporated in the classroom.

Pupil to teacher ratio (PTR) at the primary level has been at a standstill of 35:1, which is considerably higher than the corresponding PTR of all developing countries (28:1). In contrast, Thailand's PTR and primary NER improved over the years with increasing education expenditures.

Information from DepEd and DSWD suggest that there are efforts to address shortages of daycare centers (DCC) through efforts of the national government, private sector partners, local governments,

and the development community. A 2009 DSWD survey of DCCs revealed that 21.3% of total barangays in the country did not have DCCs, with ARMM having the biggest share (77.4%) of barangays without DCCs among all the regions. As of second quarter of 2010, the DSWD reports that the total proportion of barangays that do not have DCCs has decreased to 13.5%. In ARMM, the share of barangays without DCCs, though still high, decreased substantially (51%) within a single year period. While national surveys suggest that school accessibility is not a big problem for five year old children -- only one in a hundred are not in school because of lack of schools in the barangay and another three out of every five are not in school due to distance of schools and lack of transportation -- the fact that pre-primary participation is lowest in ARMM ultimately belies continued supply --side problems in ECCD participation, including shortfalls in the quality of DCCs and kindergarten instruction. What is troublesome is that according to the DSWD (2010) 27% are not accredited and 32.6% of centers have expired accreditations. In addition, among DCC workers, 31.2% have expired accreditations, and 28.5% are not accredited. The rate of non-accreditation among DCCs is high in Zamboanga Peninsula (81%), while over 50% of DCCs have expired accreditation in Central Visayas, Ilocos, Northern Mindanao and, Cordillera. Furthermore, no data is available in ARMM about accreditation.

It comes as no surprise that there are input shortages and allocation inequities in the Philippine public school system, but there is limited evidence for which of these inputs matter more to student outcomes such as retention and performance. One notable exception is the Third Elementary Education Project (TEEP), evaluations of which suggest that availability of infrastructure plays an important role in school outcomes. One of the largest projects to have been implemented in the DepEd's primary school system, TEEP covered 23 school divisions across the country. Its provisions on the supply side were vast and ambitious, including among others, addressing shortages in infrastructure, learning materials, teacher training and school improvements. Perhaps more importantly, there were substantial school management changes instituted as part of the effort to support decentralization (TEEP Final Report, 2005). These were various changes in the spending and allocation powers of school heads, part of the larger expression of School Based Management (SBM) that would by now, have supposedly been fully adopted by the entire DepEd system.⁵ Project reviews were largely positive, comparative analysis between intervention and non-intervention divisions as well as improvement of student test scores over time showed significant and substantial improvements. The experiment provided empirical evidence that infusing schools with certain inputs like textbooks, additional repaired classrooms, teacher training, and school improvement grants improves performance rankings of divisions significantly. Meanwhile purchase of school furniture like chairs, desks or chalkboards proved to provide no appreciable improvement.

In addition to the various material inputs, we also discuss at the end of this section two notable policies that act as barriers to enrollment, delaying school entry for the very poor. These are: lack of consistency and clarity in implementing the minimum age requirement for enrollment into Grade 1, and the requirement to provide the child's birth certificate upon enrollment.

School infrastructure

Classroom and school building shortages in the school system continue to be a problem especially given the country's fast-growing school population. While budgets have not been sufficient to provide all the infrastructure needed, a number of different measures have been put in place to deal with shortfalls. These include multigrade schools, incomplete schools, and shifting of classes in congested regions.

A number of incomplete schools were included in the sample for the qualitative investigation (see Annex). Field results suggest that the risk of eventual dropout from primary school among their students appear higher. These schools are usually in sparsely populated areas; they are small facilities with little funding and only a handful of teachers. Typically they are a significant distance away from the nearest

⁵ For review of institutional reforms see Bautista et al, 2008 and PHDR 2008/2009 Chapter 2.

complete school, which means students who run out of grade levels to take in their local school will have to travel far to continue. A couple of schools visited only go up to Grade 2 and 3, according to the teachers most of their students never continue beyond those grades because they would have to travel down a mountain by foot for more than an hour to get to the nearest complete school. The extent of coverage shortages for elementary schools should be assessed in order to properly prioritize areas where additional resources are necessary and where it would be prudent to either expand incomplete schools, or provide other means of support to get students to schools that are far away from their homes.

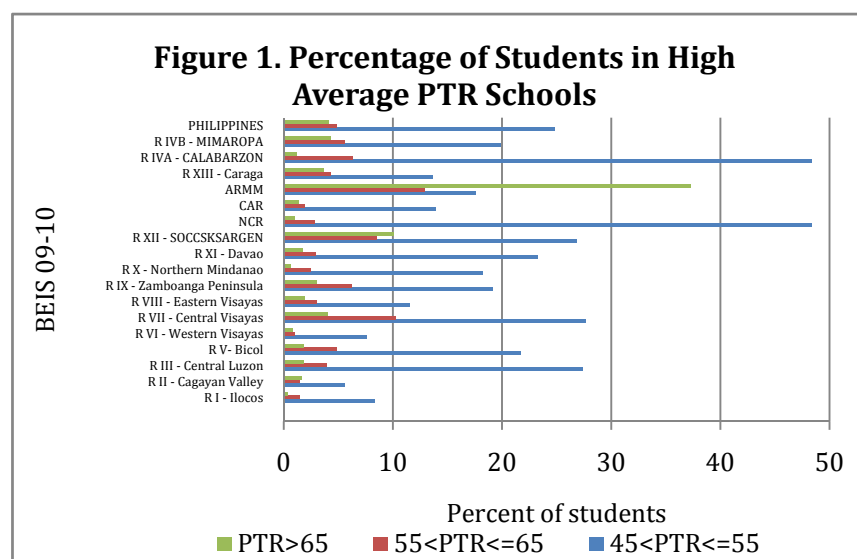
In congested areas the problem is different: having too many students in a school with too-few classrooms poses a significant problem for many schools in large cities. Multi-shift classes have been used as a stopgap measure since 2004 for addressing shortages in classrooms in heavily populated areas. Such an arrangement condenses the school day and consequently, the curriculum contents, into a shorter period of time. While there has been no empirical evidence indicating suffering student achievements as a result of multi-shifting, it is reasonable to hypothesize that rushing through the curriculum presents stresses to children in the learning situation (Caoli-Rodriguez, 2007).

As of the 2009-10 school year, an alarming 94% of students (89% of schools) in NCR are enrolled in schools with multi-shift classes. The rest of the country doesn't have the same problem, although there is a sizeable portion of students in nearby CALABARZON in the same situation (27% of students, 7% of schools). This has essentially remained unchanged since 2005-06 when 93% of students in NCR and 22% of students in CALABARZON were in multi-shift schools. For these two areas with classroom shortages, there appears to be some association with late entry into schools, especially in NCR. While 41% of children in single-shift schools are overaged for Grade 1, the corresponding percentage in multi-shift schools is 52%. In Grade 2 the difference is between 49% and 58% (SY 2009-10 BEIS). The difference in overaged children is smaller in CALABARZON, 54% vs 57% in Grade 1 and 60% vs 63% in Grade 2, but the pattern is the same. The same general pattern is evident for a similar indicator, the pupil-classroom ratio (PCR). Nationally, in schools with PCR above 45, 60% of students in Grade 1 are overaged, while in schools with PCR below or at 45 it is 55%. At the 2nd grade the difference is smaller, although the percentage of overaged children is higher, between 67% and 64%.

According to NCR principals and teachers, students in double-shift classes have about 1-2 hours less instructional time per day compared to those in single-shift ones depending on grade level. Those in triple-shift classes have a total of 4 hours of instruction per day, 3 hours less than single-shift classes depending on grade level. Essentially as an entire region, NCR students get significantly fewer hours of instruction per year compared to students in the rest of the country. Teachers try to fill in some teaching for students who cannot keep up with the pace by offering remedial lessons for an hour or two after class, only with a select set of students. Even the scope and scale of these remedial teaching sessions depends on classroom availability. The most urgent need in congested regions that adopt the shifting policy is to eliminate triple shifting because of the large number of instructional hours lost over the school year. As for double shifts, additional research is necessary to determine other forms of auxiliary instructional support that may efficiently make up for the shortage of teaching time, perhaps in the form of additional at-home work, workbooks, learning aides and the like, and the Modified In-School and Off-School Approach (MISOSA) currently in place.

Teacher supply and quality

Multivariate analysis predicting school attendance shows that each unit increase in pupil-teacher ratio (PTR) “reduces the



odds of attending school by 2%” (p. 20, for children aged 6-12 only) (Maligalig et al, 2010). This is an effect that survives controls for household expenditure, educational attainment of the household head, age and sex of the child. PTR exhibited a similar effect on cohort survival rates (provincial-level data, unit of analysis province for years 2002, 2004, & 2007), but no significant effect on dropout rates and cohort survival rates controlling for household head educational attainment, provincial per capita income, proportion of female students, and per pupil operating expense. PTR effects on National Achievement Test (NAT) scores are also significant, with each unit increase in PTR, the Maligalig et al model indicates, there is a corresponding 1.18 score decrease on the NAT. One of the most important issues to address with PTRs is not so much the average across the country, which is well below the EFA goal of 50 at least for primary schools, but the dramatic inequalities by province (Maligalig et al, 2010).

Schools have variation in the PTR. Generally, schools with PTR values of 45 and above are considered to lack teachers. Figure 1 shows the percentage of students in high PTR schools across the regions. About 25 % of primary school pupils in the country are in schools with PTRs of 46-55, 5% in the next category, and 4% in schools with PTRs over 65.

National figures mask some stark regional differences, most notably in ARMM where 37% of all pupils are in 65 or over PTR schools, and another 13% in classes of 56-65 PTR. In NCR, more than half of all students in primary school are in classes with PTRs over the prescribed 45. The same is true for CALABARZON where 48% are in schools with PTR 46-55, 6% in schools with PTR 56-65, and another 4% in schools with PTR over 65. Meanwhile there are regions where most schools have PTRs well below the prescribed number, for instance close to half of schools in the Ilocos region, Cagayan Valley, and CAR have PTRs less than 30. Some of this apparent inequality in teacher allocation may be due to the types of schools in remote areas, where there are two-room schools teaching multi-grade classes with very few students. It is unlikely however that there are regions where half of all schools are in this position. More in-depth examination of such inequities in teacher allocation across schools can be gleaned from the use of inter-quartile ratios.

This is an allocation problem that can be addressed with the data already on hand in the BEIS, and availability and willingness of local governments to augment the teaching corps in their local school divisions should be accommodated in formulas doling out allocations. Further investigations are necessary as well to understand why such inequalities exist, and have persisted, and whether there are political barriers for a more equitable distribution of teacher resources, although some research (see Albert, 2011b) suggests that this may have been an issue especially in the past government.

Table 4 shows the over-time change in the percentage of schools with average PTR within and above the goal of 45 students. Over the five years shown, there was a decrease (of 8.7%) in the percentage of schools with PTRs of 45 and below, and a corresponding increase in all categories above PTR 46. Particularly, more and more schools over the past five years seem to find themselves with an average PTR of between 46 and 55. Teacher hiring needs to keep up with the clearly growing demand from the growing population. This is an especially urgent concern if one considers that the goal is to bring all OOSC into the formal education system. Quality in the public education delivery system must keep up with the increase in quantity of its constituents.

Table 4. Distribution of schools (in %) by Pupil to Teach Ratio

<i>School year</i>	<i>PTR<=45</i>	<i>45<PTR<=55</i>	<i>55<PTR<=65</i>	<i>PTR>65</i>
2005-06	74.81	17.80	4.48	2.91
2006-07	74.08	17.64	5.44	2.83
2007-08	72.45	19.82	4.79	2.94
2008-09	70.50	22.33	3.73	3.45
2009-10	66.13	24.85	4.89	4.13

Source: BEIS, DepEd

There is limited real empirical evidence available in the Philippine education system that illustrates the impact of teacher and teaching quality on student outcomes. One important exception is Quimbo's (2003) research that shows "effective" teaching appears to improve scores in math and science for primary school children. Not being absent often, actual teaching time, and using appropriate materials in class indicate effective presence. In fact, compared to other inputs entered into their model such as school-based learning materials, home-learning materials, and school equipment such as computers and TVs, teaching quality turns out to have the most consistent positive impact on science and math scores across all grade levels tested.

Learning materials

It has been exhibited empirically that the presence of even basic learning materials like books and newspapers in schools can produce a positive impact on math and science achievement scores (Quimbo, 2003). Likewise, Tan et al (1999) illustrated that innovations in learning materials can be an effective intervention to improve student retention, especially when combined with parent-teacher cooperative relationships. The same can be seen in the TEEP intervention, where regression analysis of NAT rankings by province showed significant positive effects from the number of new textbooks provided per student.

Availability of textbooks and other learning materials varies from school to school, with some able to provide a set of books for each student while others have to get students to share. On this score, LGU budget augmentation can make a significant contribution. According to teachers in one school in Pasig, the city government has been instrumental in providing additional funds to make sure the textbook to pupil ratio is 1:1. Almost all provincial schools visited report textbook and learning materials shortages. Those more well-off such as large central schools have book to pupil ratios of 1:3 while the remote small schools often will have no books at all for many subjects. Principals also report that some books they are sent are not appropriate for the lessons they teach so these are unused.

In addition to books there is a complete lack of other instructional materials in provincial schools, materials such as globes, illustration aides for science lessons, maps, and the like. Teachers around the country are expected to purchase materials with their own money, and the justification is the chalk allowance they receive. Principals reason that the salaries teachers receive include additional budgets for expenses related to learning aides. Often this means cartolinas, manila paper, markers, tape, or toys for illustrations in class. Even if this were the case, teachers will consider any money that they receive in cash in their bank accounts as personal money, so they have an incentive to scrimp on spending for learning aides. Teachers in NCR, for instance, receive generous additional living allowances from LGUs, as high as P2,500 to a low of P1,000 per month. Even with this allowance, they will understandably try to save on spending for visual aides since the money is technically theirs. In provinces teachers do not get similar allowances and are thus even less likely to have extra money to spend on materials.

More importantly, that visual aides and materials for teaching illustrations are constructed almost solely on an individual basis may not serve toward high quality teaching. Science for instance, requires many practical demonstrations for competent understanding by students, and if teachers have no access to learning aides that are tried and tested to illustrate principles of physics for instance, students are disadvantaged. Some individually-design learning aides are clearly necessary, but all schools should have the basic most important instructional materials to augment simple textbooks for subjects that require it for effective teaching.

School expenses

Across many of the qualitative studies reviewed for this paper, so-called "hidden costs" of primary education often comes up as a reason for delaying school attendance or dropping out among elementary school-aged sons and daughters. These costs include, transportation, fees collected in schools (e.g. Parent-Teacher Associations or PTA), school supplies, class contributions, supplies needed for school projects, daily allowance for food, and school uniforms (UPCE, 2010; SEAMEO, 2007).

The average annual cost of going to public elementary school is about P2,450, about P1,437 of which is comprised of purchase of books, workbooks, supplies, uniforms, and sports activities (EdWatch, 2007). The balance is spent on incidental costs such as transportation, but exclude school meals. Public pre-schools cost about the same, totaling P2,250 for a year. Another survey by PEACE/EdWatch (2009) among very poor and conflict-prone areas in Muslim Mindanao estimates that family spending per child enrolled in elementary school is about P1,601 just for school fees, uniforms, and supplies. Daily allowance, meals and transportation is another P4,105, totaling P5,705 per annum.

Many parents in provinces report that while there are no fees collected from them during the beginning of the school year, there are many “contributions” asked of them in the middle of the year. Often these contributions are too expensive for poor families and as a result of not being able to pay them, children are pulled out of school. These contributions can be as little as P40 over a year, up to around P500 over a year for school needs such as electric fans, floor wax, cleaning materials, test papers, forms, or salary for the janitor. On top of the contributions are expenses for school projects, PE uniforms, and IDs for each child. This is where the “drilling down” policy for maintenance and other operating expenses (MOOE) of schools should be able to help immensely, and does, as we saw in the schools that do receive them. However, it is also important to ensure that these funds are appropriately utilized by way of monitoring and evaluation by division and regional offices. Note that field work indicates that there are still many schools that do not receive any cash from division offices, in particular all the schools in Maguindanao visited for this study do not receive MOOE and do not get significant and systematic support from their local government units (LGUs). As a result, principals have to run schools with absolutely no cash on hand and rely on their PTAs to raise funds for school upkeep expenses. Students having to pay out of their pocket for test papers and forms are a problem that has been fully addressed by MOOE drill-down policy in most of the country, but there are still many areas that remain under the old system.

Confusion regarding official age entry in school

Among the schools visited we found that different schools have different interpretations of the age 6 requirement for entry into Grade 1. Some schools place students who are age 5 in June of the present school year but will turn 6 by September or October into the first grade while others apply “age at enrollment” where if the child is not officially 6 years old by the end of June they are enrolled in Kindergarten.⁶ According to Grade 1 teachers the difference between those who are 6.3 years old and those who are 5.10 years old in terms of school readiness is vast. It may be prudent to give schools more specific guidelines as to operationalizing the 6-year-old requirement. If there are indeed significant school-readiness differences between those who are fully 6 years old at Grade 1 and those who are almost 6 years old, then a stricter school entry policy may reduce the risk of dropouts and place children in their more appropriate level. It is important for DepEd to be specific about its policies on school age entry, and to communicate these regularly and effectively.

Birth certificate

A special expense and requirement that has stymied many parent’s attempts to enroll their children in Grade 1 is the birth certificate. Depending on where the interviews are conducted, parents and teachers report that obtaining these can be between P100-P2000. Some schools agree to enroll the student without the certificate, but withhold their report cards if not submitted by the end of the school year. Other schools refuse entry without the document. In NCR where principals are afraid of refusing any

⁶It should also be noted that in areas where official birth certificates are hard to come by and where the concept of school readiness is not as well-articulated by teachers and principals (such as in Maguindanao), school officials would still use the “arm-to-ear” test to determine if a child is old or large enough to attend school. They consider this exercise as a physical indicator of emotional readiness.

child enrolment for any reason, children can go all the way up to Grade 6 without one. However in the provinces they are stricter, although the cost of obtaining a certificate is much lower. Still, P100 in Maguindanao is a lot of money, and principals have to tell parents that the school cannot subsidize its cost so if they cannot afford it this year their children will have to wait until next year to enter. Provincial schools sometimes have to be strict with birth certificates because there are experiences when the child's parents report ages that are completely inaccurate or are inconsistent from year to year. When parents have many children sometimes they lose track of how old each child is. A few of the parents we spoke with have children who are 9 or 10 years old and never were able to enroll in Grade 1 because of the lack of a certificate. This is a widespread enough problem around the country that it deserves its own program. Perhaps the DepEd can work with the NSO and LGUs so discounted rates can be offered, and to enable the issuance of these birth certificates at the school premises during enrollment to make it both cheap and convenient for parents.

5. Governance of Basic Education

While an examination of supply side and demand side barriers and bottlenecks provides a good framework for understanding the inequities in school participation, completion and learning borne from various circumstances and efforts of children and their families, there are undoubtedly more issues that influence inequalities in education opportunities and outcomes. Governance of the basic education sector can have a large impact on access to and quality of education, as poor governance can ultimately lead to system inefficiencies and hidden costs for parents in sending their children to school. The decentralization of the education sector, in particular, the practice of SBM, with the support of the community and local government units, aims to address poor governance through increased transparency and accountability to eventually ensure that all children in the locality are in school and those who are in school continue and complete high quality elementary education. For instance, while laws on child truancy have been legislated in the country, their systematic implementation at the local level has yet to be effected through the partnerships of schools with all stakeholders, especially, the LGUs.

One of the key findings of the TEEP experience is the significant positive impact of SBM on school performance. In particular, changes like giving school heads more powers in terms of allocation of funds (specifically MOOE spending or receiving school improvement budgets and overseeing the spending and building using this money), are some of the most important predictors of NAT improvement (TEEP Final Report, 2005; Bautista et al, 2008; PHDR, 2008/2009). Enterprising principals can, if given the authority to do so, be effective in shoring up community support and raising funds for school improvements, as has been the widespread experience of the *Brigada Eskwela* program experience (PHDR, 2008/2009, p. 53). Unfortunately, for reasons reviewed in detail by Bautista, Bernardo and Ocampo (2008), SBM as operationalized in TEEP has not been fully rolled out in the larger DepEd system and continues to experience strong pushback from within the organization. In addition to the distribution of MOOE to schools in cash and in full, SBM grants are currently made available to heads of select low performing schools, but the current processes for these grants (from planning, to availment, to release of funds, to disbursement and to reporting) need improvement so that the grants can help empower school heads (Albert, 2011b).

Clearly a crucial element to make SBM a reality is a corps of competent managers at the helm of public schools, at the very least, the large ones. The DepEd's current incentive system based on seniority and credential is mighthought of undermining the ability of effective managers to rise up the ranks to become school administrators (Luz, 2008). There is no licensure exam for principals geared toward managerial capacity to allow identification of effective management skills that match academic capacity. Currently, there is little knowledge of the availability of these skills throughout the system.

There are many who remain skeptical of the long-term benefits that SBM can bring, and often the reasoning is based on the belief that principals cannot handle the responsibilities of holding and spending moneys, hiring teachers, and building classrooms. On this score it is important to keep in mind,

that when reviewing the impacts of decentralization-type reforms such as SBM, not to get hung up on the logistical bottlenecks and use these to judge its effect on outcomes. Impacts must be reviewed as pertaining to outcomes that matter like pupil performance and internal efficiencies created by the changes, rather than the outputs such as percentage of schools that have received funds or successfully liquidated in time.

Public financing of education

Over 95% of the entire national education budget goes to the DepEd. Numerous studies over the years on the budgetary allocations in DepEd (e.g. Manasan, PHDR, 2008/09, Caoli-Rodriguez, 2007) lament that close to 90% of this money goes directly to teacher and staff salaries. Of the remaining 10%, 4% goes to school buildings, and the balance is spread throughout MOOE and various other small programs initiated by the Department. Manasan (2010) suggests that the government increase the DepEd budget to 3.8% of GDP in the short term to finance universal Kindergarten, address existing input deficits and to provide for the requirements of additional enrollment implied by the EFA/ MDG targets, but since public expenditures for the whole education sector, have hardly reached 3% of GDP, there is concern that the political economy may prevent this suggestion from coming to fruition.

Maligalig et al.'s (2010) fixed effects model for cohort survival rates in primary school shows that, controlling for some household factors and PTR, per pupil MOOE spending significantly and positively affects survival rates. It also positively predicts achievement, measured as scores on NAT, such that each 1% increase in MOOE spending for primary school pupils yields a 4.7% increase in the NAT score. Orbeta (2009) similarly suggests that addressing input deficits have

MOOE spending includes purchase of textbooks, school supplies, even cleaning materials for schools. An examination of the Department's MOOE budget per child reveals that the amount has been, for many years, scant and poorly allocated due to centralized purchasing of school needs (PHDR, 2008/09, Luz, 2008). In SY 2007-2008 per pupil MOOE was P207 per elementary school pupil and P500 per secondary school student (Manasan et al., 2011). There is substantial spending of LGU-raised funds (Special Education Fund or SEF) on MOOE, but this spending has been found to be highly unequal, to the detriment of poor municipalities where the concentration of school-aged children tends to be high (Manasan & Castel, 2009; Manasan et al., 2011). For instance in a sampling of LGUs visited for their study the SEF per pupil spending (2008 data) ranged dramatically from P1,650 for an NCR city, to P192 for a Mindanao city, from P1,810 for a Luzon municipality to P45 for a Visayas municipality.

Although slow, the decentralization of purchasing (of school supplies) from division superintendents to school principals appears to have improved the efficiency and effectiveness of MOOE spending. The Central Office of the DepEd issued a memo in 2008 (DepEd Order 19) instructing Division Superintendents to "download" school MOOE funds to principals in cash and in full. A recent investigation of the extent to which this DepEd order has been implemented reveals that the rate at which MOOE funds reach schools in cash varies widely by Region. In 2009 for instance, while 99% of all elementary school budgets for NCR region have been given to schools in cash, the corresponding percentage in Region 7 was only 30% and in Region 5 around 47% (DepEd Accounting Division table, Regional Operations). Other schools receive only a portion of the cash, not the full amount as expected from the formula applied nationally (Manasan et al., 2011).

Field visits to schools show dramatic differences in the experiences of those that receive MOOE and those that do not. Also, there are differences for schools in cities that receive sufficient support from LGUs. Most of the schools in both cities and provinces receive MOOE, it was only in Maguindanao that all schools did not receive any cash from division offices. Most principals do not know what the correct (by policy) MOOE budget is, they are just told by division offices what they will receive. Principals with cash on hand have strict "no contribution and no collection" policies most of the year in their schools, students do not have to give money to pay for electric fans or test papers or janitors. NCR schools can afford to pay for security personnel, their school buildings are well-maintained and well-ventilated. They

are able to provide school feeding programs for undernourished children. Teachers report that they have most of what they need from the school. Meanwhile schools that do not receive cash are not maintained because school administrators have to pay out of pocket for maintenance expenses, or they have to ask the barangays and parents for contributions to build chairs and tables. Students have to pay for printing of their diplomas and mandatory forms and test papers. The differences are stark.

City governments can make big dents in the quality of school experience for students and teachers. SEF allocations differ by city depending on the decisions of local school boards. For some schools the SEF is spent on locally-hired teachers and paying all utilities like water and electricity (e.g. Quezon City), freeing up the school MOOE for other costs. Other cities use SEF for purchase of work books, graduation costs of children, and other miscellaneous costs that crop up during the year which principals identify. Las Pinas and Pasig, on top of the SEF funds, provide students with things they usually will have to pay for like IDs and PE uniforms. Cities have the luxury of having enough SEF money to make a large dent on the expenses of basic education; this is not the case for poor municipalities. In the provinces SEF can sometimes provide locally hired teachers, but usually these are not fully-paid teachers but teacher-volunteers that receive between P1,500 and P3,000 a month. They cannot afford to pay for school utilities and instead can only cover things like forms and test papers.

Schools in NCR also have the distinct advantage of being within proximity of many private donors. Almost all the schools visited have received some form of support from companies, NGOs, or private citizens. Frequently principals can request the form of support they will receive, some are in the form of scholarship programs, others feeding programs, and others provide bags or shoes for students. For NCR schools, in comparison with provincial schools there is almost an embarrassment of riches. It is likely that many private donors would be willing to re-allocate at least some of these resources to more needy schools in provinces if there was a formal mechanism within DepEd to do so that is transparent and efficient. It is DepEd's responsibility to make the donation process easy for private donors while ensuring that any money or donations in kind are used appropriately and with accountability at the school-level.

6. Summary

Analysis of the possible barriers to primary education was conducted based on a framework of personal resources on the side of demand and education inputs on the side of supply. These overarching factors are elaborated with critical factors that influence the efficiencies and effectiveness of the basic education system in translating the inputs into the relevant education outputs and outcomes. For primary education, there is substantial evidence that the major issue in the lack of school participation is late entry. National estimates show that the proportion of primary-aged children who are likely to never enter school is estimated at merely 0.2% (APIS, 2010). Another issue in primary education is completion, and some children face more risks of dropping out than others. On the demand-side, existing local literature provides a list of social and cultural factors that appear to affect the likelihood of children entering and continuing schooling. Not all of these factors are strongly linked directly with either late entry or dropouts in the elementary level. Based on the quality of available literature and analysis run for this study, the most critical demand side barriers to schooling are: parental and teacher perceptions on school readiness of young children, parental education, varying expectations on boys and girls, and poverty.

- Parental and Teacher Perceptions on School Readiness. Many children between 5 and 6 years old, particularly six year old children with no pre-primary schooling, are considered not school-ready. They are reported to be not comfortable in a classroom environment, not able to socialize readily with other children, not possessing of the fine motor skills necessary to write, and not able to identify letters and numbers. These are expected to end up dropping out within the first month of the school year. They are found to not be emotionally ready to be left in school without their mothers, and present disruptions in class which pushes teachers to recommend that their school entry be delayed another year. National

surveys also suggest that practically all children aged 3 to 4 years old who are not engaged in early learning are viewed as being too young for schooling.

- Poverty. Practically all studies that explore reasons for not attending school find that economic pressures on household resources weigh very significantly on the decision to either drop out of school or delay entering. Poverty has direct effects on schooling and has more sinister indirect effects in terms of overall pressures on the resources and time of parents and children that contribute to high opportunity costs for schooling among the poor. Poverty may be intertwined with other barriers such as, disasters and conflict events. Household income or expenditure are robust predictors of schooling, and in many ways financial circumstances would be one of the most obvious determinants of school attendance. However, the manners in which poverty can prevent a child from completing her education are numerous and should be considered closely.
- Educational attainment of parents. The relationship between parental educational attainment and a child's likelihood of success in the educational system is one of the most frequently cited causal relationships in the local literature. In situations where mothers have less than an elementary education, not only do parents not have the experience to support their children's education through lessons at home, they are also extremely poor and cannot afford to provide the basic needs of the family.
- Varied Expectations on Boys and Girls. Many studies show glaring gaps in educational achievement between boys and girls with boys at the disadvantage in almost every single outcome measure. They are more likely to drop out, be absent often, have disciplinary problems, have low grades, repeat grades, and be overaged for their grade level. Two contributing factors are most consequential. Firstly, it is well accepted that primary aged children, especially boys, tend to learn better by doing. There is concern that current learning approaches may not be sensitive to incorporating the interests and best learning styles of children, especially boys, in their lessons. Boys are also viewed as not being able to adjust well in a routinized school environment, from daycare onwards. Teachers say boys are difficult to discipline, have a hard time sitting still, do not participate in class, and are unable to focus on written tasks such as assignments and exams. Secondly, boys are more bear the burden of being expected to contribute to livelihood at an earlier age than girls, especially among the poor. In rural communities, from the age of 10, boys are expected to help out in farming, which result in excessive absences and sometimes dropouts.

For decades, basic education suffered inadequate funding, resulting in the prevalence of a long list of supply barriers and exclusions in early childhood and primary education: from lack of nearby schools, classrooms and school facilities, shortages of teachers and teacher trainings to address gaps in teaching competencies, to lack of learning materials. There is a clear need to prioritize the most acute shortages. However equally urgent problems to address are rationalizing allocations of inputs already available, supporting SBM through full implementation of reforms such as provision of maintenance and operating budgets to principals, and institutionalization of incentive systems that will allow stakeholders to exact accountability for poor performance. Ultimately, specific problems *unique to particular areas of the country* which increase the likelihood of school dropouts, such as culturally accepted teacher antagonism toward students in some areas, hostility between students in schools, or poor quality of classroom learning can best be addressed by education officials in the field and the school heads concerned. The major problems in one school need not be the same problems confronted in other schools.

The bulk of primary aged children not in school are among the 6 and 7 year old children. If all children aged 6 and 7 year old were in school in 2010, then primary age school attendance would have increased from 92.1% to 98.2%. One supply side bottleneck to the lack of school participation of young children is the confusion about what constitutes the official school age entry, with some schools strictly applying

the school age entry by June definition, while other schools are more lenient. Add to this the requirement for birth certificates, then the very poor with more than one child in primary school would be much less likely to decide to send a 6-year old child to first grade.

In general, studies on the myriad different supply side factors are fragmented in their approach and needs more disaggregated data to examine, specifically, effects on dropout rates and cohort survival. “The use of highly aggregate rather than student-level measures of inputs in explaining individual student performance could (thus) introduce a potential estimation bias (Quimbo, 2003, p. 59).” Many of the studies reviewed are based on highly aggregated data analysis sometimes on a provincial or even regional level. It is only in the last couple of years that BEIS has been available at the school-level, making school-level analysis possible, and much of the research on this which attempts to connect school inputs with outcome indicators are still in process. Few studies have been able to do quantitative analyses of student-level outcomes and its determinants. The most important barrier to such research has been and continues to be the availability of official data from the Department of Education, specifically school-level test scores (the most important measure of school performance and quality of education).

One final note on meeting the challenge of fixing supply-side bottlenecks consequential to OOSC: what remains unclear in the literature and in interviews done for this study are the mechanisms for accountability among schools when they are poor performers. While there are specified outcome goals, school-level reporting of data, and a relatively thorough accounting of available inputs in each school, there appear to be no clear consequences for poor performance, and a similar weakness of incentives for those that perform well. A comprehensive examination of mechanisms in place to exact accountabilities for poor performance should be done from the lowest levels such as teachers and school heads, to middle management (divisions and regions), to the central office.

In particular there is much value in analyzing institutional factors that may constrain the system’s ability to adopt widespread reform initiatives and in examining the institutional arrangements or incentive structures that appear to lack in mechanisms for exacting accountabilities at each level of service provision.

Gaps in local research

Upon reviewing the available quantitative and qualitative research relevant to local OOSC, some glaring gaps in knowledge came to light. As mentioned, this weakness in knowledge has important implications on our ability to make solid recommendations on the types of policies and interventions that have the best likelihood of generating impacts on outcomes that are efficient and cost-effective. Following is a list of areas that need further research:

- Student-level analysis linking availability of inputs to performance outcomes. All data available thus far are derived from data aggregated at the provincial or the regional levels, which may mask important effects that can be detected with student-level analysis.
- Time-on-task research for teachers to understand exactly how much instruction time is spent for each subject in each grade. This information will provide guidance as to the implications of shifting in schools, additional administrative work of teachers, and other tasks that impinge on the number of minutes students get in teaching time.
- Cost-benefit analyses (in addition to rigorous impact evaluations if missing) of various forms of interventions that have already been run in the country to address the most pressing outcomes. Having cost-effectiveness estimates of interventions on the supply and demand sides will provide clearer information on which would be more prudent and effective than the other.
- Cost-effectiveness study comparing private versus public primary schools to understand where the efficiency problems in public schools lie, if any.
- Systematic examinations of the governance and institutional issues that block reforms at the local and national levels of DepEd. This should include transparent examinations of

- potentials for corruption, a political economy analysis of accountability mechanisms, investigation of the institutional arrangements and power relationships between central, regional, and division offices as well as any other arrangements that contribute to the inefficiencies within the system.
- Political economy analysis of various processes within the DepEd to understand how and why there remain persistent problems with equitable resource allocation, efficiency barriers in implementation of certain policies (e.g. drilling down of MOOE and other SBM or BESRA-related reforms), among others. This would include an accountability audit of the important processes that may have impacts on delivery of quality inputs.

ANNEX: Qualitative Interviews Report

Primary data collection was conducted to augment the evidence garnered from desk reviews of available local research in barriers to schooling, programs of local and national government agencies, and reasons for gender disparities in school performance. Qualitative in-depth interviews were conducted with teachers, children, parents, local officials, and school officials representing the pre-primary and primary aged children not in school, and primary aged students at risk of dropping out. Four zones needed to be covered, NCR, Balance Luzon, Visayas, and Mindanao. In each zone 6 schools were selected based on criteria described below, and in each school a pre-set number of interviews were planned.⁷ Primary data were collected to examine household-based factors, and other possible influential factors, including supply side issues such as quality of education, and school inputs (i.e. resources available and spent) that possibly impact on OOSC and on growing gender disparities in primary education across selected 6 sites/schools for each of the four zones, viz. NCR, Luzon (outside NCR), Visayas and Mindanao. The emphasis in the qualitative investigation was to gather information about reasons not already known regarding why children are not in school, why some children are more at risk of not completing their schooling, and why boys do not learn as much as girls. The interviews & FGDs gave respondents the opportunity to offer answers that may not be included in available survey instruments of NSO. The qualitative field work was loosely structured although interview & FGD guidelines were prepared for field staff. Interviewers were also provided training to understand the general objectives of the interviews, and to provide protocols for data collection. Respondent selection in each zone corresponded to the 3DE model under study (see Albert *et al.*, 2012). All in all, about 183 individual interviews and 16 focus group discussions were conducted.⁸ Classroom observations of 48 lessons

⁷ For selection of the 24 study sites, and as per guidance from UNICEF and DepEd, a preliminary weighted composite index was generated for all school divisions in the country based on the following indicators: gross enrolment rate for Early Childhood Development (ECD), percentage of Grade 1 enrollees with ECD experience, net enrolment rate, repetition rate and school leaver rate sourced from the 2008-2009 BEIS. Across the four zones, viz., Metro Manila, Balance Luzon, Visayas and Mindanao, one division was identified that had the worst performance in the resulting index. The identified divisions were: Las Piñas in Metro Manila; Tabaco City, Albay in Balance Luzon; San Carlos City, Negros Occidental in Visayas; and Davao Oriental in Mindanao. On account of the tight schedule to complete this study and since Tabaco City is calamity-prone area, especially during the wet season, field work was initiated in Balance Luzon during the third week of March 2011. Six schools in Tabaco City were chosen due to their high school leaver rates and number of school leavers. Coordination with the Governor of Albay and his staff allowed for ease in the conduct of data collection activities. The commencement of the data collection in March also allowed the research team to further improve the research instruments and manner of collecting data.

Remaining field work for Metro Manila, Visayas, and Mindanao was conducted in June and July of 2011. The entire Metro Manila was made as the zone itself. In Visayas and Mindanao, a division was selected as zone based on a revised index, as per suggestion from a Country Advisory Committee meeting on 10 March 2011. Owing to concerns by the meeting participants that the initial index was selecting very urban divisions on account of the population in these divisions, the revised index suggested included the magnitude of the school leavers, aside from the education indicators already mentioned. Based on the results of the revised index, a decision was made to select Negros Oriental and Maguindanao as the zones for Visayas and Mindanao, respectively. Rather than select a division in Metro Manila, the whole of Metro Manila was considered a zone. In Metro Manila, Negros Oriental and Maguindanao, four schools/sites with high dropout rates and two schools/sites with low dropout rates were identified per zone. Data from schools with low dropout rates was also obtained in order to give some heterogeneity in the responses of interviews. This provided insights on what these schools are doing correctly in terms of arresting the problem of dropouts. In addition, schools/sites were selected taking into account representation of complete and incomplete schools, schools with indigenous peoples (IPs), multi-grade schools, and schools in rural, coastal, and mountainous area. Sites within reasonable travel distance from each other were also considered for field gathering logistics purposes.

⁸ Individual interviews were conducted with 44 parents of 5 or 6 year old children not in school, 45 children at-risk of dropping out, 47 children who have dropped out, 23 principals, 23 other officials (e.g. daycare center teachers, ALS coordinators, barangay officials etc.). There were also 8 FGDs with teachers (with a grand total of 62 participants), and 8 FGDs with parents of children who have dropped out (with a total of 54 parents participating). Educators, including daycare center teachers, were interviewed because of their observations and insights as facilitators of learning in the

were also conducted in various grades and subjects. The observations were made at one lower level grade (grade 1 or 2), and one upper division grade (grade 3 and above) in selected schools with very high drop-out rates in order to look into the possible supply side issues that affect reasons why children are out of school or at risk of dropping out.

In each zone the following subgroups were interviewed either by KII or FGD: Parents of children 6 years to 11 years old not in school (Dimension 2), children aged 6 to 11 years old at risk of dropping out (Dimension 4), Children aged 6 to 11 years old who have dropped out of primary school (Dimension 2), parents of children below 6 years old and not in school (Dimension 1), daycare teachers (Dimension 1), teachers in grades 1 and 2 (Dimensions 2 and 4), Teachers in grades 3 to 6 (Dimensions 2 and 4), parents of dropouts in primary school (Dimensions 2 and 4), and principals of all school sites selected (Dimensions 1, 2 and 4). All children subgroups that were interviewed were distributed equally between boys and girls to allow for gender analysis.

Table Annex 1: Respondent Selection Plan per Zone

FGD	Number of FGDs per zone	Interviews	Per school/site	Total KIIs per zone
Parents of dropouts	2	Principals	1	6
Teachers all primary grades	2 ^a	Parent of child 6 years old not in school	1	6
		Children aged 6 to 11 years old in primary school at risk of dropout (1 boy and 1 girl)	2	12
		Children aged 6 to 11 years old who dropped out of primary school (1 boy and 1 girl)	2	12
		Parent of child below 6 year old not in	1	6
		Daycare teacher		2
TOTAL	4		7	44

^a One FGD per zone with teachers of Grades 1 and 2, one for teachers of Grades 3-6

Interviews with each of the subgroups identified above were guided by specifically-designed background questionnaires and interview or focused group discussion guides depending on the dimension represented. Consent forms were secured for child interviews and whenever requested, a parent or guardian was present. Teachers and parents were interviewed in a group context. Since national data show that most dropouts happen during the first two years of primary school, teachers for earlier grades were grouped in FGDs separately from those who teach in higher grades.

Classroom observations were also undertaken in order to find out whether classroom instruction, learning practices, and materials address or exacerbate the problem of dropouts and school performance. Observation was conducted in one lower grade level (grade 1 or 2), and one

educational system. Information from children, both children not in school and those at risk of dropping out, and their parents were gathered to look into the dynamic and associational processes for their lack of current attendance in school especially as far as interests, or the lack thereof, in schoolwork.

upper grade level (grade 3 and above) in each of the 24 schools included in this study. Observations were able to include a variety of subjects such as Filipino, English, Math, and Science.

For identification of the school division that represents a zone, a weighted composite index was generated for all school divisions in the country based on the following indicators: gross enrollment rate for ECCD, percentage of Grade 1 enrollees with ECCD experience, net enrollment rate, repetition rate, and total number of school leavers. The school division with a low resulting index was chosen per zone. These divisions identified were: Balance Luzon: Tabaco City, Albay; Visayas: Negros Oriental; Mindanao: Maguindanao. The whole NCR region was included where six school divisions were selected from different cities

For the selection of school/site, purposive sampling was used. Four schools with high dropout rates and two schools with low dropout rates were identified per zone. Data from schools with low dropout rates would provide insights on what these schools are doing correctly in terms of arresting the problem of dropouts. In addition, schools were selected taking into account representation of complete and incomplete schools, schools with IPs, multi-grade schools, and schools in rural, coastal, and mountainous area. Sites within reasonable travel distance from each other were also considered for field gathering logistics issues. Table Annex 2 below lists the schools visited in each zone.

Table Annex 2 List of schools visited by zone

	Metro Manila	Negros Oriental	Maguindanao	Albay
High school leaver rates	Gabriela Silang ES (Caloocan)	Kaladias ES (Zamboangita)	DatuPaglas CES	Tabaco South CS
	Rosa Susano-Novaliches ES (QC)	Pamplona CES (Pamplona)	PalaosaButo PS ^a	San Roque ES
	ML Quezon ES (Tondo)	Canaawas PS (San Jose)	Lao-Lao PS ^b	Basagan ES
	Moonwalk ES Mikesell Annex (Las Pinas) ^a	Badiang PS (Valencia) ^b	Satan PS	Bonot ES
Low school leaver rates	Don Basilisa Yango ES (Mandaluyong)	Cambajao PS (Sibulan) ^b	Iginagampong PS ^a	Fatima ES
	Pinagbuhatan ES (Pasig)	Sibulan CES (Sibulan)	Sugadol PS ^b	San Antonio ES

^aIncomplete school^b Multigrade

In all 24 schools were visited for the study. Teams of 4-7 field interviewers went to each of the locations and conducted interviews. All interviews were audio recorded with permission from the interviewees and then transcribed for analysis purposes. Below is a summary of the total number of interviews accomplished for each of the subgroups.

- ◆ 44 parents of 5/6yo children not in school individually interviewed
- ◆ 45 children at-risk of dropping out, 47 children who have dropped out
- ◆ 23 principals, 23 other officials (e.g. daycare, ALS, barangay, etc.)
- ◆ 8 teacher FGDs (n=62), 8 parent FGDs of those with children who have dropped out (n=54)
- ◆ Total 16 FGDs, 182 individual interviews (n=298 people)

- ◆ Classroom observations 48 lessons in different subjects and grades

Parents and children completed background questionnaires before the interview proper to gather information about their circumstances that might affect the likelihood of schooling, including how many children/siblings they have, educational background of parents, educational history of all children in the family, and costs of attending school. We also asked parents who have children who dropped out or never started schooling why each child dropped out and at what grade they dropped out. The following tables below provide summaries:

Table Annex 3: Parent interviewee characteristics

	Parents of children who have dropped out (n=54)	Parents of children with 5 and 6 year old not in school (n=44)
Age of mother	41	39
Age of father	44	43
Occupation of mother	25 working, 23 homemakers	34 working, 10 homemakers
Occupation of father	12 farmers, 9 drivers of taxi, pedicab, jeepney	17 farmers, 4 drivers of pedicab 12 construction/labor
Education of mother	8 HS Grad, 9 Grade 3 or less, 9 Some HS	7 HS Grad, 9 Grade 3 or less, 8 Some HS
Education of father	10 HS Grad, 10 Grade 3 or less 7 Some HS	4 HS Grad, 10 Grade 3 or less 8 Some HS
Average n of children	5 (9 with 7 or more children)	5 (12 with 7 or more)
Estimated monthly income of working mother	1,800	1,500
Estimated monthly income of working father	2,800	2,200
Heard about ALS	1	5
Getting to school	Most <30 minute walk	Most 30 mins-1hr walk
Cost of transportation	4-40	5-40
Cost of school uniforms	250-1,000	
Allowance	2-10	
School supplies	Most between 200-700/yr	
School projects	Most between 100-300	
Heard of 4Ps	41 (most will agree to send children back to school)	32 (most will agree to send children back to school)
Listed/member of 4Ps	6	6

Children of parents with dropouts

Total n of children = 244

N of children school aged (5-18) = 170

N of school aged children not in school = 72 (42%), 34 females

Grade level stopped:

Did not start = 20 (6 teenagers with no schooling)

Kindergarten - Grade 1 = 17

Grades 2-6 = 19
High school = 15

Reasons among those not in school (5-18yo):

No money = 25
Illness of parents or child = 7
Child refuses = 6
Birth certificate = 4
Worked = 3 (all 15-18 yo)
Others = 7

Children of parents with children 5 or 6 years old not in school

Total n of children = 219

N of children school aged (5-18) = 147

N of school aged children not in school = 51 (35%), 17 females

Grade level stopped:

Did not start = 0
Daycare - Grade 1 = 9
Grades 2-6 = 10
High school = 5

Reasons among those not in school (5-18yo):

No money = 11
Illness of parents or child = 3
Child refuses = 5
Birth certificate = 1
Worked = 1
Others = 3

Table Annex 4: Child interviewee characteristics

	Children who have dropped out (n=47)	Children at-risk of dropping out (n=45)
Age	12	12
Gender	22 females; 25 males	21 females; 24 males
Last grade level attended	1 - Kinder 11 - Grade 1 8 - Grade 2 6 - Grade 3 9 - Grade 4 4 - Grade 5 7 - Grade 6	5 - Grade 1 5 - Grade 2 13 - Grade 3 11 - Grade 4 5 - Grade 5 5 - Grade 6
Age started grade 1	7	8
Primary School Experience	22 (47%) with PSE 23 without PSE	26 (58%) with PSE 19 without PSE
Occupation of mother	26 working	24 working
Occupation of father	15 farmer 10 driver of pedicab, tricycle, truck	13 farmer 4 construction worker 3 driver 3 vendor
Average n of siblings	6 (9 with 8 or more siblings; on average 3 siblings are in school)	5 (16 with 7 or more siblings; on average 3 siblings are in school)
Household chores	21 dishwashing 20 cleaning the house 12 doing farm work 10 cooking 8 fetching water 8 doing laundry 4 taking care of younger siblings	21 cleaning the house 20 dishwashing 10 doing laundry 9 fetching water 8 cooking 7 doing farm work 7 taking care of younger siblings
Getting to school	Most <30 minute walk	Most <20 minute walk

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