Effective Interventions Aimed at Reaching Out-of-School Children
A Literature Review

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Abstract

This paper aggregates the academic literature reviewing and reporting interventions for out-of-school children (OOSC) around the world to serve as a guide for potential interventions in South Asia and elsewhere. It complements the Global Initiative on Out-of-School Children (OOSCI) South Asia Regional Study (2014). Thus the interventions reviewed include those in South Asia that were not extensively discussed in the OOSCI South Asia Regional Study as well as emphasis on interventions outside the region to further expand the knowledge base and evidence on effective interventions to reach out-of-school children. The interventions reviewed cover both those targeted for children who have never enrolled and those who may have enrolled in the past but have dropped out. It offers strategies and best practices for Early Childhood Development (ECD) programs with attention to cognitive and social-emotional development, as well as methods for expanding pre-primary access and improving school readiness with special attention to on-time enrollment, all known deterrents keeping children from dropping out of school. It also echoes assessments and reports describing a geographically wide array of non-formal education (NFE) interventions, covering the Alternative Education System in South Sudan, an educational resource center in Ireland, Educational Centers for Development in Mali, Community Learning Centers in Myanmar, complementary education and multi-grade schooling in Ghana, community engagement in Gambia, non-formal education in Zambia, and an overview of the potential of private school outreach and vocational non-formal education. Based on findings from impact evaluations and quasi-experiments, this literature review explores the effectiveness of pro-poor economic incentives, including voucher and cash transfer programs that have shown promising results in mitigating the opportunity cost of children relinquishing wages to attend school. This literature review also analyzes the decentralization of education systems and inclusive education through the lens of governance, providing short case reviews from around the world as learning examples and points of comparison. The paper then discusses sector plans in education as well as the Global Partnership for Education (GPE) and key literature while offering country examples. Additionally, the researchers provide a review of Education Management Information Systems (EMIS) and related systems around the world and highlight the opportunity for NFE and OOSC data incorporation into larger data systems as a means for providing paths to schooling for OOSC. The final section of this paper offers recommendations for possible way forward for the South Asia region, including further areas for research.

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List of Abbreviations

ALP	Accelerated Learning Program
BNFE	Bureau of Non-formal Education (Bangladesh)
CCT	Conditional Cash Transfers
CECED	Centre for Early Childhood Education and Development
CEDs	Educational Centers for Development
DFID	Department for International Development (United Kingdom)
DOE	Department of Education
DSD	Department of Social Development
ECD	Early Childhood Development
ECE	Early Childhood Education
EFA	Education for All
EMIS	Education Management Information System
GPE	Global Partnership for Education
ICDS	Integrated Child Development Services (India)
IDB	Inter-American Development Bank
IIEP	International Institute for Education Planning
INGO	International Non-Governmental Organization
ISCED	International Standard Classification of Education
MoEYS	Ministry of Education, Youth, and Sports (Cambodia)
NFE	Non-formal education
NFE-MIS	Non-formal Education Management Information System
NGO	Non-Governmental Organization
OOSC	Out-of-school children
OOSCI	Global Initiative on Out-of-School Children
RCT	Randomized Control Trial
SIDA	Swedish International Development Cooperation Agency
SWAp	Sector-Wide Approach
TEVS	Targeted Educational Voucher Schemes
UCT	Unconditional Cash Transfer

UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UIS	UNESCO Institute for Statistics
UNGEI	United Nations Girls' Education Initiative
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Emergency Fund
UPE	Universal Primary Education
USAID	United States Agency for International Development

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1. Introduction

1.1. Goals of this literature review

This literature review aims to aggregate the academic literature reviewing and reporting interventions for out-of-school children (OOSC) around the world to serve as a guide for potential interventions in South Asia and elsewhere. This literature review was commissioned by the UNICEF Regional Office for South Asia (ROSA) as a follow-up to and to complement the Global Initiative on Out-of-School Children (OOSCI) South Asia Regional Study (2014). Thus the interventions reviewed include those in South Asia that were not extensively discussed in the OOSCI South Asia Regional Study as well as emphasis on interventions outside the region to further expand the knowledge base and evidence on effective interventions to reach out-of-school children. The interventions reviewed cover both those targeted for children who have never enrolled and those who may have enrolled in the past but have dropped out. In relation to the latter category of out-of-school children, interventions aimed at ensuring children enroll at the right age and stay in school were also reviewed. This literature review also focused on identifying factors that made the selected interventions effective. While expansive in the breadth of both the types of interventions covered and the cases analyzed, the literature reviewed in this paper is by no means expected to be comprehensive for each of the intervention types discussed; however, the aim was to collect both the primary documents, such as reports from international organizations and major research publications, as well as secondary documents, such as case studies and impact evaluations, to help contextualize interventions. This contextualization of interventions culminates in recommendations for way forward for the region linked to the recommendations of the South Asia OOSCI Regional Study, which we hope and expect will be used as a starting point for dialogue on potential interventions and areas for further research.

1.2. Defining and categorizing "out-of-school children"

The UNESCO Institute for Statistics (UNESCO-UIS, 2015a) defined out-of-school children as "children of primary or lower secondary school age who are not enrolled in primary or secondary education," (p.21) including "a small number of children in pre-primary education and in non-formal education (NFE)" (p.21). Out-of-school children are also categorized into those who have never been to school, despite having the appropriate age to enroll, or those who dropped out for various reasons (as illustrated in Figure 1 in the annex). According to the 2015 Global Initiative on Out-of-School Children report entitled "Fixing the Broken Promise of Education for All," there are, based on 2012 figures, an estimated 58 million primary school age children (ages 6 to 11) out of school worldwide. This constitutes roughly 9 percent of all primary school age children. The figures are more staggering for older children with 62.9 million lower secondary school age children out of school globally. This constitutes 16.8 percent of the total population of adolescents of lower secondary school age (UNESCO-UIS, 2015a). Some of the barriers identified in the report related to the problem of out of school children include: conflict, gender discrimination, child

labor, language challenges and "social, institutional and environmental barriers linked to disability" (p.14-15). Pervading all these barriers is the oft-exacerbating factor of household poverty (UNESCO-UIS, 2015a). The interventions analyzed for the purposes of this literature review address all of these barriers. However, their effectiveness in reaching OOSC depends on contextual factors described in the subsequent sections.

1.3. Contextual Analysis of the South Asia region

Tables 1 and 2 in the Annex show the numbers and percentages of out-of-school primary school age and out-of-school adolescents of lower secondary age in South Asia in comparison with other regions. South Asia has the highest number of primary and lower secondary school age children out-of-school globally with 36.1 million: 9.8 million primary school age out-of-school children and 26.3 million out-of-school adolescents of lower secondary age (UNESCO-UIS, 2015a). According to the OOSCI 2014 South Asia Regional Study, the majority of out-of-school children in South Asia can be found in Bangladesh, India and Pakistan. Based on analysis of household surveys, the report showed these 3 countries alone account for as many as 27 million out-of-school children, 17 million of whom are primary school-age and 9.9 million of whom are secondary school-age (UNICEF, 2014).

Moreover, there are significant gaps in enrollment among families of higher and lower socioeconomic status, and between remote rural areas and urban areas. Additionally, the rate of enrollment for disabled children and children from marginalized groups is far below the national average. Limited access to quality early childhood education (ECE) is also a factor leading to repetition or dropping out in the early grades of primary education. Slightly more than half of children in South Asia have access to pre-primary education. According to 2012 figures from UNESCO (2015), the pre-primary gross enrollment rate for South and West Asia was 54 percent. Moreover, according to UNICEF (2014a), 59 percent of children under five from the bottom wealth quintile in South Asia are stunted. This is 2.4 times the prevalence of stunting for the richest quintile. Overall, in South Asia, an estimated 38 percent of children are stunted due to chronic malnutrition. Stunting caused by nutritional deprivation can impact the rates of child cognitive development, and therefore, learning. Children who underperform academically are also more likely to dropout.

Tables 3 and 4 in the Annex further illustrate the demographic conditions and attendance rates in Bangladesh, India, Pakistan and Sri Lanka, four South Asian countries that participated in the first phase of the OOSCI. While countries contribute in different proportions to these staggering statistics, the phenomenon is clearly widespread across the region with children facing a range of barriers leading to their exclusion. In Bangladesh, the national school attendance rate for primary and lower secondary school age children is 80 percent. The attendance is lowest among boys from the poorest families in both urban areas (55 percent) and rural areas (60 percent) (UNESCO-UIS, 2015a data from the Bangladesh Demographic Health Survey). In Pakistan, millions of boys and girls of primary and secondary school age are not in school for reasons such as parents' unwillingness to support their education, costs of schooling, and location of school.

Girls are denied access to education primarily because their parents are unwilling to send them to school (Alif Ailaan, 2014). In Sri Lanka, demand-side socio-cultural and economic barriers, supply-side barriers, political factors, and capacity and financial conditions keep specific groups of children out of school (UNICEF, 2013). Although Sri Lanka already has near universal enrollment rates, areas that were affected by the 25-year conflict that ended in 2009 have the lowest enrollment rates in the country, with more girls than boys not being schooled (UNICEF, 2013). In Afghanistan, distance to school also affect whether a girl goes to school or not due to safety concerns and traditional exclusion practices (UNESCO-UIS, 2015b). Conflict in countries like the now ended protracted civil wars in Sri Lanka and Nepal, and the on-going conflict in parts of Afghanistan and Pakistan might interfere with access to education by "disrupting economic activities, displacing families, destroying infrastructure, making the journey to school insecure, and causing psychological trauma" (UNICEF, 2014, p. 65). An example of the effects of displacement on education: Pakistan is home to more than 1.6 million refugees, the majority of which have been displaced from Afghanistan (UNICEF, 2014).

One of the barriers of particular concern pushing children out of school is the lack of governmental support for inclusive education, particularly for children with disabilities, although all South Asian countries except Sri Lanka have legal guarantee for the State to provide free primary or basic education. According to global estimates, approximately one-third of children out of school are those with disabilities. In South Asia, the prevalence of disabilities in the population is estimated at 3.2 percent. Out of all countries in the region, Bangladesh has the highest disability rate (9 percent of the population). In India, 1.53 million students were reported to be physically or mentally disabled (UNICEF, 2014). More impactful regulatory measures need to be taken by governments so that the educational systems can have mechanisms in place to better accommodate children with special needs.

Other regional barriers to education might be related to negative cultural attitudes and systemic discrimination toward minority communities. Lower rates of school attendance are reported for Muslim children and Scheduled Tribe (ST) and Scheduled Caste (SC) children in India. In Pakistan, societal attitudes favoring males might leave girls out of school. Other exacerbating factors in Pakistan include child marriage, child trafficking and lack of awareness of the potential benefits of education (UNICEF, 2013a). Speaking a different language than the medium of instruction in school is also another factor that deter out of school children from minority ethno-linguistic groups or push out children who are already in school leading them to drop out. In Bangladesh, non-Bangla speaking minority groups, such as those indigenous communities living in the Chittagong Hill Tracts, might not receive proper access to education due, in part, to language barriers (UNICEF, 2014). Overall, in South Asia, disproportionate numbers of non-enrolled students include "children with disabilities; children from ethnic minorities often with different languages; children from religious minorities; children living in urban slums, and on the street; children from families who migrate seasonally for work; and refugee and internally displaced children" (UNICEF, 2014, p. xiv). Additionally, although data is

limited, there is a higher out-of-school rate among child laborers (80.5 percent) than among non-working children (33.9 percent) in Pakistan (UNICEF, 2013a).

One tension that arises in some contexts is whether or not certain types of madrasas or Islamic religious schools offer a quality of educational curricula that is comparable to government schools. In Bangladesh, for example, children in poorer and rural regions might have greater access to madrasas than government schools. Bangladesh has two kinds of madrasas: Alia Madrasas, which are privately owned and supervised, but which are also regulated by the Bangladesh Madrasa Education Board (BMEB); and Qawmi Madrasas, which are non-formal institutions beyond the scope of regulation by the government and which tend to be more orthodox in religious teachings (Park and Ahmed, 2014; Riaz, 2008). The teaching in Alia Madrasas is viewed as more modern than in Qawmi Madrasas, and graduates of these institutions are likely to integrate well into mainstream institutions of higher education. According to a World Bank study on madrasas, there is a slight correlation between Alia Madrasa education and poverty; however, there remains some uncertainty as to whether they are constructed in areas that are not as well-supported by the government as others (Asadullah et al, 2009). It is also worth noting that madrasas might be popular in Bangladesh due to the lack of educational quality in government schools, as student-to-teacher ratios are as much as 45:1 (compared with 38:1 and 40:1 in Nepal and Pakistan, respectively) and the percentage of trained teachers in government schools is as low as 56 percent (compared with 66 percent and 85 percent in Nepal and Pakistan, respectively) (Park and Ahmed, 2014). Madrasas tend to be under-resourced; however, private public partnerships (PPP) can facilitate interventions that encourage the delivery of core curriculum subjects (UNICEF, 2014).

In spite of the gaps that Alia Madrasas seem to fill, it remains questionable whether Qawmi Madrasas similarly inculcate students with the necessary skills that meet their learning needs and allow them to function well in mainstream society. In contrast to Alia Madrasas, Qawmi Madrasas may not wish to compromise the autonomy of religious curricula for the sake of being mainstreamed (Riaz, 2008). Due to lack of government regulation of these schools, it is difficult to determine whether rural poor children who receive schooling at Qawmi Madrasa are erroneously reported as being out of school (Maung Nyeu, personal communication, March 10, 2015). However, it is estimated that there are 15,000 Qawmi Madrasas enrolling up to two million students, primarily in rural and impoverished areas of Bangladesh (Park and Ahmed, 2014). Unfortunately, as there is a dearth of academic literature addressing the quality of these institutions, further study needs to be done to better understand the situation.

1.4. Methods and scope of review
The method of literature review was carried out in three phases. First, utilizing academic databases, we searched for and retrieved articles and resources relevant to the topics being explored. Second, we filtered through retrieved articles and resources to identify those most likely to offer substantive support data. Third, we compiled information, charts and data tables, with the hope of identifying and prioritizing the interventions, treatments and organizational strategies best aligned with the goals of improving access, opportunity and holistic wellbeing for out-of-school children.

Numerous databases were used in the process of our search, including Hollis Plus, ERIC, Academic Search Premier, Africa-wide Information, Middle-Eastern and Central Asian Studies, Education Abstracts, MLA Directory of Periodicals, MLA International Bibliography and Google Scholar. Over one hundred variations of keywords and search term phrases were used including: *emis out of school children, non-formal education out of school children, out-of-school children AND alternative AND education, accelerated learning, bridge programs AND education, ECD pre-primary, child labor AND transfer AND education, sector plans education, Educational decentralization in Latin America, early childhood education program evaluation, ICDS AND India AND education and school readiness ECD development.*

In total, 157 articles and resources have been collected. Not all of the works consulted were cited in the final literature review report. However, more than 80 percent of the articles collected contributed to the shaping of priorities with respect to its composition.

1.5. Brief overview of analyzed interventions

This literature review analyzed interventions targeting OOSC that are or have been implemented within and outside the South Asia region. Effectiveness of each intervention was described, insofar as information was available, based on the following criteria:

1.   *Does it reduce the number of OOSC (both those who have never enrolled and those who dropped out)?*
2.   *Does it prevent/reduce dropout?*
3.   *Does it increase enrollment in formal schools?*
4.   *Does it influence better on-time enrollment and thus prevent dropout?*
5.   *Does it improve retention?*
6.   *Does it improve transition from primary to lower secondary education?*
7.   *Does it improve learning?*

Cost effectiveness was also taken into account, along with information about impact evaluations describing the effects of the respective intervention.

All the analyzed interventions can be attributed to the following programmatic areas:

1.   *Early Childhood Development (ECD) and early learning programs*
2.   *Enrollment Campaigns*
3.   *Non-formal Education/Accelerated Learning Pathways*
4.   *Economic Incentives*
5.   *Effective Governance Set-ups*
6.   *Effective Information Management Systems*

Since children's relative levels of school readiness are dependent upon the quality of care that they receive in their early formative years, effective interventions related to Early Childhood Development can be greatly impactful in preparing out-of-school children to enter primary school. The barriers to on-time enrollment might be linked to factors such as inadequate nutrition, poor

health, and insufficient psychosocial stimulation which can impact a child's ability to learn. Compiling information from ECD programs in countries such as India, South Africa, Germany, the US and Sweden, this paper offers strategies and best practices for integrated early childhood development programs with attention to cognitive and social-emotional development, as well as methods for expanding pre-primary access and improving school readiness with special attention to on-time enrollment for young children who, without exposure to early learning programs, will likely repeat or dropout in the early grades of primary education adding to the already high numbers out-of-school children.

The selected instances of non-formal education interventions aimed at reaching out-of-school children attempt to address the instructional needs of the children, breach the barriers to accessing education, incentivize community ownership of schooling, engage governments and international NGOs, and identify cost-efficient and sustainable alternatives to formal education or to the lack thereof. This paper echoes assessments and reports describing a geographically wide array of such interventions, covering the Alternative Education System in South Sudan, an educational resource center in Ireland, Educational Centers for Development in Mali, Community Learning Centers in Myanmar, complementary education and multi-grade schooling in Ghana, community engagement in Gambia, non-formal education in Zambia, and an overview of the potential of private school outreach and vocational non-formal education. Despite challenges in implementation, funding, quality, official recognition, and sustainability, evidence shows that some non-formal education interventions reach high attendance rates, facilitate transition to formal education, prepare students for employment, improve girls' retention, and lower dropout rates, among other outcomes.

Expanding access to education must also involve the use of pro-poor economic incentives to target children whose schooling opportunities are limited by poverty. Impact evaluations and quasi-experiments on Targeted Educational Voucher Systems (TEVS), Conditional Cash Transfer (CCT) and unconditional cash transfer programs in countries like Mexico, Colombia, Brazil, India and the United States have shown promising results in mitigating the opportunity cost of child relinquishing wages to attend school. However, effective pro-poor targeting, well-designed incentive structuring, and clear implementation protocols are necessary to ensure that these programs achieve the desired impact. This paper will offer best practices on evidence-based methods for developing pro-poor economic incentives.

This paper analyzes governance structures and changes that can positively influence not only tracks to schooling for children, but also to increase the quality and accuracy of data. The paper first reviews decentralization as viewed from outside the increased focus it gained in the 1980s and 1990s to find that while no decentralization effort can be considered a complete success, there are components that are worth further inspection, such as the decentralization/centralization approach. Other governance approaches and structures reviewed are related to inclusive education and sector-wide plans, with ample consideration being given to the latter, in light of the large quantity of literature regarding it.

Additionally, the researchers provide a review of Education Management Information Systems (EMIS) and related systems around the world and highlight the challenges of and opportunities for incorporating NFE and OOSC data into larger data systems. Better data on out-of-school children is crucial to understanding who and where out-of-school children are so their learning needs can be addressed, including provision of alternative pathways to schooling as needed. Upon reviewing country cases of EMIS implementation in locations such as Egypt, Vietnam, Eastern Europe, and Palestine, it is clear that the cohesiveness of the system as well as the accuracy of the data being collected greatly impacts the utility of a data collection system in providing a comprehensive picture on OOSC and alternative pathways to schooling. Funding mechanisms and strategies for implementation are also covered. Unfortunately, there is limited information on the use of EMIS in monitoring OOSC in South Asia.

This paper analyzes the financial and policy implications of these interventions for replication in the context of South Asia and also identifies areas for further research

2. Early Childhood Care and Development for Improved School Readiness

Since children's relative levels of school readiness are dependent upon the quality of care that they receive in their early formative years, effective interventions related to Early Childhood Development can be greatly impactful in preparing young children to enter primary school. Children who have exposure to early learning programs are likely to enroll in primary school at the right age, and not likely to repeat grades and/or drop out after enrolling in primary education. Challenges such as on-time enrollment, repetition and poor learning in the early grades of primary education might be linked to factors such as inadequate nutrition, poor health, and insufficient psychosocial stimulation in young children (0-8 years). Neuroscience has established the influence of adequate nourishment and psychosocial stimulation in early childhood on decreasing the likelihood of negative long-term outcomes related to an adult's physical and mental health, in addition to his/her economic and social wellbeing. With adequate nourishment, nurturing and stable relationships and appropriate levels of psychosocial stimulation, the developing brain forms rich networks of neural circuits promoting positive long-term life outcomes for mental health, economic productivity, healthier lifestyles and more responsible citizenship. Deprived of these supports, children are more vulnerable to negative long-term impacts on cognition, as well as lower school attainment; as adults, it could result in lower wage rates, lesser cognitive skills and an increased susceptibility to depression (Shonkoff, 2005; Heckman, 2011; Shonkoff, 2012). Nobel Laureate and economist James Heckman (2011) espouses the importance of investment in early childhood programs as a means of narrowing future achievement gaps, lowering future crime rates, improving the likelihood of healthier lifestyles and lowering social costs; as he states, "inequality in early childhood produces inequality in ability, achievement, heath and adult success" (p. 32). This section offers strategies for facilitating effective early childhood care in pre-primary education settings, as well as methods for improving pre-primary access and primary school readiness for young children.

2.1. Integrated ECD for narrowing developmental gaps

Inequalities in access to early childhood care may result in developmental gaps between children in health, nutrition, psychosocial stimulation and overall wellbeing. Aimed toward families in rural areas and urban slums, the Integrated Child Development Services (ICDS) program in India attends to the holistic needs of children aged 0-6 by emphasizing the child's physical, psychological, emotional and social needs, while providing nutritional and health education to mothers.

Launched in 1975 and funded primarily by the Indian government (Rao, 2005), ICDS is facilitated on the ground through smaller administrative units called Child Development Project Offices. Each of these offices oversee ICDS centers, otherwise known as *anganwadis.* There are between 50 and 100 anganwadis linked to each office. As of 2001, the program had reached 31.5 million children and 6 million expectant or nursing mothers (Rao, 2005). As of 2014, there are at least 1.3 million anganwadis in operation in India (CECED, 2014). It is currently one of the largest integrated ECD programs in the world. It is worth noting that numerous studies have been published highlighting a lack of competency and effective training for anganwadi workers, and the program's lack of emphasis on education. However, the better health and nutritional outcomes suggest the strong impact of government-funded integrated ECD programs on school readiness. In spite of the program's detractors, other non-randomized studies of ICDS have shown that dropout rates have decreased for students who took part in the program (Shrestha, 2000).

Affiliated ICDS and ECD program evaluations in India continue presently through longitudinal studies by the Centre for Early Childhood Education and Development (CECED) to measure the impact of ECD on primary school-readiness in the Indian states of Assam, Andhra Pradesh and Rajasthan. Performance indicators focus on areas such as the infrastructure of the ECD center, materials available, program content and process (including language and reasoning, pre-literacy and numeracy, creative activities, self-help skills, social development and teacher attitudes), enrollment and participation trends, and early childhood education (ECE) quality domains (CECED, 2014). Based on initial findings, areas for improvement for anganwadis include better observance of safety and cleanliness in the physical infrastructure. Additionally, on average, private preschools were found to have more spacious classrooms. However, studies also show higher availability of toilets, clean drinking water and adequate classroom space in the anganwadis studied in the three aforementioned Indian states. Additionally, for language development, children attending anganwadis had mean scores equal to or above their government pre-school counterparts (CECED, 2014). According to a smaller-scale comparative study of preschool districts in Kashmir, anganwadis were not equipped as well as private preschools with respect to learning materials, working toilets, heating and ventilation (Manhas & Qadiri, 2010). Additionally, compared with private preschools more than 50 percent of anganwadis offered limited activities focused on the development of cognitive, language and fine motor skills (Manhas & Qadiri, 2010). While studies have shown contrasting results, ICDS remains an effective large-scale program for

promoting early childhood nutrition and health, which serves to improve the chances of school readiness for young children.

2.2. Quality ECE for improved cognitive and social/emotional development
As stated earlier, while ICDS has shown positive outcomes in health and nutrition in impact evaluations, no statistically significant positive outcomes are available on the quality of ECE offered. In spite of improvements in the physical developmental capacity of children, it is equally important to pay attention to a child's cognitive and social/emotional developmental capacities to ensure that he/she is ready to enroll on time and equipped to function on a similar cognitive and emotional level to same-age peers in a school environment.

For this to be possible, it becomes necessary to elucidate fundamental notions underlying quality ECE implementation and facilitation regardless of local context. Jalongo et al (2004) identify seven areas agreed upon by early education researchers from Africa, Europe, the United States and India as being essential in the development of quality ECE programs. Effective programs must:

(1) have sound philosophies and goals; (2) provide high-quality educational environments; (3) reflect developmentally appropriate and effective curriculum and pedagogy; (4) attend to children's needs, both basic and special; (5) respect families and communities; (6) employ professional teachers and staff, and (7) implement rigorous program evaluation practices (p. 143-144).

Using the *Early Child Environment Rating Scale* (ECERS), researchers assessing the implementation and conditions of ECE programs and facilities in Germany and Sweden, documented the relative emphasis each placed on language development, social climate, educational style, the balance of structured and flexible activities, as well as other conditions created for a child to learn. These include a focus on "being active, participation, communication, and cooperation with others, and the right for a child to develop his/her own interests and goals for learning" (Sheridan & Shuster, 2001, p.111).

Regarding the use of space, in Swedish ECE facilities, more than five rooms are made available for use by one group of children. German facilities, on the other hand, were less spacious, more likely to have only one room; however, different spaces in the room were used effectively for a mix of different play activities (Sheridan & Shuster, 2001). Regarding usage of time, while Swedish facilities abided by a structured schedule of activities each day, activities in German facilities varied day-by-day according to a theme around which they could be planned. Mother-tongue language development took greater precedence in Swedish ECE facilities, with more books, reading activities, language interaction and singing as a component of learning. Even though play was emphasized less in Swedish facilities than in German ones, interactions between Swedish teachers and children were more indicative of an atmosphere of "open-mindedness, self-reliance, and ego-resilience in their autonomous and social activities, as well as in structured learning situations" (p.118). Taken together, this provides an illustration of the variability of considerations and implementation strategies undertaken in high-quality ECE environments.

2.3. School Readiness programs for low-income families

As it might be difficult to attain the desired level of ECE quality in low-resource settings, other context-feasible solutions bear consideration. High-intensity, short-term intervention programs might serve as temporary stop-gap solutions for children without access to ECE while measures are undertaken to improve the availability of more comprehensive ECE programs. According to a 2014 pilot study, the Kids in Transition to School (KITS) program is an example of a school readiness program that has potential for success.

Developed in the United States to "increase early literacy, social, and self-regulatory skills among children with inadequate school readiness," participants in the KITS randomized efficacy trial demonstrated greater improvements in pre-literacy, social/emotional regulation and more positive peer interactions than members of a non-participatory control group (Pears et al, 2014, p. 431-432). The intervention occurs in two phases: the *school readiness phase,* which occurs over two months, and focuses on preparation for kindergarten; the second phase is the *transition/maintenance* phase, which coincides with the first two months of kindergarten to facilitate a smooth transition. School readiness sessions are highly structured in a similar manner to kindergarten classes. Twenty-four sessions in the school readiness phase are dedicated to promoting early literacy and social/emotional skills. Eight additional parent group sessions are focused toward facilitating parental involvement in child literacy and learning. Early literacy activities include, but are not limited to, storybook and dramatic activities (for learning and comprehension of narrative), letter naming (pre-reading), and poem (early phonological detection skills). Social/emotional skills encouraged include, but are not limited to, sharing, pro-social reactions to conflict, cooperation, empathy, understanding the concept of fairness, and problem solving. Parent group sessions focus on teaching parents how to practice literacy activities at home, and how to use behavior-management skills to promote behaviors that can facilitate their child's entry into kindergarten (Pears et al, 2014).

Funding for the intervention came from United Way and other donor agencies, alongside cooperation from local school districts as well as research institutions. According to Pears (2014), "such weaving together of different funding streams and sources may be an efficient method of providing services to the most needy families" (p.454). This illustrates the importance of community collaboration in the funding and implementation of successful ECE and school readiness programs. Yet, it should be noted that KITS is a stop-gap intervention and the fact remains that access to quality ECE remains a matter of concern.

2.4. Expanding access to quality ECE

Programs like ICDS in India serve as clear examples of the success of large-scale interventions led by the government with donor funding. To make ECE programs available to marginalized children, governments must be willing to commit to investing, regulating and ensuring quality standards for both public and community-based preschool and ECE programs.

Advocacy toward increasing government expenditure for preschool and ECE access should center around the improvements to overall human capital that can be expected within the country and the preventative capabilities increased enrollment can offer in reducing later public health and human service costs. Reynolds and Temple (2008) noted that preschool participation for children between 0 and 3 years old has been associated with significant long-term effects on child wellbeing. The returns of the three programs they studied far exceeded costs, with estimated net-benefits per dollar invested of between 3 USD and 10 USD (in 2002 US dollars). According to Engle et al (2011), "increasing preschool enrollment to 25 percent or 50 percent in each low-income…country would result in a benefit-to-cost ratio ranging from 6.4 to 17.6 depending on preschool enrollment rate and discount rate" (p.1,339). Moreover, as Jalongo et al (2004) state, "leaders should look upon [ECD] programs as a wise investment, one that will save inestimable costs in terms of wasted human potential or the need for later services" (p.145).

South Africa has invested a great deal in ECD programs in recent years. Educational spending has risen more than three-fold from a budgeted R377 million in 2003/2004 to a budgeted R983 million in 2007/2008 and a budgeted R1.25 billion in 2009/2010. Financial assistance has been offered to ECD facilities either through direct funding from the Department of Education (DOE) to public ECD facilities, or through partial subsidies from the Department of Social Development (DSD) to private community-based ECD schools (UNICEF, 2011).

State-subsidized public and private facilities tend to vary in many ways, including the quality of nutritional provision, managerial infrastructure, and availability of state funding. In South Africa, 71 percent of public preschools offer children nutritional support through their National School Nutrition Program (NSNP). Subsidies for food are offered for students in community-based and unregistered facilities; however, the food provisions tend to vary from facility to facility. In certain provinces, students might be offered food through the center or encouraged to bring lunch boxes from home. This lack of standardization might still leave some children vulnerable to malnutrition. Public preschools have a better-defined institutional framework and management structure with more effective lesson plan preparation and systems of accountability to parents. Community-based and unregistered facilities have been found to have relatively high absentee rates, opening up the possibility of over-reporting of enrollments for the sake of DSD funding. Tables 5 and 6 in the Annex of this report offer more information on sources of subsidies for community-based ECD facilities, as well as enrollment and absentee percentages for Province 1 (a richer province), Province 2 (a moderately poor province) and Province 3 (a large and very poor province) of South Africa (UNICEF, 2011).

It is also worth noting that in spite of public funding, many public and private institutions are forced to charge fees to keep pace with operational costs. Therefore, effective funding programs to increase ECE access should not only offer supply-side subsidies, but also demand-side incentives (for example, conditional cash transfers or tuition vouchers to families of lower socioeconomic status). This latter point is examined further in the Economic Incentives section.

3. Enrollment campaigns

In spite of the lack of definitive evidence in academic literature on the effectiveness of enrollment campaigns versus counterfactuals, it is important not to diminish their potential as a supplement to other initiatives targeted toward out-of-school children. Enrollment campaigns are launched to ensure on-time enrollment as studies have shown that children who are older than the age appropriate for the level of education in which they are enrolled are more likely to drop out. In India and Pakistan, for example, the rate of late enrollments for students are 31 percent and 39 percent, respectively. Students who start school older than their peers at the grade-appropriate age are at-risk for dropping out. In India and Bangladesh, about 20 percent of students do not make the transition from primary to secondary education, while, in Pakistan, the dropout rate in the last grade of primary education is 43 percent (UNICEF, 2014). One of the key factors related to delays in on-time enrollment for students is a lack of developmental maturity due to poor health or malnutrition. In some contexts, distance from school is also a factor that can impact a family's decision to send a child to school. Even though in rural areas of India, 99 percent of primary age children lived within one kilometer from the school, families who lived 500 meters or more from the nearest school were 15 percent less likely to have their children attend than families who lived next door. Exacerbating this further is the differential availability of schools between minority and non-minority groups. In particular, in rural areas of Pakistan, there are twice as many boys' schools as girls' schools,' suggesting the lack of access to single-sex female schools might influence parents' decisions as to whether or not to send their female children to school. In addition to proximity, other barriers related to hazardous terrain, security and transport options and costs factor into whether marginalized children (particularly members of scheduled castes or tribes, and children in slums) are able to get safely to school without incident (UNICEF, 2014). While Fentiman et al (2010) recognized poor health, geographic distance and limited comprehension of chronological age among Ghanaian families as potential factors associated with delayed enrollment of children in Ghana, Glewwe and Jacoby (1995) identify "early childhood malnutrition" specifically as a potential reason for delays in enrollment and in the incidence of over-age students. Therefore, on-time enrollment campaigns can be effective if they adequately address the health, nutritional and social/geographical factors associated with late enrollment. This is where programmatic solutions related to early childhood care and development might prove useful. As mentioned in prior sections, better access to quality ECD programs can help mitigate the risks of delayed enrollment associated with poor health and nutrition.

3.1. Enrollment campaigns for girls and disadvantaged groups

Enrollment campaigns targeted toward girls and disadvantaged groups have shown promising results in regions in which education exclusion proved to be a formidable issue. In 2004, UNICEF and partner organizations in Nepal launched the Welcome to School (WTS) initiative in 14 districts to improve enrollment and school retention of girls, low caste children and other disadvantaged groups. Major components of the campaign included strong national level advocacy, district

planning and facilitation of partnerships, community mapping to identify households with non-enrolled children, and offering of 125,000 scholarships and school supplies to first time learners from the Ministry of Education and Sports (MOES) ("Welcome to School – enrollment and retention in the Education for All initiative", n.d.). The program went to scale in 2005 and resulted in a net increase of enrollment of an additional "473,000 children of whom some 270,000 were girls. The increase in grade one enrollment was approximately 21 percent" (p. 2). To meet increases in educational demand, 3,500 more teachers were hired and 1,700 more classrooms made available by the MOES.

Similar success was seen in an enrollment campaign for girls in Turkey. In 2005, a campaign devised by the United Nations Girls' Education Initiative (UNGEI) called "Hey Girls, Let's Go to School" mobilized volunteers to go door-to-door to persuade parents of the benefits of education. While, prior to the campaign, approximately 500,000 girls did not attend school, over 120,000 girls enrolled in the course of two years, 20,000 of whom were first time enrollees. While this campaign has shown some promise, the scarcity of schools, lack of financial resources and overcrowding remain pressing issues on the supply side. For families, poverty and the inability to afford school supplies and fees still remain a barrier to access (UNGEI – Turkey – Turkey: 'Hey Girls, Let's Go to School'", n.d.). However, campaigns such as these might work well in coordination with pro-poor economic incentives, such as voucher or cash transfer schemes.

3.2. Enrollment campaigns for refugees

In the hopes of promoting schooling initiatives for Syrian children in refugee camps, a partnership including UNESCO, UNHCR and UNICEF launched the "Back to School" campaign in Iraq, Lebanon and Jordan in collaboration with the Ministry of Education of Kurdistan ("The United Nations launches campaign to bring Syrian refugee children back to school", 2013). According to the Said Foundation, the program in Lebanon increased enrollment rates for Syrian children from 12 percent to 31 percent between 2011 and 2012. The 6,159 child beneficiaries of the program received "support for tuition fees, stationery, uniforms, remedial classes and accelerated learning programs in Arabic, French, English and Maths, extra-curricular and recreational activities, teacher training and parent awareness sessions" ("Back to School campaign in Lebanon", n.d.).

Since 2011, the Jordanian Ministry of Education has waived all tuition fees for Syrian refugees, while UNICEF and UNHCR have offered limited supplies of free stationery, books, bags and uniforms. However, to stem dropouts, the conditions of education must also be taken into consideration amidst this support for increased access. Corporal punishment, bullying and abuse of Syrian refugees by teachers in Jordanian schools has necessitated action on the part of UNICEF, UNESCO and partner organizations to provide teacher training to offer support to instructors on coaching strategies, teaching in emergencies and supporting children who have lived through a crisis" ("The Challenge of Education", n.d.).

3.3. Other enrollment campaigns

In Uganda, the Equity and Quality in Education project received funding from Educate a Child (EAC) in 2013. This ongoing program seeks to support 60,000 primary-aged out of school students (with a focus primarily on girls, children with disabilities, children affected by conflict and children living in extreme poverty), by enrolling them and ensuring that they stay in school for over a four-year duration. It additionally seeks to retain 12,500 students at-risk for dropout. Their three-step strategy involves the effective mapping of children between the ages of 6 and 15 in the Ugandan districts of Lira and Kamuli, district-wide community-based and school-based enrollment campaigns and the development of 30 model schools meant to increase affordable access for OOSC. ("Equity and Quality in Education", n.d.; "Equity and Quality in Education Project—Ugandan Jobline Jobs", n.d.).

Plan Pakistan's "Child Enrollment Campaign" allowed for cooperation with parents, teachers and other community members in 54 villages in District Vehari, southern Punjab, Pakistan, to plan campaigns to increase school enrollments in districts with the lowest school participation rates. Their five-day campaign, held in April 2010, included holding rallies, marches with banners and the chanting of messages. They also met with school committees, parents and teachers to gain their pledges of cooperation. Due possibly in part to this initiative, 1,414 children either enrolled or re-enrolled in school, 26 of whom had minor disabilities ("Child Enrollment Campaign", n.d.). Another campaign in Pakistan co-funded by UNICEF and the Government of Pakistan utilized similar strategies along with "colorful posters and banners" to raise community awareness of the benefits of schooling. This reportedly increased primary school enrollments by up to 300,000 within a matter of six weeks ("Enrollment campaign signs up 300,000 for school", n.d.).

4. Pro-poor Economic Incentives

Regardless of the supply-side and governmental initiatives undertaken to increase educational capacity, one of the greatest barriers to school attendance for families is poverty. In areas in which child labor is a common source of family income, the decision to send a child to school incurs not only the cost of school fees, but also the potential opportunity cost of relinquishing wages otherwise vital to the family's sustenance. This section offers strategies for incentivizing higher school attendance through cash transfer and voucher-based programs. In areas where child labor is less likely to be a factor, targeted education voucher schemes (TEVS) might be effective in subsidizing the cost of school fees and tuition. In other areas, in which family incomes are affected by the decision to enroll, unconditional cash transfer (UCT) or conditional cash transfer (CCT) programs, while expensive, might prove effective. Evidence-supported programs utilizing impact evaluations, randomized control trials (RCT) and quasi-experimental studies offer relevant insight into best practices for implementation of demand-side financial incentives for a variety of settings.

4.1. Impact of voucher-based programs

Targeted educational voucher schemes (TEVS) are systems allowing for the use of vouchers or certificates to pay for tuition or educational fees in public or private institutions (Shafiq, 2009). Proponents of TEVS argue for their positive impact on educational equity, particularly with respect to the promotion of greater school choice to families of lower socioeconomic backgrounds. This presumably leads to more competition among schools and improvements in overall schooling conditions for both public and private institutions (Shafiq, 2009). However, evidence-based studies show the impact of voucher programs in developing countries have been few in number (Shafiq, 2009; Gauri & Vauda, 2004).

Chile implemented a national voucher system starting in 1980. Total enrollment of voucher recipients increased from 15 percent in the 1980s to 33 percent in 1996 (Gauri & Vauda, 2004). Quasi-voucher schemes in Bangladesh, Cote d'Ivoire and Czech Republic had mixed, but not strongly measured effects on enrollment rates (Gauri & Vauda, 2004). Colombia's now-defunct el Programa de Ampliación de Cobertura de la Educación Secundaria (PACES) is one of the few voucher-based systems launched on a large scale supported by evaluation evidence. Reaching over 125,000 recipients in its six years of implementation from 1992 to 1998, PACES targeted students in the lower two economic quintiles to improve their access to secondary schools (Shafiq, 2009; Stern, 2014). According to Stern (2014), winners of the voucher lottery system "saw a higher likelihood of finishing eighth grade, an increase in years of schooling and high school graduation rates, as well as a reduction in repetition rates and slight increases in achievement test scores" (p. 55).

The limitations of the PACES system that may have led to its discontinuation included vague and unmanageable regulations (Shafiq, 2009) as well as an overrepresentation of students from the second lowest quintile (Stern, 2014). According to Stern (2014), to be effective, future implementations of a voucher-based scheme will require better access to information for families, assistance with voucher applications, increased availability of schools accepting vouchers, as well as monitoring of these schools. This last point is especially important, since, as Gauri and Vauda (2004) suggest, a voucher school is

> rewarded if it can exaggerate enrollment rates and get away with it. It will also be rewarded if it successfully lowers standards for expelling students or if it raises average grades students can expect to receive, enticing more students to choose the schools. Without reliable inspectors …developing economies will be hard pressed to monitor how schools behave in response to intense incentives (p. 265).

This being the case, the impact of voucher-based systems on improving enrollment and attendance rates for out-of-school children requires further examination, preferably through lottery-supported randomized control trials.

4.2. Impact of cash transfer programs

Cash transfers can provide the financial stimulus necessary for impoverished families to send their children to school. While UCTs might be structured along the assumption that recipients of cash

transfers will act in the best interests of health, nutrition and education for their families, CCTs can offer more systematic incentives and lump-sum bonuses for families to achieve desired targets and milestones. Decisions around how to structure a program for a given context require careful assessment of the evidence from previous programs. Also worth considering are the methods of developing pro-poor targeting strategies, as well as the likelihood of income substitution effects for cash transfers (i.e. the use of cash by recipients for non-educational expenditures).

Despite the proven effectiveness of both types of programs, there is more evidence supporting the impact of CCTs than UCTs. Based on a meta-analysis of data from 75 reports on 35 different studies, both CCTs and UCTs demonstrated positive effects on the odds of enrollment and attendance in schools. While, on average, the improvement in enrollment odds was greater for CCTs (43 percent higher than control) than for UCTs (23 percent higher than control), the difference between their odds-ratios (N=35) was not found to be statistically significant ($p = 0.183$) at an alpha-level of 0.05. Nevertheless, it was found that CCT programs, which monitor and penalize non-compliance, demonstrated the greatest improvement (60 percent) in the odds of enrollment on average. However, the effect size on enrollment might not be as important as the impact on actual student attendance. While the joint effect of CCTs and UCTs was a 59 percent improvement in the odds of attendance, independently, they showed odds improvements of 65 percent and 42 percent, respectively. However, once again, the difference between the odds-ratio (N=20) of each was not found to be statistically significant ($p=0.44$) at an alpha-level of 0.05 (Baird et al, 2014). Tables 7 and 8 show the summary of effect sizes on enrollment and attendance based on this meta-analysis. These can be found in the Annex of this paper.

In spite of there being more evidence of the effectiveness of CCT programs, primarily in Latin American contexts, decisions regarding whether to implement UCTs versus CCTs might depend upon the types and availability of other social programs related to health, nutrition and education in a given country.

4.3. Unconditional cash transfer programs

Piloted in 2004 and expanded nationwide in 2007, Kenya's Cash Transfers for Orphans and Vulnerable Children (CT-OVC) program is an example of an unconditional cash transfer program that has demonstrated statistically significant effects on secondary school enrollment for orphans or children with otherwise unstable family situations (Kenya CT-OVC Evaluation Team, 2012). Reaching over 265,000 orphans and vulnerable children across Kenya, the program offers flat monthly transfers of Ksh 1,500 (roughly 20 USD) to ultra-poor households. Based on a self-evaluation comparing 1,540 households in the treatment and 754 in the control group, impact estimates indicate a positive 8 percent difference in enrollments in the treatment versus control group for children over the age of 12. In spite of the relatively small sample, this effect size is comparable to that of CCT programs in other parts of the world (such as Turkey, Colombia and Bangladesh) in spite of the lack of enforcement of penalties for non-compliance (Kenya CT-OVC Evaluation Team, 2012).

The strengths of this solution on this context might be influenced by the fact that over 90 percent of children age 14 or over have already had some form of schooling due, in part, to free access to primary education in Kenya. Since the fees and external costs associated with secondary schooling can be higher than those associated with primary schools, the CT-OVC program has demonstrated a greater impact on secondary school enrollment. However, it is important to note that the greatest effects were achieved with students who were learning at (but not behind) grade-level (Kenya CT-OVC Evaluation Team, 2012).

Nonetheless, if exposure to primary education provides an adequate understanding of the human capital benefits of education, the costly monitoring and enforcement of conditions may not be necessary to incentivize a change in enrollment behavior on the demand-side. Instead the CT-OVC program is structured to "exert a pure income effect on household demand for human capital. There may also be a small substitution effect because …caregivers are told that the cash transfer is to be used for the care and protection of resident OVC" (Kenya CT-OVC Evaluation Team, 2012). Therefore, decisions about the use of money are left to families, who are presumed to understand how best to allocate funds to meet their health and social needs.

In a similar UCT program currently being piloted jointly by the Self-Employed Women's Association of India (SEWA) and UNICEF in twenty villages in the Indian state of Madhya Pradesh, preliminary results have been encouraging. Based on data collected on eight treatment villages (four SEWA-affiliated and four non-affiliated), monthly transfers of Rs. 200 per adult and Rs. 100 per child (roughly 4 USD and 2 USD, respectively) to a total of 6,179 individuals were associated with statistically significant spending increases on school uniforms, fees and supplies in nearly half of all households surveyed. Additionally, 61.5 percent of households receiving cash transfers reported improved school attendance. This program was operating under the presumption that people are the best judge of their own needs and that a UTC would be preferable because "conditionalities and targeting introduces bureaucracy to monitor and evaluate thereby leading to corruption" (Dawala, 2015). However, it is important to note that more rigorous and large-scale evaluations would be necessary to deem any findings from this study externally valid.

However, while the infusion of extra income might lead recipients to engage in behaviors that promote their own wellbeing and social needs, it is necessary to consider the availability of resources and the influence of other social factors on the context. Robertson et al (2013) suggest that UCTs are more suitable in low-income settings than CCTs, but also find in their clustered-randomized control trial of UCTs and CCTs at ten sites in Manicaland, Zimbabwe that both types of programs show statistically significant effects on improving school attendance. While in previous studies done in Malawi, the effect size of CCTs was higher than those of UCTs, in Zimbabwe, the effect sizes were quite similar. While monthly CCTs of 18 USD (plus 4 USD per child) showed an effect size for children ages 6 to 12 of 7.6 percentage-points, UCTs of the same monetary value had an effect size of 7.2. It is worth noting, however, that in the 1980s, Zimbabwe expanded its promotion of educational services, resulting in higher rates of enrollment and adult literacy than other countries in sub-Saharan Africa (Robertson et al, 2013). This might indicate that in situations in which the general public is aware of the benefits of education, but in which the

largest barrier to it remains poverty, UCTs might prove to be a cost-effective measure to incentivize attendance.

4.4. Conditional cash transfer programs

In spite of the potential benefits of UCTs, much more evidence has been obtained on the effectiveness of CCTs in reducing child labor for the sake of better school attendance, especially in Latin American contexts. Brazil's Bolsa Escola (renamed Bolsa Familia in 2003) is the world's largest CCT program with over 11 million families (about 46 million people) receiving Bolsa payments by 2007. The program provides monthly cash payments to poor households with children between the ages of 6 to 15 conditional on those children enrolling in school and attending at least 85 percent of school days. Using school census data, Glewwe and Kassouf (2010) estimate that, after accounting for cumulative effects, the Bolsa program increased enrollment by about 5.5 percent in grades 1-4 and by about 6.5 percent in grades 5-8 in Brazil. The program lowered dropout rates by about 0.5 percentage points and raised grade promotion rates by about 0.9 percentage points for children in grades 1-4. It reduced dropout rates by about 0.4 percentage points and increased grade promotion rates by about 0.3 percentage points for children in grades 5-8. Glewwe and Kassouf (2010), however, notes that while the program has shown positive impacts on enrolment, dropout and promotion, simple calculations based on the enrollment impacts suggest that the likely benefits in terms of increased wages may not exceed the costs of the program. Another well-known and successful CCT program, Progresa (also known as Oportunidades) in Mexico, was effective in both rural and urban areas in decreasing child labor, while improving school attendance and overall health, through an average monthly household transfer of 35-40 USD (Behrman et al., 2012, p. 233-234). The program, first initiated in 1997, consists of two financial components: a health and nutrition subsidy and a schooling subsidy, which is conditional on the attainment of attendance benchmarks (85 percent attendance per household). Due to the flexibility of the program in implementation, however, it has been difficult in some cases to predict the educational impacts of the program, since parents might, for example, send one child to school to meet attendance targets, while keeping others at home. Nevertheless, evaluation estimates using data from 2002, 2003 and 2004 (with household data sample sizes of 5,819, 3,078 and 6,342, respectively) indicate that boys age 12-14 in 2002 experienced a 7 percent to 13 percent decrease in working on average. However, significant effects on work reduction were not found for females, as a smaller proportion of girls at this age work for pay (Behrman et al., 2012).

In the Red de Proteccion Social (RPS) cash transfer program in Nicaragua, analysis of evaluation data from 2000 to 2002 yielded similar findings (Gee, 2010, p. 718-719). In the treatment group, there was a statistically significant 10.46 percent reduction in children's work activities ($p < 0.001$ at an alpha level of 0.05). Additionally, the number of work hours of RPS recipient children decreased by 3.65 hours per week (Gee, 2010). Programa de Asignación Familiar (PRAF) in Honduras also showed positive effects for the poorest strata in an impact study performed during the same time period. Students in the treatment group were eight percentage

points more likely on average to enroll and three percentage points less likely to work (Galiani & McEwan, 2013). While this data is promising, Progresa, PRAF and RPS still fail to address the way incentive structuring can influence the long-term impacts on enrollment.

4.5. Comparison of CCT incentive structures

In a study conducted in Bogota, Colombia using student-level randomization, Barrera-Osorio et al (2011) compared three types of CCT designs: a standard design, a second ("savings") design that postpones portions of cash transfers until a student re-enrolls, and a third ("tertiary") design that lowers the payouts for attendance, but offers lump-sum bonuses for graduation and tertiary school enrollment (p. 167). Findings based on a treatment size of 7,984 and a total sample size of 13,433 indicate that cash transfer postponement from the "savings" design resulted in a re-enrollment rate that was four percent higher than observed in the standard design (p. 168). Additionally, tertiary institutional enrollment was 9.4 percentage points higher in the "savings" treatment and 48.9 points higher in the "tertiary" treatment than observed in the standard design (p. 168). One troubling effect noted by this study was that siblings of students affected by the cash transfer treatment, particularly females, were more likely to drop out or show increased absenteeism than siblings of students in the control group, indicating that the reallocation of family investment in one child might actually create a disincentive for sibling school attendance (p. 169). Additionally, in spite of the financial constraints presumably placed on families due to delayed payouts, the differences in enrollment between the three treatment groups was minimal, indicating that the "savings" and "tertiary" designs did not experience higher rates of attrition (p. 179). This suggests that either or both of these designs could have far-reaching implications in incentivizing school attendance throughout the secondary level and beyond.

4.6. Targeting for pro-poor economic incentives

Economic intervention schemes must have sound strategies for identifying poor children, providing them access to the treatment program and structuring randomized impact evaluations for the populations treated. Many incentive programs operate in regions with large populations of poor residents and determine the eligibility of families by assessing their relative levels of poverty compared to rest of the population. For example, in the Honduran Programa de Asignación Familiar (PRAF) experiment between 2000 and 2002, cash transfers were assigned to 40-70 poor municipalities, utilizing poverty stratum classifications to determine eligibility (Galiani & McEwan, 2013).

While identification strategies for out-of-school children might draw upon census data, or geospatial analyses of mapped districts in cities or rural areas that have higher populations of families of lower socioeconomic status, Shafiq (2009) suggests that locating targeted populations can be difficult "if the poor reside in the same areas as the non-poor, such as most cities; in such cases, the collection of socioeconomic data from all households is …a costly step" (p. 6). Instead of investing limited resources in locating families for whom the treatment might be beneficial,

effective communication about the subsidy program in the regions targeted could have a greater impact.

In 2005 CCT implementations in Bogota, San Cristobal and Suba, Colombian officials raised public awareness of the program through advertising campaigns utilizing "posters, newspaper ads, radio spots, loudspeakers in cars, churches, and community leaders, including principals of schools and priests" (Barrera-Osorio, 2011, p. 173). This was followed by a 15-day registration period in which the officials assessed a family's eligibility for the program by using identification card information to confirm local residency status and whether or not the family fell within the bottom two categories of the Colombian poverty index (the SISBEN). After this, a lottery was conducted to ensure effective randomization for data collection (Barrera-Osorio, 2011).

Lottery systems can be effective when the number of willing participants exceeds the number of available slots in a program. Lotteries were also conducted for voucher programs in the US and Colombia (Gawri & Vawda, 2004). While the costs of conducting a lottery are low, the disadvantage of using them is that only the winners get treated, while losers (barring other interventions) are likely to remain excluded from education.

Other targeting strategies are likely to vary by the community dynamics and type of intervention being implemented. For example, Kenya's CT-OVC program targeted eligible household using a systematic three-step process. In the first stage, districts were selected "based on overall poverty levels and the prevalence of HIV/AIDS" (Kenya CT-OVC Evaluation Team, 2012, p. 40). In the second stage, members of special community-based committees compile a list of eligible households based on program criteria. Upon compiling this list, members of the committee discuss the eligibility and needs of each family before sending a first version of their eligibility list to Nairobi. Inspectors are then sent to assess the eligibility of the identified households, allowing them to place households into ranking systems according to needs. This ranking system prioritizes child-led households above households led by elder caregivers (Kenya CT-OVC Evaluation Team, 2012). In spite of the seeming effectiveness of such a system, it is important to consider the cost-effectiveness of multi-step targeting strategies such as these.

5. Alternative Learning Programs/Non-formal Education Solutions

The described instances of non-formal education interventions aimed at reaching OOSC attempt to address the instructional needs of the children, breach the barriers to accessing education, incentivize community ownership of schooling, engage governments and international NGOs, and identify cost-efficient and sustainable alternatives to formal education or to the lack thereof with the understanding that provision of education is a basic human right and the primary responsibility of the State. Provision of NFE programs therefore should also be largely under the main responsibility of the State, including funding and regulatory functions. In the same context, provision of education by private schools including low cost private schooling should be regulated by the government to ensure that it does not promote further inequities in access to quality education. This is something that the UN Special Rapporteur on the Right to Education also

emphasized in a recent report (OHCHR 2015). The NFE programs reviewed here are meant to be fill in the gap for OOSC by providing alternative options for learning. However, these should be seen as temporary solutions in any country that aspires to educate each and every child.

Despite challenges in implementation, funding, quality, official recognition, and sustainability, evidence shows that some NFE interventions reach high attendance rates, facilitate transition to formal education, prepare students for employment, improve girls' retention, and lower dropout rates, among other outcomes. According to DeStefano et al. (2006), investment in the provision of education through a diverse spectrum of models can contribute more to the achievement of the Education for All (EFA) goals of "access, completion, and learning than those spent on linear expansion of the public school system" (p. 76). For the purposes of this literature review, we use the definition of non-formal education provided by the UNESCO Institute for Statistics:

> Education that is institutionalized, intentional and planned by an education provider. The defining characteristic of non-formal education is that it is an addition, alternative and/or a complement to formal education within the process of the lifelong learning of individuals. It is often provided to guarantee the right of access to education for all. It caters for people of all ages, but does not necessarily apply a continuous pathway-structure; it may be short in duration and/or low intensity, and it is typically provided in the form of short courses, workshops or seminars. Non-formal education mostly leads to qualifications that are not recognized as formal qualifications by the relevant national educational authorities or to no qualifications at all. Non-formal education can cover programs contributing to adult and youth literacy and education for out-of-school children, as well as programs on life skills, work skills, and social or cultural development. (ISCED, 2011)

Based on a literature review conducted by Sharma and Ng (2014), three overarching barriers prevent access to formal and non-formal education of all children: economic barriers (bearing the direct and indirect, as well as the opportunity costs of schooling), socio-cultural (parents' value on education, family-related priorities), and school-related barriers (poor teaching quality and low levels of motivation and commitment among teachers). The interventions analyzed in this section address all or some of these barriers, and are characterized by a set of features that render them effective. Blaak, Openjuru and Zeelen (2013) compiled a set of standards that foster effective implementation of non-formal education programs:

- o Tailoring content to the educational and occupational needs of the students
- o Combining theory with practice
- o Using pedagogy tailored to students' learning styles
- o Using pedagogy that motivates
- o Monitoring of attendance and learning
- o Using flexible schedules to avoid overlapping with seasonal work
- o Selecting facilities and facilitators from the communities
- o Keeping costs as low as possible for students
- o Involving governments, non-state actors and community members in non-formal education provision.

Thompson (2001) expands this list to include the diverse typology that non-formal education interventions can have: "multi-grade, multi-shift classes, mobile schools and the nexus between education and production are some of the essential and unique features of NFE" (p. 50). He also reinforces the importance of non-formal education programs focusing on alleviating poverty, fostering the acquisition of work-oriented skills, and practical application of content knowledge for an improved quality of life. These are important considerations in the assessment of the quality and effectiveness of non-formal interventions that extend access to education to OOSC.

5.1. Bridge Programs/Accelerated Learning Programs

In South Sudan, non-formal education constitutes an official segment in the country's education system. According to the World Bank (2012), the Alternative Education System (AES) offers learning opportunities for OOSC and adults who were never reached by the formal education system or who dropped out and are unlikely to go back to school. ALPs represent one of the seven components within the AES. These programs offer a four-year accelerated primary cycle instead of the 8 years required according to the formal curriculum, and "account for three-quarters of registered AES enrollments" (World Bank, 2012, p.39). The AES addresses the education needs of girls, adults, active and demobilized members of the Sudan People's Liberation Army, and other target groups, through seven types of interventions, implemented in partnerships with other organizations and with the support of the development partners: Accelerated Learning Programs, Community-based Girls' Schools, Adult Education, Intensive English Courses, Interactive Radio Instruction, Pastoralist Education, and Agro-forestry Education (World Bank, 2012). According to a World Bank (2012) report, in 2009 South Sudan had 1,022 AES learning centers with an average enrollment per center of 239 students. The AES does not benefit from solid infrastructure and is mostly dependent on other schools or community institutions. Almost half of these centers were funded by partner agencies, while over 20 percent operated "under the tree" (World Bank, 2012, p. 38). Despite challenges, programs like AES contribute to the enrollment of children who would otherwise be deprived of access to education.

The SHIKHON program, implemented since 2007 in Bangladesh, was "designed to target children who are either out of school and/or marginalized from the formal schooling system due to their disability status, ethnicity and/or gender" (Gee, 2015, p. 209). The program, implemented by Save the Children with funding from the European Commission, Dubai Cares and Chevron, aims at increasing access to non-formal primary education for OOSC, improving the quality of non-formal education for OOSC, and fostering partnerships between state and non-state actors to reach the education needs of disadvantaged children (Gee, 2015). Operating at no cost for families who choose to enroll their children into the program, and in regions where geographical conditions prevent children from accessing formal schools, SHIKHON "follows the National Primary Education Curriculum set by the National Curriculum and Textbook Board (NCTB) Authority of Bangladesh and uses NCTB textbooks in all its schools from grade 1 to grade 5" (Gee, 2015, p. 209). The program starts with a preparatory stage lasting 4 months, during which students work on their critical thinking skills and creativity through non-traditional pedagogy. The program

emphasizes community and family engagement. Each one-room school has "one trained teacher, often female, who is a trusted community member with a minimum education of a Secondary School Certificate (SSC) which is obtained after reaching grade 10 (Gee, 2015, p. 209).The same teacher is in charge of one group of students for the duration of the program, and receives support through training and lesson-related materials. Such education costs "approximately $96 USD per child" (Gee, 2015, p. 209). To assess learning outcomes among students participating in the SHIKHON program, Gee (2015) analyzed students' results on a competency test in five subject areas that are also required by the NCTB Authority in Bangladesh. He found that girls and boys performed equally across the five subject areas (Bangla, English, math, science and social studies). Despite making no causal connection between the equal achievement and participation in the program, Gee (2015) notes that SHIKHON "has the potential to academically prepare young girls, providing them with the foundational knowledge that enables them to access further education" (p. 215), adding that children who complete the four-year program and choose to transition into formal schools for their secondary education are academically prepared to do so.

Bridge courses in India and Rwanda were also proven to facilitate the access of OOSC into formal schools and into work settings. Sharma and Ng (2014) point to The Railway Platform School Initiative, a flexible program that met the needs of the working children through convenient schedules and a curriculum relevant to their work. They assess that the Platform Schools program was effective, since about 58 percent of students transitioned to government schools to continue their education, and "a follow-up study conducted three years after the implementation of the program found that only around five percent of students dropped out from government schools after transitioning" (Sharma & Ng, 2014, p. 65-66). Also using a flexible approach to target the working children, a remedial program in Rwanda was offered in schools situated in proximity to formal schools, to facilitate mainstreaming. After completing each of the three levels offered within the program, children could transition into formal schools or continue their education in the remedial ones. Sharma and Ng (2014) point to an assessment of the pilot stage of the program that "showed that more pupils enrolled every year, and just over a third of the total number enrolled to return to formal education" (p. 66). Additional analysis of information related to costs of these programs and learning outcomes of students after transitioning into the formal schools, as well as quality of life after completing the programs is needed to build on the strengths of these interventions that are tailored to the schedules of the children.

Another program operating with the goal of preparing students for full-time employment or transition into further schooling is the Loughshore Educational Resource Centre located in Belfast, Northern Ireland. According to Gallagher (2011), the institution plays a "vital role as an educational base for a multiplicity of out-of-school children" (p.445), by offering "a 'second chance' to its pupils, who are at risk of social exclusion, focusing on academic, personal and social development, providing skills which can be used to gain employment or continue to further education" (p.445). Co-founded by the Belfast Education and Library Board and the Department of Education of Northern Ireland, the center offers post-primary education for children between 11 and 16 years old. Especially notable is the wide spectrum of target populations it hosts:

"children and young people with attention deficit hyperactivity disorders (ADHD) and autistic spectrum disorders (ASD) and oppositional and conduct disorders" (Gallagher, 2011, p. 451), as well as "children with moderate learning difficulties who have experienced a behavioural problem in a special school or unit setting" (p. 451) and "psychologically unfit, vulnerable, anxious or phobic children, pregnant teenagers and young mothers" (p. 451). Admission to the center is on a rolling basis, and the staff develops individualized learning plans for students based on their specific needs and abilities. Instruction takes place according to the curriculum required for formal schools, which is supplemented with non-academic activities such as arts, computer, sports, and activities aimed at building social and personal skills, which reflects the school's 21st century skills approach to learning. Students learn in small classes of about seven to 10 and are required to attend the center between eight and 25 hours per week. According to Gallagher (2011), the centre has been "successful in improving the attendance of the young people who attend the centre" (p. 453), although rates vary individually, with 25 percent of enrolled students maintaining full attendance. The learning outcomes are documented in a "personalised National Record of Achievement (NRA) produced in the final year of formal education in the UK" (Gallagher, 2011, p. 454), which contains information about student attendance, progress, results, and staff observations regarding student success.

In Mali, the National Centre of Non-Formal Educational Resources under the Ministry of Education has responsibility over Educational Centres for Development (CEDs)—institutions that offer free basic education and pre-professional training to out-of-school youth in rural areas. According to Weyer (2009), CEDs were launched in 1994 with the support of Plan International, but were soon "mainstreamed into the government education system and included in 2000 in the 10-year Program of Educational Development" (p. 253). The costs for operating CEDs are jointly shared between the state, local officials and communities:

> The state contributes to the educators' salary, provides pedagogical material, and, through its decentralised structures, recruits, trains and ensures the follow-up of educators. The communes and the communities are in charge of providing the classroom, contributing to the educator's salary, and defining and financing the activities of the pre-professional cycle. Hence, both the communes and the communities bear an important share of the costs of the CED program concerning the first phase of the cycle, and they finance the total cost of the pre-professional phase. (Weyer, 2009, p. 253)

One of the characteristics of CEDs is that they explicitly address girls' exclusion from education, by making it a requirement for new CEDs to enroll 15 girls and 15 boys if it is to be opened in a new village. To meet the needs of the students, CEDs offer courses during the dry season, allowing "the learners to engage in farm activities during the rainy season" (Weyer, 2009, p. 254). The centers offer four years of basic education, the content of which is determined by the MOE, and two years of pre-professional training, tailored to the local needs of the settings in which CEDs operate (Weyer, 2009). However, it seems that insufficient resources at local level affect the quality of implementation of the desired programs within CEDs. Weyer (2009) notes, for instance,

that the pre-professional track is almost lacking in reality, and that the large scaling of CEDs was not supported with sufficient resources to make the centers fully operational and capable of offering education of a good quality. He further finds that in 2011-2012 the survival rate was 61 percent, varying between 33 percent and 97 percent depending on the community. However, this information reflects the effectiveness of the CEDs in comparison with formal schools, where the survival rate in the same period was 50 percent. The major challenge affecting CEDs' effectiveness, aside from poor infrastructure and scarce allocation of resources, seems to be that "the CED program is not validated with a diploma" (Weyer, 2009, p. 258). Nevertheless, Weyer (2009) refers to qualitative data suggesting that "CED graduates are more likely to be employed as workers and skilled employees in comparison with those from formal primary and lower secondary education" and that the centers "seem to facilitate transition to skilled employment better than their counterparts of the educational system" (p. 259).

To eradicate child labor, empower women, and facilitate the transition of OOSC into formal schools, the MV Foundation in India designed an intervention that combines a bridge program for children aged 12 to 14 years old with awareness programs targeting their parents and the community at large, managing to achieve "groundbreaking steps in sensitizing parents, teachers, community leaders, employers and other associated persons concerned with child labor in motivating them to send children back to school" (Karnati, 2008, p. 47). Another bridge program in India, implemented by the Child in Need Institute, targets children "living on the streets, in slums, squatter settlements, railway platforms and children of sex workers" (Karnati, 2008, p. 49) to mainstream them back into formal schools. The program sought to establish community partnerships to create awareness within the community, and extended support for children via coaching centers even after they were mainstreamed (Karnati, 2008). Despite the progress made by these initiatives in mainstreaming OOSC into formal schools, Karnati (2008) concludes that more effort is needed in areas such as ensuring retention, providing adequate teacher training and compensation, as well as effectively responding to the educational needs of the working children.

In a context with a high gender gap in enrollment rates, low primary completion rate, and high poverty rate, a non-formal education program targeted OOSC in Bangladesh with a twofold approach: school-only grants and grants plus allowance to students. The Reaching Out-Of-School Children (ROSC) is a large scale non-formal program financed and implemented by the government, highly decentralized in terms of management of daily operations, and mainstreamed into the formal education system (Asadullah, 2011). Organized around a one-teacher model, characterized by low teacher absenteeism, community engagement in daily activities, and lower costs than government schools, ROSC schools manage to increase "enrollment probability by between 9 and 18 percent for children in the age cohorts 6-8 and 6-10, and perform as well as non-ROSC schools in terms of raising test scores" (Asadullah, 2011, p. 5). Teachers are selected from within the local community and, although they often have only high-school education level, they receive support via monthly trainings. An evaluation of the ROSC impact confirmed its effectiveness in acting "as a comprehensive 'package', whose salient characteristics include streamlined operations, high teacher quality, and a spirit of constant self-learning and self-

improving" (Asadullah, 2011, p.33), and deemed it "an attractive approach to increase schooling quantity and quality" (p. 33). It seems that the effectiveness of the ROSC schools can be partially attributed to the dynamism, flexibility and constant willingness to improve, borrowed from the BRAC model (Asadullah, 2011).

5.2. Multi-grade Schooling in NFE settings
In settings where supply of teachers is insufficient to meet the demand for schooling students, multi-grade schools that accommodate students of different abilities and maturity levels seem to be a feasible option.

The School for Life (SfL) program in Northern Ghana addresses the needs of OOSC who have limited economic opportunities that force them to work instead of pursue education, live at great distances from schools, or only have access to schools that are built poorly. Similar to the Educational Centres for Development in Mali, the SfL program in Ghana operates in the dry season to avoid "interfering with the major farming season when children will be required to help on the farms" (Kwame Akyeampong, 2006, p. 224). The program targets children aged 8 to 15 years old, but each teacher is responsible for a class comprised of students of various ages. This feature determines the originality of the curriculum, which is not developed based on student age but on the goal of building "broad literacy, numeracy and problem-solving skills across a wide age range" (Kwame Akyeampong, 2006, p. 225). After nine months in the program, students are reportedly ready to transition to monograde schools within the formal education system. Research finds that SfL managed to achieve a transition rate of 61 percent, but also suggests that often the inability to continue their education in a formal school is caused by "the difficulty in finding public primary schools within close proximity to local communities" or by their parents' inability to pay the "locally prescribed public school levies or provide school uniforms" (Kwame Akyeampong, 2006, p. 230). The community engagement in the operation of this program is important for two main reasons: it creates local ownership of the initiative and it builds local capacity to sustain the program after the external support phases out. Communities contribute to construction costs and identify the teachers and the volunteers for the schools.

Analyzing the cost effectiveness of the program, Kwame Akyeampong (2006) notes that the highest costs are incurred for teacher compensation, teaching materials and operating costs, but when compared to SfL results — helping students reach the equivalent of grade 3 or 4 level in nine months instead of two or three years as is the case in government schools — the program seems to be effective and efficient. Casely-Hayford and Hartwell (2010) note that mainstreaming students into grades 3 and 4 of the formal schools after nine months of complementary education within SfL "saved the parents' direct and indirect costs of sending children to two to three years of formal schooling" (p. 530). According to an impact study, with costs lower than in formal schools, SfL managed to help thousands of children become literate, increase enrollment in formal schools and access to primary education, improve girls' retention rates by changing parents' attitudes regarding the value of education, and achieve remarkable learning outcomes among participants, who were "outperforming non-SfL students in the same class in the Ghanaian

language, English, and mathematics" (Casely-Hayford & Hartwell, 2010, p.533). These results were reinforced by a separate study carried out by the government of Ghana, which "confirmed the success of SfL in achieving high rates of access, completion within their own program, and transition to primary schooling in general" (Casely-Hayford & Hartwell, 2010, p.534). It is important to bear in mind, however, that SfL was designed as a "complementary education program" (Casely-Hayford & Hartwell, 2010, p.530) and emerged from the need to fill in the gap identified in communities that had no access to schools in the proximity of their homes. The high performance of SfL students could be explained by the low teacher to pupil ratio (1:25), the availability of learning materials, and the student-centered pedagogy (Casely-Hayford & Hartwell, 2010).

Multi -grade and multi-level teaching seems to have also proven its effectiveness in reducing dropout rates and increasing enrollment in small rural schools in India. According to Blum (2009), the Rishi Valley Institute for Educational Resources (RIVER), a rural education center located in Andhra Pradesh, uses multi-grade teaching methods in a "sequence of five types – introductory, reinforcement, evaluation, remedial and enrichment" (p. 241), that allows students to progress at their own pace and resume their schooling if external circumstances (family urgencies or seasonal work) impeded them from attending certain classes. According to Blum (2009), the program is funded from student fees, but it is unclear how burdensome these are to the students' families. Teachers are recruited from among community members with minimal qualifications, and after receiving training from RIVER, they can adjust the curriculum to meet the needs of their classrooms. Taking into account the increase in enrollment and attendance rates, effectiveness in producing good learning outcomes, positive impact on health and welfare, as well as positive effects on the children of women who attended the program, it is understandable why the government considers the program a success, and why similar models have been underway in countries such as Ethiopia, Germany, China, Sierra Leone, Nepal, Sri Lanka, Mexico, Kenya and Pakistan (Blum, 2009). However, since RIVER schools rely heavily on one teacher per school, it is important that teachers receive the necessary support to avoid burnout. Additionally, one feature that guarantees effectiveness of RIVER schools is their work on small scale "where close monitoring and support are possible" (Blum, 2009, p. 245), but it is unclear whether similar outcomes are possible if the program is replicated in settings where larger populations need to be served, and where parents would be unable to afford the fees related to the program.

States across India have been piloting and scaling up various versions of multi-grade multi-level programs over the last several years. Called as Activity Based Learning (ABL), it refers to a methodology where children of different ages are grouped together in one class, and each learns at their own pace through a series of activities and cards arranged in the form of a learning ladder, with the teacher acting as a facilitator of children's learning. According to a UNICEF report (2011) ABL now covers over 250,000 primary schools across the country and more than 10 million children in over 13 states. Andhra Pradesh, Karnataka and Tamil Nadu have already expanded the program to all government primary schools in their state, while two other states - Chhattisgarh and Madhya Pradesh - are already covering more than 15,000 schools with this methodology. UNICEF

has been supporting this work across states. It notes that ABL serves as one model of child-centered, child-friendly education, which is in line with India's Right to Education Act. The ABL approach has been shown to improve social equity by reducing learning gaps among students and provides a simple model of how to integrate continuous assessment into children's everyday learning to check for understanding (UNICEF 2011).

5.3. Vocational and Skills Training

In Uganda, two programs target OOSC by offering them a chance to participate in a combination of academic and practice-based courses. Students enrolled in the programs are early school leavers with backgrounds described as "problematic, characterized by family problems like orphan hood, illness, or unsupportive step-parents" (Blaak et al., 2013). Economic hurdles, illiteracy, early pregnancies, sexual abuse and street life are also mentioned by researchers as barriers to their education. One of the programs only target 15 to 20 year old girls from rural areas. The duration of the program is 2.5 years. A major challenge is that participants have to pay a 14-23 euros fee to enroll, often turning to relatives for this financial support (Blaak et al., 2013). The second program targets both girls and boys aged 12 to 24 years living in urban areas. It lasts from three to six months and is free of charge (Blaak et al., 2013). For both programs, the research emphasizes the individualized and flexible pedagogy used by the teachers to grapple with the different challenges that affect students' learning (for instance, lack of concentration during class). The impact of the programs is described through the lens of improved learning and skills, as well as improved hygiene and behavior. Although this research does not provide insight into quantitative information about enrollment, completion, achievement during the programs and after their completion, it is clear that these two programs offer OOSC a chance at building skills for a better life. The positive impact of the programs may not reach all the participants in an equal manner, but it is certainly vivid at individual level. Blaak et al. (2013) report significant changes in students' expectations for their future, including considerations for continuing their education at higher levels, finding jobs within or outside the trades learned in the programs, and even starting their own business.

An organization in India, Concern for Working Children (CWC) designed a program that combines vocational training with advocacy work aimed at improving quality of schools and reducing dropouts (Karnati, 2008). Focused on a "holistic approach that addressed the issue of child rights as well as the school quality and learning experience of out-of-school children" (Karnati, 2008, p. 48), the residential vocational program offered practical skills that allowed students to eventually make a smooth transition from school to the labour market while the advocacy component trained formal school teachers to become aware of and able to respond to the needs of working children. Karnati (2008) argues that vocational and skills training in secondary school represents an effective strategy to ensure school retention, especially in the case of former dropouts who were mainstreamed into formal schools via targeted interventions.

5.4. Community-led NFE Programs

In communities that are located in remote and isolated areas, it is important to identify solutions to educate the children who are otherwise partially or completely restricted in accessing schools outside their communities. In several townships in Myanmar, such solutions have been identified since 1994 when the first seven Community Learning Centers were created with the support of the Human Development Initiative (HDI) program of the United Nations Development Programme or UNDP (UNESCO, 2002). According to UNESCO (2002), the centers were created at the initiative of the communities themselves and managed to cover some expenses due to income-generating activities. They received support from project staff, Community Learning Coordinators, and zonal specialists. These centers provided various types of non-formal education: basic literacy and post-literacy activities offered with help from Village Literacy Trainers (VLTs) and attended predominantly by women, as well as non-formal primary education (flexible two-year program particularly targeted at educating children who are out of school or have dropped out). The costs of establishing and operating a CLC are not high, since the main investments occur at the incipient stage when equipment, books, teaching materials and stationery are bought. The UNESCO (2002) report estimates that "the costs for establishing one CLC and operating it during a two-year period amounts to USD2,600" (p. 8), excluding the costs of actually building the establishments, since the centers can use available space in the communities. An additional amount of USD480 per CLC is directed at the income-generating activities that produce profits which represent "the main source the communities have to cover recurring costs such as VLT honorarium, operation of library, and purchase of materials" (UNESCO, 2002, p.8). It is unclear whether and how such a model can connect students to formal schools or how the education they receive can be recognized upon employment. Additionally, community initiative and motivation are necessary to establish a CLC. Some areas lack such assets, and it is imperative that someone fills in this gap. As UNESCO (2012) notes, "Community Learning Centres need a promoter or initiator" (p. 17), at least until the first generation of community leaders is created.

Community-led interventions can play a crucial role in the education of former child soldiers and children displaced by conflict by fostering reintegration, creating peer support groups and facilitating their search for a meaningful occupation. However, the government recognition of the priority in educating these children can be a powerful pre-condition for effectively targeting this group. In the aftermath of the war in Sierra Leone, several programs reached out to former child soldiers and offered to facilitate their reintegration in the education system. One such intervention, the Community Education Investment Program (CEIP) supported by UNICEF, offered support in covering school fees, buying uniforms and supplies to remove economic barriers for these children's education. Such support proved effective during program implementation, but students started to drop out once it ended, presumably because this was their only support to access schools (Betancourt et al., 2008). While valuable for incipient stages in the reintegration process, international aid should include capacity-building and sustainability components in the projects it supports, to ensure long-term impact of their investment and local ownership of the interventions. Betancourt et al. (2008) point to evaluations of the USAID-funded Youth Reintegration Training

and Education for Peace program, which confirm behavioral improvements among participants, but disagree in terms of the program's success to bring literacy gains. It seems that government-run education programs targeting former child soldiers in Sierra Leone were also only partially successful. Between 2000 and 2002, the Rapid Response Education Program (RREP) facilitated the transition of thousands of students into formal schools or into the Complementary Rapid Education for Primary Schools (CREPS), another government program designed to meet the education needs of over-age groups after the war (Betancourt et al., 2008). As recommended by Betancourt et al. (2008), governments and the international community need to allocate resources for a holistic reintegration of former child soldiers and youth affected by wars, including health and social services.

A study of cost-effectiveness of non-formal education interventions found that community schools in Sikasso, Mali, were far more effective in terms of enrollment, retention, and completion than government-run schools, with a 16 percent higher completion rate for girls than that of public schools (DeStefano, Hartwell, & Audrey-Marie, 2006). The study notes that costs per student are higher in community schools in Mali than in public schools, but emphasizes that these schools reach the students left behind by formal institutions, and hence this element should be taken into consideration when comparing community school costs to "what it would cost the government to extend access to the villages served by community schools, not just the cost of running the existing system" (DeStefano et al., 2006, p. 83), along with the higher effectiveness of community schools at producing sixth-grade graduates who can pass the primary education leaving exam, compared to formal schools.

5.5. Private School Outreach

Three approaches to reaching OOSC through private schooling are identified in this literature review, although it has to be emphasized that provision of basic education to children is the primary responsibility of the State and all countries in South Asia, except for Sri Lanka has legislation in place mandating free primary or basic education. The first two approaches derive from the research described by Tooley (2005), which looked at private schooling in India, Ghana, Nigeria, and Kenya. The most striking finding of this research is in the numbers of children who attend schools which are not recognized by governments and, hence, are considered out-of-school since they are not reflected in government data as enrolled in school. For instance, Tooley (2005) notes that in Hyderabad there were "roughly the same number of children in unrecognized private schools as in government schools" (p. 9), in the Ga district of Ghana "64.4 percent of children attended private unaided school" (p. 9), while in Lagos about "75 percent of school children are in private schools, with a greater proportion in private unregistered than in government schools (33 percent compared with 26 percent)" (p. 10), basically showing that "there are significantly more children in school than is recorded in official statistics" (p.10). In Lagos, Ga, and Hyderabad management and ownership of these schools is usually attributed to one or several owners (especially in the case of unregistered schools), who cover the costs of operating the schools mainly from charged fees. However, Tooley (2005) notes that many students who could not afford to pay the schooling fees

could attend for free or at reduced charges. In all the researched countries, students in private schools performed better in mathematics and English than their counterparts in government schools. The exception was in Kenya, where the researchers did not find great differences between the performance of students from the government and private schools (Tooley, 2005). Based on this research, it can be inferred that there are at least two forms in which private schools can aid in reaching OOSC: (1) private schools who charge tuition from more affluent families who can afford an expensive education for their children can institute a system of scholarships or tuition aid plans for the OOSC in the region, and reserve a certain percentage of their seats for the children who would otherwise be unable to attend such institutions; (2) private schools can be created specifically to serve the poor, supported by philanthropic efforts and built on a sustainable financial model to become self-sustainable in a few years after being established. Depending on the context, one or both of these models can be piloted and compared for efficiency and effectiveness. Careful considerations of non-discrimination principles must be made, nevertheless, when establishing schools for specific categories of the population.

A third way of engaging private schools in reaching OOSC is suggested by Ashley (2005) who defines private school outreach as the process in which "private schools go beyond their usual remit of providing fee-charging education to the middle/upper classes and extend their services, through 'outreach programs', to provide a free or affordable education to children in the local area who are 'out-of-school'" (p. 133). Basically, the same school targets two different populations and pursues a separate goal for each of them: for the students coming from a privileged background, the school ensures that students who graduate take examinations that are officially recognized by the government; for the disadvantaged students, the school offers an environment that prepares them to transition into formal schools. The research conducted by Ashley (2005) refers to three selected cases: the 'Catholic case', the 'Vivekananda case' and the 'Krishnamurti case'. The first school, located in Kolkata, India, serves street children and offers boarding to those who are orphans or vulnerable to abuse. The second school, also located in Kolkata, targets children from slum communities, while the third targets children who live in remote and inaccessible communities from Andhra Pradesh.

The basic premise on which outreach schooling is grounded in these cases is that OOSC cannot count on parents and other support to help them learn. To have the capacity to enroll a higher number of students from disadvantaged backgrounds, private schools would need to diversify their revenue streams. The Catholic school, for instance, receives government support to cover some expenses, but the school needs to identify external sources to cover expenses associated with enrollment of students who do not pay fees (Ashley, 2005). Since all the three schools analyzed by Ashley (2005) aim at mainstreaming children into the government-run schools, the curriculum is designed to prepare the students "not only for the level of education required, but also for the type of educational method they will be following and, to an extent, the type of behaviour that will be expected of them in the government schools" (p. 137). The Catholic and Vivekananda cases manage to mainstream about 40 percent of the students from the outreach program into the government schools, mainly because they operate as bridge programs that prepare

students "for mainstreaming to formal schools at the earliest opportunity when their ability approximately matches the appropriate class level for their age, which is usually after one or two years" (Ashley, 2005, p. 138). The Krishnamurti school "seeks to encourage change within the government schools" (Ashley, 2005, p. 138) by supporting government schools to adopt more flexible pedagogy to respond to the learning and teaching needs of all the children in the area, including those who have been mainstreamed to formal schools. The three cases analyzed by Ashley (2005) reflect two different approaches to mainstreaming outreach program children into formal schooling: offering students "additional support structures, which aim to prevent them from dropping out" (p. 143) and "changing structures within the formal schools which aim not only to retain mainstreamed children but also to generate an atmosphere of an 'inclusive school'" (p. 143). The respective research suggests that taking into account the needs of the students as a group and their individual needs when considering mainstreaming strategies can have "potential impacts upon the principles and practices of inclusive education" (Ashley, 2005, p. 144).

Although research shows that private schools can contribute to the education of children who would otherwise be out of school, it is important to note their complementary role in the provision of basic education. As noted in a recent report of the UN Special Rapporteur on the right to education, "the State is primarily responsible for respecting, fulfilling and protecting the right to education" (OHCHR, 2015, p.8) and it "cannot absolve itself from responsibility by delegating its obligations to private school bodies" (OHCHR, 2015, p.9). The report also notes that it is important for governments to regulate private education in terms of minimum quality standards, fees, and other aspects that may affect the exercise of the universal right to education of all. Further research is also needed to look into learning outcomes of children enrolled in low cost private schools and what impact it has on equity.

5.6. Concluding Observations about NFE/ALPs

An analysis of the NGO provision of education to OOSC conducted by Rose (2007) highlights some of the policies and interventions in Ghana, Zambia, Ethiopia, Tanzania, Afghanistan, and in other countries. The respective research identifies the following as effective non-formal educational initiatives: the School for Life program in Ghana and Zambia's 'Skills, Participation and Access to Relevant Knowledge' (SPARK) for their condensed curriculum compared to the formal schools; the 2003-2015 Education Strategic Plan in Ghana recognizes non-formal education as a tool to increase access to education; the Complementary Basic Education and Training program targeting about 3 million OOSC in Tanzania; the home-based schools created by women in Afghanistan to ensure that girls receive an education. Citing a USAID study of complementary education in Sub-Saharan Africa, Rose (2007) notes that "complementary education models are more cost-effective in terms of the amount of completion and learning for the resources spent, even though in some (for example, Ghana and Mali) the annual unit costs are higher than government schools – no doubt partly because of the increased costs required in educating those who are most difficult to reach" (p. 27).

The analyzed models of non-formal education reflect that "basic education can be organized through different approaches that rely more on local and nongovernmental actors than the formal system" (DeStefano et al., 2006, p. 87), although the challenge is "finding ways to incorporate these strategies into the sector investment programs that draw the bulk of government and external financing and attention" (p. 87). Although most of them are implemented outside the government-supported education system—or, complementary to it—it is clear that effectiveness of outcomes that these interventions produce can be enhanced with the establishment of partnerships between state and non-state actors. The analysis of a large segment of the literature describing NFE interventions targeting OOSC reveals several areas for potential policy implications, addressed in the recommendations that conclude this literature review. When analyzing the feasibility of implementing non-formal alternatives for the education of OOSC, it is important to bear in mind that basic education for all is a human right that should be protected by governments. Where circumstances prevent governments from ensuring that this right can be exercised by all, alternative and non-formal education interventions can certainly fill in the gap, as research shows. These, however, should be temporary solutions in any country that aspires to educate each child.

6. Effective Governance

6.1. Decentralization of education systems

The decentralization of education systems gained popularity around the world in the 1980s and the 1990s; the logic was that local communities and schools knew what was best for their own contexts, and shifting resource distribution authority to them could empower them to make the quality improvements necessary. Decentralization in education has led to such policies as transferring decision making from central to local authorities, increasing autonomy for schools, enabling communities to participate more systematically in school management and resource mobilization. However, after mixed results, donors and education ministries alike have, in the past decade, begun to back off of the strategy as a panacea for education system inadequacies. The primary reasoning behind the underwhelming results of decentralization has been variously noted as a lack of capacity for resource dispersion at the local level; most school systems had no precedent for managing their own funds, and thus funds were not appropriately handled (Prawda, 1993). Many post-mortems have been written on the fate of decentralization as a governance solution for struggling education sectors (see: Winkler, 2003; Weiler, 1990; Prawda, 1993), and these should be closely scrutinized for any ministry or funder interested in decentralization as a potential approach. Ultimately, no decentralization effort to date could be considered a complete and siloed success (Hua, personal communication, March 4, 2015); however, as the thrust of this literature review is on effective solutions for OOSC, this section will instead highlight various hopeful components of decentralization that may be worthy of further inspection. Variations in implementation of decentralization in education underscores that there are several complex factors

that influence the outcome of decentralization processes. These may include political and administrative contexts, historical background, availability of resources, including human resources, and the systemic challenges that are meant to be addressed through administrative and political reform.

6.2. Decentralization Case Studies

Madhya Pradesh, India. The state of Madhya Pradesh in northern India presents an interesting case of decentralization. While many other states in India's push for devolution of authority had mixed results, Madhya Pradesh appears to have had positive outcomes, particularly in increasing access. Essentially, the state gave power to local villages to hire teachers while simultaneously expanding schools to even smaller localities (Mehrotra, 2006). Mehrotra (2006) expands the positive implications, stating that "in the absence of the interventions resulting from a policy of deep democratic decentralization, millions of children—especially tribal children and girls—did not even have access," (p. 273). It should be noted that in India, the central level is responsible for setting policies and formulating guidance while the states are responsible for delivery of services.

Zambia. By the time that the poor Sub-Saharan nation of Zambia was transitioning to a multi-party system, most of the money in public education had been pulled away to private school (Gillies, 2010). With the change in government came a sweeping reform plan for the education sector that included decentralization as a primary tenet. The *Educating Our Future* plan and its subsequent iterations focused its devolution efforts on the "creation of District Education Boards and capacity development at the de-central level," (Gillies, 2010, p. 112), as well as through community schools, which aided in the increase of primary enrollment by over one million primary students between 2002 and 2006 alone (Gillies, 2010). With so many layers of widespread reform spanning beyond decentralization efforts, the increase in enrollment rates is hard to specifically attribute to decentralization alone. The funding for this was offered almost entirely unilaterally through USAID (Gillies, 2010).

Egypt. Primarily funded by USAID, Egypt had one of the most notable shifts to a decentralized education system, as Gillies (2010) notes:

> The Egyptian education system had substantial success in expanding access and improving equity in this 20-year period. Universal primary education was largely achieved, and secondary enrollment increased to 88 percent. Primary completion was maintained at very high levels and dropout was reduced dramatically. Gender equity also improved substantially in the period. (p. 51)

However, local community participatory involvement was alternatively limited and permitted during the period of reform (Gillies, 2010), and thus it is difficult to attribute the changes to decentralization efforts.

Nicaragua. Major reforms to Nicaragua's education sector began in earnest in the 1990s. As was the trend for the period, decentralization was a primary component of the reform, taking place through Autonomia Escolar, which transferred school management authority to the local level (Gillies, 2010). The reforms were supported by the World Bank, USAID, and IDB (Kubal,

2003). A major innovation of the reforms was the creation of school councils, which handed over great authority to mostly parent-led councils (Gillies, 2010). Ultimately, since the 1990s, primary enrollment has increased from 70 percent to 90 percent (Gillies, 2010). However, school fees that were coupled with these reforms challenged access gains in high school grades (Kubal, 2003).

Indonesia. Spurred by the financial crisis of the late 1990s, the government of Indonesia made strides toward decentralization, with Behrman, Deolalikar, and Soon (2002) noting that at the time, the government had "been channeling funds to schools through block grants giving the schools and the communities concerned the flexibility to disburse funds to needy and deserving children," (p. 34). A study by Bandur (2012) showed that the Indonesian School-Based Management policy was effective for schools given they had the appropriate capacities. Toi (2010) meanwhile points to evidence of growing disparities in junior secondary schools as a cautionary tale for decentralization implementers.

Namibia. After ending a drawn out conflict with its colonizer South Africa in 1990, Namibia was ready for large scale education reform. Decentralization was an essential component to this, contributing to the "significant progress [that] has been made in achieving full participation in the first 10 years of schooling," (Gillies, 2010, p. 87). A vital component of the overall reforms was its focused nature; the reforms primarily targeted the northern regions whose racial makeup had made them bear the weight of the apartheid in Namibia (Gillies, 2010). USAID's BESII funded the reform efforts (Gillies, 2010).

Argentina. Argentina joined the cadre of states moving toward decentralization in the early 1990s, offering a devolution of management authority; however, this transfer of power did not bring with it additional resources to aid in the transition (Kubal, 2003). The decentralization project was funded and pushed heavily by international aid agencies, such as the World Bank and the Inter-American Development Bank (Kubal, 2003). Argentina shifted to a dual system of decentralized management buffered by centralized policy implementation (Kubal, 2003). Kubal (2003) goes on to highlight Rhoten's (2000) evidence that certain provinces expressed more capacity for control than others. While experiencing the inequality found in other cases, these results of more "democratic" community participation is an aspect worth noting.

Chile. According to Kubal's (2003) synthesis of the various cases of decentralization in Latin America, Chile's process occurred in two distinct phases. First was a devolution of authority to municipalities that took place during the Pinochet military regime. During this phase, a per-student subsidy was implemented, but the "quasi-voucher funding system did not necessarily lead to increased efficiency as parents lacked sufficient information about their choices, and the private-subsidized schools could deny students entry" (Kubal, 2003, p. 6). However, the groundwork was laid for a combination of decentralization and centralization, with certain programs and objectives being run centrally and others, particularly those relating to pedagogical practices, being devolved to schools and teachers (Kubal, 2003). Empowering teachers through funding competitions and other pedagogical innovation incentives appears to be the central innovation of this case, and although the results of this approach are not entirely straightforward or positive, more appropriate

support structures may be able to highlight the strengths of this approach instead of suppressing them.

An important takeaway from these brief overviews is that no decentralization reform exists in a vacuum. There are always political constraints, along with funding and capacity challenges, that greatly influence the direction of the reform. Oftentimes, capacity weaknesses at various levels or incomplete strategic planning led to limited results.

6.3. Inclusive Education

Inclusive education as seen through the lens of good country governance is not necessarily about specific programmatic action, but rather a government's explicit and implicit attitudes toward populations of children who are traditionally excluded and the structures in place to support those attitudes. Inclusive education is not limited to those with disabilities but rather the "most marginalized groups who are often invisible in society: disabled children, girls, children in remote villages, and the very poor" (What is Inclusive Education?, n.d.). Therefore, it is a government's policies and strategic objectives that, in theory, ultimately filter down to the classroom level, sometimes in a more direct manner than other times. The impetus for nations to make inclusive education a strategic priority stems from the Convention on the Rights of the Child (1989) and subsequent frameworks such as the Jomtien World Declaration on Education for All (1990). Savolainen and Alasuutari (in Savolainen, Kokkala & Alasuutari, 2000) note that while many countries and international actors "support a growing consensus that all children have the right to a common education in their locality regardless of their background, attainment or disability" (p. 11), "children with disabilities are still perhaps the group most excluded from schools and within the education systems" (p. 12).

Recently, the common view has been shifting toward inclusive education as a *process* as opposed to an end solution (Ainscow & Miles, 2009; Peters, 2004; Savolainen & Alasuutari in Savolainen, Kokkala & Alasuutari, 2000). This is apparent in the Bines and Lei (2007) report, which in its assessments of various sector plans' inclusive education practices and outcomes uses developmental benchmarks as opposed to fixed targets. For example, it states that sectors should "aim to develop capacity, through scaling up of provision, and training programs" (p. 3). This process approach is a recognition of the fact that inclusive education is a work in progress, and therefore policies should be reflective of this reality (Ainscow & Miles, 2009). See Figure 2 in the Annex for Peters' (2004) visualization of this process placed in the context of a school system.

As described by Bines and Lei (2007), funding for inclusive education operates to various extents through multilateral actors such as UNICEF, UNESCO and the World Bank, as well as bilateral agencies such as USAID, DFID, and particular Scandinavian development agencies. The report argues that when it comes to donor harmonization, it "is critical that donors address the disability and inclusion policies of partner country governments as part of policy dialogue and sector support and review" (p. 45).

There is an unfortunate lack of cases of success of inclusive education implementation at the country-level. It appears that many governments that have signed on to more extensive policies

promoting inclusive education have failed to actually do so. This has been the case in South Africa, which has supported inclusive education throughout the past decade or so only to find difficulties in policy implementation (Lomofsky & Lazarus, 2010; Engelbrecht, 2006). Ethiopia appears to be a bright spot. With an introduction of a sector plan, Ethiopia expanded the scope of universal primary education to be generally more inclusive (Mengesha in Savolainen, Kokkala & Alasuutari, 2000). Mengesha (in Savolainen, Kokkala & Alasuutari, 2000) notes,

> When special education started for persons with disabilities it was beyond the scope of the formal system with little or without clearly stated legal responsibility. Special needs education is now emerging as a new concept to address the needs of all children in regular schools. (p. 86)

The report also notes that funding, research, and technical assistance has been provided by Finland, UNICEF, and UNESCO.

7. Sector Plans

Sector plans and sector-wide approaches (SWAps) in education are an attempt to unify efforts across the sector to achieve a singular policy objective. The literature reviewed does not appear to produce a distinguishable differentiator between the two terms, and both appear to have the same functional aim of unifying education efforts across the entire sector within a specific country. For ease of comprehension, the term *SWAp* will be primarily referenced in this section.

The implication of unifying all efforts in the sector of education is a careful coordination of leadership, programming, and, importantly, funding. As SWAps most frequently occur in countries with external aid agencies providing funding for portions of the education sector, that means that donors and development partners such as UNICEF, USAID, or the World Bank, must work closely together and with governments. Because of this high level of coordination between international organizations and national ministries of education, provisions for prioritizing and reaching marginalized groups can be more readily wrapped into the broader sector framework, making sector plans an attractive option when considering means to providing pathways to schooling for OOSC. However, such coordination is inherently complex, and, thus, agencies and other actors who are not accustomed to operating in such a synchronous manner should be well-versed on the appropriate strategies to tackle the complexities prior to undertaking a SWAp.

Sector plans and SWAps also build on legislation and policies on free and compulsory education which are very crucial. Sector plans and SWAps should also encourage the implementation, enforcement and monitoring of these policies at the central and local levels.

7.1. The Global Partnership for Education

Founded in 2002 as the EFA-Fast Track Initiative under the auspices of the World Bank, the Global Partnership for Education (GPE) is the primary promoter of sector plans in education around the world. The GPE is an organizing body comprised of members from developing countries, donor

countries, international organizations, as well as the private sector, teachers, and civil society (About, n. d.). These diverse groups work together under the GPE secretariat to develop education sector plans with a strong emphasis on funding coordination, which reduces many of the typical complications sector plans face in implementation. The added benefit of operating through a unified body is that a wealth of data is consistently aggregated and distributed, as in the Results for Learning Report 2014/15 (GPE, 2014; see also Data for Education, n. d., as well as, Library, n. d. for more resources). The GPE, however, does not cover all countries in South Asia like India.

7.2. Essential Reading for Sector Plans

Beyond the research made available by the GPE, the researchers have identified several publications which should be considered essential reading. The first of these resources is the Institute for Health Sector Development's 2003 publication *Sector Wide Approaches in Education*, which also contains country case studies summarized later in this section. The UNESCO publication, *Education Sector-Wide Approaches (SWAps): Background, Guide and Lessons* (Riddell, 2007), also stands as one of the most important reviews of SWAps and is particularly useful as a gateway to further discussion and research on SWAps. Finally, Foster's 2000 working paper, *New Approaches to Development Co-operation: What can we learn from experience with implementing Sector Wide Approaches?*, offers an excellent broad view of SWAps and sector-neutral implementation approaches and includes a particularly useful review of financing strategy.

7.3. Key Literature Takeaways

Below are three key takeaways described not only in the three aforementioned pieces of literature but also in the wider literature collection the research team reviewed:

1. Leadership matters: governments must not only be willing to take on a SWAp, but also *capable* of implementing one.
2. There must be a willingness to coordinate: by virtue of their nature SWAps involve many stakeholders. Building relationships and getting buy-in is an absolute must.
3. Financing *and financial management* is crucial: while the coordination of funds is essential, so too is the capacity and willingness of both donors and implementers to be effective stewards of finances.

From these takeaways, it is apparent that while there are necessary technical components of a SWAp in education or any other sector, these technical components must be combined with "soft" skills for the strategy to be adequately carried out. To provide context to these points, brief country cases have been provided below. It is important to bear in mind that, as with all large-scale interventions, there exists no case of perfect implementation, and thus the cases will highlight the successes or key attributes.

Uganda. SWAp implementation in Uganda has been covered quite extensively and has consequently become the reference point for many other SWAps (see: Sundewall & Sahlin-Andersson, 2004; Ward, Penny & Read, 2006; Penny, Ward, Read & Bines, 2008). Uganda's shift to a SWAp for the education sector began with the Universal Primary Education (UPE) decree in 1997. Ward, Penny, and Read (2006) point out that there were several factors that facilitated the success of the SWAp, those being strong commitments to UPE, a move toward decentralization, and a unified approach to the sector between the government of Uganda and donor agencies. There were also technical and political factors that aided in the rollout of the SWAp, together creating a perfect storm for success.

Cambodia. Spurred on by the 2002 Fast Track Initiative (now GPE), Cambodia's Ministry of Education, Youth and Sports (MoEYS) set out to implement a SWAp to get back on target for its education goals (Hattori, 2009). While increasing both enrollment rates and quality of education were prime aims of the Education Sector Plan, strong, recurrent coordination and an emphasis on country ownership also has had the important benefit that "over the past eight years, MoEYS has demonstrated increased ownership and leadership in policy development and implementation of education reform" (Hattori, 2009, p. 189). This bodes well for the capacity of MoEYS to continue improvements into the future.

Tanzania. The SWAp of Tanzania represents another generally successful work-in-progress. After the first year of sub-sector SWAp for primary education in 2002, local stakeholders came together and noted that the main conclusion was that progress had been remarkable, with all ambitious quantitative targets met or exceeded" (IWGE, 2003, p. 93). An interesting feature of the Tanzanian education SWAp has been the creation of a donor secretariat to coordinate operations between the nine donor agencies (IWGE, 2003). However, Kuder (2005) cautions that this structure represents external imposition and a reduction in both country ownership of policy direction and education quality.

Mozambique. Takala's (2002) covering the case of Mozambique offers not only praise for progress made in that country, but also withering criticism of the SWAp's antagonist, the project-based approach, arguing that,

> it is clear that whatever the difficulties in realizing the sector-wide approach turn out to be in the case of Mozambique's education sector, there can be no justification for reverting back to the situation where the project mode was the order of the day. (p. 27)

In spite of the fervent support, the SWAp was, at the time, quite nascent; however, Mozambique has a long history of SWAps and therefore its biggest success appears to have been effective donor coordination (Mulley & Menocal, 2006).

After reviewing these cases in conjunction with the more general resources cited at the beginning of this section, it is abundantly clear that the SWAp is an approach worthy of consideration within the appropriate contexts. This contextualization is important, as Riddell (2002) notes:

The state of play of SWAps in Tanzania, or Ethiopia, or Nepal, or Ghana each has a story attached to it, some of which relates to the country's particular history or context, some to the individual personalities of those agency staff responsible for implementing SWAps, and some to the actual circumstances of the SWAp's development, probably in that order. (p. 35)

Even in synthesis of country case studies, the education SWAp is certainly not without its limitations, particularly in the areas of control and coordination, as authors such as Smith (2005) and Kuder (2005) readily point out. These limitations should not be a cause for abandonment, however, but rather a basis for dialogue going forward. For example, while Winther-Schmidt (2011) point out that ownership had been a primary setback in Nepal's own education SWAp, the more recent School Sector Reform Plan Extension 2014-2016 (MoE-Nepal, 2014) appears to show a much stronger level of country government ownership of reform. Ultimately how can the tenets of the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action, which clearly lay out country ownership as a goal of development aid, be satisfied while still achieving the strategic objectives of the donor? Developments in the SWAp in Nepal and elsewhere as highlighted by the GPE documents (Library, n.d.) should offer guidance to funders and coordinators.

8. Effective Data Management

When delivering large-scale programming to a large population in any sector, there is bound to be large quantities of data generated. Any education system anywhere in the world consequently is faced with the task of not only generating this data but also digesting it in a meaningful way to help improve the delivery of education services. For most education systems in developing nations, the accuracy and validity of data collection can have great implications for the counting of OOSC. While there are many varying systems used to process this education data, frequently within education sectors themselves, many nations have shifted to a unified system known as an Education Management Information System (EMIS), with the aim of better coordinating the data streams to more effectively make sense of the data. However, not all EMIS are of equivalent utility, and therefore this section will define EMIS explicitly, explore what makes an effective EMIS and the appropriate questions system developers should be asking, point to essential literature, describe specific components that are particularly relevant to the OOSC context, and finally offer several particularly salient country case examples of EMIS implementation. Unfortunately, there are few well-documented case studies on how EMIS is used in South Asian countries to capture data on OOSC and utilize these data for planning and decision-making.

8.1. EMIS Definition
To properly frame a discussion of EMIS, this paper will reference Hua and Herstein (2003) as a general working definition of EMIS:
> An EMIS is an institutional service unit producing, managing, and disseminating educational data and information, usually within a national Ministry or Department of

Education. The management functions of EMIS include collecting, storing, integrating, processing, organizing, outputting, and marketing educational data and statistics in a timely and reliable fashion. (p. 4)

However, Hua and Herstein add that EMIS data "are regularly shared, integrated, analyzed, and disseminated for educational decision use" (p. 5) and that "EMIS is an institutional culture that perpetually advocates data and information use" (p. 5). Note that built into this definition are certain qualities that appear to lead to an EMIS's success.

Hua and Herstein (2003) also go on to define three specific criteria for successful implementation, which we shall pose as questions to be considered when defining success. Firstly, is data being produced in a timely and reliable manner? Second, is data being shared and integrated across departments? Finally, is the data being used effectively to inform policy decisions? While the answers to these questions seem to be built into the definition of EMIS, Hua and Herstein (2003) note that many EMIS do not actually answer these questions affirmatively.

8.2. Primary literature on EMIS

There has been extensive literature produced on both general EMIS success and specific country implementation debriefing. The Hua and Herstein (2003) article cited extensively above serves as a good entry point for essential EMIS understanding. While focused primarily on the New Zealand context, Tolley and Shulruf's (2009) publication, *From data to knowledge: The interaction between data management systems in educational institutions and the delivery of quality education*, offers extensive guidance on data flows and connections that is useful even in a developing context. Wako's (2003), *Education Management Information Systems (EMIS): A Guide for Young Managers*, published for UNESCO stands out as an operationalized approach to EMIS management, while still supporting Hua and Herstein (2003) in arguing that, "the commitment of the top decision makers and dedicated and willing leadership cadres of EMIS are needed" (p. 51). Ellison's (2004) draft for DFID, *A practical guide to working with Education Management Information Systems*, offers a useful look at EMIS in action, including a rundown of various EMIS systems and their funders. Finally, the UNESCO (2005) handbook, *NFE-MIS Handbook: Developing a Sub-National Non-Formal Education Management Information System*, provides a particularly relevant guide for OOSC scenarios.

8.3. Components for OOSC

Counting OOSC has been notoriously difficult. Since data collection often happens at the point of school enrollment, EMIS often fail to capture accurately the number of OOSC in a population (Carr-Hill, 2012). The UNICEF and UIS initiated Global Initiative on Out-of-School Children (OOSCI) publication (2011) includes a framework for capturing and reaching OOSC through data from both administrative sources (e.g. E MIS) and household surveys, stating that there

"is a data gap stemming from the need for rigorous tools and methodologies to identify out-of-school children, to measure the scope of exclusion and multiple disparities, to assess

the reasons for exclusion, to monitor progress towards universal primary education and to inform policy and planning" (UNICEF & UIS, 2011, p. 1)

This kind of collection and measurement often falls outside the purview of the traditional EMIS; however, according to Hua (personal communication, March 4, 2015) to truly capture OOSC data, there must therefore be alignment with other types of population surveys, such as censuses.

Beyond counting, it is important for systems to capture the non-formal avenues of education children may be receiving. This is typically done through an NFE-MIS. As the UNESCO handbook (Connal & Sauvageot, 2005) notes, there are certain components of an EMIS related to NFE that are particularly relevant for assessing the state of OOSC in an education system and then using that assessment to expand educational opportunities. The problem as the handbook explains is that,

> "A scarcity of NFE data, and the lack of practical and appropriate demand and supply-side indicators, results in a profound lack of co-ordination within administrative hierarchies, between sectors, and between governments and the Non-Government Organisation (NGO) community" (Connal & Sauvageot, 2005, p. 4).

The handbook, however, describes the NFE-MIS in a siloed sense, while Yasunaga (2014) emphasizes that there is has been a shift toward EMIS and NFE-MIS integration, which Hua (personal communication, March 4, 2015) argued is essential for the overall effectiveness of using data to target OOSC. There are unfortunately few cases of NFE integration. For example, in the case of Bangladesh's Bureau of Non-Formal Education (BNFE) website, a count of OOSC is listed as an indicator but is unavailable through the NFE-MIS, though data sources list it as data obtained from EMIS and household surveys (BNFE, n.d.). Overall, "[d]espite recent global developments, data and knowledge regarding non-formal education remain relatively weak" (Yasunaga, 2014, p. 9). It is clear that with or without integration into EMIS, further advancements in data collection for NFE must be made.

Finally, funding is a crucial element to an undertaking such as developing an EMIS. Ellison (2004) breaks down the funders by country. There appears to be a mix of INGO funding from organizations such the World Bank, IIEP, UNDP, and UNESCO, along with support from country-level aid agencies such as USAID, DFID, and SIDA. The means through which this can occur vary across implementations, with several donors funding either various phases of EMIS development, or different levels (national or regional).

8.4. EMIS Case Studies

Gaza and the West Bank. Developing an EMIS in one of the most challenging environments in the world has been no easy task. Yet, according to a case review by Sultana (2003), the education system in the Palestinian territories has had significant achievements since taking over education duties in the mid-1990s in part thanks to the development of their EMIS. "Over and above these considerable achievements, and indeed often contributing to the identification of goals as well as of strategies to achieve those goals, is the MOE's introduction of a computer-based EMIS"

(Sultana, 2003, p. 70). Sultana (2003) also goes on to emphasize that the efficiency of the EMIS in the Palestinian territories encouraged donor support for projects, as the "financial and resource implications are clearly identified in advance" (p. 77). In light of this, the development of the EMIS here represents a lesson to countries unwilling to dedicate resources to data management systems in difficult environments.

The Gambia. DFID's support of the development of the EMIS in the Gambia had three main objectives: disseminate performance indicators to affect policy; enable decentralization; augment sectoral coordination and consequently planning (Perry in Ellison, 2004). The launch of the EMIS emphasized quickly spreading information to local levels, and Perry (in Ellison, 2004) notes that one of the primary outcomes was the "formulation of education staff deployment and postings strategy as part of ensuring equitable access to quality basic education, including strengthened decentralized personnel management at provincial levels" (Annex 2, p. 3).

Vietnam. Vietnam offers a hopeful case of data integration for EMIS. Vietnam introduced the Fundamental School Quality Level (FSQL), which was then used as the basis for making inroads on achieving equitable access in more remote areas of the country by defining standards in gender equality in enrollment and establishing parent committees amongst other standards (Attfield & Vu, 2012). Subsequently, an annual census called the District FSQL Audit came to prominence, allowing for stakeholders to data-mine extensively, and ultimately integrating into the existing EMIS (Attfield & Vu, 2012).

Namibia. While the data collection system in Namibia saw great technical advancement from its days of manual processing to ever more sophisticated computer systems, all of which were certainly influencing the apparent success of the EMIS as a management tool, the primary takeaway from the case of Namibia is that stakeholder buy-in is essential to the successful adoption and advancement of an information management system (Voigts, 1999). As Voigts (1999) reflects, "[h]aving had a susceptible environment, and enjoying high-level support when demands had to be made on other components of the Ministry, was an essential prerequisite for success" (p. 13).

Cambodia. The development of EMIS in Cambodia stemmed from support initially from UNESCO and UNDP and then later from UNICEF (Mehta, n.d.; Ratcliffe in Ellison, 2004). This was important in that these donors had been hesitant to fund outside of typical small-scale projects, but ultimately a "proven EMIS contributed in a complex way to [ministry]/donor/NGO confidence and trust building, including a willingness of some donors to provide performance based sector budget support rather than project oriented approaches" (Ratcliffe in Ellison, 2004, Annex 2, p. 4).

8.5. Concluding Observations about EMIS

It is clear from the literature and its gaps that there are few if any cases of complete EMIS success, but there are certainly components worthy of recognition. The case countries reviewed here seem to corroborate Hua and Herstein's (2003) assertions cited as questions at the beginning of this section. In general, funding comes from multilateral and bilateral organizations and INGOs, often working in tandem, and support is necessary at both the central level and local level of the administering country. Technical support from development partners also appears to be essential

to EMIS development, and there is a wealth of literature available to support the implementation and development of a successful EMIS. However, within the broader wealth of literature on EMIS, there is an unfortunate dearth of research connecting EMIS development to gains in educational outcome, or, importantly for the context of this paper, identifying and reaching OOSC. This could be partially due to the complex nature of the interactions between the EMIS and other activities and actions occurring within an education sector, but also due to the relatively underdeveloped and unintegrated NFE-MIS and household survey data that can better help gauge the current status of OOSC in a particular country.

9. **Recommendations based on literature review findings**

Education is a basic human right. Provision of access to education and protection of this right is the responsibility of governments. Ensuring that all OOSC are in schools and learning is the main responsibility of governments, the international community, and civil society. The main purpose of this literature review is thus to serve as a reference for key stakeholders to develop interventions for reaching OOSC, to serve as evidence for advocacy to governments and development partners.

Indicators reflecting the sustainability of pilot programs supported by non-government funds should be integrated into the performance matrix of these interventions. The future of the programs and schools after the donor phases out should be anticipated at the outset. It is important that a capacity-building element is integrated into any donor-driven intervention aimed at reaching OOSC. Taking into account the exorbitant figures related to the OOSC phenomenon, it is likely that diminishing these numbers will be a long-term endeavor. Although valuable at incipient stages, donor funds should not be the sole source of resource allocation in the fight against this issue. Countries need to make their contributions and use donor support to build their capacity to sustain donor-driven investments in the schooling of their children. Hence, governments should play an active role in maximizing the long-term benefit of external support.

9.1. Early Childhood Development

Widespread access to quality early childhood development services is an essential component in ensuring that children are healthy and developmentally ready to enter primary school on time. Programs like India's Integrated Child Development Services (ICDS), which focus on holistic development, are effective in attending to the health and nutritive needs of children and the education of parents. However, they are often criticized for the lack of proper training of anganwadi/ICDS center workers, and the insufficient emphasis on education.

For best practices, Early Childhood Education programs, as Jalongo et al (2004) stated, must:

(1) have sound philosophies and goals; (2) provide high-quality educational environments; (3) reflect developmentally appropriate and effective curriculum and pedagogy; (4) attend

to children's needs, both basic and special; (5) respect families and communities; (6) employ professional teachers and staff, and (7) implement rigorous program evaluation practices (p. 143-144)

Quality ECE programs are usually those that cover a child's holistic development: physical, emotional, social, cultural and cognitive development, preparing them for school and for life with the right values and disposition.

Focusing on a child's holistic wellbeing in early childhood strengthens the individual's socio-emotional development and cultural connections, leading to greater social cohesion. Therefore a strong investment in the holistic development and potential of young children ultimately yields a myriad of economic and social benefits for a country. The quality of an ECE program can be evaluated according to the relative emphasis it places on language development, social climate, educational style, the balance of structured and flexible activities, as well as other conditions created for a child to learn. This should include a focus on "being active, participation, communication, and cooperation with others, and the right for a child to develop his/her own interests and goals for learning" (Sheridan & Shuster, 2001, p.111).

Short-term school readiness programs can be a suitable component of ECD or ECE programs. These require extensive parental support and participation. Community cooperation and funding support is also essential, especially in low-resource environments. However, collaboration among all stakeholders can aid in devising programs relevant to the community values and priorities. Mother-tongue based and multilingual ECD programs, as well as in the early grades of primary education, is also preferable for the timely developmental growth of students and for the active acknowledgment of their unique ethnic and cultural identities, which can aid in their successful integration into formal schooling if the primary education within a given country is delivered in a different language.

To make ECD and school readiness programs available to young children, governments must be willing to commit to investing, regulating and ensuring quality standards of public, community-based and private preschool and ECE programs. Advocacy toward increasing government expenditure for preschool and ECE access should center around the improvements to overall human capital that can be expected within the country and the preventative capabilities increased enrollment can offer in reducing later public health and human service costs. As Jalongo et al (2004) state, "leaders should look upon [ECD] programs as a wise investment, one that will save inestimable costs in terms of wasted human potential or the need for later services" (p.145).

9.2. Economic incentive and enrollment campaigns

In spite of a dearth of clear evidence regarding the effectiveness of enrollment campaigns, they can still prove useful when launched in coordination with the announcement of voucher and cash transfer incentive programs. Effective communication about the merits and long-term benefits of education can prove helpful in maximizing demand for vouchers and cash transfers.

Conditional Cash Transfer (CCT) programs have yielded the best results in increasing enrollments based on impact studies and randomized control trials (RCT). Standard CCT schemes

might offer monthly or bi-monthly cash transfers conditional on attendance. However, to incentivize continued attendance and minimize dropouts, an effective long-term strategy might involve making attendance-based payouts smaller. That money is better diverted to lump-sum bonuses, which can be offered to reward re-enrollment, graduation or secondary and tertiary matriculation. An RCT by Barrera-Osorio et al (2011) comparing differently structured CCT schemes suggested that attendance rates were not lower for children from families who faced financial constraints due to smaller attendance-based payouts. Additionally, tertiary enrollment was 48.9 percent higher for students from families who received smaller attendance-based payouts and lump sum bonuses for graduation and tertiary matriculation than it was for students from families who only received regular (but larger) cash transfers. This suggests that smaller attendance-based cash transfers might be effective in coordination with lump-sum bonuses to ensure that students remain enrolled.

Unconditional Cash Transfer (UCT) programs and Targeted Educational Voucher Schemes (TEVS) also offer promising results with respect to increasing enrollments. However, there is limited evidence supporting their impact with respect to enrollment or attendance. In areas, such as Kenya, where primary education is free and enrollment levels are high enough for people to understand the benefits of education, UCTs have been useful in lowering the barriers to secondary school education for orphans and vulnerable children who were learning at grade-level. Vouchers have been impactful in subsidizing school fees, but do not account for the opportunity cost of child labor in the same way that CCTs or UCTs might.

Identification strategies for out-of-school children might draw upon census and other household survey data, or geospatial analyses of mapped districts in cities or rural areas that have higher populations of families of lower socioeconomic status; however, these strategies would meet limited success in socioeconomically diverse urban districts, where poor and non-poor reside in the same neighborhoods. Effective communications employing posters, banners, radio advertisements, billboards and loudspeakers from cars might be useful in enhancing public awareness and creating "buzz" about an incentive program. Using identification cards, utility bills and tax records, and registering family's socioeconomic status can be confirmed and eligibility decisions made accordingly. Assuming that demand for the treatment exceeds the number of slots available, a lottery can be conducted. This will allow for effective randomization for the purposes of conducting evaluation studies assessing the causal impact of the treatment on enrollment and attendance rates. While the costs of conducting a lottery are low, the disadvantage of using them is that only the winners get treated, while losers (barring other interventions) are likely to remain excluded from education.

9.3. Non-formal education

Student-centered teaching and learning are equally important tools in creating tailored interventions that respond to the needs of the diverse groups of OOSC. For NFE programs to be effective, an analysis of incentives, teacher and facilitator training, teacher and facilitator commitment and motivation is necessary. This should be followed by increased focus on teachers

and facilitators and the challenges that prevent them from achieving high quality of their work. Investments should be made in the training of NFE teachers/facilitators. Their professional development should be adjusted to the local contexts, to the model of the specific intervention, as well as to the predominant features that characterize the student population. For instance, to establish NFE programs in the form of effective multi-grade classrooms, teachers and facilitators need to receive adequate training and support to manage the diverse needs of the children in those classrooms.

The government holds the main responsibility for education, and this role can be achieved most effectively in partnership with other stakeholders, especially in settings where several factors contribute to persistence of the OOSC phenomenon. Government recognition of NFE interventions is necessary to validate the education experience and the knowledge of students when they transition to formal schools or when they seek employment. As noted by Thompson (2001), it is "imperative for the Government to recognise non-formal education, and ensure, through legal and other measures, that quality and equity characterise the processes of learning" (p. 49). This recommendation is reinforced by DeStefano et al (2006), who stress the importance of collaboration for the effective provision of education and suggest that the benefits of cooperation can be maximized if governments make a "decided shift away from administering and enforcing a single-supply model and move toward a pluralistic approach", as well as "seek out and encourage the development of other models, drawing on other resources and capacities-or on alternatives that have proven their efficacy" (p. 85-86). One mechanism to build such collaboration is through a more efficient utilization of available resources. Thompson recommends that non-formal schools use the facilities of the formal sector to ensure "not only the effective utilisation of the physical resources, but of the human resources as well" (p. 49). Cost-effectiveness of non-formal interventions targeting OOSC should be assessed as early and as frequently as possible. Uniformity in analysis of financial information about these interventions will allow for an assessment of feasibility of investment in such approaches in the specific context of South Asia.

The replication of specific models that target OOSC, such as free or reduced-fee private schooling for the poor, can only happen in the presence of specific conditions, for instance parents' demand for their children's education. Awareness-raising activities aimed at boosting parents' demand for their children's education are important. In conditions of meager need for a service, abundant supply of it is worthless. The next step for the development community in South Asia would be to explore the opportunities that exist in poor and remote communities to provide free (i.e. subsidized) or reduced-fee private schooling for children living in those areas, and to offer support (financial, capacity-building, infrastructure and other) to transform these opportunities in education hubs for the children who would otherwise abandon the struggle for access to an education. Local governments and community leaders should identify ways in which such models can become financially sustainable. In cases where there is a tradeoff between children's participation in schooling and their families' economic situation, a system of cash transfers or vouchers should be set in place to mitigate the effect that children's enrollment in schools would have on their families. Demand alone cannot secure a solid network of private schools that would

accommodate the needs of every child left outside the formal education system. Other conditions are required simultaneously. Among them, however, are considerations of human rights. Private schools, non-formal education, and community-led interventions should, where appropriate, complement the governments' responsibility for provision of free basic education for all. They should not violate the "fundamental principles and norms underpinning the right to education": non-discrimination, equality of opportunity, social justice and equity (OHCHR, 2015, p.9-10).

Finally, more research is required to understand the phenomenon of OOSC with disabilities. Societal norms, economic factors, geographical conditions, and school infrastructure are often cited as barriers to the education of this group of children. Although most national governments adopted legislation that protects the rights of persons with disabilities, there seem to be forces that prevent its adequate implementation. Awareness campaigns and behavior change campaigns should be conducted in regions with high rates of exclusion of children with disabilities from education, to increase their access to learning and to address the social norms and practices that contribute to their exclusion. Consistent with the recommendations made by Sharma & Ng (2014), we consider it "critical that teacher education programs… also target the barrier of negative attitudes towards people with disabilities" (p. 72) and that local communities together with governments need to pursue aggressive strategies against social, economic, and other factors that limit the right to education for children with disabilities.

9.4. Decentralization of education systems

As shown in the discussion on decentralization, devolving various authorities to local levels in education has had inconsistent results despite once being hailed as a panacea for education ails. However, in consideration of the evidence provided, there is reason to believe that a coherent decentralization strategy, when coupled with the appropriate funding and capacity-building mechanisms can result in increases in enrollment of OOSC and potentially even increases in school quality. The most important consideration is therefore the strategic and empirical planning of these mechanisms. Without them, the likelihood of success of this approach appears to be greatly diminished. Mehrotra (2006) does excellent work in describing the conditions appropriate for effective decentralization:

> (i) a functioning state (not a weak, and certainly not a 'failed' one), and effective state capacity, both at central and local levels;
> (ii) empowered local authority to which functions, functionaries and finance have been devolved by the central authorities; and
> (iii) 'voice' articulated on a collective basis by civil society, through institutions enabled by the state (p. 268).

The integration of these, the author notes, is essential to successful decentralization. The South Asia region is no stranger to decentralization strategies, and, therefore, the conditions above should be carefully considered prior to any implementation discussion. We recommend that those interested in advocating and funding decentralization efforts focus first on enabling these conditions.

9.5. EMIS

It is apparent from the literature reviewed that an effective EMIS has the potential to add great value to a country's approach to OOSC, as accurate data can not only provide a clear picture of how many children are in school but also how many are *not* in school and how many are enrolled in NFE programs. However, due to limited research available, it is less clear how to best capture complete data of education participation, including enrollment of OOSC in NFE programs and how many get mainstreamed into formal education. This is primarily because there are few structures in place that allow for this data capture and more importantly, little integration of the data that does exist into the overall EMIS architecture. Therefore, the first recommendation we make is for governments and development partners to support the collection and integration of various sources of data relevant to OOSC into the EMIS of the target country.

However, as most countries in the South Asia region have an existing EMIS in place already, it is also important to return to the necessary features of successful EMIS raised by Hua and Herstein (2003). Development partners and providers of technical assistance should ensure that their work focuses on supporting these features. The approach to this is two-fold. First, structures should be put in place to ensure that the data collected is actually being shared, integrated, and disseminated. Second, a culture of data appreciation and use needs to be developed. While both conditions are necessary to success of an EMIS, we feel the latter condition to be the most vital step toward successful EMIS development, especially for the context of monitoring OOSC. This is because a data-driven culture is more inclined to push for greater data integration in policy and programmatic decision-making. While specific approaches for building this culture will vary greatly across contexts, capacity development and joint research projects with relevant ministry officials and staff appear to us to be obvious points of entry.

9.6. Sector Plans/SWAps

Considering the breadth of a SWAp, undertaking a whole sector approach in education is not an intervention to be taken lightly. That being said, SWAps in education have been shown to have positive results when the appropriate coordination is happening on the donor and technical assistance side and effective management and capacity on the country government side. With the development of the GPE, this coordination has become even more effective in recent years. Recalling that Riddell (2001) notes that there are many layers to the context of a SWAp, those interested in the approach should undertake due diligence to understand the both the capacity of aid organizations to coordinate and stakeholder buy-in on the implementation end. The SWAp in education should be focused on supporting other objectives considered critical, and therefore as an approach in and of itself, it is insufficient. However, SWAps inclusive of OOSC-focused interventions as part of overall education sector reforms have the potential to integrate many of the components noted in this literature review and ultimately be more effective.

9.7 Recommendations for South Asia

Taking into account the literature review findings, the context in South Asia and the key recommendations from the South Asia OOSCI Regional Study (UNICEF 2014), our recommendations for potential way forward for the South Asia region include:

1. Implement large-scale ECD interventions, funded through community, government and/or public-private partnerships, emphasizing not only health and nutrition, but also cognitive and psychosocial stimulation of infants. Use pro-poor incentives (cash transfers or food-for-education programs) to encourage higher participation among both parents and children from impoverished families.

Programs like Integrated Child Development Services in India reach a large number of children and mothers, providing effective nutritional and health support; however, there remains insufficient emphasis on young children's cognitive development. With adequate nourishment, nurturing and stable relationships and appropriate levels of psychosocial stimulation, the developing brain forms rich networks of neural circuits promoting positive long-term life outcomes for mental health, economic productivity, healthier lifestyles and more responsible citizenship. The long-term social impact of effective ECD programs can be far reaching, especially inasmuch as they might lead to higher average wage earnings, lower crime rates and better future mental and physical wellbeing for their participants.

Government funding is essential to ensuring a safe and nurturing learning environment for young children; however, additional government, community and donor resources may be necessary in promoting better educational and special educational training for daycare and preschool workers, and in offering pro-poor incentives (such as conditional cash transfers) to encourage the participation of the most impoverished families. In addition to the economic incentive programs explored in this report, food-for-education programs, such as those implemented in Bangladesh, might also prove useful in incentivizing participation. The success of all incentive programs, however, remains contingent upon the effective targeting of families in need. In the South Asia region, incentives should be targeted toward families in urban slums and remote rural areas, with a special emphasis on marginalized groups, such as the lowest castes, ethnic minorities, and children with disabilities.

2. Ensure there is a diverse spectrum of non-formal education opportunities available for at-risk children through first mapping of the different programs, identifying what approaches work, and ensuring formal validation of these interventions.

Non-formal education interventions should target the learning needs of children from different at-risk categories: girls and boys living in poor communities, children living in remote areas, former child soldiers, children with disabilities, working children, or children who are vulnerable due to a myriad of other factors. This literature review describes some effective models that could

be developed in South Asia, but the countries in the region certainly have a lot to learn from their own experience. The 'one-teacher, one-classroom' model predominant in Pakistan (UNICEF, 2013a) may improve attendance, for instance, in remote regions with small populations, but may prove ineffective in urban slums. Vocational and non-formal literacy centers targeting working children in Sri Lanka (UNICEF, 2013) could be replicated in communities where this phenomenon is ample enough to deter children from attending school. Consistent advocacy is needed for the certification of these types of education pathways to ensure mainstreaming of their graduates into the formal schools. Although the issue of quality in public education is beyond the scope of this paper, it is important that these efforts be made concomitantly with strengthening the education quality in formal schools. Unfortunately, this paper was not able to identify evidence of one particular NFE model that could encompass all categories of OOSC. Reaching them needs to take place via tailored approaches that reflect the commitment of governments, communities, parents, and development partners.

3. Use education sector plans as a tool for promoting inclusive education for all OOSC, ensuring that governance structures, political rhetoric, and action align. Efforts should also be in place to ensure there is a credible enforcement mechanism of legislation on free and compulsory education. Broaden data management systems to better capture NFE and OOSC data to more adequately support these sector plans.

The time is right for South Asian countries and bilateral actors to build or strengthen their own governance structures through education sector plans and SWAps. This has been shown to be valuable in Nepal where the Ministry of Education has, over the past several years, taken greater ownership of its own education sector plan. Other countries in the region should look to Nepal, as well as the examples cited in this review, for basic guidance on moving forward with a SWAp, using the GPE as a lever for coordination. SWAps and sector plans also remain relevant for countries in the region that may not be under GPE like India, Maldives and Sri Lanka and other Provinces in Pakistan. The introduction or revamping of a SWAp represents the opportunity for the promotion of policies of inclusivity for the integration of OOSC, particularly those of marginalized groups, and therefore action should be taken by coordinators to ensure that policies of inclusive education match the commitments and promises of governments. Sector plans should also incorporate capacity building at various levels of government to allow for greater ownership at the regional and local levels, with the aim of more effectively targeting OOSC.

No education system will be able to successfully integrate the OOSC of diverse and marginalized groups without effective and accurate data capture. As noted in this review, there are few if any EMIS that adequately track both NFE and OOSC in general. Additionally, many EMIS in the region fail to integrate and disseminate education data appropriately, including making sure data goes back to schools. Governments and bilateral agencies should work to synthesize various data streams, broaden the reach of data capture to include NFE and excluded groups, and support the effective dissemination of data to various levels of governments, NGOs, communities, and

schools. Ultimately, the researchers see a broad and developed EMIS (inclusive of NFE-MIS and other data collection mechanisms) serving as the backbone of an OOSC-focused education sector plan.

4. Further research, particularly on evidence of interventions aimed at reaching out-of-school children in South Asia will help countries in the region strengthen programming and policies to end exclusion in education.

The literature review has identified some gaps on available evidence the impact on enrollment, attendance, retention and learning of specific interventions for OOSC, particularly in South Asia. Further research is thus recommended, in particular on the following areas:

a) impact on enrollment and retention of legislation on free and compulsory education, including the role of monitoring and enforcement mechanisms (e.g. India RTE, 18th amendment of the Constitution in Pakistan);

b) impact on learning outcomes and equity in access to education of low cost private schooling in South Asian countries;

c) a systematic review of the different kinds/approaches of NFE programs in place in the countries in the region and evidence on how children attending NFE programs and are mainstreamed to regular schools perform in school and whether they complete primary or basic education;

d) the impact of ECD/pre-primary education participation on children's retention and performance in basic education (some research on this is being undertaken in India and Pakistan);

e) a systematic review of which countries in the region have explicit Inclusive Education policies in place, including clear provisions for children with disabilities, and whether these policies are effectively implemented, and the impact of these policies on enrollment, retention and learning of children with disabilities;

f) evidence on the impact of poverty alleviation programmes in improving school attendance in South Asia, including why and whether conditionality is needed to raise school participation;

g) documentation on the coverage of EMIS in the countries in the region and recommendations on how data on OOSC, monitoring of children at risk of dropping out, and children enrolled in NFE programs can be integrated. This could include recommendations on how various data sources can be integrated into the EMIS as well as recommendations to strengthen data utilization for planning and policy making.

Annex. Tables and Figures

Figure 1: Classification of out-of-school children

Children in school at risk of dropping out

Total population of out-of-school children

Entered but dropped out

Have not entered school

Will enter late

Will never enter
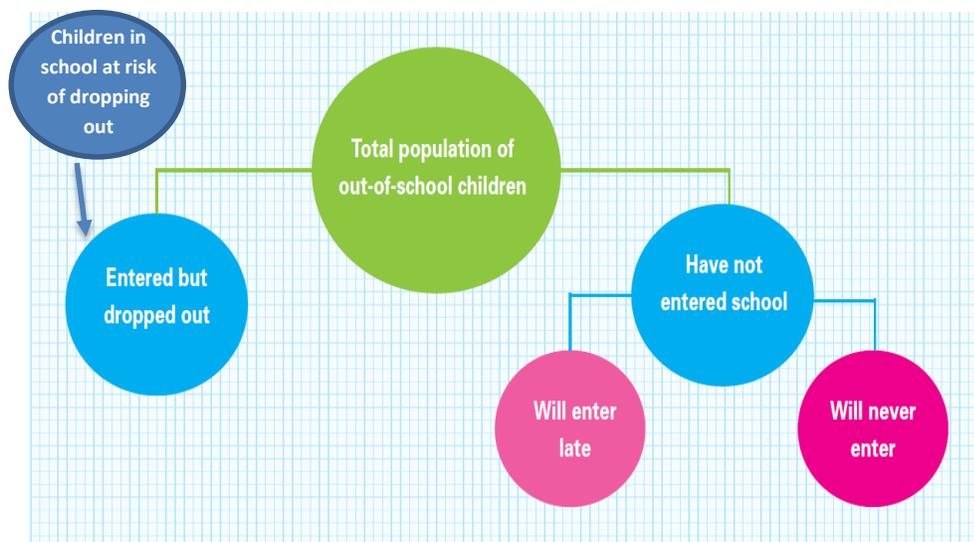
Table 1: Out-of-school children of primary school age, 2000 and 2012

Region	2000						2012					
	%			Number (in millions)			%			Number (in millions)		
	MF	M	F	MF	M	F	MF	M	F	MF	M	F
W. EUROPE/N. AM./AUSTRALASIA	1.9	1.9	1.9	1.2	0.6	0.6	3.5	3.6	3.4	2.2	1.2	1.1
LATIN AMERICA AND CARIBBEAN	6.2	5.0	7.3	3.6	1.5	2.1	6.3	6.5	6.1	3.8	2.0	1.8
CEE/CIS	6.6	5.4	7.8	1.6	0.7	0.9	4.7	4.7	4.8	1.0	0.5	0.5
EAST ASIA AND PACIFIC	5.4	5.2	5.7	11.0	5.4	5.5	4.6	4.6	4.6	6.9	3.6	3.2
SOUTH ASIA	20.1	13.1	27.6	32.7	11.1	21.6	5.8	5.7	5.9	9.8	5.1	4.8
MIDDLE EAST AND NORTH AFRICA	18.2	14.7	21.8	8.4	3.5	4.9	9.3	7.6	11.1	4.3	1.8	2.5
EASTERN AND SOUTHERN AFRICA	35.1	33.2	37.0	19.3	9.2	10.2	15.1	13.6	16.6	11.0	5.0	6.0
WEST AND CENTRAL AFRICA	43.3	37.6	49.2	21.9	9.6	12.2	27.1	23.1	31.2	18.8	8.1	10.7
WORLD	15.0	12.1	17.9	99.7	41.6	58.1	8.9	8.1	9.7	57.8	27.3	30.5

Notes: The data refer to the regional classification by UNICEF. The category 'Western Europe, North America and Australasia' is not an official UNICEF region, but it is used in this report to group all countries not belonging to other UNICEF regions. It includes countries in which UNICEF does not operate. They are primarily high- and upper-middle-income countries located in Australasia, Europe and North America.
Source: UNESCO Institute for Statistics, August 2014
Adapted from UNICEF (2015a), p. 20.

Table 2: Out of school adolescents of lower secondary school age, 2000 and 2012

Region	2000 %			2000 Number (million)			2012 %			2012 Number (million)		
	MF	M	F	MF	M	F	MF	M	F	MF	M	F
W. EUROPE/N. AM./AUSTRALASIA	2.8	3.2	2.4	1.1	0.7	0.5	2.7	2.6	2.8	1.0	0.5	0.5
LATIN AMERICA AND CARIBBEAN	10.1	9.9	10.2	3.6	1.8	1.8	7.5	7.7	7.3	2.8	1.5	1.3
CEE/CIS	11.6	11.2	12.1	3.8	1.9	1.9	5.2	5.1	5.5	1.2	0.6	0.6
EAST ASIA AND PACIFIC	20.9	22.3	19.4	24.5	13.5	11.0	8.4	8.6	8.2	7.4	4.0	3.4
SOUTH ASIA	39.9	33.2	47.0	37.3	16.1	21.3	26.4	26.3	26.4	26.3	13.7	12.6
MIDDLE EAST AND NORTH AFRICA							11.7	9.4	14.1	2.9	1.2	1.7
EASTERN AND SOUTHERN AFRICA	42.8	36.3	49.3	10.5	4.4	6.0	26.9	24.2	29.5	8.5	3.8	4.6
WEST AND CENTRAL AFRICA	46.5	40.7	52.5	10.8	4.8	6.0	39.7	37.0	42.4	12.5	5.9	6.6
WORLD	24.7	22.5	27.0	96.9	45.2	51.6	16.8	16.2	17.5	62.9	31.3	31.6

Notes: The data refer to the regional classification by UNICEF. The category 'Western Europe, North America and Australasia' is not an official UNICEF region, but it is used in this report to group all countries not belonging to other UNICEF regions. It includes countries in which UNICEF does not operate. They are primarily high- and upper-middle-income countries located in Australasia, Europe and North America. Data for Easter and Southern Africa refer to 2011. NO regional figures are available for the Middle East and North Africa for 2000 because of insufficient data coverage.
Source: UNESCO Institute for Statistics, August 2014

Adapted from UNICEF (2015a), p. 25.

Table 3: Demographic, economic and health indicators for Bangladesh, India, Pakistan and Sri Lanka

Indicator	Bangladesh	India	Pakistan	Sri Lanka
Total population (thousands) (2010)	150,493	1,241,491	176,745	21,045
Population density per sq km (2011)	1,174	411	229	333
Annual population growth rate (%) (2009)	1.2	1.4	1.8	1
Rural population (%) (2009)	71.6	68.7	63.8	84.9
GDP per capita as Purchasing Power Parity US$ (2009)	1,776.90	3,650.20	2,744.80	5,581.70
Percentage of the Population living on less than $1.25/day	43.3 [2010]	32.7 [2010]	21 [2008]	4.1 [2010]
Under-five mortality per 1,000 live births	53	55	72	12
Adult literacy rate (%) (2007-2011)	57*	63	55*	91

Sources: UIS Online Database accessed January 2014 except for percentage of population living on less than $1.25/day and population density which are from the World Bank Database accessed 9 Oct. 2013; under-five mortality and adult literacy rate from the UNICEF South Asia Data Pocketbook 2013

Adapted from UNICEF (2014), p. 1.

Table 4: Adjusted attendance rates, by level of education and sex, Bangladesh, India, Pakistan and Sri Lanka

	Primary Education			Lower Secondary Education		
	Male	Female	Total	Male	Female	Total
Bangladesh	81	87	84	39	52	46
India	94	94	94	64	64	64
Pakistan	70	61	66	37	31	34
Sri Lanka	98	98	98	93	95	94

Sources: Bangladesh MICS 2006, India SRI-IMRB 2009 unit level data, Pakistan PSLM-HIES 2007-08, Sri Lanka DHS 2006-07 as cited in the national OOSCI studies.

Adapted from UNICEF (2014), p. 17.

Table 5: From which government departments do ECD centers receive funding in South Africa? (Data by Province and Socioeconomic Quintile in %)

	Province 1	Province 2	Province 3	Total	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
DSD	14	56	51	38	56	53	36	16	11
DoE	39	6	8	20	14	6	11	45	52
DSD & DoE	26	6	24	19	19	18	25	19	4
Neither	20	31	17	23	11	24	28	19	33
Total	100	100	100	100	100	100	100	100	100

Note: Some community facilities could not be allocated to quintiles.

DSD = Department of Social Development (South Africa)

DoE = Department of Education (South Africa)

Province 1 = rich province

Province 2 = moderately poor province

Province 3 = very poor and large province

Adapted from UNICEF (2011), p. 20.

Table 6: Enrollment and absenteeism by Province and Socioeconomic Quintile, South Africa

	% Enrolled 2008	% Enrolled 2009	% Present 2009	% Absent 2009
Province 1	63.3	65.0	50.0	23.2
Province 2	57.8	61.7	52.1	15.5
Province 3	63.3	66.7	54.4	18.5
Total	61.8	64.6	51.9	19.6
Quintile 1	53.1	56.3	49.4	12.3
Quintile 2	62.1	63.7	53.3	16.2
Quintile 3	62.2	66.2	52.1	21.4
Quintile 4	71	72.6	55.0	24.3
Quintile 5	62.3	62.0	46.0	25.9

Note: Unweighted data. This excludes the following: 12 cases where the register could not be shown indicates that only one of these facilities did not have a register (in the other 11 cases, it was just not filled in for the survey day), and six cases where the number of children present exceeded children enrolled. Through the differences were in five cases 4 children or fewer, one school reported that 30 had enrolled, but that 69 were present.

Adapted from UNICEF (2011) p. 25.

Table 7: Summary of meta-analysis findings for CCT and UCT impacts on enrollment

	Odds of child being enrolled in school	Statistically significant?*	# Effect sizes*	Comments
CCT vs. UCT				Our analysis of enrolment
Overall (vs. control)	36% higher	Yes	35	includes 35 effect sizes from 32 studies. Both CCTs and
UCT (vs. control)	23% higher	Yes	8	UCTs significantly increase the odds of a child being
CCT (vs. control)	41% higher	Yes	27	enrolled in school, with no significant difference
CCT (vs. UCT)	15% higher	No	35	between the two groups. This binary distinction masks considerable heterogeneity in
Condition enforcement				the intensity of the monitoring and enforcement
No schooling condition (vs. control)	18% higher	Yes	6	of the condition. When we further categorise the studies, we find a significant increase
Some schooling condition (vs. control)	25% higher	Yes	14	in the odds of a child being enrolled in school as the intensity of the condition
Explicit conditions (vs. control)	60% higher	Yes	15	increases. In addition, studies with explicit conditions have significantly larger effects than studies with some or no
Intensity of condition	Increases by 7% for each unit increase in intensity of condition	Yes	35	conditions

Notes: *We consider a study to be statistically significant if it is significant at the 95% level or higher. We use the term effect size here instead of study since the studies that directly compare CCTs and UCTs have two effect sizes in the analysis. All other studies have one.

Adapted from Baird et al (2014), p. 26.

Table 8: Summary of meta-analysis findings for CCT and UCT impacts on attendance

Panel A: Attendance	Odds of child being enrolled in school:	Statistically significant?*	# Effect sizes*	Comments
Overall (vs. control)	59% higher	Yes	20	A smaller number of studies assess the effect
UCT (vs. control)	42% higher	Yes	5	of CCTs and UCTs on attendance compared to
CCT (vs. control)	64% higher	Yes	15	enrolment. Both CCTs and UCTs have a
CCT vs. UCT (regression)	17% higher	No	20	significant effect on attendance. While the
Intensity of conditionality (regression)	Increases by 8% for each unit increase in intensity of condition	No	20	effect size is always positive, we do not detect significant differences between CCTs and UCTs on attendance

Adapted from Baird et al (2014), p. 27.

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Figure 2: An Input-Output Process for developing inclusive education

INPUTS	PROCESS	OUTCOMES
School • Curriculum content • Textbook & learning materials • Teacher qualifications, training • Morale & commitment • Accessible facilities • Parent/community support • Braille/Sign Language support • Action Plans & Needs Assessments • Evaluation Plan	**School Climate** • High expectations/respect • Guiding Philosophy/Mission • Participation/choice • Positive teacher attitude • Safe and supportive environment • Flexible curriculum • Incentives for participation • Integrated whole-school system • Collaborative support teams	**Achievement** • Literacy, Numeracy • Good citizenship • Personal development • Positive attitude towards learning • Self-determination/advocacy • Self-esteem • Social & Independent Living Skills
Student Characteristics • Diverse Characteristics valued and supported • Disability, gender, at-risk, refugee children, minorities, low-income		**Attainment** • Formal completion • Diplomas/qualification • Preparation for Adult Life
Family/Community Characteristics • Parental Attitudes/Training • Household Income • Economic conditions • Cultural/religious factors • Multi-sector coordination & collaboration	**Teaching/Learning** • Sufficient learning Time • Active teaching methods • Integrated systems for assessment & feedback • Appropriate class size • Adapted curriculum to meet individual needs • Active student participation • Appropriate supports • Clear roles & responsibilities	**Standards** • Official learning objectives [desired outcomes] • School-level objectives • Impact on family & Comm. • Supportive Govt. Policy

Contextual Factors

• Macro-economic and fiscal policies • Political stability, decentralization, • International coordination • Data collection & analysis	• National goals & standards for inclusive ed, • Sources of funding & allocation • Systematic knowledge transfer	• Ed. System Management • Parental & Community Participation • Community sensitization & awareness

Adapted from Peters (2004), p. 14.

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