

Out-of-School Children and Disability

This paper is written to introduce major discussions and literature on the determinants of out-of-school children in developing countries in terms of poverty, gender, child labor, conflict-affected fragile states and partly with focus on disabilities. Review begins discussing on trends and definitions of out-of-school children and further explores major approaches to the issue and empirical studies on factors to determine children's out-of-school. Review of literature mainly focuses on empirical studies with quantitative methods. In the end of the paper, a summary of the discussions and implications for future studies are briefly outlined.

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Background

In the last fifteen years, there have been improvements school enrollment in basic education: worldwide net enrollment rates at the primary school level went from 83.6% in 2000 to 89.6% in 2015, and at the secondary school level from 55.4% in 2000 to 65.1% in 2015 (World Development Indicator 2018). The success seems to be attributed to the efforts of Education for All (EFA) and the Millennium Development Goals (MDGs). During the progress, the considerable attention from the global community has shifted to learning achievements. However, 58 million, primary school-aged children, 9% of that population, and 63 million lower-secondary school-aged adolescents, 17% of that population, were still out-of-school in 2012 (UNICEF 2015, 18), and these rates and numbers have not improved since 2007 (UNICEF 2015, 17).

While overall numbers of out-of-school children decreased as noted above, there are certain shared characteristics of children who remain excluded from basic education systems. For example, in 2011 one-half of all out-of-school children at primary school ages are estimated to live in conflict-affected states, while they make up only 22% of this age group worldwide (UNICEF 2015, 45; Justino 2014). Most excluded children also share the characteristic of having a disability. Despite inconsistencies in data collection worldwide, 15.6%¹ of people aged 15 and older and 5.1% of children are estimated to have disabilities (World Health Organization and the World Bank 2011, 8) and about 24% to 39%² of children

¹ Percentages of people aged 15 and older is larger than that of children because older people have a greater chance of either developing a disability or having an existing disability diagnosed (World Health Organization and the World Bank 2011, 8). The prevalence of people with disabilities are indicated from 1% to 4% in 11 Multiple Indicator Cluster Survey (MICS) and Demographic and Health Survey (DHS) (Filmer 2005, 6) and 14 MICS and DHS (Filmer 2008, 141).

² From 24% to 39% of children with disabilities aged five and older in household data of Malawi, Namibia, Zambia, and Zimbabwe have never attended schools, while from 9% to 18% of children without disabilities have never

with disabilities in surveyed Sub-Sahara African countries are estimated to have never attended schools (World Health Organization and the World Bank 2011, 207). Improving access to school for excluded children is a challenging issue that may require fine-grained approaches that disaggregate homogeneous groups of out-of-school children. This paper first introduces the literatures on out-of-school children in general, its definition, trends, and major frameworks, and focuses on determinants of out-of-school status for children with disabilities. In addition, it briefly introduces major reasons for out-of-school including poverty, child labor, gender, and difficulties within conflict-affected and fragile countries.

Outline of Out-of-School Children

This section will introduce major discussions on the number of out-of-school children, their trends, definition, and challenges.

Definitions of Out-of-School and Typology

This section outlines the definition of out-of-school children debated in the global community. United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute of Statistics (UIS) (2005) explain that the complexity of defining out-of-school children and different data sources and methodologies cause differences in the numbers of out-of-school children indicated by international organizations. Under such circumstances, the UNICEF and UIS tried to refine the definition for out-of-school children to provide comparable worldwide data.

The global initiative on out-of-school children led by UNICEF and UIS categorizes children into two groups: “presently out-of-school” and “at risk of being out-of-school”. “Presently out-of-school” are those who are primary and lower secondary school ages but are not enrolled either in primary or lower secondary schools for more than a year³ (UNICEF 2015). Those who are in the range of age groups, but enrolled in pre-primary school or non-formal education are also considered to be out-of-school. Children and adolescents considered “at risk of being out-of-school” are those who attend school but do not receive high-quality education (Kit 2012). This group also includes adolescents in the 5th and 6th grades who are stamped as failures and who feel uncomfortable in lower secondary school due to their compiled failures. Among those children and adolescents at risk, the global initiative on out-of-school children considers those who are more than two years older than their grade level as serious risk and those who are one year over age as moderate risk (Kit 2012, 7). Although those children are still in school, they have high risk of becoming out-of-school children in the future if no action is taken.

Lewin (2007) (Figure 1) further reviews the issues of equity in measuring access⁴ to school and

attended (World Health Organization and the World Bank 2011, 207).

³ International Standard Classification Education (ISCED) definition in the nation is also considered for defining out-of-school children and adolescents (UNICEF 2015).

⁴ There are different meanings in access to school such as sociological access, cultural access, and psychological access (Obanya 2010). Access to school in this paper means physical access to school.

identifies classifications of exclusions. They begin with children who do not have access to pre-primary schools, who have never attended schools, who drop out without completing primary education, who attend school irregularly or with little learning, who cannot transition to secondary school, who drop out from secondary schools, who attend irregularly, or who do not meet learning standards little learn in secondary school. By using these classifications, the author argues that effective approaches to different types of excluded children could be specifically identified. Thus, recent research on out-of-school children and adolescents define the term as conventional out-of-school children and further classifies children with high risk, including at pre-primary school-age levels.

Numbers of Out-of-School Children and Their Trends

UNICEF reports that the number of out-of-school children decreased from 99.7 million for ages 6–11 (Table1) in 2000 to 57.8 million (2015, 19). The South Asia region has shown the largest decrease in the number of out-of-school children, by 23 million from 2000 to 2012 (19), followed by Eastern and Southern Africa, by 8.3 million, the Middle East and North Africa, by 4.1 million, and West and Central Africa, by 3.0 million. Contrary to this general trend of decreasing the numbers, Latin America and the Caribbean increased the number by 0.2 million and Western Europe, North America and Australia⁵ increased by 1.0 million from 2000 to 2012 (19). Despite a considerable reduction, the total number of out-of-school children in Eastern and Southern Africa and West and Central Africa was still large, at 29.8 million in 2012 (20), and the numbers of such children increased in industrialized countries.

Regarding children of the lower secondary school age, 12–15 years old, UNICEF reports that the number of out-of-school children has decreased from 96.9 million in 2000 to 62.9 million in 2012 (Table 2). About 25% of children worldwide in this age group were out-of-school in 2000, which was decreased to 16.8% in 2012 (UNICEF 2015, 25). This reduction by 18 million was in large part due to successful reductions in East Asia and the Pacific. While in most regions the number of out-of-school adolescents decreased, in Western Europe, North America, and Australia it decreased only 0.1 million, and the number in West and Central Africa has increased from 10.8 to 12.5 million. UNICEF (2015, 26) indicates that the increase in the number of out-of-school children in Africa was affected by population growth. From 2000 to 2012, the population of primary school-aged children increased from 110 million to 148 million and lower secondary school-aged children from 49 million to 66 million (26).

Within the above data, out-of-school children could be disaggregated by those who dropped out, who will never enroll, and who will enroll later. Among the 58 million out-of-school children of primary school age, 25 million would never enroll in school, 13 million were dropouts, and 20 million would enroll school later (UNICEF 2015, 23). Those aggregated data are widely varied for different regions (Figure 2). For example, 64% of out-of-school children in Western Europe, North America, and Australia will enroll primary schools in the future. In West and Central Africa, 60% of out-of-school children will

⁵ The reason for the increase is not specified in the report.

never enroll primary schools (UNESCO 2015, 23). It seems that more children have second chances in those countries where education systems are relatively well established.

In terms of statistics, there are some studies (e.g., UNICEF 2012; 2015) that examine the underestimation of the number of out-of-school children. Carr-Hill (2012) points out the issue of underestimation for out-of-school children caused by the prematurity of the census, birth registration, and surveys. For example, while UIS estimates 13.1 million out-of-school children in 2008 in the countries of Fast Track Initiative (FTI), the author estimates 20.9 million after correcting misinterpretations at household surveys of UIS in the FTI countries., which is 60% more than the estimation of UIS. This would estimate 115 million out-of-school children rather than the 67.5 million out-of-school children in 2008 of UIS estimate (Carr-Hill 2012, 203). Underestimated children are homeless children, children in institution—such as hospitals, religious mandates, and refugee camps—child-headed households, nomadic children, children in multiple families, and children in slums and unsecured areas. The Global Initiative on Out-of-School Children has tried to improve the methodologies to approach each category of unreachable children, such as refugees, nomadic children, and others.

Numbers of Out-of-School-Children with a Disability

Despite the challenges of collecting data on out-of-school children, particularly out-of-school children with disabilities, international organizations have begun to collect comparative data in different countries. However, there are still inconsistencies due to differences in defining “disabilities”⁶ and consequent methodologies (UIS 2017; United Nations 2015) in addition to the issues with the underestimation of the number out-of-school children. Under such challenging circumstances, statistics show a wide range of numbers of children with disabilities. Recent surveys (e.g., DHS and MICS) reveal that proportions of children with disabilities ranged from 2% (e.g., Cambodia) to 10% (e.g., Maldives). Among children with disabilities, WHO and World Bank (2011) mention that 24% to 39%⁷ of children with disabilities in surveyed Sub-Sahara African countries were estimated to have never attended schools as aforementioned. Global Initiative on Out-of-School Children indicates that 90% of children with disabilities in developing

⁶ A definition for disabilities has been developing. The common frameworks are: “(a) ‘disabilities’, which have origins and for which there is substantial agreement about categories (e.g. sensory, motor, severe, profound intellectual disabilities); (b) ‘difficulties’, which do not appear to have organic origins or to be directly linked to socio-economic, cultural, or linguistic factors (e.g. behavioral difficulties, mild learning difficulties, dyslexia); and (c) ‘disadvantages’, which arise from socio-economic, cultural and/or linguistic factors” (UNESCO 2016, 266; OECD 2005). The World Health Assembly developed another classification, the International Classification of Functioning Disability and Health (ICF), informed by the bio-psychosocial model (UNESCO 2016, 266). Recently, the Washing Group on Disability Statistics, adopted from ICF, created a module for assessments. It further created the Module on Child Functioning with UNICEF, by assessing the domains of seeing, hearing, mobility/walking, attention, learning, communicating, self-care, motor skills, emotions, behavior, play, development of relationships, and coping with change” (UNESCO 2016, 266-267).

⁷ From 24% to 39% of children with disabilities aged five and older in household data of Malawi, Namibia, Zambia, and Zimbabwe have never attended schools, while from 9% to 18% of children without disabilities have never attended (World Health Organization and the World Bank 2011, 207).

countries were out-of-school (UNICEF 2014a, 6). It is estimated that worldwide more than 30% of out-of-school children have disabilities (World Vision 2007, 1; Bines and Lei 2011, 420).

Although statistics of out-of-school children with disability are variously indicated, it is certain that children with disabilities are considerably excluded from schools. For example, 73% of children without disabilities completed primary education while 44% of children with disabilities completed primary education in Cambodia in 2014 (UIS 2017, 10). The gap in lower secondary education is even wider: there is a 41% completion rate for children without disabilities, but only 4% for children with disabilities in Cambodia in 2014 (UIS 2017, 10). Plan International (2013) also analyzed the data from sponsored children in 30 countries and indicates that the likelihood of being out-of-school children with disabilities was ten times higher than that of children without disabilities (Plan International 2013, 42). UIS (2017) concludes that children with disabilities are most likely excluded from education⁸ in surveyed countries⁹. Filmer (2008) also mentions that the largest difference in school enrollments appeared between children with and without disabilities, more than gender differences, rural/urban residence and household wealth (Filmer 2008; Bines and Lei 2011).

Profiles and Patterns of Drop-outs

Among out-of-school children, there is a problem with dropping out before completing compulsory education cycles. Children who are at risk of dropping out are commonly those who entered school later than the designated age, or/and those who repeat a grade (UNESCO 2015).

Lewin conducted studies on the drop-out patterns of over-age and under-age children in grades, using the data from UIS. From analysis of cross national data, 40% of six-year old children are not enrolled in grade one (2007, 25). Nearly 40% of children in grade one were below five or older than eight years old (26). For example (Figure 3), about 49% of children aged 13 (28) were enrolled in grade three to six in primary schools in many countries. Despite being enrolled in school, these children carry considerable risks of dropping out of schools. The problem of over- and under-aged children in grades occurs as a result of the convenience to parents of enrolling siblings together (26). This could lead to multiple repetitions and to the incompleteness of education cycles (Lewin 2007, 27)¹⁰.

FHI 360 (2009) indicates that the highest repetition rates occur in the first grade of primary schools. Children who are not promoted to the next grade usually repeat the full curriculum of all subjects without remedial assistance organized by schools. On the other hand, Lewin (2007, 2009) identified five patterns of school enrollment at primary and secondary levels at country levels by exploring enrollment patterns in 44 sub-Saharan African countries based on the Education Management Information System (EMIS)

⁸ Similar results are found in a study analyzing “child sponsorship dataset” by Plan International (2013).

⁹ In the fact sheet No.40, UIS listed nine countries (Cambodia, Maldives, Uganda, Haiti, South Africa, Timor-Leste, Uganda, Colombia, and Gambia) which undertook comparable DHS surveys.

¹⁰ Other reasons for dropping out include poverty and gender, categorized by types of enrollment patterns in the countries as well as grade levels (Lewin 2007, 18-19). A review of literature (Hunt 2008) indicates that multiple reasons lead to dropping out. It also explores detailed reasons for drop outs.

(Figure 4, for 2007). For example, some patterns demonstrate high rates of enrollment throughout all grade levels, as is the case in South Africa, while another highlights very high rates of enrollment in primary school and low completion rates at primary school and low participation rates in secondary schools, as is seen in Malawi. The findings from his analyses indicated various patterns of enrollments and dropout trends,¹¹ and the author is concerned that international organizations have not created adequate measures to sufficiently examine these patterns. This finding is supported by several studies (e.g., Akyeampong et al. 2007; Motala et al. 2009; Chimonbo 2005).

Meaning of School Access from Different Frameworks

Numerous research from different perspectives was explored to determine the meaning of education for nations, society, and individuals. This section will introduce major approaches¹² to the meaning of access to education for the discussion of out-of-school children.

Human capital

The human capital approach is a classic theory to education developed in the 1950s that creates a relationship with labor (e.g., Lewis 1954). Participation in school is considered to be crucial for individuals and societies, including the nation's economy. Schultz (1964) considers education as an investment to gain skills and knowledge, which consequently increases productivity and income at the individual and national levels. He demonstrated that the difference in productivity between US and developing countries is due to the different levels of investment in human resources. Becker (1975), Blaug (1976), Psacharopoulos (1994) and other economists in the field of the economics of education support this value.

In the early 1990s, several studies discussed the importance of children's school enrollment for economic development. The first argument is that higher income countries have a greater proportion of school-enrolled children than lower income countries do. Barro (1991) studied the relationship between economic growth and human capital, including enrollment rates of primary and secondary schools, fertility rates, and children's mortality rates, using the data of 98 countries in 1960–1985. The study found that higher school enrollment rates in primary and secondary education are significantly related with the growth rates of GDP per capita. Mankiw et al. (1992) finds similar results from analyses of the determinants of economic growth, using enrollment rates of secondary school in 121 countries. The study found that economic development was significantly related with school participation, savings, and population growth. Sala-i-Martin et al. (2004) studied the robustness of 67 explanatory variables for

¹¹ Lewin (2007, 24) also argues that 'low achievement' could be caused by minimal time on task and children would eventually be left behind. Slow learners in relative terms seem likely to be excluded, 'silent exclusion', or 'learning little', which could result in drop-outs.

¹² Literature on the major frameworks and approaches in this section are selected from the author's review based on frequent encounters in the research. There exist wide ranging approaches with different nuances or philosophies other than those basic approaches presented here.

long-term economic growth, using 88 countries' national data. Among other variables such as life expectancy and enrollment rates of higher education and public spending toward education, primary enrollment rates had the most robustness in relation to the growth rates of GDP per capita.

Increasingly, a number of studies (e.g., Mingat and Tan 1988; Tan and Paqueo 1989; Psacharopoulos, Arriagada and Verez 1992; Psacharopoulos 1994) discussed a return to education theory, using 'years of schooling' in cross-national data or a nation scale data. Hanushek and Wößmann (2010) analyzed the associations of annual rates of economic growth per capita from 1960–2000 with average years of schooling in 1960, and it found that economic growth per capita increased 0.58 percentage points with one year of additional of schooling (245). Psacharopoulos (1994) used average years of schooling in cross-national data, but analyzed education returns to private and social spheres at different levels of schooling. The study found that education at the primary school level in developing countries was the most effective for investment, followed by higher education and secondary education. The rates of return to private education decreases by level of education and per-capita income levels of the countries increase. Further, it also found that the female rate of return was higher than male's return. For several decades, the majority of analysis in the field of economics of education indicated that enrollment in schools or access to education was crucial for nation's economic development and return to social and individuals' benefits. In addition to the relationship with economics, education has a positive relationship with health and fertility (Psacharopolous and Woodhall 1985; Cochrane 1986; Ross and Wu 1995; Cutler and Lleras-Muney 2006) and with agricultural efficiency (e.g., Jamison and Mook 1984).

While many studies analyzed school enrollment from human capital perspectives, few studies empirically analyzed the return on investment of education for children with disabilities. Lamichhane and Sawada (2013) studied the wage return on investments in the education of Nepalese with visual, hearing and physical disabilities, using the national survey of the Nepal Living Standard Survey 2003/04. The results of Tobit with Ordinary Least Square estimated that the rate of return to education was from 19.3% to 25.6% for people with disabilities in comparison to 10% for people without disabilities in previous studies (93). Such a high rate of return to education despite fewer years of education makes the credit market dysfunctional while years of schooling for people with disabilities is limited (93). The study concludes the necessity for interventions from the education policy side such as provision of scholarships. The studies on school enrollment from human capital perspectives have been very much established, but the area of children with disabilities has surprisingly not been fully explored.

Rights-based approach

The rights-based approach to education is a conceptual framework, linked to a series of treaties and conventions. The Universal Declaration of Human Rights was established in 1948, followed by UNESCO Convention against Discrimination in Education (1960), the International Covenant on Economic, Social and Cultural Rights (1966) and the Convention on the Elimination of All Forms of

Discrimination against Women (1981).¹³ Later, the United Nations Convention on the Rights of the Child (1989) further promised the elimination of discrimination, maximizing the interests of the child and the rights of living, surviving, growing, and freely expressing. These treaties and conventions were linked to goals at Jomtien in 1990, the 2000 World Education Forum in Dakar and the Millennium Development Goals in 2000 and Salamanca Statement¹⁴ in 1994 (UNESCO and UNICEF 2007, 1; UNICEF 2011, 3; United Nations 1997, 427).

As founded by aforementioned treaties and conventions, the rights-based approach to education is to assure “the right of access to education,”¹⁵ “the right to quality education,” and “the right to respect within the learning environment” for all children (UNESCO and UNICEF 2007, 4). The studies of perspectives of the rights-based approach are found much in reports written by international organizations and NGOs as well as in research on issues of children with disabilities, ethnic minorities, and gender (Micklewright 2002, 7). For example, UNICEF (2011, 4) states “inclusion as the key strategy for promoting the right to education.” Miles and Singal (2008) emphasizes the importance of achieving compatibility of the EFA and inclusive education. The paper starts out with incapability of EFA which focus much on mainstream children. Stakeholders in low-income countries explain that teachers in large classrooms are not capable of teaching children who need special attention to learn, and therefore there are incompatible situations between EFA and inclusive education. Authors point out the reason is that stakeholders in developing countries understand EFA as fulfillment of numbers and inclusive education as merely educating children with disabilities. Authors discuss that reviewing the concepts of EFA and inclusive education could lead to synergized terms.

As an example that goes beyond conceptual arguments, Spreen and Vally (2006) analyzed educational policies of South Africa using the rights-based framework. The study argued that poverty, inequality, and the forfeit of freedom rooted particularly in rural communities influence children’s rights to learn beyond

¹³ They articulate that all children are entitled to free and compulsory primary education, and stakeholders are obligated to provide equitable access to secondary and higher education and to assure completion of primary education for all children. Moreover, those treaties promise to improve individual growth, affirm human rights and freedoms, and promote the participation for all into a free society and mutual understanding. The rights of education promise to remove discrimination within educational systems, establish minimum standards and quality education, beyond provisions of access to education. (UNESCO and UNICEF 2007, 7).

¹⁴ At the World Conference on Special Needs Education in June 1994, as many as 117 international organizations endorsed the Salamanca Statement and Framework for Action (Peters 2004, 5). With recognition of every child’s difference in characteristics, interests, capabilities, and learning needs, it asserts the needs for children with special education to access to regular schools and for those schools to provide their needs in learning in a child-centered pedagogy. It further states that education systems which consider children’s diversities and their various needs effectively function as the tools for decreasing discrimination, founding inclusive communities and society, providing most children with compelling education and eventually achieving cost-effective education systems (Peters 2004; UNESCO 1994).

¹⁵ “The right of access to education” means that every child has equal opportunity, with no discrimination, to receive education. “The right to quality education” means that every child receives quality education, including learner-centered approach and relevant curriculum, which improve abilities for future employment and life skills. “The right to respect within the learning environment” means that every child has the rights to respect their dignity, including their language and culture, the rights of participation and expression, and no violence, in an educational environment (UNESCO and UNICEF 2007, 4).

the issue of access to education. The educational budget in South Africa appeared high enough to cover the costs, but inequality in educational environment prevails in the system. Consequently, this could lead to school problems such as violence, crime, harassment, and eventually dropouts. South Africa necessitates the consideration not only of “rights to education,” but also “rights in education.” The article discusses the effect of inequality and poverty on children’s learning, which leads to the unfulfillment of educational rights and worsens inequality and poverty.

The Capability approach

The capability approach is a concept that human beings are capable of attaining functioning in doing and being (Sen 1992; 1999). Functioning, such as receiving education and being healthy, is an attainment of capabilities, and capability is the opportunity and freedom to achieve functioning. The capability approach has been used as a framework for assessing a person’s or groups’ well-being, including poverty and inequality, social circumstances, and policies and interventions for social betterments (Robeyns 2006). It differs from the human capital approach in that the human capital approach conceives of education as the means to create skills and knowledge to contribute to productivity (Robeyns 2005). The capability approach interprets education as a non-economic principle, which is compatible with and compensates for the shortcomings of the rights-based approach to education (Robeyns 2006).

The capability approach places importance on education’s nature and its role as a tool. It considers the meaning of education itself more than the human capital theory does. A person with education and knowledge has opportunities to prosper, because education provides values in various perspectives and notion of freedoms. Bakhshi and Trani (2004) explain education as having an important role in the capability approach because it provides knowledge to approach new challenges in daily life, how to do ordinary things in different ways, to have a new life and to live together with others with various perceptions. Simultaneously, a person with education is able to have a greater variety of opportunities, such as those that could lead to a job, more income, healthier life, and participation in decision making (Unterhalter 2003). Robeyns (2006) further explains that adults with capabilities can maintain jobs because the capabilities are “the moral of concern.” For example, while the adults are able to choose jobs, children are not good decision makers for their own growth and well-being. Therefore, compulsory education is very logical from the capability approach. It is important that the compulsory education should be of a quality that improves human beings as opposed to one that hinders children from growing personally, emotionally, and intellectually.

Studies on school enrollment with the capability approach include Trani et al. (2015), who conducted a study on school enrollment for children with disabilities in Afghanistan. It emphasized the intrinsic aspect of education which the capability approach undertakes, and human capital does not. It also criticized that framework of a rights-based approach that does not carry operational dimensions for the rights. Consequently, the approach stays in legal and formal circumstances for education for all,

disregarding the fact that there are children hindered from their learning (Unterhalter 2003). The study emphasized the importance of educational spaces for interacting with others, personal growth and psychosocial assistance in frequent situations in Conflict-Affected and Fragile States (CAFS), not merely functioning as a tool to enhance learning outcomes (Trani et al. 2015, 343). The study argued that education is considered as “basic commodity” in CAFS and, consequently, concluded the marginalized children such as children with disabilities, children living in poverty, and minorities are out-of-school.

Social exclusion framework

The social exclusion framework is a discourse, which originally emerged in France in 1960s in discussions on poverty (Silver 1994). Social exclusion is not a “condition” but a “process” and “the outcome of process” (Peters 2009, 5; Silver 2007, 25). Social exclusion does not only indicate poverty, but it further indicates “social relations, social support, and civic engagement” and could vary socially, culturally, or regionally because it is a “socially embedded concept” (Peters 2009, 5; Silver 2007, 25). Personal characteristics may bring potential risk to exclusion, including “health, disability, gender, age, place of birth, language, religion, sect, and spatial distance” and also “citizenship status, gender prohibitions, and social isolation” may lead to a risk of “ineligibility for services” (Peters 2009, 5; Silver 2007, 25).

World Bank (2013) explains that in the social exclusion framework “inclusion” is “the process of improving the terms for individuals and groups to take part in society” and “the process of improving the ability, opportunity, and dignity of people, disadvantaged on the basis of their identity, to take part in society.” Social inclusion means more than decreasing poverty and social inclusion differs from equality, but it could be a factor in determining inequality. Inclusion is examined in three domains—markets, services, and spaces—and in four markets—land, housing, labor, and credit. For example, land has been a core factor for exclusion. Accesses to the services of health and education are necessary to improve human capital, and the service of social welfare could lessen the impact of damages. Further, access to transportation increases people’s mobilities and transactions for their future possibilities. In terms of spaces, social, political and cultural phases could cause exclusion such as in cases where physical spaces prioritize majority groups. Thus, World Bank developed the meanings of exclusion, and several World Bank research and reports were written based on social exclusion framework on girls’ education (e.g., Lewis and Lockheed 2006), disability and education (e.g., Yeo 2001; Yeo and Moore 2003), and ethnic minority (e.g., World Bank 2010; Molinas et al. 2012).

Peters (2009) discusses the social exclusion framework in regard to disabilities and their related problems with multi-disadvantaged situations. She points out that preceding literature sufficiently explored the needs of the disabled, but not the causes of their disabilities. She argues that insufficient levels of education would limit exposure to society and cause unsatisfactory health conditions and low self-esteem. Consequently, such circumstances would also limit opportunities for economic activities,

which would lead to a vicious cycle of long-term poverty, exclusion from society, poor health, and even more risk of injury. She points out that disability itself does not cause poverty, but rather discrimination leading to the denial of education does. She further points out that attitudes toward “minority status and disability,” “cultural norms and disability,” and “gender and disability” lead to discrimination and marginalization (Peters 2009, 6). She points to several cases in the Middle East and North Africa and emphasizes the importance of education for youth and children with disabilities, including segregated education (Peters 2009).

Factors for Out-of-School

In studies of school enrollment in basic education, a number of studies analyzed the determinants of non-enrollment in school, poverty, gender, and child labor. CAFS and disability have been recently recognized as characteristics of out-of-school children. This section will mainly review studies on the determinants of out-of-school children with disabilities. The major arguments for other characteristics including poverty, child labor, gender, and CAFS are briefly introduced after discussions on out-of-school children with disabilities.

Disability

The international community has recently developed an agenda regarding people with disabilities in developing countries (Singal 2006; Miles and Singal 2008). Although the UN Convention on the Rights of Persons with Disabilities¹⁶ (CRPD) was initiated in 2006 and enforced in 2008, the literature on out-of-school children with disabilities are only slowly emerging.¹⁷

While research on schooling for children with disabilities using quantitative data in developing countries are impacted by the aforementioned issues of defining and underestimating disability, empirical studies on out-of-school children with disabilities have emerged since 2000. Plan International (2013) surveyed the living circumstances for children with disabilities, including their reasons for not attending formal schools in 30 countries in Latin America, Africa, and Asia. The results revealed that being impaired was the top reason for children with disabilities to be out of school. For example, data from Egypt showed that the disability was a cause to not attending school. While 80% of out-of-school children with disabilities do not attend school due to their impairment, 75% of children without disabilities do not attend due to their young age (42). The study points out that not attending school for children with

¹⁶ Article 2 of the Convention is to guarantee the rights of children with disabilities for equity in educational opportunity at any age throughout all levels with no discrimination. As many as 175 countries ratified the Convention (<https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>, accessed on January 11, 2018). With CRPD, people with disabilities obtained the equal rights to live in society instead of being beneficiaries for charity.

¹⁷ Yeo (2003, 575) points out that international development seldom includes people with disabilities. She found only 24 articles of the 44 journals during the period of 1997–2002 mention disabilities in their titles, abstracts, or keywords. A review of literature on persons with disabilities of Tanzania from 1998–2008 also showed that studies on access to primary education comprised only five out of 42 studies. Only two studies of those five analyzed quantitative data (Lehtomäki et al. 2014, 35).

disabilities is attributed to the exclusion of children with disabilities, not the general inaccessibility of school.

A study (Fleisch et al. 2010) in South Africa, using the Community Survey 2007, indicated the factors for children being out of school were disabilities, living without biological parents, living without a safety net such as social welfare, and racial and residential factors. The study disclosed that children with severe disabilities were most likely to be out-of-school and never-enrolled. Another study (Sabates et al. 2013) analyzed school dropouts of children aged 4 to 15, including a factor of disability, from a household survey from 2007 and 2009 in Bangladesh. The results of multivariate logistic regressions showed that children with disabilities had higher probabilities of dropping out than children without disabilities. Another study (Trani and Loeb 2012) used the household surveys from Afghanistan in 2004 and Zambia from 2005–2006 and analyzed multidimensional poverty, including education access, for people aged 14 to 65 years old. The results in both countries revealed that the factor of having disabilities was negatively related to access to school. From the results of Zambia, the factors of wealth and being employed were significantly related to access to education for people with disabilities, but not for people without disabilities. In Afghanistan, the result also showed that females with disabilities and people who reside in rural areas were less likely to have access to education. Thus, from the data of children with and without disabilities, disability among other factors was found to be strongly and negatively related with school enrollment. Those studies demonstrate that disability is a negative factor for school enrollment.

The following studies focus on children with disabilities in order to identify the factors for not enrolling in schools beyond disability itself. The Disability Survey Report of Tanzania disclosed that the top reasons for not attending primary schools for children with disabilities were disability and sickness (Lehtomäki et al. 2014). Another study on Tanzania examined access to education for children with disabilities at primary levels analyzed descriptively and found five barriers: inadequate school buildings, lack of understanding by school staff, lack of teacher training and experience with disabilities, unwillingness of parents to send children to school, and lack of teaching and learning materials (HakiElimu 2008, 25).

A study (Trani et al. 2012) researched access to education using the National Disability Survey in Afghanistan 2004–2007. Logistic regressions for children aged 7 to 18 were explored on access to education with explanatory variables such as gender of children and household head, ethnicity, disability types, wealth, rural location, and household head education levels. The results found that girls with sensory disabilities were in particular less likely to go to school. It also found that the lack of a school nearby was a strong factor for excluding children from school. Further, greater household wealth and education level of the household head were also strong factors related to access to school. The study emphasizes the need for policy to focus on out-of-school children, by challenging the tools to identify those children, raising awareness, improving teaching quality, and increasing the involvement of the government and donors for raising resources for inclusive education.

Another study (Trani et al. 2013) in Afghanistan analyzed dimensions of deprivation for children aged 5 to 14. The study applied the Alkire and Foster index, using a cut-off criteria, of multidimensions of deprivation for children such as education, health, care and love, and maternal deprivation, using the National Disability Survey in Afghanistan from 2004–2005. The analyses of head count ratios disclosed similar results, that girls, children with disabilities, and particularly girls with disabilities who live in rural areas are deprived of access to school (Trani et al. 2013, 406). Similarly, Trani and Cannings (2013) also conducted multidimensional poverty analyses in Western Darfur, using a census of all households, including nomadic households and Internally Displaced Persons in 2009. The study analyzed multidimensional components on children aged from 5 to 18 such as physical safety, empowerment, and psychological wellbeing. It found girls with severe disabilities were frequently in multidimensional deprivation status, lacking access to education in particular. Teachers do not have appropriate training and schools do not have facilities and materials to accommodate children with disabilities. The study concerns service delivery to reach children who are lack certain capabilities. This study as well discussed children with multiple disadvantages. The vulnerability of girls with disabilities are a concern (UNESCO 2015). UNICEF's study in the Pacific Islands claimed that girls are stigmatized and discriminated against, which causes exclusion, (e.g., Tavola and Whippy 2010) Girls and women with disabilities therefore suffer from “double discrimination” (Tavola and Whippy 2010, 27; Gatling and Juraeva 2013, 23). Thus, the study touched upon children with disabilities and multiple disadvantages, especially girls with disabilities.

The quantitative studies described below were conducted by the same author in different research settings. Lamichhane 2015 analyzed school participation and attainment, using variables of individual characteristics, religion and region, family characteristics, and the interactions of those variables, from the data on children aged 6 to 14 and 14 to 18 from the India Human Development Survey 2005. The results from Probit regression analyses revealed that having a disability, being a girl, of older age, or Muslim, having a larger family, and parents with less education were significantly and negatively related with children's school enrollment and completion at ages 6 to 14 and 14 to 18. Regarding dropouts for ages 6 to 14, the results indicated that being a girl, of younger age, living in slums, living in non-rural areas, having large families and having parents with less education were factors that contributed to dropping out. The study pointed out that the factor of having disabilities were related with enrollment but not with dropouts. The author implies that for enrolled students, having disabilities could be a motivation to continue education.

Lamichhane and Kawakatsu (2015) researched the determinants of school participation for people with and without disabilities in Bangladesh. The study used the Household Income-Expenditure Survey in 2010, including questions on different types of disabilities, and analyzed school participation for ages 6 to 18 with the characteristics of children and household with logistic regression. The results indicate that boys are more likely to be out of school than girls ages 6 to 18, which may be the result of vigorous encouragement of girls' school participation in Bangladesh. Severe disability is negatively related with

school participation. A male household head has positive effect on school participation. The education level of household head has a positive relation with school participation. The wealth indicator is positively related with school participation. Other explanatory variables, such as older age and large families, have a negative effect on school participation. The study concludes that children with disabilities and in poor households could improve their rates of school attendance through conditional cash transfers as were used to improve girls' participation in school.

Lamichhane and Tsujimoto (2017) researched the effect of universal primary education policy (UPE) on educational attainment for people with disabilities in comparison with people without disabilities in Uganda, using the Ugandan Demographic and Health Survey from 2006 to 2011. The study analyzed the relationship of UPE, gender, household characteristics with years of schooling, enrollment rate, and completion rate, in respective models. The results of these ordinary least square and logistic regressions were that UPE had significantly positive relations with girls' years of schooling, school enrollment, and completion rates. However, it still remained that boys surpassed girls in school enrollment rates. On the other hand, the study could not identify the UPE effect on people with disabilities although the gap between people with and without disabilities existed despite UPE policy. Disabilities had a negative relationship with years of schooling and primary school completion. The authors argue that lack of parental investment in education for children with disabilities as well as institutional barriers to education may be factors contributing to the lack of improvement in their access to education.

*Poverty*¹⁸

A number of studies determined that poverty has been a significant factor in school enrollment for decades. Literature at the macro analysis point out the negative relationship between poverty and school enrollment; the higher the poverty level, the lower the school enrollment. At the household level, studies indicate similar findings in various economic circumstances. Becker (1994) developed a household production framework. He indicated that the family decision to send children to school was based on the theory that the family as an economic actor would utilize their resources at maximum capacity. The family is the decision maker regarding what kinds of activities children will undertake, considering the families' current and future needs.

In a classic study, Chernichovsky (1985) analyzed the schooling status of children ages 7 to 18, including attainment and hours of being in school, and roles in families and household wealth with survey data from rural Botswana in 1974. It indicated positive correlations between income levels and school enrollment. In the analysis of ordinary least square, a households' assets, such as the value of cattle, showed strongly significant associations with children's school status, in addition to parental education levels. It also indicated trade-off effects between the number of siblings and schooling status. Some

¹⁸ 'Poverty' defines not only income levels, but forms from income levels. It includes multiple disadvantages caused by low income levels as well as economically excluded groups.

children were sent to work in order to keep large farms in substitution for other siblings' schooling. A significant finding of this study was the indication of trading off among siblings in poor households. Use of household assets as indicators, instead of income level, has been applied in various studies (e.g., Filmer and Pritchett 2001, estimating wealth effect) in order to analyze the determinants for school enrollment. The results of the study concluded that an affluent child is 31% more likely to be enrolled in school than a child in poverty in India (Filmer and Pritchett 2001, 128).

A recent study in the Philippines (Albert et al. 2012) analyzed the situations of out-of-school children collected through various national data sources in 2008–2009. The data revealed that 10% of primary school aged children and 40% of secondary school aged children were out-of-school, including children who were supposed to be in different levels of education such as in pre-primary, post-primary and non-formal schools (27). The analyses of determinants on out-of-school children, using logistic regression separately for primary school level, indicated that household poverty level, pre-school aged children, a larger pupil-teacher ratio, being boys, mothers with less education, children with many siblings, and female household heads were significantly related to the presence of out-of-school children, holding other characteristics of children, household, and school constant. At the secondary school level, residing in rural areas and working in addition to the same variables above mentioned were significantly related with being out-of-school. Remarks were that the pupil-teacher ratio was more sensitive for primary school aged children, and working children were seven times more likely to be out-of-school children than not-working children.

*Child Labor*¹⁹

Although the percentages are varied, many out-of-school children work outside and inside their homes.²⁰ Worldwide, 15% of children ages 5 to 14, some types of work²¹ (UNICEF 2014b, 83). The majority of those children²² are also enrolled in school (UNICEF 2014b). For a few decades, the studies on child labor and their schooling identified child labor as a fundamental “push factor” for dropping out of school and school as a “pull factor” for children who were out-of-school (e.g., Bequele and Boyden 1988;

¹⁹ The International Labour Organization defines child labor as children whose work damages their childhood, capabilities, dignity, and physical and psychological growth. However, when referencing child labor or children's work, this section is not limited to that definition.

²⁰ Among out-of-school children, 48% of them in Bangladesh are working, 23% in Cambodia, 37% in Ethiopia, and 21% in Mexico (UNICEF 2015, 67).

²¹ Data to estimate the number of child laborers is from MICS, DHS, and other national surveys. The definition of child labor for this number is the “percentage of children 5–14 years old involved in child labour at the time of the survey. A child is considered to be involved in child labour under the following conditions: (a) children 5–11 years old who, during the reference week, did at least one hour of economic activity or at least 28 hours of household chores, or (b) children 12–14 years old who, during the reference week, did at least 14 hours of economic activity or at least 28 hours of household chores.” (UNICEF 2014b, 83).

²² According to Understanding of Child Work (ILO-UNICEF-The World Bank, 2017, 21), 3.9% of children ages 5 to 14 are working and about 3.7% are both working and going to school in Mexico in 2015. As for children ages 15 to 17 ages, 22.9 % of them are working and about 13% are both working and going to school in Mexico in 2015.

Coulombe and Canagaajah 1999). For example, Ray and Lancaster (2003) analyzed ILO's data from seven countries²³ and indicate that child labor from ages 12 to 14 is detrimental to children's learning, and they eventually drop out from school. Akabayashi and Psachaloulos (1999) indicated a trade-off relationship between children's work and school attainment and achievement. The study found that long working hours was negatively related with reading and mathematical skills. In general, children's work hindered school attendance by making it difficult to attend to school or concentrate in class. Children who feel left behind are at risk of leaving from school. Children's work is also related to fatigue and absenteeism which lead to drop outs (UNICEF 2015).

While Guarcello et al. (2008) also support the general idea of children's work as a "push" factor from school, it implies more complicated insights into the relationship between child labor and their schooling. Guarcello et al. (2008) indicated that school children in 60 countries who work had 10 to 30% school attendance disadvantage in 56 countries. As opposed to expectations, working children had slightly higher school attendance rates in seven countries and neutral results in five countries (2). Such differences in cross-country analysis could be influenced by variations in the type and degree of intensity of their work, and various school factors in the nations. This could imply that effective educational policy could accommodate children who both work and attend school.

In a similar manner, some studies indicate that child labor is not considered to be a direct factor in being out-of-school, but school factors could be a "push" factor for children with work. Ilon and Mook (1991) analyzed the work and schooling of children ages 6 to 14 in Peru. The study indicated that children in rural areas had higher opportunity cost because of inconvenient access to school, lower quality education, lower household incomes, and less educated parents. Moreover, rural environments were less likely to provide educational exposures. Levison (1991) also found a negative relationship between the working hours of 10- to 14-year-olds and houses with public services in Brazil. When access to public services, such as physical infrastructure and household welfare, were fewer, working hours for children became longer. Although the results claimed that the lack of public facilities, such as schools, were strongly related to child labor, the lack of services for basic human needs was also a significant contribution for working. Local demand for labor-intensive force also affected child labor and rates of being out-of-school (ILO-UNICEF-World Bank 2017).

Gender inequality

Gender equity in the education system has been set as a goal of MDGs and Sustainable Development Goals (SDGs), because the gender gap in school enrollment has been a global issue for decades. UNICEF (2015) is concerned that 53% of out-of-school children at primary school age are girls²⁴ and that those in

²³ Data was collected by the ILO's "Statistical Information and Monitoring Programme on Child Labour" (SIMPOC).

²⁴ Gender equality in education means that boys and girls have equal access to quality education. Some countries such as Mongolia have more girls enrolling in schools than boys.

school are more likely not to finish primary school (56). Among out-of-school boys and girls, girls are unlikely ever to have enrolled in primary schools while boys have some schooling experience (UNICEF 2015; UNESCO 2014). Girls face even more difficulties when they enter lower secondary schools at the ages of puberty, and their enrollment becomes even harder at upper secondary ages (UNICEF 2015).

From 1999 to 2011, UNESCO disclosed that there was a slight improvement from 57% to 63% in gender parity of primary education level (UNICEF 2015, 56). Among 161 countries, 30% of them had difficulties of reaching gender parity by 2015; 15% of them found parity hard to reach and 7% found it very hard to reach the targets (UNICEF 2015, 56). Among those countries, more than half of all out-of-school girls at primary school ages resided in the Sub-Saharan area (UNICEF 2015, 57).

Preceding studies argue the importance of girls' education for several reasons. First, more educated girls could break vicious cycles of poverty and its consequences (UNESCO 2003). Girls with an education are more likely to delay marriages, to be healthy, to keep healthy families (Gakidou et al. 2010), to provide children with educational opportunities, and to learn knowledge and skills related to economic activities (Psacharopoulos and Patrinos 2002; UNESCO 2003). Once girls enter school, they tend learn better than boys (Yuki and Kameyama 2013; Maeda 2012).

The factors leading to the "push out" effect from schools include issues of safety attending school (Stromquist 2014), no installation of separated toilets, no female teachers, inflexible non-formal education opportunities, and a biased curriculum and learning process (UNICEF 2015). The factors of "pull" out of schools are combined factors of poverty and gender, early marriage and female genital mutilation/cutting (FGM/C), child labor, girls of a minor ethnicity and girls living in remote areas combined with poverty and girls with only one or no parents (UNICEF 2015), girls with disabilities and girls in CAFS (Stromquist 2014). Those factors are rooted in poverty and further in cultural norms, which could be multiplied in fragile circumstances. For example, as much as 40% of women ages 20 to 49 were married as children in the poorest quintile whereas only 16% of those were from the wealthiest quintile (UNICEF 2015, 60). Parents sometimes consider child marriage to be a way to protect girls from premarital relationship or pregnancy before marriage (UNICEF 2015). There are additional difficulties for girls; for instance, girls who are menstruating are not allowed to go outside in Indian cultures. Monthly absence from school pushes girls behind in learning (UNICEF 2015). Gender issues in education appear to be tangled with cultural norms and beliefs, which makes it difficult to gender equity.

It is crucial to argue about "hidden curriculum" at schools to uncover and lessen biased cultural and social norms of gender. "Hidden curriculum" needs to stop recycling traditional gender biases regarding the division of work and to change parental perceptions. There needs to be comprehensive interventions in households' circumstances impacting girls' non-enrollment in school, parental unappreciation to education and traditional values, customs regarding child marriages, and even including poverty, conflict and regional inequality which worsen those factors. Gender equity should include multiple facets such as experiencing in the quality of learning, eliminating discrimination in learning environments, providing

appropriate curriculum and learning materials for gender sensitivity beyond countable indicators including access to school and gender parity (Kanno et al. 2012, 30).

Conflict affected and fragile countries²⁵ (CAFS)

Recently, children in CAFS have been increasingly discussed in global communities. Twenty-two percent of all children in the world are living in CAFS (UNICEF 2015, 45). However, a half of all out-of-school children lived in CAFS in 2011, which has increased from 42% in 2008 (UNESCO 2014, 3) and the primary completion rate in these countries is 69%.²⁶ Global communities are concerned about “a lost generation” in areas impacted by long-term conflict, such as Syria. For example, the net enrollment rate of refugee children ages 6 to 14 from Syria to Lebanon is only 12% (UNESCO 2015, 49; Watkins 2013, 8). UNESCO argues that it is a challenge for Lebanon as well as global communities.

The destruction of infrastructure and displacement and disruption of service delivery are identified as barriers to education in conflict-impacted areas (UNICEF 2015; Justino 2014). Infrastructure including houses, communities, and school buildings are affected. Consequently, schools play roles as shelters for people evacuated from their houses and communities. Moreover, schools themselves become targets of fire. Under such circumstances, keeping up a regular curriculum and teaching quality becomes difficult (Dryden-Peterson 2009). In addition, teachers and students become sparse due to evacuations from the communities, and education supplies and examinations are disrupted, all of which are obstacles for keeping educational activities at schools. Additionally, inflexible educational system hinders refugee children from access to school. It is the case that refugees often do not carry birth certificates or other necessary documents for school enrollment. Moreover, internally displaced children have difficulties when particular groups in terms of language (Timor-Leste), race (South Africa), or ethnicity (Rwanda before 1994) are prioritized and control the areas (UNICEF 2015).

As for barriers on the demand side of education, poverty, health, returns to education, recruitment of children, and fear are mainly discussed in the research (Justino 2014). Conflicts bring lack of economic activities such as inaccessibility to goods and services and the removal of income generating activities. Moreover, long term conflicts remove the labor force from households due to injuries, death, and recruitment into armed conflict. There is also evidence of adverse effects on health of children in CAFS, such as slow growth rates (e.g., Guerrero-Serdan 2009) and impacts on pregnant women that affected children’s health (e.g., Parlow 2012). Consequently, adverse effect on children’s growth and nutrition in

²⁵ The list of CAFS is varied among major organizations. Classified countries under conflict circumstances is 24 by World Bank, 18 by UNESCO and 31 by Global Partnership for Education (<https://www.globalpartnership.org/content/list-gpe-partner-countries-affected-fragility-and-conflict>. Accessed February 8, 2018). UNICEF (2015, 46) argues about children surrounded violence related to organized crime, trafficking, drugs and conflicts of gangs in Latin America and the Caribbean countries. Those countries are not included in the list of CAFS.

²⁶ Global partnership for education, <https://www.globalpartnership.org/focus-areas/countries-affected-fragility-and-conflict> accessed on Feb 8, 2018.

general could influence their learning achievement, attendance, and overall performance in school. There are discussions on recruitment to child soldiers and fear of affecting of violence at schools (e.g., Menon and Arganese 2007), and there are also some studies that incentives to education decreases due to devastation to industries (e.g, Chamarbagwala and Morán 2009).

Summary

This paper introduced preceding literature on out-of-school children in general and out-of-school children with disabilities. Access to education has been vigorously studied in academic papers and global communities for decades. However, after mapping that literature, a few issues emerged for further study on out-of-school children and disability. First, challenges in collecting data on invisible children, including issues of underestimation, were argued repeatedly about both out-of-school children in general and out-of-school children with disability in particular. Even though a recent initiative led by UNICEF set the definition, the organization still faces difficulties in collecting the worldwide comparable data for out-of-school children with disability due to questions about how to define disabilities.

Second, partly due to lack of reliable data, few studies on factors for out-of-school children with disability exist, are analyzed by the same researchers, and are considerably fewer than other characteristics of children such as children in poverty and child labor. Several studies pointed out that disability is the strongest factor for not enrolling in school, while some argue that disability is not a direct factor. Consequently, it is necessary to uncover critical factors on enrollment of children with disabilities and accumulate enough evidence to build a foundation for policy dialogue for improving access to education for children with disabilities.

Third, discrimination and biases, which are pointed out to be important factors for disability, are not included in the empirical analyses for out-of-school children with disabilities. Studies on school participation including the factors of discrimination and biases could deepen analyses on psychological access or “silent exclusion” beyond physical access to school. Analysis on stakeholders’ perceptions could be potential for identifying further mechanisms and approaches.

Lastly, children with multiple disadvantages were also rarely studied. As studies on them were found to focus mainly on gender issues, other issues facing this population need attention from global communities in order to fulfill the last gap in the global goal. Exploring such studies and identifying factors could break through conventional approaches for mainstream disadvantaged children and improve to the next stage for including the most excluded children.

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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 used 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. The list of countries is available in Annex I.

Source: UNESCO Institute for Statistics, August 2014

Source: UNESCO 2015, 20

Table 2 Out-of-School Adolescents of Lower Secondary School Age, 2000 and 2012

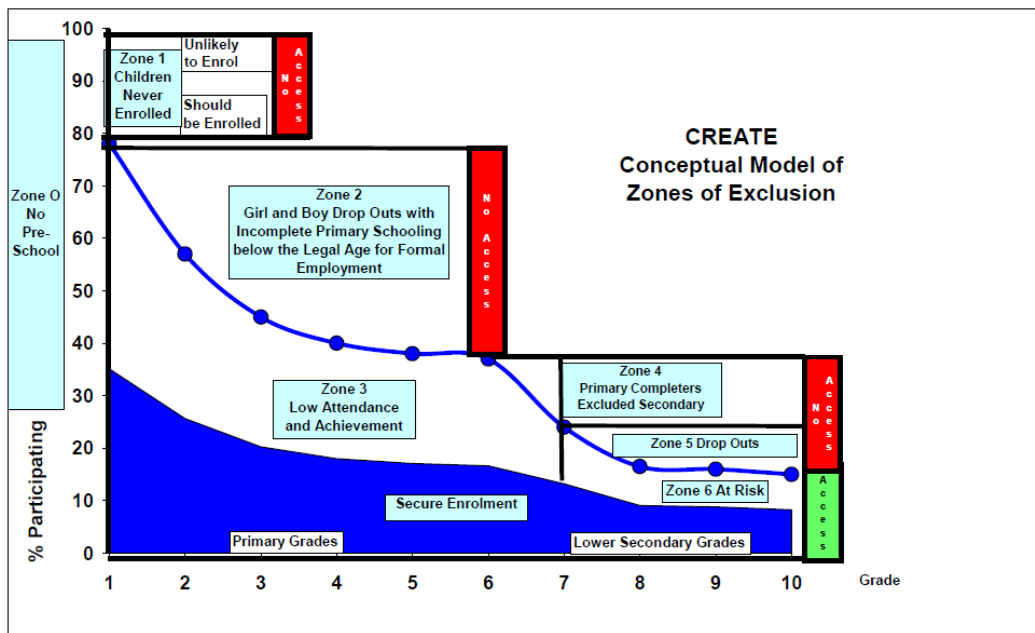
Region	2000						2012					
	%			Number (million)			%			Number (million)		
	MF	M	F	MF	M	F	MF	M	F	MF	M	F
W. EUROPE/N. AM./AUSTRALASIA	2.8	3.2	2.4	1.1	0.7	0.5	2.7	2.6	2.8	1.0	0.5	0.5
LATIN AMERICA AND CARIBBEAN	10.1	9.9	10.2	3.6	1.8	1.8	7.5	7.7	7.3	2.8	1.5	1.3
CEE/CIS	11.6	11.2	12.1	3.8	1.9	1.9	5.2	5.1	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 used by UNICEF. The category Western Europe, North America and Australasia refers to primarily high- and high-middle-income countries in which UNICEF does not operate. Data for Eastern 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

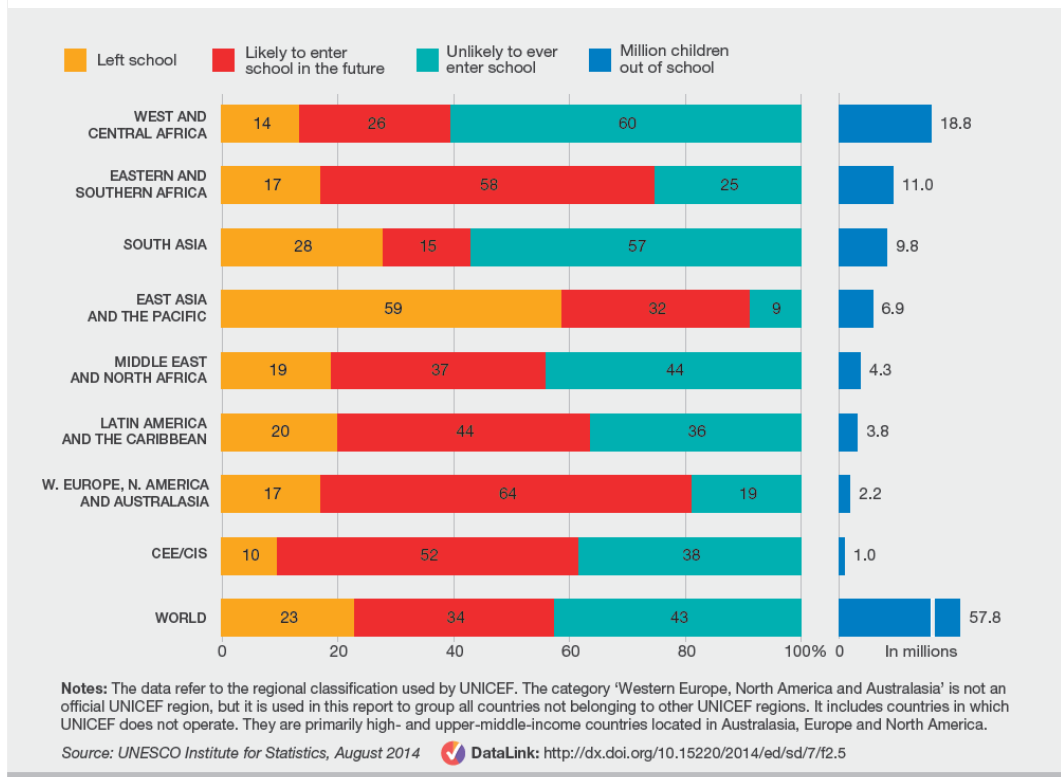
Source: UNESCO 2015, 25

Figure 1 Access and Zones of Exclusion from Primary and Secondary Schooling



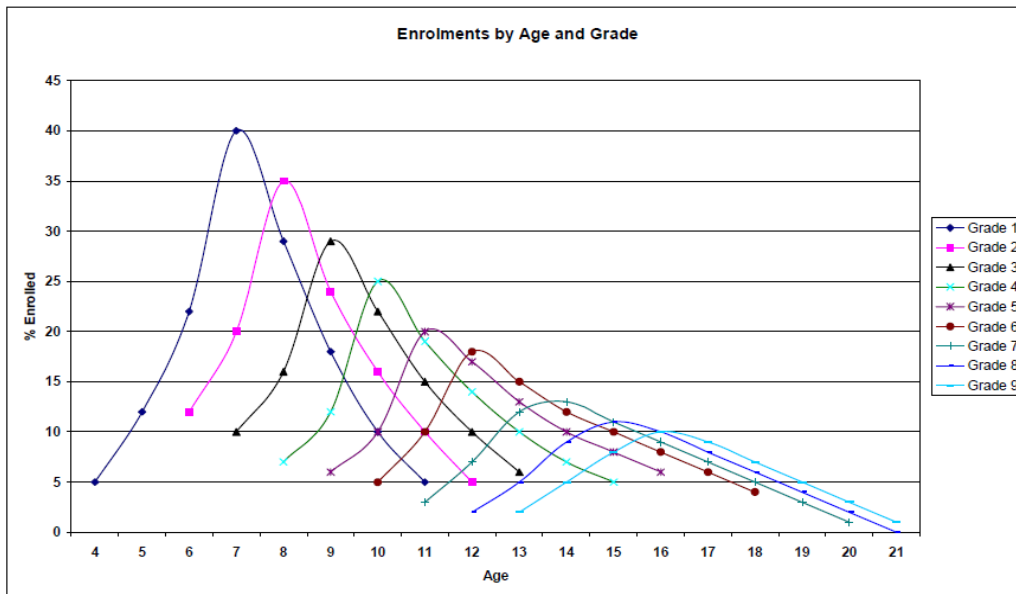
Source: Lewin 2007, 22

Figure 2 School Exposure of Out-of-School Children of Primary School Age by Region, 2012



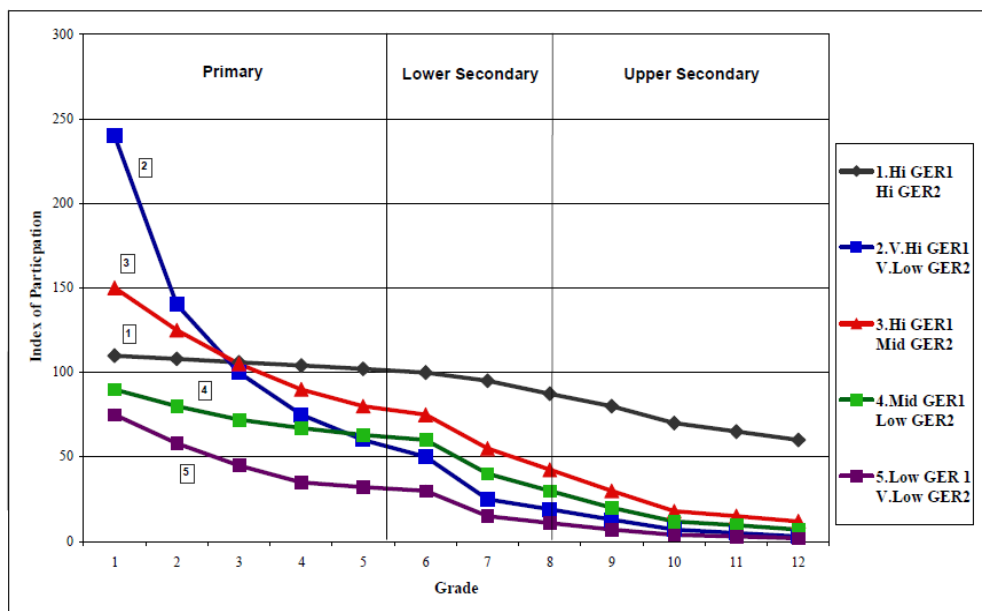
Source: UNESCO 2015, 23

Figure 3 Enrolments by Age and Grade



Source: Lewin 2007, 26

Figure 4 Generic Chart of Enrolment Patterns



Source: Lewin 2007, 19

本稿の目的は開発援助の議論を広く紹介することにあります。本稿の掲載情報は信頼できると考えられる情報源から作成しており、作成には万全を期しておりますが、その正確性、完全性を保証するものではありません。詳しくは原論文をご参照下さい。また、記載された付加価値、政策含意や留意点は作成者個人の責任で執筆されており、作成者が属する組織の見解とは必ずしも一致していません。