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Does marginalisation in education stall the progress of sustainable development goals?

Rose Ingutia

Abstract

The Sustainable Development Goals target of leaving no one behind has stalled because out-of-school children (OOSC) in Africa are generally poor, disabled, orphaned, minority, working, overaged, child-brides and are remote. Descriptive statistical analysis of quantitative secondary data was applied to investigate education issues. Comparisons across gender, residence and regions indicate marginalization in education systems characterized by low preschool education, inefficient primary schools evidenced by insufficient inputs, untrained, poorly paid teachers and biased public expenditure. OOSC face a range of circumstances: to meet Sustainable Development Goals targets requires solutions to specific cases; one size will not fit all, since OOSC are trapped in a web of multiple problems.

Key words: Out-of-school children; Marginalization in education; Africa; Public expenditure; Waived schoolfees.

1. Introduction

This paper addresses education-related issues in Africa, including declining school attendance, rising dropout rates and increasing numbers of out-of-school children (OOSC), and seeks to identify the marginalized in education. Marginalization is related to but is different from inequality, and the term is used to describe situations of acute and persistent disadvantage in education as distinct from the overall distribution of educational opportunity (UNESCO 2009). Marginalization has nothing to do with the population numbers, and it can apply to most of the population if they are discriminated against in accessing education. The right to education demands equal opportunities for all in accessing education and within education systems. Marginalization in education matters because it stalls the progress of meeting Sustainable Development Goals (SDGs), particularly the fourth goal of ensuring inclusive and quality primary and secondary education for all by 2030.

Why focus on education? Education develops both life and livelihood skills and offers more opportunities; it has the potential to transform a society in a single generation. The primary potential benefits of schooling are associated with improvements in the child's future socioeconomic status, it enhances the opportunity to obtain better jobs, improves children's productivity and earning prospects, it facilitates their access to wellbeing facilities such as having an adequate quantity of nutritious food, good healthcare, good shelter, freedom of speech and information (Schaffner 2004). Having a low level

of education is one of the key factors keeping people poor over the decades or over life cycles (Bellitto 2015).

In 2000, the World Education Forum in Dakar Senegal agreed to Education for All by 2015, and at the same time, the Millennium Development Goals targeted universal primary education for All. This subsequently led to the political commitment to abolish school fees in respective countries. Consequently, there has been tremendous progress across the world, the number of children and adolescents out-of-school has fallen by almost half since 2000. The greatest progress achieved has been in gender parity particularly in primary education, but gender disparities remain in several countries (UNESCO 2015).

Primary school enrolment in Sub Saharan Africa (hereafter referred to as 'Africa') has increased 5.5 times from 23 million in 1970 to 129 million in 2008, while preschool enrolment increased 2.6 times from 4.3 million to 10.9 million between 1990 and 2000. However, the increased enrolment rates have not kept up with the rising numbers of OOSC, Africa accounts for 43 million of the 115 million children out-of-school. Of the 14 countries in the world in which girls account for less than 80% of primary school attendance, 11 are in Africa. Furthermore, the growing enrolment rates do not correspond to the rates of primary completion; the average completion rate in 2008 was 65%. About 42% of African school children leave school early, with one in six leaving before grade 2. Schools reach out to more children but eventually lose them (Hanushek and Wobmann 2007; UNESCO 2011).

The objective of this paper is to answer several questions. Why do African schools have declining school attendance and rising dropout rates as well as increasing numbers of out-of-school children? Who are the marginalized in education and why? What is the trend of the factors contributing to the stalling of the progress of Sustainable Development Goals target of leaving no one behind?

2a. Methods

The analysis of education issues including school attendance, out-of-school children, the identification of those marginalized in education and the trend of these factors requires the use of descriptive statistical analysis of quantitative data. The characteristics of the children marginalized in education can be identified by comparisons across gender, residence, regions, ethnic minority and majority. This has the potential to determine the real problems that need to be addressed by policies, interventions, practice and

research in a more significant and relevant way of understanding education's issues in terms of the specific areas that require attention. Data have been depicted in the form of tables and bar graphs. Results have been compared and summarized using descriptive statistics such as the mean, a common measure of central tendency, which provides information on how a particular observation compares to the rest of the sample. An example of this is mother's literacy rate compared to youths' years of education.

2b. Data and descriptive statistics

28 African countries are under observation, World Bank data for Sustainable Development Goals drawn from World Development indicators 2018 have been used, and other sources include UNESCO (2011), Demographic Health Surveys (DHS), the International Association for the Evaluation of Educational Achievement (IEA) and the OECD. These organisations have used household survey methods to collect their data.

Table 1. Descriptive statistics of school attendance (%) by age group, sex and residence (various years)

	Age 6-10yrs.		Age 11-15yrs.	
	Average	Std. Dev	Average	Std. Dev.
Total	61.73	20.08	70.39	19.34
Urban total	75.56	12.23	79.99	10.36
Rural total	57.07	22.09	66.27	22.04
Total male	62.75	18.71	72.97	17.55
Urban male	76.02	11.42	82.86	8.83
Rural male	58.43	20.69	69.34	20.00
Total female	60.64	21.66	67.75	21.42
Urban female	74.98	13.40	77.34	11.98
Rural female	55.64	23.73	63.06	24.52

Table 1 depicts descriptive statistics of school attendance in percentages by age group, sex and residence across Africa. Apparently, school attendance is lower among age group 6-10 years, among the female and in rural areas.

Table 2. Descriptive statistics of marginalization in education (%) 1990-2016

	Mean	Std. Dev.		Mean	Std. Dev.
Primary school enrolment	68.84	18.35	mo_literacy	0.44	0.25
Primary completion- Female	50.83	25.83	eduyears_17_22	4.94	1.77
Primary completion- male	58.20	21.44	eduyears_m_17_22	5.43	1.63
Primary completion total	54.47	22.99	eduyears_f_17_22	4.52	1.95
Preprimary enrolment	16.38	24.34	edu0_7_16	0.25	0.16
Public expenditure on education	4.20	2.29	edu0_7_16_m	0.23	0.14
Pupil teacher ratio	46.93	13.92	edu0_7_16_f	0.28	0.18
Out of school children	31.37	18.52	edu0_17_22	0.28	0.20
Child underweight	23.70	8.62	edu0_17_22_m	0.23	0.17
Stunting	40.69	10.47	edu0_17_22_f	0.33	0.23
Wasting	10.96	5.26	eduquin_17_22_q1	0.20	0.02

Ibrahim index A. governance	50.66	12.24	eduquin_17_22_q1_m	0.17	0.05
			eduquin_17_22_q1_f	0.23	0.04

Note: mo_literacy	Women's literacy rate
edu0_7_16	Share of the population who has never been to school population 7-16 years
edu0_17_22	Share of the population who has never been to school population 17-22years
edu0_17_22_f	Share of the population who has never been to school population 17-22 female
edu0_17_22_m	Share of the population who has never been to school population 17-22 male
eduyears_17_22	Average number of years of schooling population 17-22 years
eduquin_17_22_q1	Share of the population in the bottom quintile of the education distribution

The descriptive statistics in Table 2 are on marginalization in education between 1990 and 2016. The average percentage of malnourished children, particularly stunting, was 41%, 31% of African children were out-of-school, public expenditure on education was only 4% of GDP, pre-primary enrolment was a mere 16%, about 54% of African children complete the final grade of primary school and 44% of the women were literate.

3. Declining school attendance and rising dropout rates

To understand the outcomes of school attendance we disaggregated the data in Tables 3 and 4 by age group, sex and residence.

Table 3. School attendance (%) by age group 6-10, sex and residence

	Age group: 6-10		Total	Total	Male	Male	Male	Female	Female	Female
Country	Survey	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Benin	2006	60	73	53	63	77	57	56	69	50
Burkina F.	2003	26	68	20	28	70	22	24	66	18
Cameroon	2004	78	90	70	79	89	72	77	90	68
Chad	2004	34	55	30	39	60	34	30	49	25
Gabon	2000	93	94	92	93	94	93	93	94	90
Ghana	2003	57	65	52	57	66	52	56	63	52
Kenya	2003	89	92	89	89	90	89	89	93	88
Lesotho	2004	81	81	81	79	75	79	83	86	83
Madagas.	2004	76	87	73	74	87	71	78	88	75
Malawi	2004	78	89	76	76	90	73	80	88	79
Mali	2006	35	56	28	37	55	31	33	57	25
Mauritan.	2001	60	70	53	62	71	57	57	68	50
Mozambiq	2003	53	71	46	56	71	50	50	71	41
Niger	2006	32	65	27	38	68	33	26	62	21
Nigeria	2003	64	76	58	68	79	63	59	74	53
Rwanda	2005	76	83	74	75	82	74	77	84	75
Senegal	2005	50	68	41	50	66	40	51	69	41
Uganda	2001	79	89	78	78	89	77	80	89	79
Zambia	2002	52	66	44	51	66	43	53	66	45

Data source: Demographic Health Surveys (Various years).

Table 3 shows school attendance by age bracket 6-10 years, but there is a wide disparity between urban and rural school attendance across the countries: Burkina Faso (67.6% and 20%), Chad (54.7% and 29.8%), Mali (55.9% and 28.2%) and Niger (65% and 26.6%) show exceptionally high differences. One of the reasons for the wide gap could be that rural children tend to start school at a much later age as compared to urban children. Reasons for late entry can be attributed to distance, children's health, domestic labour and lack of funds. There are mixed results in terms of female and male school attendance, with some countries have higher female attendance rates.

Table 4. School attendance (%) by age group 11-15, sex and residence

	Age group: 11-15		Total	Total	Male	Male	Male	Female
Country	Survey	Total	Urban	Rural	Total	Urban	Rural	Total
Benin	2006	66	73	61	72	80	67	59
Burkina F.	2003	29	66	21	32	71	25	26
Cameroon	2004	83	90	78	87	91	83	80
Chad	2004	47	68	41	56	74	51	38
Congo R.	2005	89	90	87	90	90	90	87
Gabon	2000	94	93	95	95	95	96	93
Ghana	2003	79	87	74	80	90	74	78
Kenya	2003	89	87	90	90	92	90	88
Lesotho	2004	88	93	87	84	93	82	92
Madagas.	2004	69	82	66	70	84	66	69
Malawi	2004	85	88	84	85	88	84	85
Mali	2006	45	63	37	50	71	42	40
Mauritani	2001	64	78	55	70	82	62	59
Mozambiq	2003	75	85	69	78	88	73	71
Niger	2006	34	60	27	41	65	35	27
Nigeria	2003	73	81	69	77	83	74	70
Rwanda	2005	81	81	81	80	84	79	81

Table 4 shows school attendance by age bracket 11-15. Countries like Burkina Faso, Chad, Mali and Niger that have a high disparity between rural and urban in the age bracket 6-10 have not improved in the percentages of rural children attending school in the age bracket 11-15. The percentage total of school attendance has declined in all the countries under observation except for Madagascar where school attendance has risen from 69.3% for children aged 6-10 to 75. 8% for children aged 11-15.

Why is school attendance declining and dropout rates rising?

There is disparity across Africa in terms of the percentages of children who proceed to the sixth grade. For instance, in Mali 80% of children who enter the first grade, proceed to the sixth grade, while in Ethiopia the proportion is only 40% (UNESCO 2011). Primary repetition rates remain high, particularly in countries such as Burundi (36%), while Togo, Chad, Congo Republic and Central Africa Republic all have 23% of their primary school students repeating. Generally, children in these countries are more likely to spend two or three years repeating a primary grade and eventually dropout. Dropout rates are highest in Chad (72%) and Uganda (68%); two-thirds of children starting primary school in these countries are likely to leave before reaching the final grade. On the other hand, dropout rates are lowest in Mauritius (2%) and Botswana (7%) (UNESCO 2012).

Figure 1: Children (%) give reasons for not attending school

Source: Demographic Health Surveys (various years)

Figure 1 indicates the reasons children gave for not completing primary school. Lack of money to meet school expenses was the main reason and surprisingly it is higher in urban areas. Most school dropouts in urban areas are from the slums, where the standard of living of poor people in urban slums is worse than that in rural areas. Besides not having money to pay school fees, the other big issues that need to be addressed are Africa's school performance and to make schooling become a place that African children look forward to going.

4. Who are the marginalized in education and why?

The widespread dropout and repetition rates are partly due to African governments' failure to extend educational opportunities to the region's most marginalized children. Africa has some of the highest inequalities in accessing education. Children from the richest households (top 20%) in Ghana average six years more education compared to those in the bottom 20% poorest households (Watkins 2013). Lack

of school fees including other schooling expenses is a major reason children gave for dropping out-of-school, this suggests a majority of out-of-school children (OOSC) are marginalized. This set of children are poor, living in rural areas or urban slums, street children, disabled children, orphans, displaced children, refugees, child soldiers, children from specific ethnic groups, religious groups or those who speak a specific language, working children, overaged children, child brides and nomads. Africa's numerous OOSC fall within several categories and have a range of reasons for being out of school. We classify OOSC in six categories: (1) Children of preschool age but not enrolled. (2) Children who have never been to school and will never enrol if the prevailing conditions of Africa's education systems are not improved. (3) Children enrolled but attend school irregularly. (4) School dropouts. (5) Children who will enrol at a later age (6) Adolescents of lower secondary age, but not enrolled.

Figure 2: Averages of OOSC (%) 1990-2016

Source: World Bank data for Sustainable Development Goals drawn from World Development Indicators 2018.

Note: “Never in school, rural & urban dropout” is from 1990-2010 World Bank-African Development Indicators (2011).

Figure 2 depicts averages of the categories of OOSC. We have included overage children enrolled in school because statistical reports (UNESCO 2010) point to the high probability of their dropping out.

Why are they marginalised? Factors defying the Sustainable Development Goals target of leaving no child behind

(a) Low levels of pre-primary school enrolment

Pre-primary school enrolment during 1990-2016 in Table 5 indicate that most countries had enrolment rates below 10%, but Ghana, Kenya, Malawi, Mauritius and South Africa had an enrolment rate above 40%.

Table 5. Percentages of gross preprimary school enrolment rates across Africa

Average 1990-2016	Preprimary total	Preprimary female	Preprimary male	Average 1990-2016	Preprimary total	Preprimary female	Preprimary male
Benin	9	9	9	Kenya	46	47	48
Botswana	17	17	17	Lesotho	30	30	29
B. Faso	2	2	2	Madagascar	8	9	8
Burundi	5	5	5	Malawi	82	82	81
Cameroon	17	18	17	Mali	2	2	2
C.A.R	4	4	4	Mauritania	4	8	6
Chad	1	1	1	Mauritius	95	95	94
Congo D	3	3	3	Niger	3	3	3
Congo R.	6	6	5	Nigeria	39	38	39
Cote'Ivoire	3	3	3	Rwanda	13	14	13
Gabon	15	19	19	Senegal	7	7	6
Gambia	26	27	26	S. Africa	48	49	47
Ghana	87	88	86	Togo	6	6	5
G. Bissau	5	5	5	Uganda	11	12	11

Source: World Bank data for Sustainable Development Goals drawn from World Development Indicators 2018

The early years of life are crucial in the development of a person's mental and physical health. Pre-primary school enrolment is an essential development that lays the foundation for children's learning that takes place during early childhood development and education, where children are stimulated physically and psychosocially (Alderman et al. 2003; Rolnick and Grunewald 2007). Preschool education improves children's cognitive skills and educational attainment later in life which enables a person to reach his/her full potential and higher lifetime earnings, especially among disadvantaged children. Studies including Heckman et al. (2013); UNESCO (2008); Behrman et al. (2004) have shown that children who participate in preschool education progress better when at primary school than those who have not benefitted from formal preschool education.

Despite the criticality of the early years of life, most Africa's children suffer from malnutrition, poor health, and lack both cognitive and non-cognitive stimulation. Over 60% of children in Angola, Malawi, Uganda, Tanzania, Ethiopia, Niger, Nigeria, Burkina Faso, Mali and Zambia fail to reach their full potential. Inadequate physical growth and cognitive development are among the major causes of delayed school enrolment especially in poor rural communities. Children with low levels of cognitive development are largely characterised by poor school participation, low learning outcomes, high repetition and dropout rates, limited future opportunities and low earning levels (Vegas and Santibanez 2010). The effects of delayed development in early years mostly cause irreversible damage leading to long-lasting negative impacts such as intergenerational transmission of poverty (Martinez et al. 2012; Berlinski et al. 2009). The estimated loss in productivity is more than 20% of yearly adult income when underdeveloped children become adults (Engle et al. 2007). Heckman (2006) examined the sources of

success in preschool education of disadvantaged children aged three to four, who spent two years in preschool and then joined public school, he found that preschool programs significantly improve adult outcomes including education, health, employment, earnings, marriage, participation in healthy behaviour and reduced participation in crime. Preschool enrolment with feeding programs is negatively correlated to child underweight and OOSC (McGregor et al.2007).

Figure 3: Influence of pre-primary schooling on OOSC and primary completion rate 1990-2016

Source: World Bank data for Sustainable Development Goals drawn from World Development Indicators 2018

Figure 3 indicates that most of the African countries with low pre-primary school enrolment turn out to have high percentages of OOSC, while countries with moderate or high rates of pre-primary school enrolment have low percentages of OOSC and high percentages of primary completion rates.

(b) Low quality of primary school education

(i) Effect of school fees abolition on lower primary grades

Table 6. Percentage of students who have achieved at least minimum proficiency level (MPL)

Country	Domain	% min. profi. level	Females %	Males %	Rural students%	Urban students%	Students L. test not H.	Students L.test yes H.
Benin	Maths	34	36	32	24	44	27	46
	Reading	10	10	9	5	16	5	17
Botswana		61	65	56	56	74	63	46
		56	63	48	50	73	58	47
B. Faso		59	58	61	54	66	54	69
		35	36	35	24	47	25	51

Burundi	97	97	96	96	98	100	97
	79	79	79	78	89	50	80
Cameroon	55	51	60	44	78	30	70
	30	28	31	19	51	11	44
Chad	48	35	60	39	58	38	67
	18	16	20	13	25	11	32
Congo	71	70	72	62	84	59	86
	38	39	37	21	62	19	62
Cote d'Ivo	34	28	39	26	45	24	41
	17	16	19	9	29	7	25
Niger	28	24	31	25	43	23	62
	10	10	10	7	23	6	39
Senegal	62	58	66	54	69	59	77
	29	27	31	17	38	21	58
S. Africa	39	42	36	28	48	40	53
	57	62	52	36	70	51	69
Togo	41	39	44	28	63	33	70
	20	19	21	10	37	14	45

Source: International Association for the Evaluation of Educational Achievement (IEA) and Organisation for Economic Co-operation and Development (OECD).

Note: Minimum proficiency levels only are presented in this table. They are reported according to each assessment's definition. Therefore, the data presented are not comparable. Students L. test not H is language test is not spoken at home, while students L. test yes H is language test is spoken at home. The domain of "maths" and "reading" falls under respective countries.

Fee abolition led to an increase in the numbers of entrants in the first grade that exceeded the number of students the classes could hold, as well as to high pupil-teacher ratios. The situation is exacerbated by teachers who have poor working conditions in terms of instructional hours and salary structure, contributing to poor teacher performance. This subsequently led to a decline in learning outcomes, high repetition rates, high dropout rates, children leaving school without attaining basic skills (Chimombo et al. 2005; UNESCO 2011). Benin, Burkina Faso, Cote d'Ivoire, Niger and Togo had school dropout rates over 20% because of having failed in their test scores. It is estimated that each year of real education a child receives without repeating a grade could increase individual earnings by 10% and increase annual growth by 0.37% UNESCO (2012). Grade repetition is a contributing factor to high dropout rates, because it amounts to an additional year imposing extra costs to the already over-stretched family resources. Besides surging numbers due to the abolition of school fees, several African countries are struggling to keep up with the rising demand for education from the ever-growing school age population.

(ii) Curriculum

Curriculum content in rural schools has minimal relevance to local realities including agriculture, it does not focus on processes and abilities of students to think and solve problems that are relevant to societal needs. Students are not taught skills and abilities that are transferable to a wide range of occupations (FAO and UNESCO 2006). Adding resources will add to effective outcome if they are combined with high-quality teachers. Teachers with bad attitudes towards students drives children out of school. In Ghana a 14year old boy stated—“*it was a friend who said because of how the teachers were beating us we should drop out and go to the lorry station to cart goods to make some money*” Ali (Kwame 2007). Children, particularly in rural areas, miss out on schooling because the language of instruction is sometimes different from that used at home.

(c) Geographical location.

In general, school enrolment and attendance is much lower in rural areas than in urban areas and the imbalance is much greater for girls. Remote areas which are sparsely populated relates directly to difficulties of physical access, which adversely affects girls more than boys. These areas are likely to be cut off from infrastructure such as proximate roads, and schools and health centres may be several kilometres away. Fatigue, exhaustion, risk of dangers such as sexual assault and road accidents are among the factors contributing to non-attendance and dropout. In Africa, children’s mobility and transport needs is a considerably under-researched area, and the available information has largely focused on children residing in urban areas.

(d) Child characteristics

Girls in rural areas are normally involved in domestic duties such as cooking or fetching water, while boys engage in herding livestock or farm-work. Girls’ work schedule usually tends to stretch into longer hours than boys’ work, consequently girls miss out on doing homework and this negatively impacts their school performance and can eventually contribute to their dropping out. Building bore-holes for water and grinding mills in the villages and organising childcare services in the community is likely to increase girls’ enrolment and reduce their irregular attendance.

Figure 4: Children who study and work vs. OOSC

Source: Understanding Children's Work Project based on data from ILO, UNICEF and World Bank.
Period- various years ranging from 2000-2016.

Children from poor households will not remain at school even if school fees have been abolished. There are other schooling costs, and most disadvantaged children are constrained by having to work to supplement their families' incomes. Light work that is not for many hours or harmful to children's health can enable poor children to complement working with schooling. In the process, they gain literacy, work and life skills. Figures 4 portrays 5 African countries where high percentages of children who study and work have contributed to low levels of OOSC.

(i) Poor nutritional status.

Underweight children are generally weak and susceptible to diseases, consequently impacting negatively on school enrolment, grade attainment, lower daily attendance and less efficient learning per day spent at school. These lead to poor learning outcomes which eventually contribute to limited livelihood earning and opportunities. Figure 5 indicates that countries including Gabon, South Africa, Congo Republic, Botswana and Mauritius with low percentages of child underweight and stunting turn out to have low percentages of OOSC and high percentages of primary school completion rates. On the other hand, Niger, Madagascar, Burundi, Mali and Burkina Faso with high percentages of child underweight and stunting, apparently have high percentages of OOSC and low percentages of primary school completion rates.

Figure 5: Effect of child's nutritional status on child's educational status 1990-2016

Source: World Bank data for Sustainable Development Goals drawn from World Development Indicators 2018

(ii) Orphans

The outbreak of the HIV/AIDS epidemic led to the increasing deaths of parents leading to rising numbers of orphans in Africa. As a consequence, the high rates of orphans is far above the available social sustenance contributing to a large number of orphans dropping out and ending up as child workers, and in most cases, girls become victims of child marriage (Evans and Miguel 2004).

(iii) Disabled children

A disabled child can be prevented by parents from attending school due to social stigma, embarrassment and lack of economic incentives. In cases where this set of children can attend school, they are likely to be challenged by inaccessibility due to distance, lack of adapted facilities or negative attitudes from teachers, students and other parents, lack of specialised teachers and large class sizes.

(iv) Ethnicity

In Table 7, the criteria of ethnic minority and majority is not based on population numbers, but on women's literacy rates. Ethnic groups with lowest women's literacy rates are termed minority whereas the groups with the highest percentages of women's literacy rates are referred to as the majority.

Table 7. Comparison of education status between ethnic minority and majority across Africa

Ethnicity	mo_literacy	edu0_7_16	edu0_17_22	edueyears_17_22	eduquin_17_22_q1
GhanaGruma	0.06	0.51	0.55	2.92	0.56
GhanaAkan	0.42	0.13	0.07	8.07	0.07
NigeriaNupe	0.07	0.26	0.36	5.75	0.26
NigeriaIbibio	0.83	0.03	0.02	9.43	0.02
KenyaSomali	0.08	0.51	0.70	1.96	0.77
KenyaTaita	0.98	0.01	0.00	8.52	0.09

D..CongoLunda	0.28	0.44	0.15	4.56	0.29
D.CongoBakongo	0.76	0.10	0.04	7.56	0.09
G. BissauFula	0.09	0.38	0.53	2.43	0.33
G. BissauMetisse	0.77	0.05	0.02	7.52	0.02
TogoParaGourma	0.18	0.38	0.37	4.29	0.41
TogoAkébou	0.59	0.06	0.02	7.70	0.03
CameroonPeulh	0.21	0.40	0.44	3.75	0.48
CameroonBamilik	0.78	0.01	0.04	7.81	0.09

Source: Deprivation and Marginalisation in Education (DME) UNESCO, Education for All, Global Monitoring Report 2010. Data was collected between 1999 and 2007.

mo_literacy	Women's literacy rate
edu0_7_16	Share of the population who has never been to school population 7-16 years
edu0_17_22	Share of the population who has never been to school population 17-22years
edu0_17_22_f	Share of the population who has never been to school population 17-22 female
edu0_17_22_m	Share of the population who has never been to school population 17-22 male
eduyears_17_22	Average number of years of schooling population 17-22 years
eduquin_17_22_q1	Share of the population in the bottom quintile of the education distribution

Table 7 shows a wide disparity in education status between the minority and majority ethnic groups. For instance women's literacy rate amongst the Kenyan Somali is .08%, while the Kenyan Taita is 98%, the proportion of population of age bracket 7-16 years who have never been to school among the Somali is 51%, while among the Taita it is .01%. The average number of years of schooling of the population between 17 and 22 years among the Kenyan Somali is 1.96, whereas among the Kenyan Taita it is 8.52.

(v) *Regions*

Table 8. Comparison of education status across regions within countries in Africa

Region	mo_literacy	eduyears_17_22	eduyears_m_17_22	eduyears_f_17_22	edu4_17_22
D.CongoOri	0.38	4.27	5.28	3.06	0.42
D. CongKin	0.91	9.17	9.37	9.00	0.04
GhanaNorth	0.09	3.38	4.12	2.55	0.62
GhanaG.Ac	0.56	8.44	9.21	7.92	0.14
B. FasoSud-	0.06	1.69	2.17	1.22	0.78
B.FasoOuag	0.55	5.94	6.42	5.55	0.33
BeninAlibor	0.04	0.72	1.43	0.32	0.91
BeninLittor	0.64	7.48	8.60	6.45	0.21
Cameroo. N	0.16	3.07	4.27	1.96	0.61
CameroonD	0.90	8.16	8.14	8.18	0.06
GambiaBass	0.07	1.73	2.31	1.26	0.79
GambiaBanj	0.50	7.97	8.64	7.55	0.16
Kenya N.E.	0.04	1.89	3.15	0.49	0.75
KenyaCentr	0.89	8.75	8.69	8.81	0.05

Uganda N.	0.29	5.13	6.17	4.25	0.29
UgandaKam	0.92	9.36	9.20	9.47	0.04
NigeriaN.W	0.21	3.77	5.06	2.83	0.58
Nigeria S..E	0.83	9.20	8.74	9.52	0.02
Moza.Zamb	0.18	2.24	2.89	1.64	0.70
Moza.Mapu	0.79	4.93	5.04	4.83	0.36

Source: Deprivation and Marginalisation in Education (DME) UNESCO, Education for All, Global Monitoring Report 2010. Data was collected between 1999 and 2007.

eduyears_17_22	Average number of years of schooling pop 17-22
eduyears_m_17_22	Average number of years of schooling pop 17-22 male
eduyears_f_17_22	Average number of years of schooling pop 17-22 female
edu2_17_22_m	Share of the population with fewer than 2 years of schooling population 17-22 male
edu2_17_22_f	Share of the population with fewer than 2 years of schooling population 17-22 female
edu4_17_22	Share of the population with fewer than 4 years of schooling population 17-22

In Table 8, regions experiencing education poverty are those with the highest percentages of the proportion of the population aged 17-22 with fewer than 4 years at school, (the minimum required to gain basic literacy skills). Regions with the lowest women's literacy rates have the highest percentages of populations with fewer than 4 years of schooling. For instance, the Gambia Bass region has 7% women's literacy rate, an average of 1.73 years of schooling of the population aged 17-22, and 70% of men and 84% of women (aged 17-22) have fewer than 2 years of schooling. By contrast, the Gambia Banj region with 50% women's literacy rate has an average of 7.97 years of schooling of the population aged 17-22, and only 4% of men and 19% of women (aged 17-22) have fewer than 2 years of schooling. These stark disparities between regions within African countries are a common trend across Africa, education poverty-stricken regions have minimal opportunities to compete in job markets with regions with a better education status.

(e) Household characteristics

Low household income is a major factor in keeping children from enrolling and attending school. Although school fees have been waived, informal and additional fees are charged widely for service costs including other costs to households such as uniforms, transport, food, learning materials. These are highly disadvantageous to children from low income families. The high hidden costs of learning materials mostly increase the number of OOSC. Most preschool age children from low income families experience little or no access to organised preschool due to the high cost of private facilities. Child marriage is caused by numerous reasons, besides the known cultural reasons, poor families may at times pull their daughters

out of school to marry them off in exchange for dowry as a source of income. Figure 6 attests to education disparities across respective wealth quintiles.

Figure 6: Wealth quintiles versus % share of population who have never been to school & % share population at the bottom education quintile

Source: Deprivation and Marginalisation in Education (DME) UNESCO, Education for All, Global Monitoring Report 2010

(f) Women's illiteracy and OOSC

Parents' education influences the number of OOSC, illiteracy is a barrier to parents' appraisal of the value of education and thus may not prioritise it in the lives of their children. Mothers are generally the first caregivers for children and spend more time with the children and naturally help them with homework. Children whose mothers are illiterate are at a greater disadvantage in their performance at school than their peers with educated mothers. Most of the reasons which cause children to be out-of-school such as ill health, malnutrition, gender can be minimised through investment in women's literacy. Being regularly involved in a child's schooling produces greater opportunities for improving a child's school attendance, grades and self-esteem.

Figure 7 Women's literacy rate Vs. children & youths who have never been to school

Figure 7 shows that countries such as Lesotho, Gabon, Kenya and Congo Republic with 70%-90% women's literacy rate have minimal percentages of children who have never been to school. Conversely Chad, Niger, Burkina Faso and Mali with a mere 1% women's literacy rate have 50% -70% children and adults who have never been to school.

(g) Quality of institutions and OOSC

The ability of children to be healthy and to be educated (among other capabilities) is determined by economic, social, political and cultural institutions whose individual actions should not act in isolation but should synchronise to enable the achievement of the multifaceted needs of children. Institutional capabilities and capacities are determined by the quality of institutions, and institutional capacity can affect children's education through the allocation of resources. Areas at the centre of allocation of resources are provision of public services, public goods and intervention to improve the functioning of markets. Public expenditure on education is not evenly distributed across complementary sectors, this has consequently led to lower quality schooling – no textbooks, writing materials, crowded classrooms, and sub-standard education systems contributing to high dropout rates.

Have the poor children benefited from public spending? Studies suggest that the top quintile of the population benefit about twice as much on average from public spending on education and health than the bottom quintile. Public expenditure favours the urban rich over the rural poor, resource allocation is

still biased against primary and secondary education, and primary healthcare. More resources are allocated to higher education (university) and tertiary healthcare. Benefit incidence analysis indicates that the poor in remote areas have significantly lower access to roads and clean water than those in richer quintiles (Wilhelm et al. 2005). Public expenditure has been limited in most African countries because of poor budgetary procedures and corruption (Delavallade 2006). The low quality of public services hurts poor children, for they have no means to enable them to turn to private services.

Figure 8: Selected indicators of institutional quality 2005-2016

Source: World Bank- Country Policy & Institutional Assessment 2018

Note: (1) Equity of public resource use assesses the extent to which the pattern of public expenditures and revenue collection affects the poor and is consistent with national poverty reduction priorities. (2) Quality of public administration assesses the extent to which civilian central government staff is structured to design and implement government policy and deliver services effectively. (3) Transparency, accountability, and corruption in the public sector – three main dimensions assessed here are the accountability of the executive to oversight institutions and of public employees for their performance, access of civil society to information on public affairs, and state capture by narrow vested interests.

Figure 8 indicates institutional quality through the performance of selected indicators, 1=low performance while 6 = high performance. between 2005 and 2016. The indicator of transparency, accountability and corruption in the public sector has 8 countries scoring 2, only Benin and Ghana have scored above average.

(h) Economic growth and OOSC

Table 9. Economic growth Vs. OOSC 1990-2016

	GDP growth (annual %)	OOSC (%)		GDP growth (annual %)	OOSC (%)
C.A.R	1	39	Mauritania	4	33

Congo De.	1	44	Lesotho	4	24
Burundi	1	30	Malawi	4	3
S. Africa	2	8	Zambia	4	20
Madagascar	2	35	Mali	4	41
Gabon	2	9	Benin	5	26
G. Bissau	2	42	Mauritius	5	5
Cote d'Ivoir	3	40	Botswana	5	15
Cameroon	3	15	Nigeria	5	33
Togo	3	16	B. Faso	5	53
Congo R	3	27	Ghana	5	25
Gambia	3	31	Chad	5	46
Senegal	4	38	Rwanda	6	9
Niger	4	58	Uganda	7	7
Kenya	4	25	Mozambique	7	34

Source: World Bank data for Sustainable Development Goals drawn from World Development Indicators 2018

Table 9 represents averages of economic growth and OOSC between 1990 and 2016, some countries like Mozambique, Chad, Burkina Faso and Nigeria have over 5% average annual growth, but at the same time have over 30% OOSC. By contrast, countries like South Africa, Gabon, Cameroon and Togo have less than 3% average annual growth rate but have less than 20% OOSC. These findings suggest that increases in economic growth may not lead to improvements in measures of deprivation. The impact of economic growth on child wellbeing status including education and health depends on the composition of the factors contributing to the rising growth rates. If they are from sectors such as agriculture which happens to be the predominant occupation in rural Africa, then there is a higher probability of associating rising economic growth rate with declining OOSC. Having high-quality institutions is key in unbiased redistribution of economic gains, thereby facilitating accessibility of high-quality services by all (Smith and Haddad 2002; Vollmer et al. 2014)

5. Trend of the factors affecting Sustainable Development Goals' target of leave no one behind

Table 10. Trend of factors affecting OOSC between 1990 and 2016

	1990-1999	2000-2009	2010-2016	%change 2000-2009-1990-1999	%change 2010-2016-2000-2009	%change 2010-2016-1990-1999
Adoles. out of school female, L. sec.	-	44	38	-	-13	-
Adoles. out of school male, L. sec.	-	36	34	-	-6	-
Children out of pri. School, female	41	31	20	-24	-35	-51
Children out of pri. School, male	33	27	17	-20	-35	-49
Literacy rate adult female	41	47	53	14	13	29
Literacy rate adult male	57	64	68	13	5	19
Preprimary sch. enrolment	12	18	28	49	54	130
Primary completion rate female	44	54	67	23	24	53

Pri. completion rate male	52	61	71	19	15	36
Pupil-teacher ratio primary	48	48	44	1	-10	-8
Pupil-teacher ratio L. secondary	33	32	33	-5	4	0
Prevalence of stunting, female	40	38	32	-7	-15	-20
Prevalence of stunting, male	46	42	37	-9	-13	-20
Preva. of underweight, female	26	20	17	-21	-15	-33
Prevalence of underweight, male	29	23	20	-21	-12	-31
People- basic water rural	-	43	49	-	13	-
People - basic water urban	-	82	84	-	3	-
People - basic sanitati. rural	-	22	25	-	11	-
People - basic sanitati. urban	-	41	44	-	8	-
Public spending on educ. % of GDP	4	4	-	14	-	-
Public health expenditure	8	10	-	21	-	-
Total repeaters primary school	19	15	-	-21	-	-
Total repeaters secondary school	16	14	-	-13	-	-
Persistence to grade 5 % of total	59	69	-	18	-	-
Households with radio	49	58	-	18	-	-

Source: World Bank data for Sustainable Development Goals drawn from World Development Indicators 2018

Pre-primary school enrolment has shown the highest percentage change across the three periods, however it should be noted that pre-primary school enrolment rates are generally very low, between 1990 and 2016 the rates were below 10% in 15 African countries and below 5% in 9 African countries. The averages of the trend of factors affecting OOSC masks the actual figures with Africa's OOSC being 41% female and 33% male between 1990 and 1999 is far below what Niger had (81% female and 70% male). Table 11 demonstrates the actual figures in selected countries.

Table 11. Comparison of the trend OOSC across selected African countries

	1990 - 1999		2000 - 2009		2010 - 2016	
Out of school children	F	M	F	M	F	M
Niger	81	70	66	54	45	34
Burkina F.	75	63	59	48	36	32
Chad	65	41	55	35	38	20
Mauritius	5	5	4	6	3	5
Botswana	15	19	14	17	8	10

Source: World Bank data for Sustainable Development Goals drawn from World Development Indicators 2018.

There is wide disparity of OOSC across African countries as well as between female and male students. Although OOSC rates are declining, the rates are still high in countries like Niger, Burkina Faso and Chad. Botswana and Mauritius are among the few countries that have maintained low rates of OOSC throughout the period under observation. The greatest education challenge Africa is facing is not getting children into school but how to keep them at school until the completion of the schooling program.

6. Conclusions

This study provides an analysis of marginalization in education across Africa (1990-2016), which has stalled the progress of the Sustainable Development Goals. The investigation was undertaken with the help of descriptive statistics in an attempt to answer questions including why do African schools have declining school attendance and rising dropout rates? Who are the marginalized in education and why? What is the trend of OOSC? The study suggests that declining school attendance and rising dropout rates in African schools can be largely attributed to lack of funds to meet school expenses, the school environment is less appealing to the pupils due to the curriculum content with little relevance to the prevailing needs including the labour market, insufficient school inputs, bad pedagogical practices and poor learning outcomes. Africa's children who are marginalized in education face acute and persistent disadvantages in accessing education and education systems. This set of children can be characterized as being poor, living in rural areas or urban slums, disabled children, orphans, children from specific ethnic groups, regions, or speaking a specific language, working children, overaged children and child brides.

Higher quality preschool programs are associated with better cognitive and social development. Deteriorated learning achievement in primary schools, increased repetition and dropout rates can be attributed to the consequences of enrolment surges (due to fee abolition) such as congested classrooms, insufficient supplies and lack of individual attention from teachers who have poor working conditions in terms of instructional hours and salary structure, among others. In general, school enrolment and attendance is much lower in rural areas than in urban areas, and the imbalance is much greater for girls. Across Africa, there is a wide disparity in education status between the minority and majority ethnic groups, country regions, wealth quintiles and parents' educational status.

Several policy implications can be drawn from the findings of this study.

- Concerted efforts to get all children into schools with good quality education of relevance to the labour market.
- OOSC should be at the centre of Sustainable Development Goal 4 and there is further need to subcategorise OOSC in terms of individual child circumstances and their needs.
- Child malnutrition being a major cause attributing to children being out-of-school calls for reinforcement of school feeding programs as well as investment in other OOSC reducing programs that will enable families to access productive resources.

- Children who work to supplement their families' incomes will not enrol and be retained in a conventional school due to inflexible instructional hours. Percentages of OOSC can largely be reduced if this set of children is enrolled in private non-profit making schools with flexible hours of instructions.
- Children understand most what they lack in fulfilling their wellbeing, therefore their ideas, experiences and insights can contribute to adults' understanding and make a positive contribution to adults' actions. For instance, children can contribute ideas to the kind of school inputs and school curriculum that will boost pupils' retention in schools.
- Public expenditure on education should be evenly distributed across complementary sectors, to promote effective delivery of education services, to reduce disparities in education provision, to discourage corruption
- Our findings suggests that efforts to get all children into good quality schools without highlighting reforms of social cultural institutions, reduction OOSC and improved women's wellbeing is far from being accomplished.

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