Study on Out-of-School Children in Guinea Bissau

Final Report

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Acronyms

5DE	Five Dimensions of Exclusion
ALP	Accelerated Learning Programme
APEE	Associação dos Pais e Encarregados de Educação – Parents association
COGES	Comités de gestão escolar - School Management committees
CSG	Child Support Grant Programme
CSO	Civil Society organisation
CTs	Cash Transfer
EB1, EB2, EB3	Ensino Basico 1, 2 and 3
EFA	Education for All
EMIS	Education Management and Information System
ESP	Education Sector Plan
ESSOR	Association de solidarité Internationale
ESSPIN	Education Sector Support Programme in Nigeria
FASPEBI	Supporting Foundation for the Development of the Peoples of the Bijagos' Archipelago
FEC	Fundação Fé e Cooperação
FGM	female genital mutilation
GDP	gross domestic product
DGEPASE	Direcao Geral de Estudos , Planificacao,Avaliação do Sistema Educativo (Statistical Department of the MOE)
GER	Gross Enrolment Rate
GESS	Girls Education South Sudan Project
GPI	Gender Parity Index
HDI	Human Development Index
ILAP	Inquêrito Ligeiro de Avaliação da Pobreza – poverty assessment survey
INDE	Instituto Nacional para o Desenvolvimento da Educação – National Institute for the Developmen of Education
INE	Instituto Nacional de Estatísticas – National Institute for Statistics
INEP	Instituto Nacional de Estudos e Pesquisas – National Institute for Studies and Research
MICS	Multiple Indicator Cluster Survey
MOE	Ministry of National Education, Culture, Science, Youth, and Sports
NGO	Non-Governmentt organisation
OOSC	Out-of-School Children
RD	Regional director of Education
SAB	Sector Autónomo de Bissau

SABER	Systems Approach for Better Education Results
SD	school director
SES	Socio-economic status
TLM	teaching and learning materials
TVET	Technical and Vocational Education and Training
UIS	UNESCO Institute for Statistics
WFP	World Food Programme
XOF	CFA francs

Executive summary

Executive summary

The Global Out-of-School Children Initiative, a partnership between UNICEF and the UNESCO Institute for Statistics (UIS), was launched in 2010 to "make a significant, sustainable reduction in the number of children who are out of school" (UNICEF, 2015). It supports countries in their analysis and monitoring of out-of-school children, as well as children who are at risk of dropping out.

One of five children, adolescents and youths in official school ages were still out of school in the world in 2016. Sub-Saharan Africa has the highest OOSC figures (20.8% for primary school level).

Methodology - Section 2 of the study looked at the methodology applied.

Research questions

- How many children are out of school or at risk of dropping out, and where are they located?
- What are the main barriers and bottlenecks to education that children face?
- How are existing policies and interventions contributing to the complex needs of Out of School Children and children at risk of dropping out?
- Based on the analysis, what are the main recommendations on how to address OOSC and retention issues in Guinea-Bissau?

The quantitative data analysis relied on several key data sources to produce a comprehensive descriptive summary of recent trends in OOSC. The main sources included the Multiple Indicator Cluster Survey (MICS) household survey (2000-2014), which provides national and regional coverage with detailed information about children as well as their families. The MICS data were complemented by administrative (EMIS) data collected by the Guinea-Bissau government (DDGEPASE), which cover all schools in the country and provide a detailed picture of school environments as well as outcomes like grade repetition. In addition to descriptive summaries of OOSC trends and risk factors, multivariate statistical analysis was incorporated to identify the most significant predictors of key outcomes like dropout, late entry and grade attainment.

The qualitative research methods for this study entailed a comprehensive and systematic review of existing literature and evidence in Guinea-Bissau, and the collection and analysis of new data in 6 regions. A total of 158 interviews and focus groups were conducted in urban and rural areas with central and regional Ministry staff, NGOs, School directors, teachers, community and religious leaders, parents and children. 269 women and girls and 361 men and boys were interviewed either individually or in groups.

One of the main challenges in OOSC research is identifying the most important factors that explain whether or not children are in school. In most countries the OOSC phenomenon is a result of a complex interplay of factors operating at various levels: system or institutional deficiencies related to the supply and quality of schooling, structural features that affect poverty and factors like child labour, cultural factors that may vary across regions and communities, and household (and child) characteristics that can also be quite diverse. Not only are there many potential influences on school attendance outcomes, but their effects may be different across the various levels of schooling, or they may be more relevant to specific categories of OOSC than others (never attended, dropped out, etc.).

The main contribution of this study on OOSC in Guinea-Bissau is the scope of the analysis and the singular focus on the OOSC topic, which has been addressed in previous reports but never with this much detail. The availability of qualitative and quantitative data makes it possible to "triangulate" the main findings to determine consistency by source, which is another advantage of an OOSC-specific research design. Nevertheless, despite the extensive information available, one of the main challenges is to prioritize these findings in order to highlight the main messages from the various data analyses.

Results - Sections 3 and 4 provide a detailed summary of OOSC based on the 5 Dimensions of Exclusion (5DE), augmented with additional summaries of school participation and grade attainment.

How many Out-of-School children are there in Guinea-Bissau?

Despite significant progress in recent years, there is a serious problem of OOSC in the country. A large proportion of children aged 5-14 are not in school in Guinea-Bissau. In percentage terms the OOSC rate has declined significantly between 2000 and 2014, from roughly 50 percent (2000) to 33 percent (2014). Furthermore, most of the children who are primary age (6-11) and are not in school will eventually enter a school, which is also markedly different from 2000 when most out of school children were not likely to eventually enter. These references to eventual entry and recent progress are important from a policymaking standpoint, but they do not hide the reality of basic school attendance in Guinea-Bissau: a very large proportion of children who should currently be in school are not attending.

Who are the out-of-school children and children at risk of dropping out?

The descriptive summary of OOSC identified a number of categories of children with higher rates of OOSC. One important factor is **gender**. Young boys and girls have similar school participation rates, but in early adolescence (around age 12-13) female attendance begins to decline relative to males. As a result, female educational attainment is significantly lower than male attainment.

OOSC rates also vary by family background indicators, which include **socioeconomic status** (**SES**), **location**, **ethnicity**, **religion** and **language**. For example, among 6-22 year olds, young people from the wealthiest households are about 15 percent more likely to be currently enrolled in school than children from the poorest households, and they have accumulated more than *four total years* of educational attainment. Rural children complete about three years less education than urban children, even when controlling for differences in SES and other factors.

Muslim children are much less likely to be reported as being in school, with less completed education. This finding must be qualified, to some degree, since it is possible these children are attending koranic centres. But the effect size is still quite large, and roughly the same magnitude as the family SES impact. For language, the results show that children from Fula and Mandiga households are much less likely to be in school, and complete 3-5 years less education than their Criolo-speaking counterparts.

Additional significant family background predictors of OOSC include **parental education**, **family size** and the **child's relationship** to the head of household.

Student attendance and grade attainment

In addition to analysing out-of-school children, the report provides a detailed summary of school attendance and grade attainment across a wide age range. Relatively few young people in Guinea-Bissau are completing the basic education cycle (through EB3). Most children (75% or higher) are eventually completing primary school, but high rates of grade repetition mean that it takes a very long time to do so. This suggests a very low level of efficiency with an average student spending 8 or 9 years in the system, with less than 5-6 complete years of education to show for it.

Another result that stands out is the persistence of young people who are enrolled in grade levels that are far below their target age group. Conventional wisdom says that 16 and 17-year-old students – let alone older ones – who have not yet entered upper secondary school are likely to leave the education system rather than remain enrolled in primary or lower secondary grades. But in Guinea-Bissau this is not the case, as very large numbers of children older than 16 are still enrolled in basic education (even in primary level).

What explains the high rates of OOSC in Guinea-Bissau? - Section 5 details the main barriers and bottlenecks for access and retention.

The qualitative data are brought in to better understand the underlying causes of OOSC, with complementary information provided by the quantitative sources when possible. This continues the summary of OOSC provided in Sections 3 and 4, but with more detail on individual barriers and bottlenecks.

Standing out is the issue of late entry. Young people in Guinea-Bissau are not entering primary school (or preschool, when available) at the correct or official age. This in turn has far-reaching consequences for calculating OOSC rates because many children aged 6-8 have not yet entered school, which means they are currently counted as OOSC. Late entry is closely linked to school supply (detailed below), but also touches on cultural beliefs about school-readiness. The combination of late entry and grade repetition explains the massive age-grade distortion in

the system, which is problematic because preschool, primary and lower-secondary levels are not intended for much older children.

The analysis in Section 5 groups the main barriers and bottlenecks into a series of categories.

Socio-cultural barriers and bottlenecks - The impact of religion is important: Children and parents alike consider that religious education is very important, and many parents prefer to send their children first to madrassas, and then to formal school, if at all. However, many children also attend both koranic centres and formal schools.

All respondents of this study said that they will likely send both girls and boys to school. However, parents express the need to make strategic decisions regarding sending their children to school, leading to some preference for boys.

Economic barriers and bottlenecks - Household poverty in the villages in rural areas if affecting access to quality education and retention. Poorer *tabanca* children do not have access to transportation to go to school, are more likely to go to school with an empty stomach and their parents have more difficulties to pay the school fees. Financial resources are a barrier mentioned by 100% of survey respondents.

Another very important barrier is child labour. This factor was frequently referenced in the qualitative interviews, particularly in the context of the cashew harvest. This seasonal phenomenon leads many children to temporary dropout which in turn increases grade repetition and helps explain the large number of overage children who are still enrolled in basic education.

Young women (aged 15-22) who are married and have children are much less likely to be in school, and complete fewer years of education. For males there is no significant association between marriage and school attendance, but young men with children are also less likely to be in school. These results are consistent with early marriage and child bearing impacting school attendance, but it should be noted that this problem is mainly relevant for young people over the age of 17.

Supply side barriers and bottlenecks - one of the main problem is simply the lack of schools and grades available and the distance to an adequate school: only about 30 percent of primary schools are complete (offer grades 5-6), and in some areas the only available (complete) schools are private. There are tabancas where children have to travel more than 7 kilometres to find a school, even for EB1 or EB2.   Children who want to continue into lower secondary (and beyond) often need to travel to and live in an urban centre, which can prove very expensive.

Another main barrier is the poor infrastructure of existing schools. This has been mentioned very often by survey respondents and clearly impacts the quality of teaching in these schools. It is also clear that teachers are poorly trained and, in many cases, are not able to teach well, even more so in Portuguese. Parents' image of public schools would be greatly improved if the public education offer was improved: fewer strikes, better infrastructure, reasonable number of children in one classroom, etc. Additional school features that were associated with better student outcomes include private schools, (including autogestão schools), having a preschool attached, having fewer children per classroom, and reporting a functioning COGES.

Political governance, capacity and financial bottlenecks – An extensive list of institutional features of the education system were analysed, which can impact education outcomes (like OOSC) in myriad ways. One problem is the lack of measures specifically targeting the most disadvantaged groups, particularly in rural areas (teacher deployment, infrastructures, etc). Another frequently-cited bottleneck is the irregular payment of teachers' salaries, leading to long strikes and loss of school-days.

Main Findings - Section 6 provides a summary of main findings and recommendations to tackle these barriers.

Excluded children – meaning children who will never attend formal schooling – are highly concentrated in Muslim households located in three regions (Bafatá, Gabú and Oio).

Almost all of the children that are classified as excluded in household survey data –meaning they have never been to school and are not likely to ever attend – are from Muslim households. It is likely that at least some of these children are enrolled in Koranic centers, or even Madrassa schools that are recognized by the MOE and should be counted as school attendance in surveys. One notable result is the concentration of these excluded children in the three poorest regions of the country (Bafatá, Gabú and Oio), which contrasts with regions like SAB where Muslim

children tend to be enrolled in school; this highlights the multifaceted nature of this issue, which is related to poverty, school supply and ethnicity/language, and not just religion.

The Core Problem in School Participation in Guinea-Bissau is Inefficiency

It should be restated that almost all children – especially from non-Muslim households – are attending school at some point, and in most cases they appear to be attending for six or more years. However, it is alarming how little most of them have to show for this education investment in terms of actual grades completed. The problem is massive inefficiency in the system, which is a product of several factors.

Late entry. Guinea-Bissau children are entering primary school at a late age. It results in children being enrolled in levels that are designed to attend to the needs of younger children. Second, the late start at the beginning of the school investment potentially reduces the total time available to spend in school. This of course depends on how persistent children are, and in Guinea-Bissau they appear to be quite persistent, but the simple truth is that a late start in education can have consequences at a later date.

Grade failure and repetition. Once children are enrolled in school in Guinea-Bissau they tend to repeat many grades, often multiple times. Grade repetition rates are above 10 percent in almost all grades of the system. The high rates of grade failure are key to understanding the inefficiency in the system. An enormous amount of resources is wasted when children are spending six or more years in school but completing three or less grades.

What are the causes of repetition? One issue is low school quality which results in low levels of learning, and teachers are poorly prepared to deal with students who have fallen behind. Poor attendance and temporary dropout put further pressure on both the student and the teacher. As a result, the student often has to simply start the grade over the next year. Finally, it is possible that high grade failure is related to deficient teacher grading practices, or may even be a product of supply constraints in higher grades that restrict the number of students who advance.

Vicious cycle: Older children become vulnerable. The defining characteristic of the Guinea-Bissau education system is the massive age-grade distortion that is present across the entire basic education sequence. These distortions are a natural consequence of late entry, grade failure/repetition, and persistence. But these older children are also vulnerable to work- and family-related demands.

Vulnerable Populations Fare Significantly Worse

The study has identified a number of sub-populations that have significantly lower rates of school attendance, and are more likely to be in one of the various OOSC categories. The most vulnerable groups include rural children (versus urban), children from poorer households, and children from Muslim households. Gender is a transversal issue, meaning it cuts across all of these groups. Rural girls, poor girls and especially Muslim girls fare worse than their male counterparts.

Another aspect of vulnerability in basic education in Guinea Bissau is related to age. Older children who have completed relatively few grades are especially vulnerable to external pressures, and once again it is females who are most at risk for factors like marriage and pregnancy.

Recommendations

The main issues around OOSC and early dropout are clearly exposed in this study. To create a sustainable and effective process to solve these issues, the Government and all key partners will need to focus their support on key levers.

- First there is a need for an expansion of preschool opportunities to provide better preparation for children before they enter primary school, and a doubling down of efforts to ensure that children enter this level at the correct age to avoid eventual late-age entry into primary.
- The second key lever is correct-age entry in primary school, which is one of the most problematic aspects of school attendance in the country. This appears to be determined in part by supply-side constraints and the complications they create for young children to access schools. But even when schools are available locally not all children are entering at the correct age, which reinforces the importance of messaging on this topic, which includes the "6-6" (enter school at age 6, stay six years) campaign that is currently being supported.
- Improving efficiency of grade completion (key lever 3) touches on a range of issues, including teacher quality and assessment practices, language of instruction, curriculum and demand-side factors related to poverty and child labour. Grade repetition stands out as a factor in the age-grade distortion problem.

- The fourth key lever is improving access to complete primary schools and lower secondary schools. Given the sharp drop off in access to schooling after grade 4 of EB1 it is impossible to ignore this situation, especially when confronted with the large number of children who are not completing all three cycles of basic education.
- Finally, there is a need of strengthened support for older and more vulnerable students, especially girls.

Institutional framework around the OOSC

One of the solutions to organise all the education stakeholders around the issue of OOSC might be to create an institutional framework focusing on the above-mentioned levers.

The Government might be able to set up an institutional framework to address the challenge of out-of-school children and those at risk of dropping out. This framework would allow an increased coordination between different stakeholders: Ministry of Education, Ministry of Social Affairs, International donors, UN agencies (WFP, UNICEF), NGOs, CSOs. It would also clarify roles and responsibilities of each institution and would allow a better planning of activities linked to an adequate budget.

To meet the quantity and diversity of inclusive education needs, it will be essential to rely on NGOs and private organisations, including private schools, community schools, Koranic centres and madrassas.

Finally, support for DDGEPASE and their education monitoring (EMIS) work is critical for understanding OOSC and tracking process on this issue. There are also ways that DDGEPASE can improve the measurement of OOSC rates as well as underlying factors (like late entry) that help explain the phenomenon.

A detailed set of proposed recommendations can be found in section 6.

1 Introduction

Guinea Bissau is committed to meeting the target of universal primary education set by Education for All (EFA) for 2020. The substantial growth in basic education enrolments in the last 20 years attests to both the importance of this goal and the progress that has already been made. However, despite the comprehensive provisions of the new Education Law (MENCCJD 2011a), the system remains slow in adapting to the demands of a growing population and continues to face challenges in meeting enrolment targets (like EFA) and delivering high quality education. An updated summary of school supply shows that only about 30 percent of primary schools offer the complete grade 1 to 6 sequence. And concerns about school quality are widespread, as evidenced by a recent learning assessment that not only found very low levels of student achievement, but also low levels of teacher mastery over the same subject content (Ministère de l'Education Nationale 2015b)

School quality and access constraints help explain high rates of grade repetition, low student achievement and significant early-grade dropout. Contextual features and family practices such as late enrolment of children and a lack of support for girls' education are also relevant. Taken together, these different factors contribute to the problem of Out-of-School Children (OOSC), which in Guinea-Bissau includes a large number of school-aged children who have not yet entered school (late entry), in addition to children who will never enter and those who have entered but already dropped out.

The OOSC issue has been identified as a priority for the Ministry of Education (see Education Sector Plan 2017-2025), based in part on previous studies that show very high rates of OOSC among school-aged children (Ministère de l'Education Nationale 2015b). There is a research base on the OOSC phenomenon in the country, with qualitative studies that address a range of issues in addition to quantitative summaries in data sources such as the Multiple Indicator Cluster Survey (MICS, various years). However, what is missing is a *systematic study of OOSC* that can provide policy and research guidance on the topic based on the most recent evidence and trends.

This study will address this need through an exhaustive review of previous OOSC research, detailed analysis of existing data, and an OOSC-focused qualitative data collection. A comprehensive engagement with the Out-of-School Children subject will not only facilitate a deeper understanding of the problem - both in terms of actual numbers and underlying causes - but also provide an opportunity to strengthen the monitoring and measurement of OOSC. More specifically, the core objectives of this study are to support the Guinea-Bissau Ministry of Education to better understand (and monitor) the issue of OOSC, identify policy gaps and provide recommendations for strengthening institutional capacities and targeted interventions for reducing the number of children who are not in school and preventing those who are in school from dropping out.

1.1 The Country Context

Guinea Bissau is a coastal country in Western Africa with a population of approximately 1.8 million (as of 2015). Annual population growth is roughly 2.5 percent per year, and the population is very young: 41 percent are between 0-14 years of age (Merchant et al. 2018). There is a great deal of ethnic diversity with as many as 30 distinct groups, although the five main ethnic groups (Fula, Balanta, Mandinga, Manjaco and Papel) account for 82 percent of the total population (2009 census). The official language is Portuguese, however it is not widely used among the population. Creole is the main means of communication between different ethnic groups, and in rural areas local languages are often used (Ministère de l'Education Nationale 2015b).40 percent of the population lives in the capital (Bissau), and much of the remaining population is concentrated in the rural North.

Guinea-Bissau has experienced an extended period of political unrest and institutional instability. A long war of liberation ended with the proclamation of independence in 1974. The early years of independence were marked by a series of coups and armed insurrections. This pattern has continued, off and on, with a particularly violent episode in 1998-99, a coup in 2003, military uprisings in 2004 and assassinations of the Chief of Staff of the Armed Forces and the President of the Republic in March 2009 (Ministère de l'Education Nationale 2015b). Another coup in 2012 left the country especially vulnerable as many foreign donors withdrew their support. The situation has improved since democratic rule was re-established in 2014, but the institutional instability persists (World Bank, 2017). This in turn has weakened public administration, especially in economic and financial management as well as in specific sectors (e.g. education) (Ministère de l'Education Nationale 2015b).

The consequences of political instability have been evident in economic performance. For example, it was not until 2005 that the size of the economy regained its pre-1998 political crisis level (Figure 1.1). Overall, the annual growth rate for real GDP during the 1997-2010 period was just 1.2% per year. The population in Guinea-Bissau has increased considerably during this same period, and as a result GDP per capita (in constant CFA francs in 2010) has actually declined from 317,000 CFA francs in 1997 to 269,000 CFA francs in 2010 (Ministère de l'Education Nationale 2015b). External resources (e.g. foreign aid) accounted for more than 40% of the budget total between 1997-2010, which highlights the country's dependence on foreign aid (Ministère de l'Education Nationale 2015b).

Figure 1-1 Evolution of overall GDP and GDP/capita, 1997-2010 (in FCFA 2010)
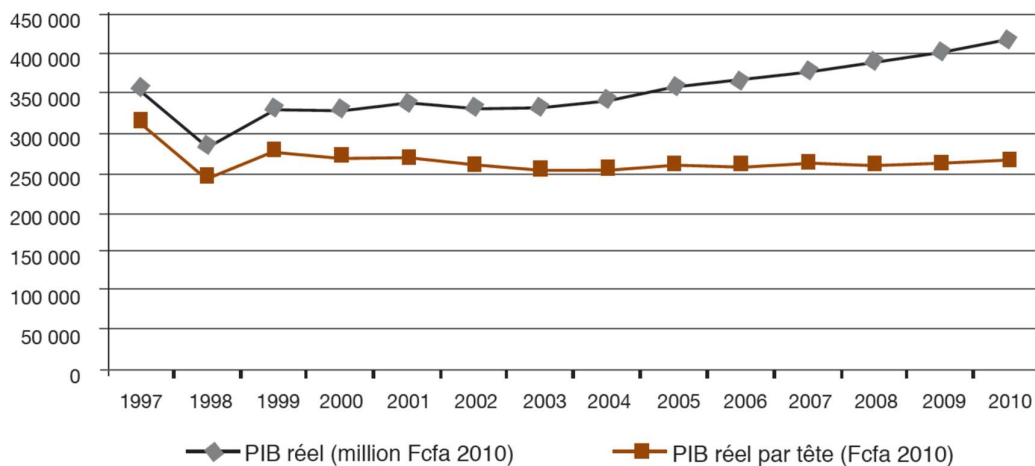
Source: Pôle de Dakar, 2013 (Figure 1.1).

The combined effects of political instability, slow economic growth and a growing population have left Guinea-Bissau as one of the poorest countries in the world. GDP per capita is only US$573 (in 2015) and roughly 70 percent of the population live below the poverty line of US$2 a day (World Bank 2015). Not surprisingly, human development indicators are also low: Guinea-Bissau ranked 178 out of 188 countries in the 2014 UNDP Human Development Index (HDI) (Merchant et al. 2018).

1.2   The Education Sector

Education in Guinea-Bissau is governed by the Basic Education Law of Guinea-Bissau that was passed in May 2010 ("*A Lei de Bases do Sistema Educativo da Guiné-Bissau*"). Based on the new law, the system is divided into six sub-sectors, including: preschool, basic education, secondary education, Vocational and technical education, University, and alphabetisation/non-formal education.

Preschool is available to children from age 3 to 5 (Figure 1.2), mainly through private or community initiatives that are sometimes linked to a religious organisation. Preschool is not compulsory. Basic education is intended for children from age 6 to 14 (Grades 1 to 9), is compulsory, free of charges for EB1 and EB2, and is divided into three cycles:

- EB1 from 1st to 4th grade or "classe" (targeting children between 6 and 9 years old) with the same curricula for all children;
- EB2 for grades 5 and 6, (targeting children aged 10 and 11). Children must specialize in either literature or one of the scientific disciplines[1];
- EB3 for Grades 7, 8 and 9, targeting children from 12 to 14 years.

Figure 1-2 Summary of Basic and Secondary Education Levels by Student Age

Pre-school		Ensino Basico 1 (EB1)				EB 2		EB 3			Secondary		
		G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
Age 3- 5		Age 6-11						Age 12-14			Age 15-17		

Primary schools can be public, private or community schools. Regional exams take place at the end of Grade 6 (end of EB2 – Primary school) and work as a selection process for children to enter EB3. Religious schools include catholic schools and madrassas, that use an officially-recognized curriculum and are included as part of the formal education system (such as EMIS administrative data). Some communities also have koranic centres offering a more restricted curriculum and are not officially recognized as schools by the government. Madrassas that do not use an officially-recognized curriculum are also included in this category. They are both considered as part of the non-formal education offer.

Education in Guinea-Bissau is under the responsibility of the Ministry of National Education and Higher Education (MOE), with administrative responsibilities also held by 11 Regional Education Directorates. Each region is divided into sectors (or zones), such as Sector Autónomo de Bissau (SAB) for the capital region; the section (secção) is the local level. The Education Directorate of Inspection provides support through administrative and financial inspection, pedagogical inspection, and technical assistance. The Inspectorate has both a central-level structure and a regional structure through the regional coordinating inspectors and sector inspectors (World Bank, 2017).

The education sector in Guinea-Bissau faces a number of far-reaching challenges. As described in a recent World Bank summary (Merchant et al. 2018), less than two percent of GDP is allocated to education spending, and the education budget is almost entirely absorbed by salaries (97 percent of current expenditures in 2013). The remainder of the budget has low levels of actual spending execution, and the sector is heavily reliant on donor support. There has also been frequent labor unrest in recent years, with teacher strikes that have further hampered education outcomes. An estimated 40 percent of school days in the 2012–13 school year were lost due to teachers' strikes and other paralysis (MOE et. al 2015) and multiple months were also lost in the 2015–16 and 2016–17 school years (Merchant et al. 2018).

Guinea-Bissau has recently finalized a new national strategy for education. The National Education Plan (MEN et. al 2015) aims to guide the country's education sector strategy for the next decade. The plan prioritizes expanding education coverage, improving education quality, and supporting TVET and higher education (Merchant et al. 2018).

1.3   The OOSC Five Dimensions of Exclusion (5DE)

The Global Out-of-School Children Initiative, a partnership between UNICEF and the UNESCO Institute for Statistics (UIS), was launched in 2010 to "make a significant, sustainable reduction in the number of children who are out of school" (UNICEF, 2015). It supports countries in their analysis and monitoring of out-of-school children, as well as children who are at risk of dropping out. This is done first with innovative statistical methods that help with the development of comprehensive profiles of excluded children. These profiles are then linked with barriers that lead to exclusion based on both quantitative and qualitative data sources, which in turn helps to identify and implement effective policies that address exclusion from a multi-sectoral perspective.

Figure 1.3 summarizes the 5 Dimensions that make up the OOSC framework, as defined by the global OOSC initiative (UNICEF, 2015). The dimensions cover pre-primary, primary and lower secondary levels. Most discussions of OOSC focus on primary- and lower secondary-aged children and their school attendance status since these are the largest segments of school attendees. Children in these age ranges are also required by law in many countries (including Guinea-Bissau) to attend school.

For preschool age children the OOSC category is dichotomous, and simply measures the percentage (or number) of children who are not enrolled in pre-primary (or primary). Dimensions 2 (primary age) and 3 (lower secondary) allow for three categories of out of school children: children who have not yet entered school (late entry), children who will never school (excluded), and those who have already entered school but are no longer attending (dropouts). This flexibility in defining OOSC is crucial for developing an in-depth understanding of the OOSC phenomenon and assessing policy options for reducing the number of children who are out of school. For example, the underlying reasons for late entry may be very different than those that explain exclusion (never attending), so

it is important to differentiate these groups. The problem with late entry is particularly relevant in Guinea-Bissau, which in turn has a number of consequences for measuring and understanding OOSC.

Figure 1-3 OOSC Five Dimensions of Exclusion (5DE)
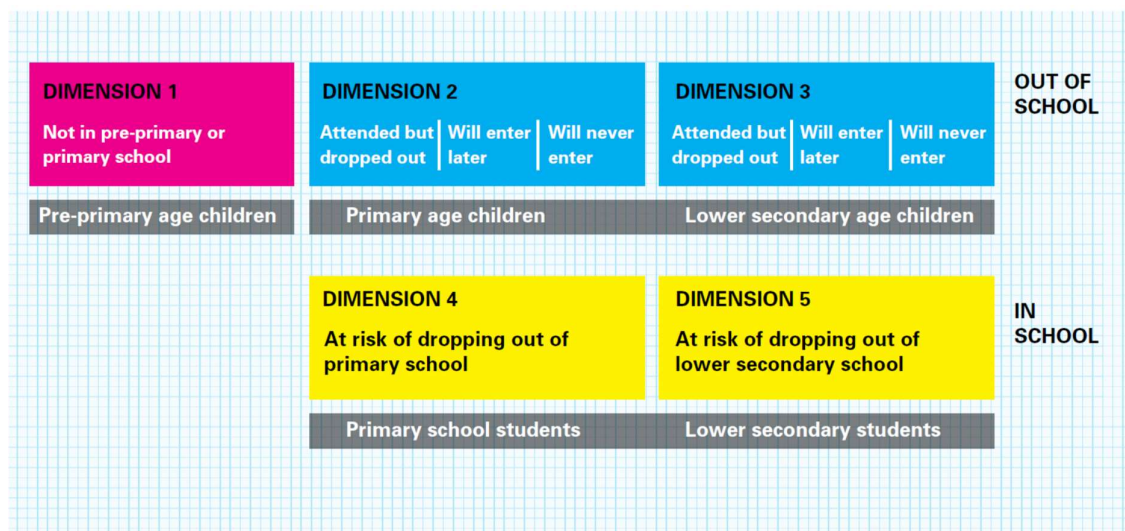
Dimensions 4 and 5 also focus on primary- and lower secondary-age children and assess risk of dropout. For example, in many countries a 13-year-old who has repeated multiple times and is still enrolled in primary is a strong candidate to drop out of school. Using age and inputs like repetition rates, the OOSC dimensions that focus on risk are designed to identify children who will likely leave the system early or, in other words, are the future out of school children.

With disaggregation by gender, urban-rural, SES group and region -- as well as comparisons over time to establish trends – the 5 OOSC Dimensions provide policymakers and stakeholders with a very useful panorama of the current state of school attendance in the country. However, there are some limitations with the OOSC framework which require complementary analysis of outcomes like grade repetition, age at entry, grade attainment and primary (and lower secondary) completion rates (and transitions). As will be shown in later sections in more detail, the OOSC summaries in Guinea-Bissau are substantially impacted by late entry and grade repetition, with many children remaining enrolled even in primary school past the official age range for basic education (which should be completed by age 14). So it will be necessary to go beyond the 5 Dimensions, and the basic education age range of 6-14, in order to better understand the dynamics of school attendance.

1.4   Organization of the Study

The study is organized as follows. The Analytical Framework (section 2) includes a summary of the main research questions and data sources, and a review of the quantitative and qualitative data analysis activities (methodology). Section 3 provides a detailed overview of OOSC in Guinea-Bissau, based primarily on the MICS data from 2000-2014. Section 4 focuses on additional aspects of school attendance that are not captured directly within the OOSC dimensions, but are especially relevant in the Guinea-Bissau context, such as late entry and grade attainment. Section 5 turns to the barriers and bottlenecks that help explain OOSC, with a topic-by-topic review that draws mainly on the qualitative information collected as part of this study, with complementary information from quantitative sources as needed   Section 6 synthesizes the main findings and provides a series of policy recommendations related to OOSC in Guinea-Bissau.

2   Analytical Framework

2.1   Research Objectives

The main research objectives for this study were defined based on a range of inputs, including previous OOSC work in other countries, discussions with UNICEF staff, and meetings with the Local Education Group as well as other stakeholders in the education sector. These objectives are captured by four core research questions:

1. **How many children are out of school or at risk of dropping out, and where are they located?** This question is addressed based on detailed profiles of out-of-school children in Guinea-Bissau using the OOSC Initiative's Five Dimensions of Exclusion (5DE) categories, together with other indicators of school participation (and non-participation). The profiles capture the complexity of the problem of OOSC in terms of the magnitude, inequalities and multiple disparities around the 5DE. These are developed nationally as well as by region;

2. **What are the main barriers and bottlenecks to education that children face?** A diverse set of factors potentially impact OOSC and children at risk of dropping out, and one of the goals of the study is to help clarify the dynamic and causal processes related to the different categories of OOSC. This will rely on a review of existing evidence, quantitative analysis of existing data and a qualitative survey that will be undertaken that focuses specifically on OOSC;

3. **How are existing policies and interventions contributing to the complex needs of Out of School Children and children at risk of dropping out?** This will require a careful analysis of existing policy elements and a mapping of how these things address the profiles of OOSC that are identified in the study;

4. **Based on the analysis, what are the main recommendations on how to address OOSC and retention issues in Guinea-Bissau taking into account the national and sub-national context, the Education Strategic Plan implementation and other relevant policies?** The complexities of the OOSC issue will likely require different recommendations for different situations. These need to take into account resources and sustainability, and we will develop recommendations that are in short, medium and long-term ranges.

2.2   Data Sources and Quantitative Methodology

The quantitative data analysis relies on four main sources of data. These include:

1. **Household survey data.** The main information source for the quantitative work is the Multiple Indicator Cluster Survey (MICS), which is available for 2000, 2006, 2010 and 2014. ILAP survey data (from 2002 and 2010) are also referenced. The advantage of household survey data sources is they provide national and region coverage, include detailed information about children as well as their families, and have standard indicators that can be compared over time. However, survey data are not representative at the sector level, and they rely on population projection weights to calculate raw numbers of children in and out of school.

2. **Administrative (EMIS) data.** The DGEPASE department within the MOE is responsible for statistical monitoring of the education system.   For this study the focus will be on the 2012-13 and 2014-15 data sets. Data from other recent years are either not yet finalized or are incomplete. The advantage of administrative data is the national coverage across all communities. Furthermore, the DGEPASE administrative data are quite detailed, which makes it possible to go beyond descriptive summaries of enrolment trends (and repetition rates, etc.) and also carry out statistical analysis.

The statistical analysis relies mainly on basic descriptive statistics (percentages, averages, raw numbers). These are presented across the main strata (gender, location, SES, region) as well as over time (MICS 2000-2014). For the 5 Dimensions of Exclusion (5DE) there is an established methodology to follow (see Section 1.3).

As noted above, one task of the data analysis is to compare results across data sources. This is a useful exercise in the context of OOSC because it makes it possible to assess the validity of the different data sources for measuring the number of children who are out of school. This is especially important for the administrative data prepared by DGEPASE, which can be compared against household survey and census data sources in different years. These somewhat specialized results are presented in more detail in Appendix A.

Finally, the descriptive analysis is augmented with multivariate statistical analysis. The purpose of multivariate statistical modelling is to identify the most significant predictors of key outcomes (dropout, late entry, grade attainment, etc.) from among a large set of possible influences. The statistical modelling will help answer the question of which factors appear to be the strongest influences on these outcomes, at least from among the variables that are available in the MICS and DGEPASE data sets. However, because of data limitations and non-random placement the results from this line of inquiry are not strictly causal, and cannot be treated as definitive. This highlights the importance of additional, qualitative data sources to help with "triangulation" when identifying the main determinants of the different categories of out of school children. The multivariate analysis is also explained in more detail in Appendices C (MICS) and D (DGEPASE).

2.3   Qualitative Survey, Data Collection and Analysis

The qualitative research methods entailed a comprehensive and systematic review of existing literature and evidence in Guinea-Bissau and collection and analysis of new empirical data in several regions.

The qualitative study's objectives were to:

- Describe and analyze the barriers that children and youth face that make them drop out of school or result in non-enrollment;
- Identify the barriers and bottlenecks that prevent children and youth from returning to school;
- Analyze the typology, relevance and effectiveness of the measures implemented to mitigate the phenomenon of out of school children and youth;
- Describe the perceptions of children, youth, parents/tutors and other education stakeholders about the most appropriate solutions to mitigate the out of school/ dropping out of school phenomenon and eventually eradicate it;
- Conduct a causal analysis of the reasons that prevent children and youth from being in school;
- Describe the characteristics of out of school children and youth taking into consideration the most vulnerable (disabled, migrants, minorities, internally displaced persons, etc.);
- Provide recommendation for evidence-based policy making.

The qualitative survey was conducted in six regions of Guinea Bissau: SAB, Cacheu, Oio, Tombali, Bafata and Gabu.

The following respondents were targeted during the data collection:

- Children / youth at school (including madrassas/koranic centers);
- Children / youth out of school, taking into account different age groups and levels (primary, secondary) and consider (i) those who dropped out; (ii) those who entered late (iii) those who have never had been to school;
- Parents / tutors/ parents associations
- Community and religious leaders;
- Teachers / Principals / School Management Committees;
- Directors of the central ministry of education and social protection/ affairs, projects that target children and youth;
- Directors from the regional offices of the ministry of education and social protection/ affairs,
- NGOs and local associations involved with children and youth issues in the data collection areas.

The qualitative data was collected through semi-structured interviews and focus group discussions during a three week period in May 2018.

Table 2-1 Number of subjects by data collection technique, per region

		Interviews					Focus Groups				
		I- SD	I - C/R Lead	I - RD	I - Central level		FG - Parents Community	FG OOSC	FG School Children	FG Teachers	Total/ region
SAB	rural										0
	Urban	6	5	1	6		1	1	4	1	25
Cacheu	rural	1	1	0	0		1		1		4
	Urban	2	3	3	0		2	1	4	3	18
Oio	rural	1	1				1	1		1	5
	Urban	3	1	1			2		2		9
Bafata	rural	2	2	0	0		1	0	2	0	7
	Urban	6	4	1	0		2	1	5	1	20
Gabu	rural	4	1	2	0		0	1	4	1	13
	Urban	4	4	0	0		4	2	9	3	26
Tombali	rural	10	7	0	0		3	0	6	0	26
	Urban	1	0	2	0		0	1	1	0	5
Total		**40**	**29**	**10**	**6**		**17**	**8**	**38**	**10**	**158**

A total of 158 interviews or focus groups were conducted across the six regions. In each region, the data collection was conducted in urban and rural areas, except in SAB (urban only).

Table 2-2 Number of Respondents by category and Gender

Category of respondents	Women	Men
School Director	3	37
Teachers	20	39
Children in school	203	186
Out of school children	18	27
Religious or community leaders	0	29
Parents	22	30
Regional services /regional NGOs	1	9
Central services	2	4
Total	**269**	**361**

A total of 269 women and girls and 361 men and boys were interviewed either individually or in focus groups. It is important to note the poor representation of women in leadership positions, as none of the interviewed religious or community leaders were women, and almost no women were working as school directors and in regional services.

2.4   Limitations of the Study

The limitations of the study largely reflect limitations of the different sources of data.

Quantitative data limitations. There are three main limitation related to the quantitative data, including:

- Limited number of indicators related to barriers and bottlenecks. Quantitative data sources like MICS do not have much information on qualitative processes in the home or the school that impact school attendance and OOSC.
- Data coverage limitations. Household survey data (MICS, ILAP) are representative nationally and by region, but it is not possible to go down to the setor or *tabanca* level to describe and compare outcomes. The DGEPASE school census data have this property of national coverage, but with little information on family background. Both sources of data – household survey and administrative (EMIS-DGEPASE) – also have limitations in terms of year-by-year coverage. The only complete DGEPASE surveys in recent years are from 2012-13 and 2014-15 school years, while MICS is available every 4-6 years.

- <u>Limited information on children with disabilities and school supply.</u> Measuring disabilities is a major challenge, but for this study it was especially difficult because of a lack of information in MICS and DGEPASE on disabilities. The school supply omission is also significant because issues related to incomplete, and unavailable, schools are often referenced in the country as factors that impede school attendance. An initial attempt was made to merge in data on school supply (from DGEPASE 2014-15) into the MICS 2014 survey data (by tabanca and bairro), but it was not possible to complete this activity. It should be noted that the 2018 MICS will have more information on barriers like disabilities and distance to school, among others.

Qualitative data limitations. One limitation with the qualitative data is the limited generalization that comes with a more focused sampling framework. As described in Section 2.3, the qualitative data was collected in different regions of the country, with a sizeable number of participants. But this does not guarantee representation in the same way that quantitative data can. The other limitations with the qualitative data are related to access to key groups during the field work. Despite efforts to reach these sub-groups, it was difficult to enter koranic centres and madrassa schools, find and speak with overage children in primary school (i.e. children over the age of 16), children who are out of school and children with disabilities.

Finally, there are two additional limitations to the overall study design that are not related specifically to quantitative or qualitative data. One is the lack of information on teaching and learning processes inside schools and classrooms (classroom observations should provide this information), as well as student results (provided by standardized evaluations like EGRA/EGMA). There is a lack of available data/studies on these topics in Guinea-Bissau. And finally there is the challenge of establishing "hierarchy" in the results and identifying the most important factors that explain OOSC outcomes. Statistical analysis (multivariate) provides, in theory, some ranking of the most important factors, but the MICS data provided only a limited number of variables. The qualitative data is much more complete in terms of the number of identified factors, and it is possible to identify the most frequently mentioned factors. But this is not the same as linking cause with effect, especially considering all the other variables (regions, rural/urban, etc).

3   An Overview of Out-of-School Children

This section provides a detailed summary of OOSC based on the 5 Dimensions of Exclusion (5DE). This begins in 3.1 with a review of school attendance and enrolment trends in Guinea-Bissau using key indicators like the Gross Enrolment Rate (GER). Sections 3.2-3.5 then take up each of the five dimensions of the 5DE for preschool, primary and lower secondary.

3.1   School Enrolment Trends 2000-2016

Before analysing the out of school population it is first necessary to describe recent trends in school enrolments. Figure 3.1 presents a summary of primary (EB1-EB2, panel a) and lower secondary (EB3, panel b) enrolments across the 2000-2016 period, by year and data source. At the primary level the numbers show a large increase in enrolment between 2000 and 2006, from 150,000 students to more than 250,000 (or an increase of roughly 70 percent). This is followed by a period where enrolment remained fairly steady at around 275,000 pupils, and in recent years (2013-2016) there appears to have been another increase in participation.

In lower secondary (bottom panel) the growth has been even more impressive in percentage terms: from roughly 20,000 students in 2000 to over 70,000 by 2015, or a change of 250 percent.

In addition to showing how the basic education system has been expanding in the last 15 years, the numbers in Figure 3.1 are useful for comparing enrolment figures across data sources. These sources include sample-based household surveys (MICS, ILAP), the 2009 national census (RGPH), and administrative data gathered from all schools (DGEPASE or EMIS). The blue coloured bars are used for the survey and census data, and the DGEPASE numbers (orange bars) are presented alongside in years when both sources are available.   At the primary level there is a high degree of agreement across the various data sources, with the main exceptions being the 2009 census (lower than trend) and 2014-15 EMIS-DGEPASE (higher than trend). For lower secondary the comparisons are less consistent, but overall the results in Figure 3.1 show that the data collected by DGEPASE appears to provide a credible basis for monitoring school enrolment trends. This bodes well for future monitoring of school attendance and OOSC. Appendix A provides a more detailed comparison of enrolment numbers and rates by database and population source.

Figure 3-1 Primary and Lower Secondary Enrolments 2000-2016 by Data Source

(a) Primary (EB1-EB2)
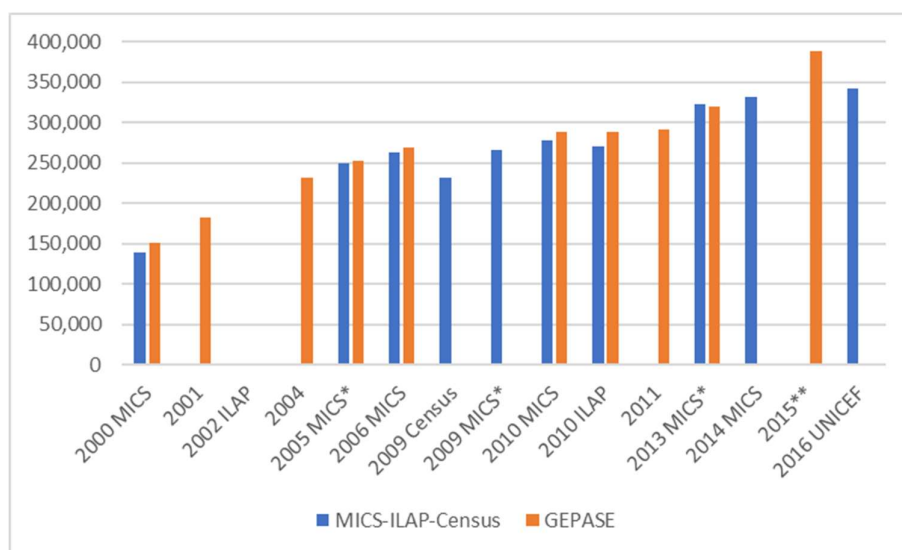
(b) Lower Secondary (EB3)
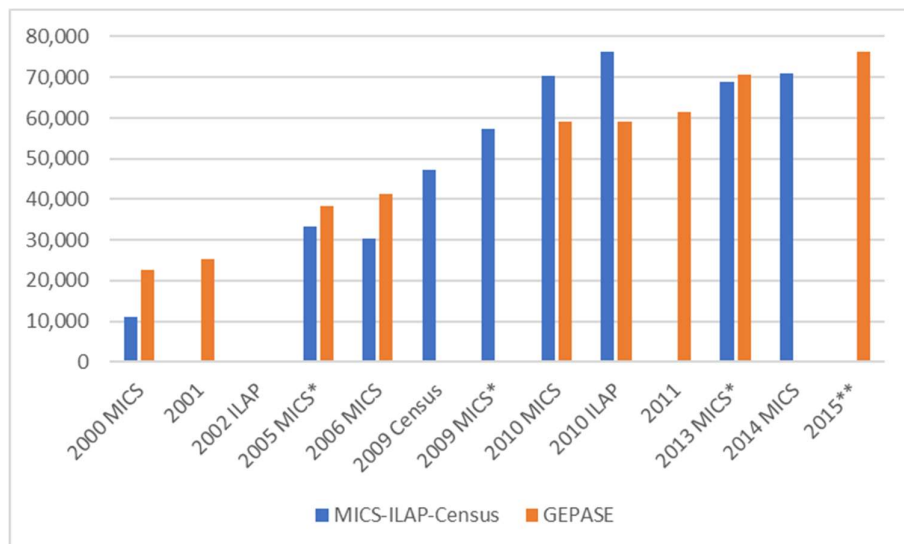
Source: MICS 2000, 2006, 2010, 2014; ILAP 2002, 2010; RGHP 2009; Unicef 2015, DGEPASE, various years; author calculations.
Notes: All figures refer to actual numbers of students enrolled at beginning of school year. For survey data the numbers were obtained based on the UN population projections (2000-2016); see Appendix A for more details on methodology and additional results using different population numbers.
* Data refer to school year prior to current school year in MICS survey;
** Data obtained from UNICEF textbook survey;

The growth in total enrolment in Figure 3.1 shows that the system is expanding, but this does not say anything about efficiency and coverage rates. Figure 3.2 presents Gross Enrolment Rates (GER) for primary and lower secondary based on the DGEPASE (EMIS) data for 2000-2015. The GER is defined as the total number of students enrolled in a specific level divided by the number of children for the age group in that level (e.g. 6-11 year olds for primary). In primary the GER increased significantly from just under 80 percent in 2000 to 120 percent in 2006, and has increased again in recent years. For lower secondary the GER has gone from 25 percent in 2000 to just over 60 percent in 2015.

Figure 3-2 Gross Enrolment Rate (GER) for Primary and Lower Secondary, 2000-2015
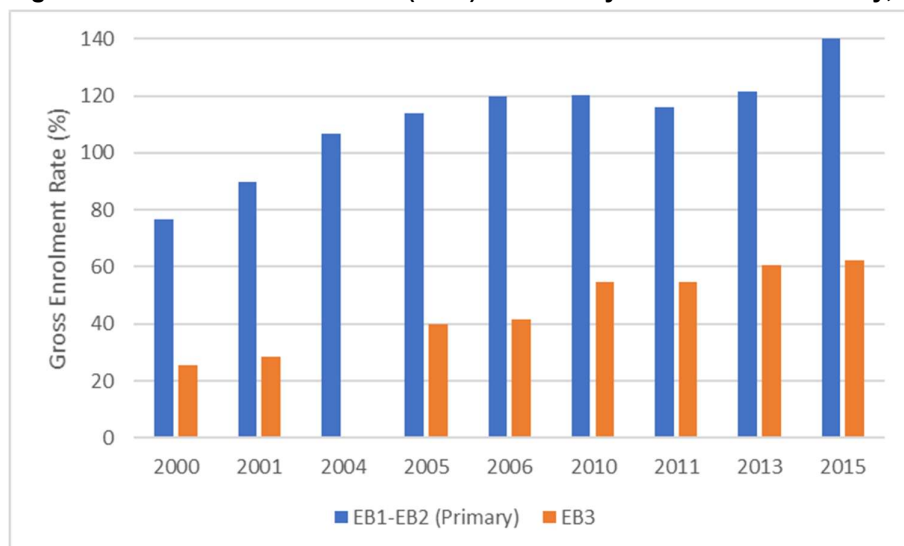
Source: DGEPASE (UN population data), various years

The high GER in primary - and the low GER in lower secondary - highlight a significant issue in Guinea-Bissau that will be returned to throughout this study: overage enrolment. The high GER in primary is due mainly to older children being enrolled in this level. This also helps explains the low GER in lower secondary since many children of lower-secondary age are still in primary. The overage issue is especially notable in the Adjusted Net Enrolment Rate (ANER), which measures the percentage of correct-age children who are enrolled in the correct level or higher (see Table A1 and Figure A1 in Appendix A for more details). At the primary level the ANER has been in the 60-70 percent range for the last 10 years, while in EB3 it has been closer to just 10 percent.

Figure 3.4 (below) provides another take on the age and grade imbalances in Guinea-

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Box 3.1. School Supply Constraints in Guinea-Bissau

The expansion of basic education enrolments in recent years has certainly been aided by school construction, and as a result there are fewer and fewer communities that do not have at least a primary school. However, the presence of a primary school building does not guarantee access to complete primary education. Figure 3.3 shows that of the 1,518 schools in the 2014-15 DGEPASE school census, only 492 (or 32 percent) offer the complete G1-G6 primary cycle. There is another very large drop-off between grade 6 and 7, with only about 200 schools offering lower secondary education. These supply constraints impact school attendance in two ways. Most obviously, the restricted physical access to schools means greater expense (and time) to travel for education, which can effectively exclude many children. But when higher level grades are not available locally the demand to complete lower levels of education can also be reduced because children (and their parents) have little expectation of continuing their education into the next level (Lavy, 1996).

Figure 3-3 Number of Schools Offering Grades, 2014-15 DGEPASE

Source: DGEPASE, 2014-15

Bissau. At the time of the 2014-15 DGEPASE school census there were approximately 90,000 students enrolled in grade one, which represents almost 25 percent of the entire G1-G12 national enrolment (nearly 400,000). Most school systems have some bunching up of enrolments in the early years of primary, although this does depend on population growth trends. But the overall goal of any system should be a relatively even distribution of students across the basic education grades that children are legally mandated to attend. This is far from the case in Figure 3.4, and this imbalance in enrolment will be returned to in various topics throughout this report.

Figure 3.4 also provides a summary of enrolment by gender in 2014-15. The Gender Parity Index (GPI) is presented along the righthand side axis of Figure 3.4. For preschool through the end of EB1 (grade 4) the index is above 90 percent, which means that the number of girls in each grade is equal to 90 percent or more of the total of boys. But beginning with EB2 the GPI begins to significantly drop with each additional education level, and by the end of secondary education (grade 12) boys outnumber girls by a ratio of 1.5 to 1.0 (GPI=66.0).

The gender differences can also be analysed with gross and (adjusted) net enrolment rate (ANER) comparisons. Based on the 2014 MICS, there is little difference at the primary school level: GER of 119.9 for boy versus 118.3 for girls, and an ANER of 62.4 for boys and 62.3 for girls. But at the lower secondary level the rates begin to diverge, most notably in the gross enrolment ratio which was 66.7 for boys and only 54.8 for girls. The ANER rates were very low for both groups (9-10 percent).

Figure 3-4 Number of Students by Gender and Grade with Gender Parity Index (GPI), 2014-15 DGEPASE
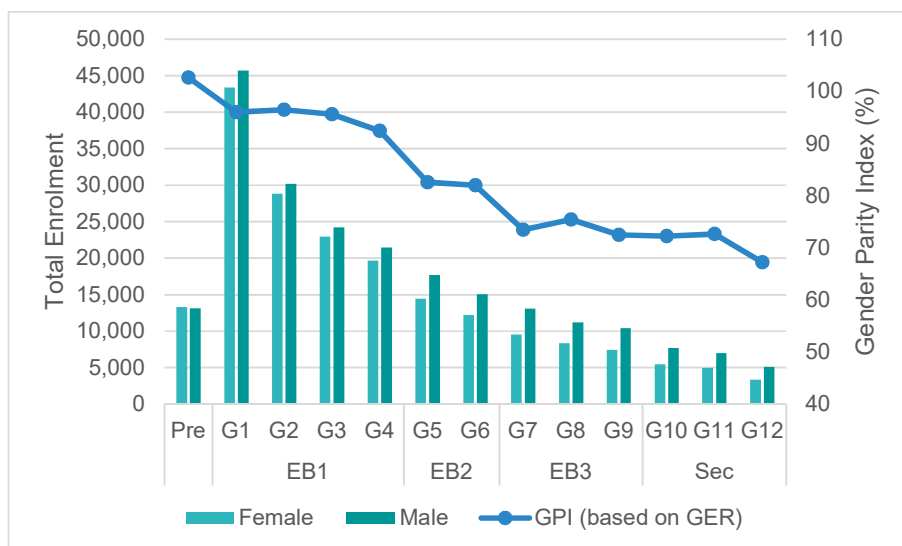
Source: DGEPASE, 2014-15
Note: Gender Parity Index= (GER for girls/GER for boys)*100, and is presented along righthand side axis

There are four main takeaways from this brief overview of school attendance trends in Guinea-Bissau. First, the system is clearly expanding, and it is important to remember that this has been taking place during an extended period of political conflict and institutional instability. However, the system is massively out of balance, with very large numbers of students concentrated in the earliest grades and relatively few learning opportunities in EB2 and (especially) EB3 and beyond. Figure 3.4 is not the picture of a healthy, functioning education system. It is instead indicative of a very unequal system where meaningful credentials (i.e. diplomas by level) are obtained by relatively few children. Furthermore, there has been little improvement in recent years, at least based on efficiency measures like gross and net enrolment rates. And finally, there is evidence that girls are being treated differently. These basic systemic features are relevant because in addition to general context for overall system performance, they provide some specific guidance for the analysis of out-of-school children.

3.2   OOSC Dimension 1: Preschool Age Children

Dimension 1 of the OOSC framework begins with preschool-age children. To simplify the analysis this is normally restricted to the last year of the official preschool sequence, or one year before official age of entrance into primary school. In Guinea-Bissau this is age 6 for 2000-2010 (when the official age for entry in primary was 7), and then beginning in 2011 the official primary age range was reduced to 6-11, which means that in recent years Dimension 1 includes age 5 children.

Figure 3.5 begins with a national overview of OOSC for 5 (and 6) year olds across the 2000-2014 MICS survey period. Each row sums to 100 percent, and summarizes the OOSC status of all preschool-aged children. Red shading is used to identify children who have not yet entered school at any level (dark red), and those who have entered school but have dropped out (lighter red). Yellow shading is used to identify under-age primary school children, meaning children who are already in primary school before the official age at entry. And green shading is used for children who are where they should be at this age (preschool).

The results in Figure 3.5 show that there has been some improvement in the OOSC status of children in this age group between 2000 and 2014. However, the comparisons across years are handicapped to some extent by the change in age of entry policy beginning in the 2010-11 school year. For example, at the time of the 2000 MICS roughly two-thirds (67%) of 6 year olds had never been to school, and only four percent were enrolled in preschool. In 2014 the never entered category was down to 56 percent, and 25 percent of 5 year olds were in preschool. This improvement is likely attributable in part to an expansion in preschool opportunities. But it should be noted that in 2000 nearly 25 percent of 6 year olds were already in primary school, whereas in 2014 the proportion of 5 year olds in primary school was only about 15 percent.

Figure 3-5 OOSC Status (Preschool Age), MICS 2000-2014
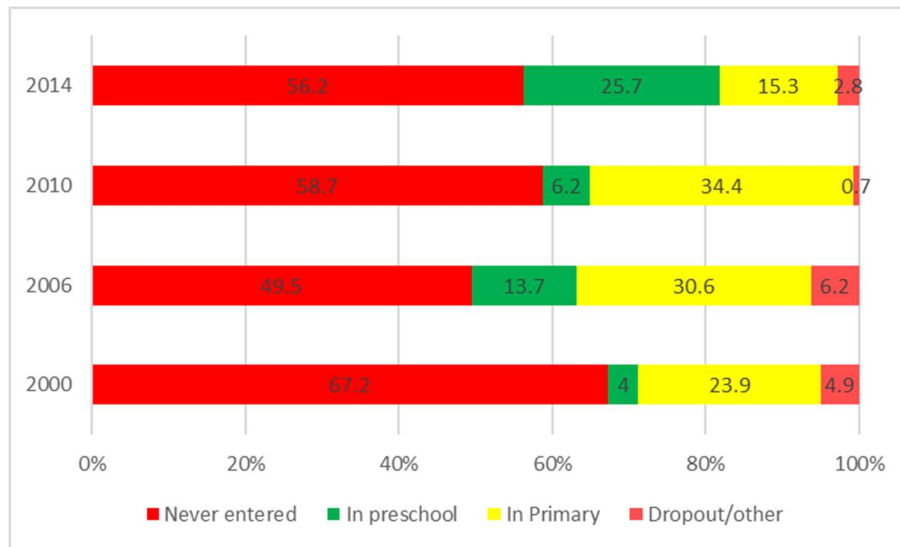
Source: MICS 2000, 2006, 2010 and 2014

Figure 3.6 summarizes OOSC status for 5 year olds in the 2014 MICS by SES quintile. The quintiles are created based on different measures of household wealth, and are ranked form lowest (i.e. poorest, Q1) to highest (wealthiest, Q5). 73.4 percent of 5 year olds from Q1 families in 2014 had never been to school, and only 10.6 percent were enrolled in a preschool. At the other end, only 18.1 percent of Q5 children had never started school, and over 60 percent of them were in preschool. Interestingly, across all five wealth quintiles the proportions of 5 year olds who have already entered primary school were fairly equal at 15-20 percent. This suggests that early entry into primary is not concentrated in a specific sub-sector of families.

Figure 3-6 OOSC Status (Preschool Age) by SES Quintile, MICS 2014
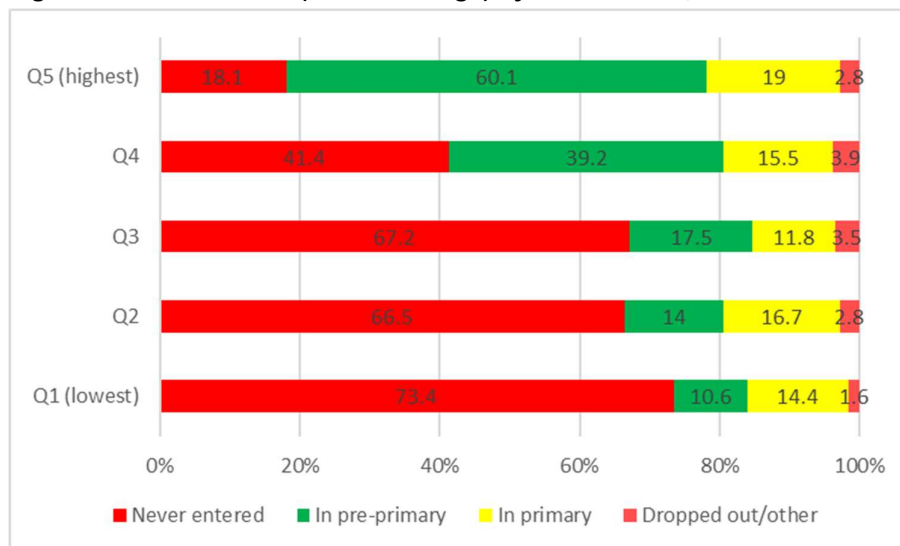
Source: MICS, 2014

Figure 3.7 continues the Dimension 1 summary with regional comparisons using the 2014 MICS. The proportion of 5 year olds who have already entered primary school (yellow shading) is once again fairly even across all nine regions. But the percentages of children in preschool vary substantially, which also impacts the number of children who have never entered school. For a handful of regions (SAB, Bolama-Bijagós, Quinara and Cacheu) there are apparently more preschool opportunities available, and as a result fewer children are classified as OOSC. But in

regions like Bafatá and Gabú there are relatively few preschool schools available, which contributes to the large rate of OOSC (over 70 percentl.

Figure 3-7 OOSC Status (Preschool Age) by Region, MICS 2014
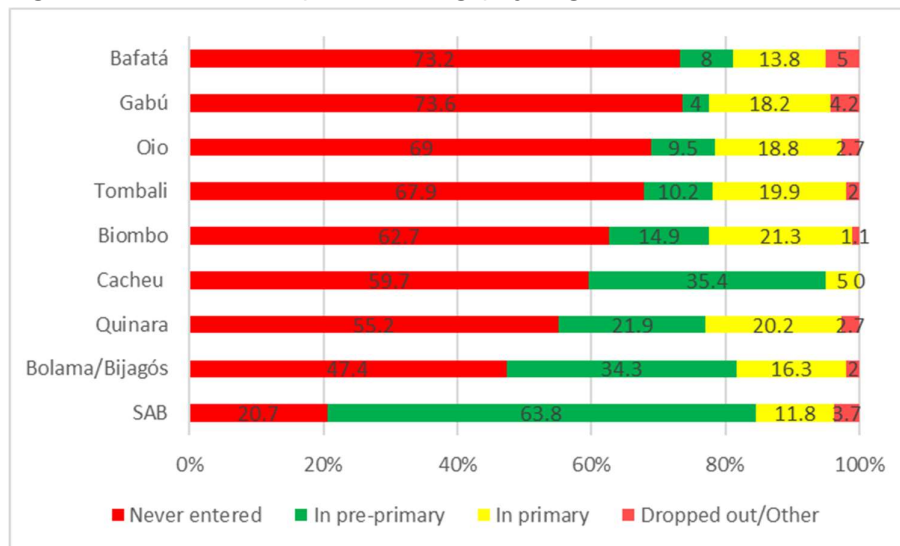
Source: MICS, 2014

Figure 3.8 concludes the OOSC Dimension 1 analysis with a summary of the raw numbers of preschool-aged out of school children by gender and year. Across the 2000-2014 MICS period the total OOSC is generally stable at about 26,000 children. In terms of gender there is no notable difference, and in 2006-2014 there are actually more 5 and 6 year old boys who are out of school than girls. These bars represent large proportions of the total population in these age groups (see Figure 3.5), but it is important to note that almost all of these out of school children will eventually enter primary school, and some of them will even enter preschool (late entry). The issue of late entry will be discussed in more detail in Section 4.1.

Figure 3-8 Number of OOSC (Preschool Age) by Gender and Year, MICS 2000-2014
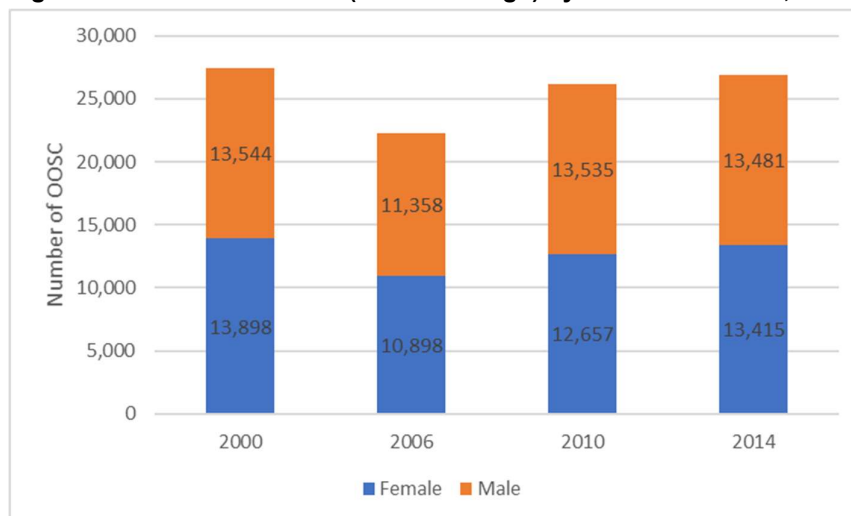
Source: MICS 2000, 2006, 2010 and 2014

3.3   OOSC Dimension 2: Primary School Age Children

Figure 3.9 provides the national summary of OOSC for primary school-aged children across the 2000-2014 MICS period using the same red-yellow-green shading as before. Note that the official age for primary is changing over time, from 7-12 in 2000-2010 to 6-11 since 2011. The first result that stands out is the large proportion of green shading in Figure 3.9, which corresponds to correct age primary enrolment. This percentage has increased from 42.9% in 2000 to over 60% in 2014, and is also interpreted as the Adjusted Net Enrolment Rate (ANER) for primary.

Figure 3-9 OOSC Status (Primary Age), MICS 2000-2014
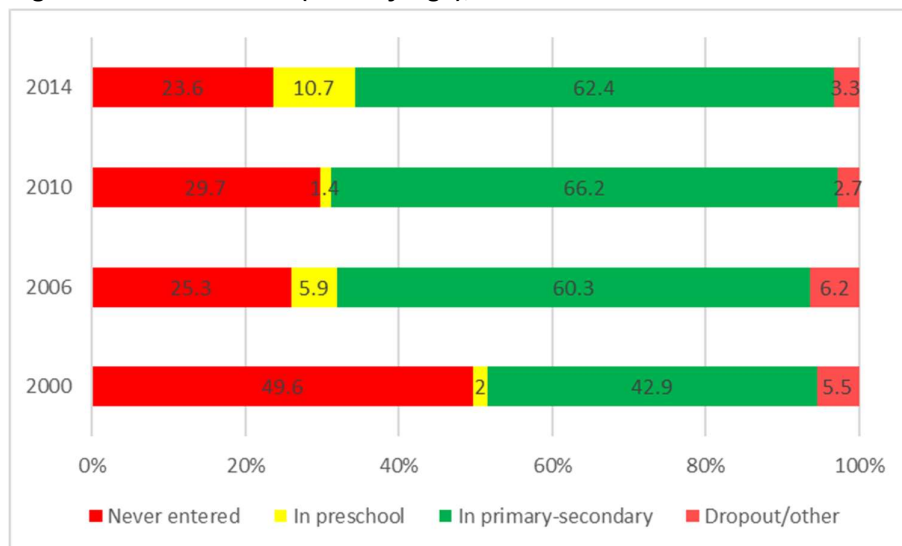
Source: MICS 2000, 2006, 2010 and 2014

With the increase in correct age primary participation there is a notable decrease in out of school children (red shading), especially compared with 2000. At the time of the 2014 MICS approximately 24 percent of children aged 6-11 had never entered school. It should be restated that these children are not entirely excluded from education, since some will still enter school (even preschool). Another notable result in Figure 3.9 is that there is relatively little dropout among primary school-aged children. In 2014 only 3.3 percent of 6-11 year olds in the MICS sample reported having attended school and leaving, and it is possible that some of these children may still return. What this means is that the larger challenge for 6-11 year olds is getting them into school: once they are enrolled most are staying in school until age 11 (and beyond).

Figures 3.10-3.12 provide additional details on OOSC among primary-aged children by gender (3.10), location (3.11), and region (3.12); Figure A2 in Appendix A reviews SES quintile results. The female-male comparisons in Figure 3.10 show nearly identical school attendance profiles at the time of the 2014 MICS, with some clear improvement for females since 2000. However, this does not mean that girls and boys are progressing through school at the same rate, which is why additional comparisons by gender will be presented below. Rural children have also made significant improvements: in 2000 nearly two thirds (67%) of primary aged children in rural areas had never entered school, but by 2014 that proportion had been cut in half (33.5 percent).

Figure 3-10 OOSC Status (Primary Age) by Gender, MICS 2000-2014
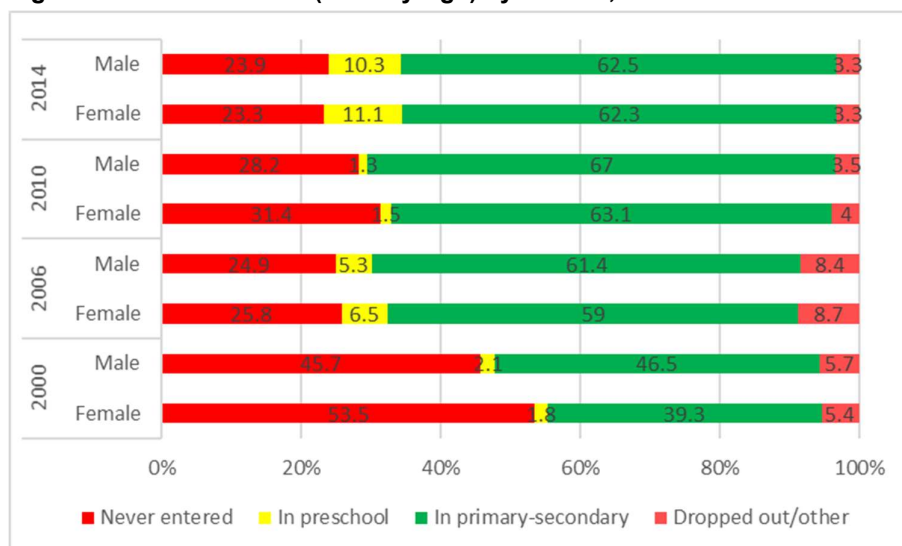
Source: MICS 2000, 2006, 2010 and 2014

Figure 3-11 OOSC Status (Primary Age) by Location, MICS 2000-2014
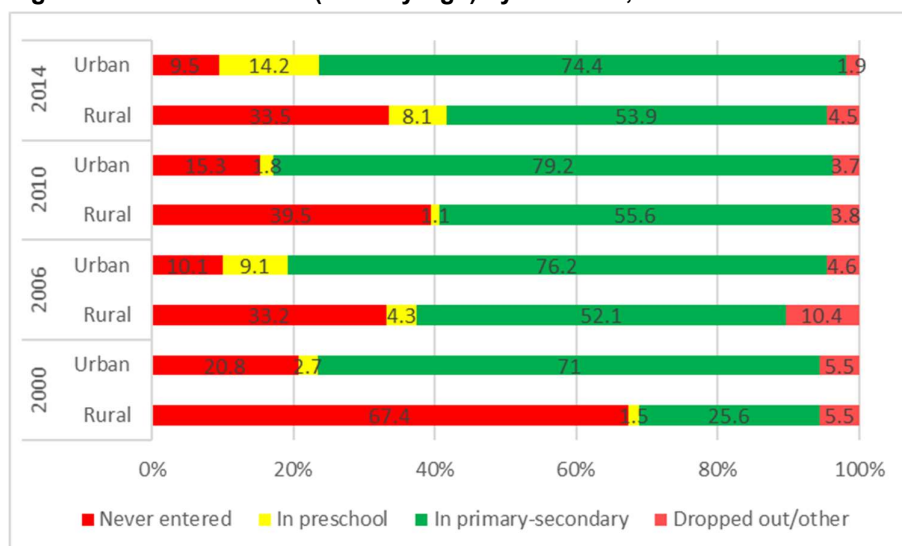
Source: MICS 2000, 2006, 2010 and 2014

Across the nine regions (Figure 3.12) there is again a great deal of diversity in OOSC rates in 2014. Gabú, Bafatá and Oio have the largest proportions of 6-11 year olds out of school. In Gabú 39.4 percent have never entered school, and 10.5 percent have already dropped out. The low OOSC areas are Bolama-Bijagós, Cacheu and SAB. In these provinces relatively few (about 10 percent) children have never been to school, very few have dropped out, and large percentages are currently enrolled in the correct level (primary). One number that does stand out is the large proportion of overage preschool students in Cacheu: nearly 27 percent of 6-11 year olds in this region reported being in preschool in 2014. Cacheu also had the second highest rate of preschool participation among 5 year olds in the 2014 MICS (Figure 3.7 above).

Figure 3-12 OOSC Status (Primary Age) by Region, MICS 2014
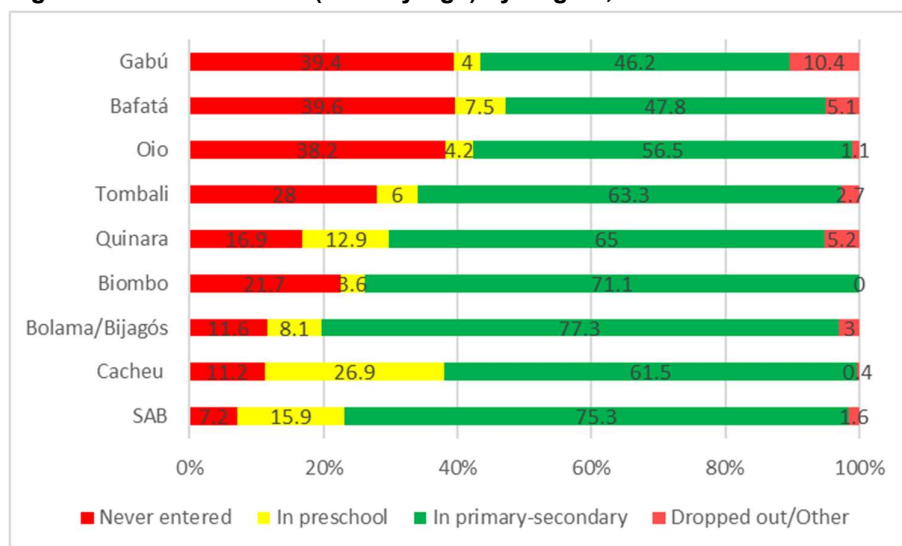
Source: MICS 2014

The analysis of Dimension 2 OOSC so far has relied entirely on percentages. But policymakers also like to know how many children are out of school in raw numbers. There are two challenges for estimating the actual number of out of school children. First, estimates of raw numbers – both for actual enrolments (see Figure 3.1) and out-of-school children – rely on projections of the underlying population totals by age group. Appendix A provides a more detailed discussion of this issue together with comparisons of OOSC results using the various population projections that are available in Guinea-Bissau. The second complication is that some children who are currently categorized as out-of-school will eventually enter school, especially in countries where late entry is a significant problem (like Guinea-Bissau). To deal with this problem the UNESCO Institute for Statistics (UIS) has developed a spreadsheet-based methodology for correcting OOSC totals to account for eventual entry into primary school using household survey data sources like MICS.

Figure 3-13 Total OOSC (Primary Age) by Gender, MICS 2000-2014
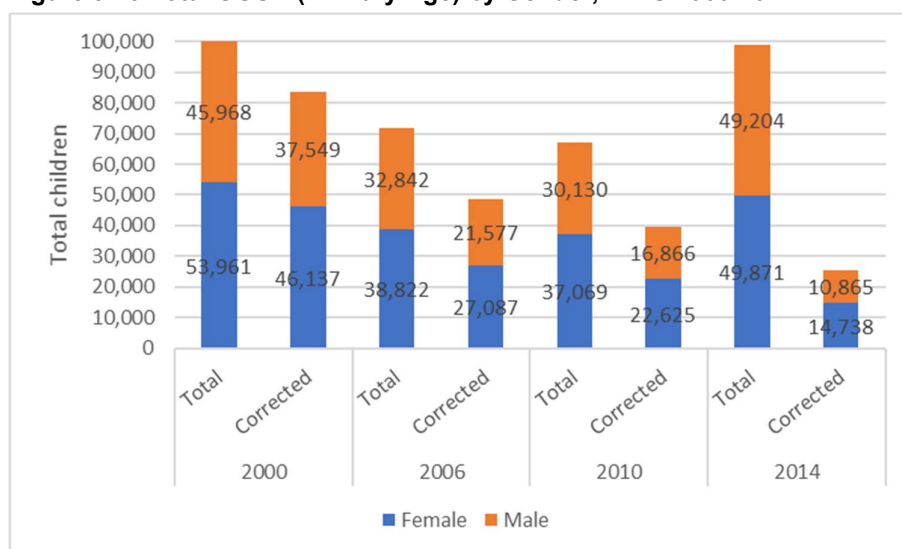
Source: MICS 2000-2014

Figure 3.13 provides a panorama of Dimension 2 OOSC across the 2000-2014 MICS period using raw numbers of children who are out of school. For each year two separate estimates are provided (by gender). The first (called "Total") counts all children who are not currently enrolled in primary school (or higher) as OOSC. This corresponds to the yellow and red shading in Figure 3.9, translated from percentages into actual numbers of children. The

second estimate (called "Corrected") uses the UIS methodology to adjust the OOSC figure by allowing for eventual entry (in primary school).[2]

The numbers in Figure 3.13 show that the adjustment for eventual entry is important in Guinea-Bissau. For example, in 2014 there were just under 100,000 children aged 6-11 who were out of school at the time of the MICS. However, since many of these children were in preschool or had not yet entered primary school, the large number is misleading. The "corrected" number for 2014 shows that only about 25,000 children in the 6-11 age group had already left school (dropouts) or were expected to never enter primary school.

It is critical to understand the difference between the Total and Corrected columns in Figure 3.13, especially from a policymaking standpoint. By relying on the standard interpretation of how you define OOSC – meaning children who are not in primary or lower secondary school at the correct age (Total measure) – the results suggest that very large numbers of children are excluded from education in Guinea-Bissau. This in turn could mean that enrolling all of these children would require a massive expansion of school buildings and classrooms, among other policies. This is not the case. The reality is that primary schools and classrooms are already attending to a sizeable contingent of students, but they are generally overage. And in the future the current batch of primary-aged out-of-school children will replace or complement the current students. The problem is that most of the current and future primary school attendees are overage.

The uncorrected (Total) OOSC numbers therefore serve the important purpose of focusing attention on the severity of the overage enrolment/age distortion problem in the country, so throughout this report the uncorrected figures will receive more attention. But the policy options that are discussed will recognize that the OOSC problem is caused by late entry and inefficiency (grade repetition, etc.) rather than complete exclusion where children are never entering school.

In addition to the large differences between the Total and Corrected column totals, several results in Figure 3.13 stand out. First there is the steady decline in the number of out-of-school children based on the UIS Corrected methodology. In 2000 over 80,000 children aged 7-12 had already dropped out of school, or were expected to never enter. By 2014 this Corrected figure was down to about 25,000 children. The second result is the large increase in the Total column in 2014. This is explained by the change in the official primary age range (in 2011) from 7-12 to 6-11; this has the effect of greatly increasing the non-corrected OOSC total because of the issue of late entry. Finally, the gender comparisons in Figure 3.13 provide a slightly different take on inequality compared with the summary of OOSC by category presented above (Figure 3.10). The gender gap has been considerably narrowed between 2000 and 2014: in 2000 nearly 10,000 more girls were out of school compared with boys, but by 2014 the difference was down to under 5,000. However, there is a clearly persistent issue with girls not entering school in Guinea-Bissau which is only apparent when applying the eventual entry correction. More specifically, a sizeable group of primary-aged girls are remaining out of school while their male counterparts are eventually entering. This in turn highlights the need to understand the underlying cause for these differences, which is addressed in more detail in later sections.

3.4   OOSC Dimension 3: Lower Secondary School Age Children

Figure 3.14 continues the OOSC analysis with a summary of Dimension 3 (lower secondary age). Between 2000 and 2014 the percentage of children who had never entered school dropped from 41.7 percent to just over 10 percent. This massive decrease in educational exclusion is consistent with a significant expansion in educational opportunities across the basic education (EB1-EB2-EB3) sequence in the last 20 years. However, at the time of the 2014 MICS only about 10 percent of children aged 12-14 were enrolled in lower secondary grades (green shading in Figure 3.14), and this correct-age proportion has not improved much since 2000. This again highlights the problem of overage enrolment in primary (and preschool): 73 percent of 12-14 year olds in 2014 were still in primary school (yellow shading), and this figure has actually been increasing during the 2000-2014 period.

The other number that stands out in Figure 3.14 is the relatively small percentage of children who have dropped out of school. For the 2014 MICS just over seven percent of children aged 12-14 were classified as dropouts, meaning they reported attending school at some point but were no longer enrolled. The dropout rate for lower secondary aged children has declined since 2000, but is consistently smaller than the percentage of children who

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[2] The methodology is described in more detail in the OOSC Operational Manual (UNICEF, 2015). The approach relies on household survey data (e.g. MICS) to calculate the grade one (primary) entrance rate among all children aged 6-17, which is defined as the percentage of children who entered primary school in the current survey year. Using the primary entrance rates by age it is possible to predict how many children in the 6-11 (Dimension 2) and 12-14 (Dimension 3) age ranges who have never attended primary school will eventually enrol in this level. It should be noted that this correction is based on a series of estimates, and cannot be treated as a definitive number. However, given the prevalence of late entry in Guinea-Bissau it is necessary to take this factor into account when estimating out of school children totals.

have never entered school. Combined with the low dropout rate among primary aged children (about three percent in 2014, see Figure 3.9), this result reinforces the message that the main challenges for participation in the basic education sequence are related to getting children into school on time and progressing through the grades. Relatively few children – about 10 percent based on the MICS - are leaving school before the age of 15.

Figure 3-14 OOSC Status (Lower Secondary Age), MICS 2000-2014
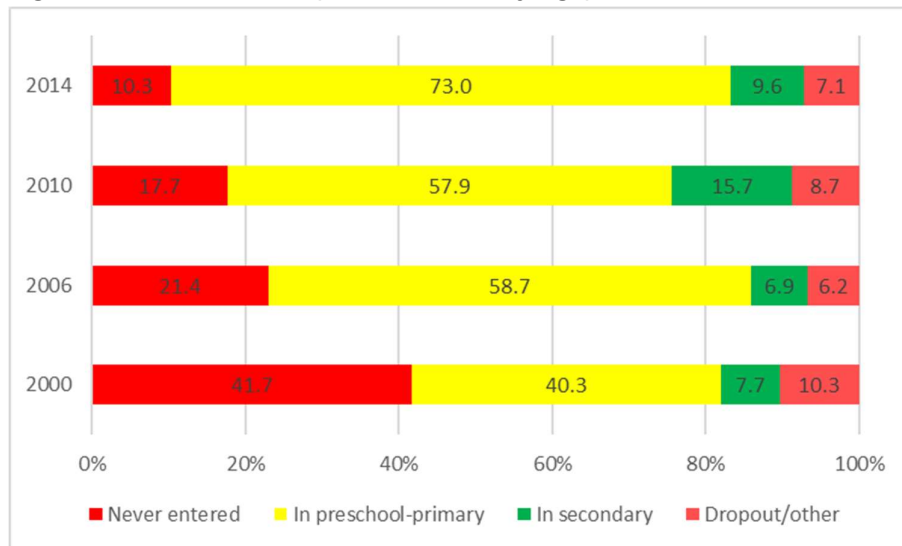
Source: MICS 2000-2014

Figure 3.15 summarizes Dimension 3 OOSC by gender across the same 2000-2014 MICS period. The numbers again show a sizeable reduction in gender inequality between 2000 and 2014. In 2000 nearly half of girls aged 13-15 had never entered school, compared with 38.5 percent of boys. In 2014 these rates (for 12-14 year olds) had declined to 11.2 and 9.5 percent for girls and boys, respectively. Girls had slightly higher dropout rates in 2014, and they were also marginally less likely to be currently enrolled in primary or lower secondary school. But the comparisons between 2014 and earlier years show clear improvement and a trend towards more equality in participation at this level.

Figure 3-15 OOSC Status (Lower Secondary Age) by Gender, MICS 2000-2014
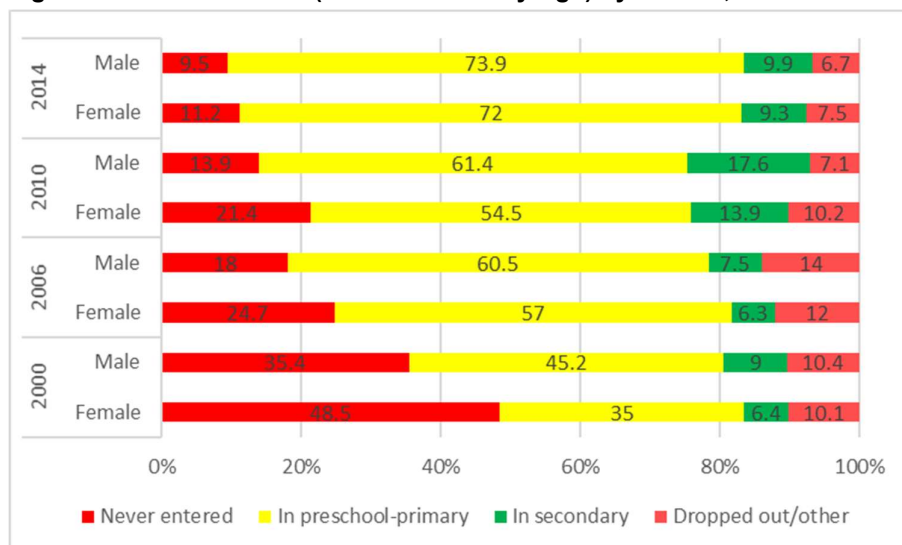
Source: MICS 2000-2014

Figures B2 (location), B3 (SES quintile) and B4 (region) in Appendix B provide additional summaries of Dimension 3 out-of-school children. Figure 3.16 concludes with the raw numbers of Dimension 3 OOSC for the 2000-2014 MICS period by gender. Since very few lower secondary-aged children are likely to enter school after the MICS were completed (i.e. eventual entry), there is no need to present the Total and Corrected numbers of OOSC that were used for primary (Figure 3.13). The total number of OOSC is instead presented using Dropout and Never Enter categories. Once again the finding that stands out in Figure 3.16 is the significant decline in the raw number of OOSC among lower secondary-aged children. In 2000 there were just over 30,000 13-15 year olds who were out of school, almost all of whom had never entered school. In 2014 this total figure was down to just over 18,000, with roughly equal numbers of dropouts and never entered. In terms of gender the numbers again show progress in reducing the disparity in OOSC between females and males, at least in terms of raw totals. However, on a percentage basis the change has been more incremental. For example, in 2000 females made up just over 58 percent of Dimension 3 out-of-school children, while in 2014 this proportion had only been reduced to 55 percent. This again highlights the need to provide a detailed review of school participation by gender, as well as examine the reasons why girls are less likely to be in school – and more likely to be classified as OOSC – than their male counterparts.

Figure 3-16 Total OOSC (Lower Secondary Age) by Gender, MICS 2000-2014
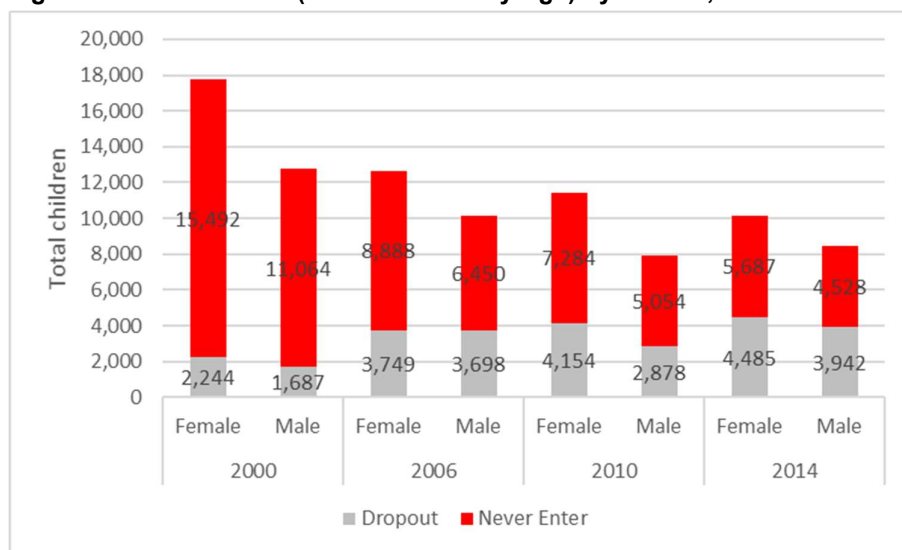
Source: MICS 2000-2014

3.5   OOSC Dimensions 4-5: Children at Risk of Dropping Out of School

Dimensions 4 and 5 provide a different view on the OOSC issue by estimating the percentage of current attendees who will eventually drop out before completing primary (Dimension 4) or lower secondary (Dimension 5) levels. The actual calculations are completed with another spreadsheet-based template that is described in the OOSC Operational Manual (UNICEF, 2015). This requires administrative (EMIS) data from at least two consecutive school years. Unfortunately, the most recent set of consecutive school year data that are available in Guinea-Bissau (from DGEPASE) are for the 2009-10 and 2010-11 school years, so the Dimension 4 and 5 estimations are not as current as the other three dimensions that can be calculated using household survey data like MICS.[3]

Figure 3.17 summarizes the "at risk" percentages for primary and lower secondary dropout based on the UIS methodology for the 2009-2011 period. Overall, just under 46 percent of the students enrolled in primary grades 1-6 in the 2009-10 school year were likely to drop out of primary school before completing grade six. This figure is significantly higher for females (53.0%) than for males (38.8%). In lower secondary the rate was much lower, with an overall at-risk dropout rate of 22.8 percent. At this level, females are actually less likely to leave before completing the level than are males.

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[3] It is not possible to use household survey data (like MICS) to calculate the expected dropout rate based on the UIS methodology because it is only possible to identify grade repeaters during the current school year, and not during the previous year. The spreadsheet-based methodology developed by UIS is clearly intended for administrative data.

Figure 3-17 OOSC Dimensions 4 and 5: Percentage of current students who are likely to leave school before completing level by gender, 2009-2011 (DGEPASE)
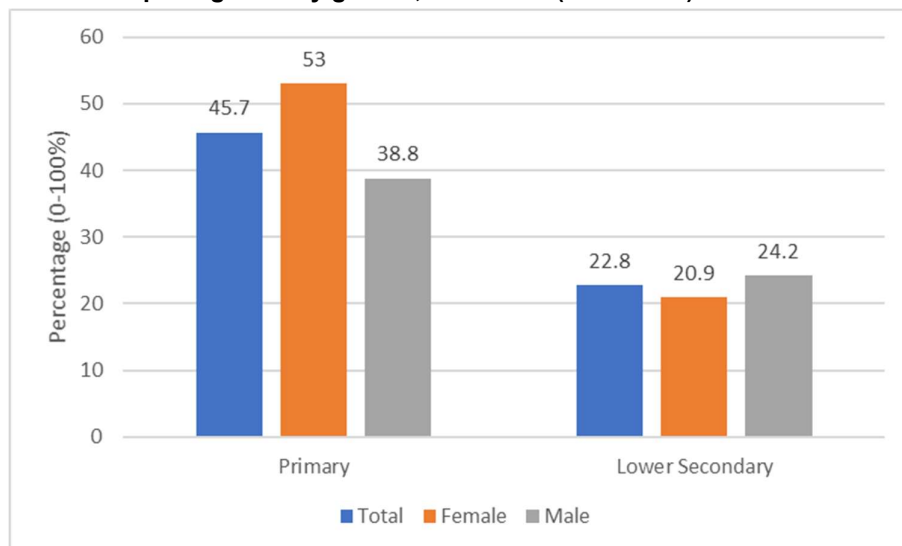
Source: DGEPASE 2009-10, 2010-11

What do the numbers in Figure 3.17 mean for the analysis of out-of-school children in Guinea Bissau? One message is very clear, which is that many children who enrol in primary school are not completing the full six grade sequence. It was already shown that only about one third of the schools that offer primary grades have the full complement of six grades (Box 3.1), so it is not surprising that a large proportion of students are not likely to finish primary school. Other factors in addition to supply are certainly at work, and this will receive a more detailed review in Sections 4 and 5. One of these factors is gender, and the higher dropout risk for girls in primary provides additional evidence that girls are not faring the same as boys, especially as we move past basic participation measures and look at actual grade progression indicators.

For lower secondary the numbers in Figure 3.17 require some caution. Students can only drop out of a level once they have entered it, and in Guinea-Bissau relatively few students are entering lower secondary. So the much lower average dropout rate is potentially misleading since it is a very restricted group of students who are in this level to begin with. Furthermore, the lower dropout rate among girls is explained in part by the fact that much fewer girls are reaching this level. In the 2009-10 DGEPASE data (the baseline for the calculations in Figure 3.17) roughly 35,000 boys were in lower secondary grades 7-9, compared with just 23,000 girls.

3.6   Out-of-School Children in Guinea-Bissau: A summary

The picture that is forming of out-of-school children in Guinea-Bissau is somewhat complicated. The most important result is the very large number of children who are out of school based on the standard methodology for calculating OOSC rates. The total OOSC in Dimensions 1-3 (ages 5-14) in 2014 IS just over 140,000 children (Figure 3-18 below). This raw total of OOSC has declined only marginally since 2000, when nearly 160,000 children were out of school. However, there are two differences in 2014 compared with 2000. First, the OOSC rate – measured as the percentage of children aged 5-14 who are out of school – has declined significantly from nearly 50 percent in 2000 to 33 percent in 2014. Furthermore, when we apply a correction for eventual entry there has also been a lot of progress. In 2000 most of the Dimension 1-3 children who were out of school at the time of the MICS data collection remained out of school. By contrast, in 2014 the majority of Dimension 1-3 children who are out of school will eventually enter primary school. As a result, a relatively small proportion (14 percent) of children in the 2014 MICS are likely to never enter formal schooling.

Figure 3-18 Total Number of Out-of-School Children Across Dimensions 1-3 and Gender Parity Index (GPI), 2000-2014
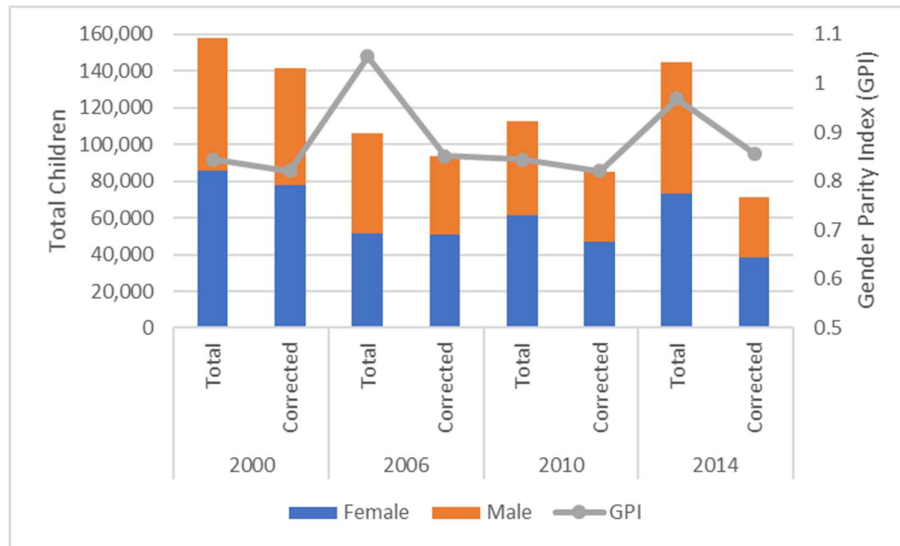
Source: MICS 2000-2014

The results from this section define three core issues related to OOSC that require more attention. First there is the 14 percent who have dropped out or will never attend school. This group needs to be described in more detail on the basis of gender, location, school supply and family background. And the underlying reasons for non-participation require further exploration, which is returned to in Section 5 of the report.

The second core issue is late entry, which has far-reaching consequences for OOSC calculations. Late entry can disrupt the normal functioning of education provision in myriad ways, as well as impact overall grade attainment by reducing the amount of time children should devote to education. It is therefore important to understand more about who is entering late, why they are doing so, and how late entry impacts other outcomes like grade attainment and primary completion. These issues are taken up in Sections 4 and 5.

And finally there is the issue of internal efficiency. Despite the expansion of educational opportunities in recent years, large numbers of children are not completing the primary school sequence, let alone continuing into lower secondary. This also requires a more detailed examination to better understand when children are leaving school, at what age, and how things like school supply constraints are impacting school attendance. These topics are discussed further in Sections 4 and 5.

4   School Attendance Flows and Grade Attainment

The results from Section 3 make it clear that the Out-of-School Children (OOSC) problem in Guinea-Bissau, despite substantial progress in recent years, remains significant and requires action to address the underlying reasons for why children are never entering school, or leaving school before completing the primary level. However, the summaries in Section 3 also highlighted "parallel" issues related to OOSC that demand attention, such as late entry and low levels of internal efficiency and grade completion. Furthermore, the OOSC focus on basic education-aged children (e.g. 5-14) is somewhat problematic in Guinea-Bissau because a sizeable proportion of children enrolled in basic education are older. So in order to develop a more complete picture of school attendance dynamics across the basic education sequence (preschool, primary and lower secondary), it is necessary to expand the age range of analysis and bring in additional indicators.

4.1   Age at Entry and Current Age

Late entry into school is problematic because preschool and primary classrooms are not intended for older children, and by starting late the child is at greater risk of running out of time in adolescence to complete the basic education cycle—or even primary school. It also complicates Out-of-School Children calculations because large numbers of six and seven year olds (and older) are currently out of school, but will eventually enter. This section provides a descriptive summary of age at entry and current age by grade across preschool, primary and lower secondary levels. Then, in Section 5, this topic is returned to with qualitative evidence from interviews that address the underlying causes of why parents enrol their children late into school.

The official age for preschool is 3-5 years, but Figure 4.1 shows that at the time of the 2014 MICS only about half (54.3 percent) of children who reported entering preschool during the 2013-14 school year were under six years of age. Nearly 20 percent were aged 6, while the remaining 26 percent were seven years or older. The sizeable share of overage children who were just beginning their preschool education can disrupt classrooms that are intended for young children. It also means that many of these children will be starting primary school late.

Figure 4-1 Age of First Year Preschool Students, 2014 MICS
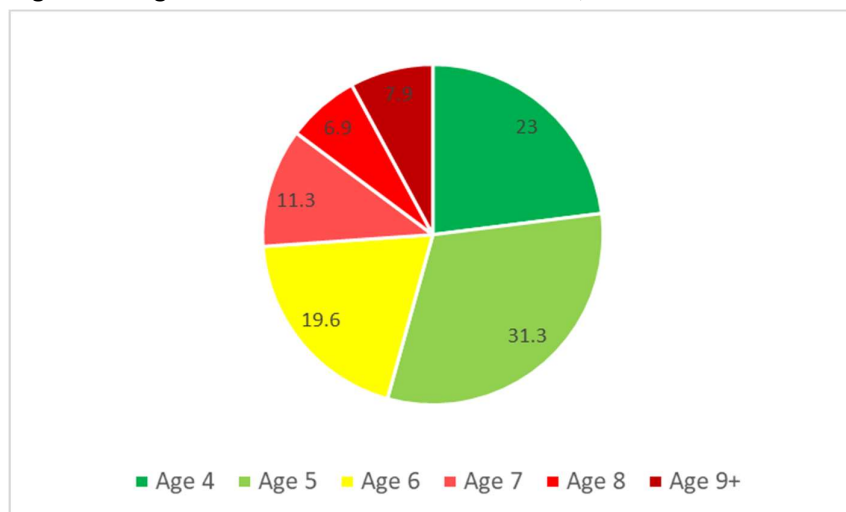
Source: MICS (2014)

The preponderance of overage children in Guinea-Bissau highlights the need to monitor this indicator over time. Figure 4.2 confirms the high proportion of overage students across all three Basic Education levels (EB1-EB3), especially in lower secondary (G7-G9) where roughly half of the students are 18+ years old (red shading). However, the numbers in Figure 4.2 also show a high degree of alignment between the MICS (2014) survey data and the DGEPASE administrative data collected during the 2012-13 and 2014-15 school years. This bodes well for future monitoring activities based on government data, which is critical for establishing year-on-year trends instead of relying on periodic sample-based estimations (like MICS).

Figure 4-2 Percentage of Enrolment by Age Category and Level, DGEPASE and MICS (2014)
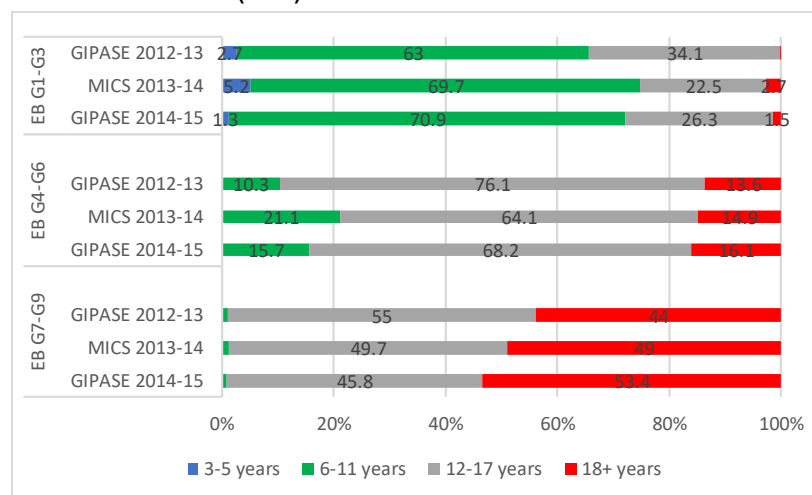
Source: MICS (2014), DGEPASE 2012-13, 2014-15

Late entry into preschool is only one cause of eventual late entry into primary school. Figure 4.3 shows that only about one third of primary grade one students who reported attending preschool during the previous (2012-13) school year are 6 years old or younger (lower bar). 25.9 percent are seven years old, and 26.4 percent are nine years or older. However, even among grade one students who reported that they were not in school the previous year (top bar in Figure 4.3), there are relatively few correct-age entrants into primary school: roughly 39 percent are six years old or younger, while 44.6 percent are 8 years or older.

Overage enrolment is an issue across the entire basic education sequence (Box 4.1). At lower levels (preschool and primary) it is mainly a result of late entry. However, because of high rates of grade repetition (see next section), the problem gets worse at each successive level, and by lower secondary the age-grade distortion is massive. This problem was already referred to as part of the

OOSC Dimension 3 summary for lower secondary-aged children (Figures 3.14-3.15). The graphical summaries in Appendix Figures B5 and B6 provide additional details. For example, only 6.4 percent of students who entered classe 7 (first year of EB3) at the time of the 2014 MICS were 12 years old (official entry age) (Figure B5). 20.5 percent were 17 or 18 years old, and one quarter (24.6%) were 19 years or older.

Figure 4-3 Age of Primary Grade 1 Students by School Attendance Status in previous year, 2014 MICS
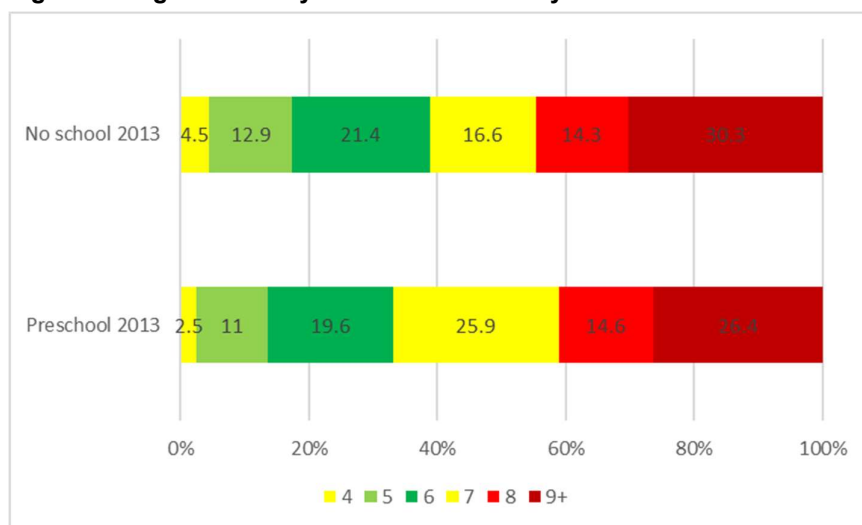
Source: MICS, 2014

4.2   Grade Repetition

Part of the reason so many older children are still enrolled in lower grades is that they have repeated multiple times. Unfortunately, it is not possible to calculate the actual number of repetition episodes for individual children using household survey data (e.g. MICS) or administrative data (DGEPASE). But with grade-by-grade summaries it is easy to see why this is such an important issue in Guinea-Bissau. The numbers in Table 4.1 are taken from DGEPASE using their *Anuarios* (2004-2010) and the two most recently available national school censuses (2012-13 and 2014-15)[4]. The main result is that high repetition is a system-wide phenomenon, with averages above 10-12 percent in most grades and survey years. In the most recent school years this trend has even reached the upper secondary level.

Table 4-1 Repetition Rates by Grade, 2004-2015 (DGEPASE)

Grade	School Year								
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2012-13	2014-15
1	16.9	25.6	22.2	19.5	17.7	15.3	16.2	16.4	19.5
2	15.5	20.9	20.1	19.9	19.1	16.2	18.3	18.5	20.7
3	12.7	15.6	15.1	15.5	15.1	13.8	14.6	14.6	18.7
4	11.9	15.5	13.4	15	15.6	15.2	17.8	17.8	18.2
5	8.5	9.9	10.4	10.2	9.6	9.4	10.5	10.5	17.9
6	11.4	13.2	11.7	11.3	10.4	9.7	13.4	13.4	16.1
7	11.6	16.2	14.8	16.4	16.1	13.7	16.6	16.5	20.2
8	10.9	16.7	13.8	17.8	12.9	15.8	17.9	18	20.8
9	10.8	15.3	13.1	17	13.1	17.2	17.4	17.3	22.1
10	4.8	6.1	5.5	7.8	4.2	7.1	11.3	11	14.7
11	2.9	4.9	2.4	4.1	4.6	5.6	5.5	5.5	13.9

Source: DGEPASE, various years
Notes: Repetition rates are calculated by dividing the number of students classified as Repeaters by the total initial enrolment for that grade. The averages refer to all school types in the DGEPASE database (public, community, private, etc.).

The uniformity of repetition rates across grades in Guinea-Bissau is somewhat unusual, and rules out a policy response that focuses on reducing repetition in a single grade (like grade one). The critical question is to what extent is grade repetition related to low performance, which is difficult to answer given the lack of information in the country on student achievement levels. It is easy to assume that students are repeating the grade because they failed to demonstrate mastery of the content during the previous year. But other factors may be involved, including teacher evaluation practices, a "culture of repetition" where repeating multiple times is viewed as normal, and supply constraints. Section 5 provides some follow-up on what explains high rates of repetition based on both quantitative and qualitative data sources.

One factor that does not appear to be strongly related to grade repetition is gender. Boys are slightly more likely than girls to be repeating during the primary grades, whereas in lower secondary girls are more likely to be repeating (Figure 4.4). But the differences are never larger than two percent.

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[4] Grade repetition rates are calculated by dividing the number of students classified as repeaters at the beginning of the school year by the total initial enrolment. In the MICS data it is also possible to estimate repetition by comparing the grade that children are attending during the current and previous school years; when these are the same, the child is presumably repeating the grade. However, the repetition rates that are estimated using MICS data are quite different from the DGEPASE data, which may reflect problems with household's correctly recalling the grade of the child during the previous year. This is one indicator where the administrative data are more likely to be accurate than survey data, so this section relies exclusively on DGEPASE data.

Figure 4-4 Repetition Rates by Grade and Gender, 2012-13 DGEPASE
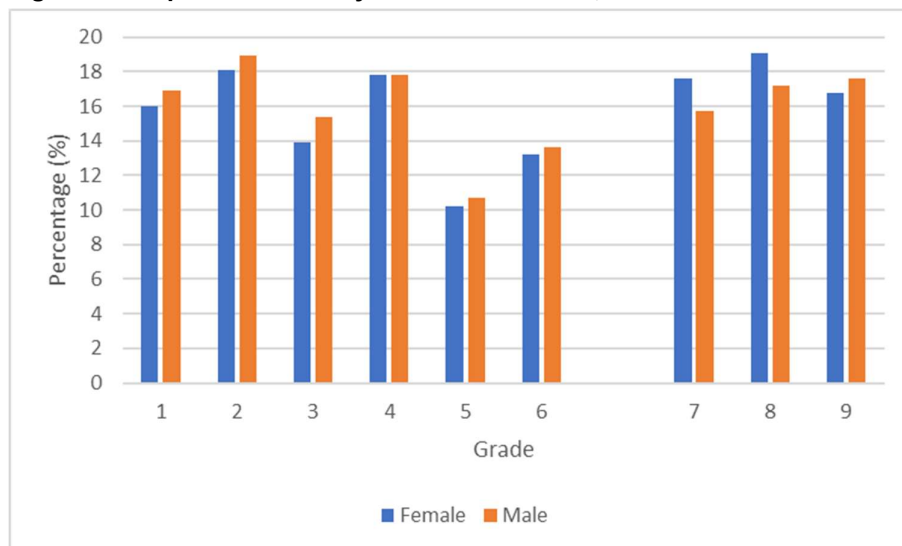
Source: DGEPASE, 2012-13

4.3   Grade Attainment and Completion

Late entry and grade repetition work against completing grade levels (grade attainment), although young people in Guinea-Bissau are compensating for these problems by remaining in the basic education system into their late teens (or even their 20s). Nevertheless, the results in Figure 4.5 show that grade attainment levels are quite low. The average 20-21 year old has completed about 5.75 years of education, and for older cohorts the averages are even lower, especially for females. The gender gap is clearly noticeable in Figure 4.5, as it steadily increases from just under one half year of attainment advantage for 14-15 year old boys to over two full years difference for the 24-25 year old cohort. This pattern is again consistent with a divergence in educational experiences between boys and girls that begin in the early teenage years.

Figure 4-5 Grade Attainment by Age Group and Gender, 2014 MICS
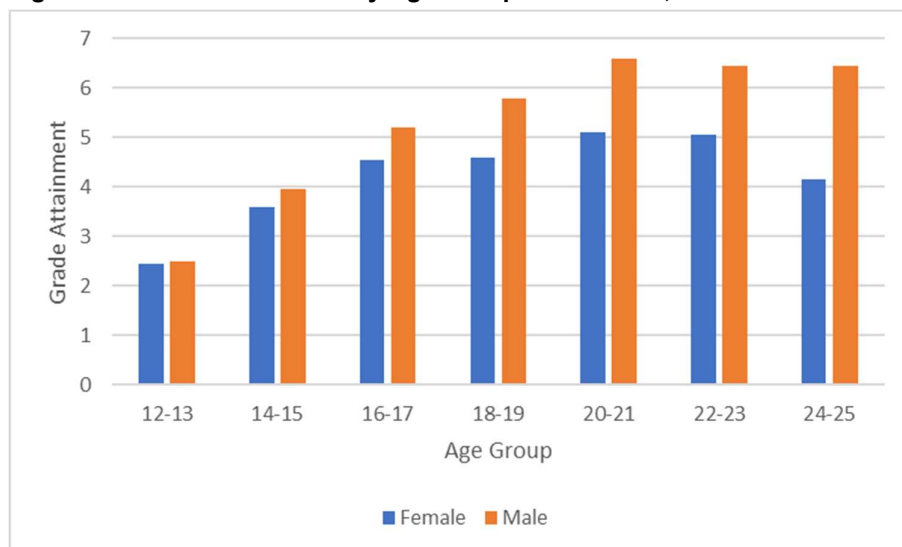
Source: MICS (2014)

Figure 4-6 presents completion rates for primary and lower secondary (EB3) levels by age and gender. The numbers confirm that students in Guinea-Bissau are not completing these levels at the correct age, and in the case of lower secondary about half of the population is not finishing. For primary school the proportion who complete six grades of education reaches about 75 percent overall by age 22, so it is important to note that most children are (eventually) completing the primary sequence. The results are also consistent with the substantial age-grade distortion demonstrated in earlier figures, as completion rates continue to increase for both primary and lower

secondary until the age of 22. Finally, the gender gap is also consistent with previous figures, and begins to noticeably widen as children get older.

Figure 4-6 Primary and Lower Secondary (EB3) Completion Rates by age and gender, 2014 MICS
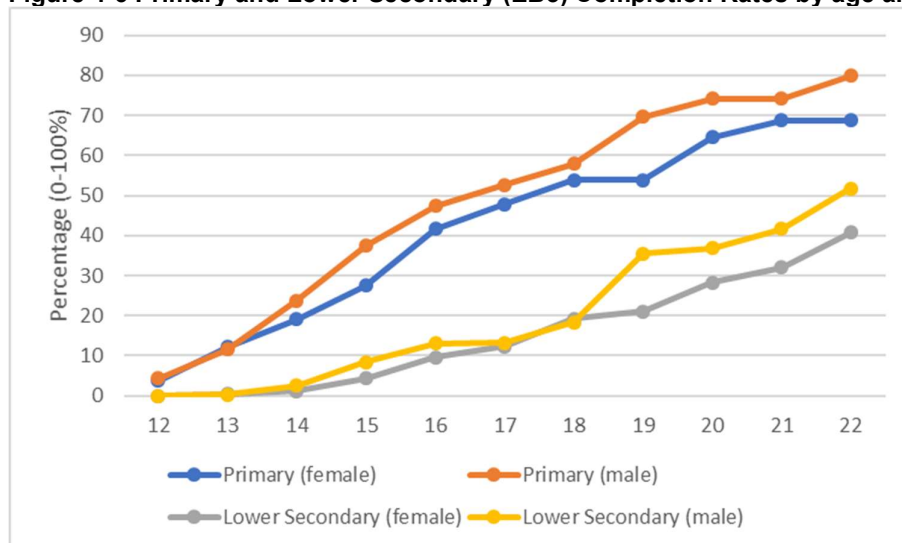
Data source: MICS (2014)

Figures 4.7 and B6 (in Appendix B) conclude the grade attainment summaries with additional comparisons across the main strata (Figure 4.7) and regions (B6). Not surprisingly, there are very large gaps in grade attainment across different groups in the country. Urban residents aged 18-21 have completed twice as many years of education as their rural counterparts, and the gaps between the highest SES families (Quintile 5) and the lowest quintiles are even larger. The regional differences are also substantial, with high-poverty regions like Gabú and Bafatá averaging below 3.5 years of completed education (for 18-21 year olds), compared with over seven years in SAB. Finally, a sizeable gender gap is again present across the regions, with males accumulating an average of 1-2 more years of education than females.

Figure 4-7 Grade Attainment by Age Group and Main Strata, 2014 MICS
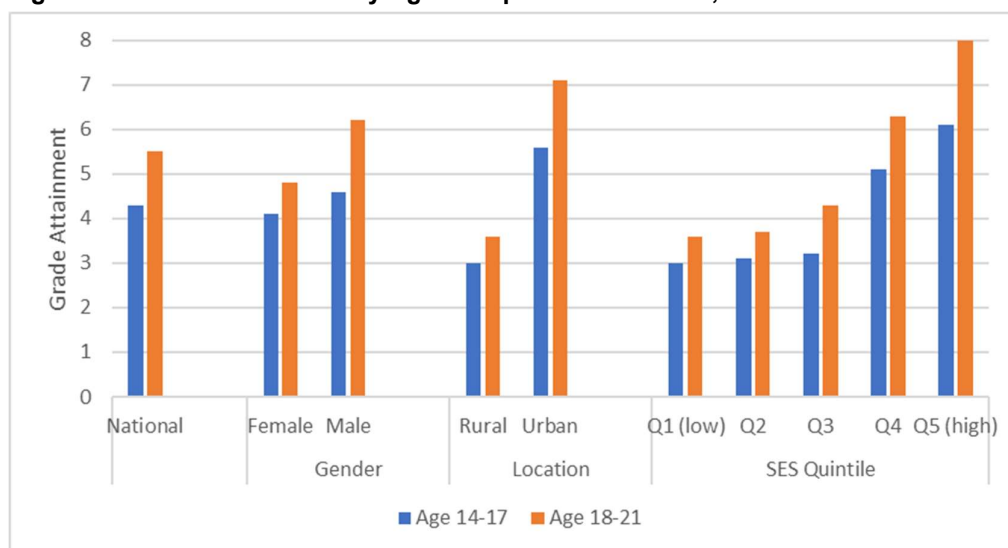
Data source: MICS (2014)

4.4   Transitions Between Levels

There is a notable drop-off in school supply at each of the main transitions by level: from grade 4 to grade 5, grade 6 to grade 7, and grade 9 to grade 10 (see Box 3.1). These supply-side constraints in turn predict higher rates of dropout between levels, or lower transition rates between grades at these critical junctures where the student is moving up one level in the basic and secondary education sequence.

Figure 4-8 Dropout Rates in Between Grades, 2014 MICS
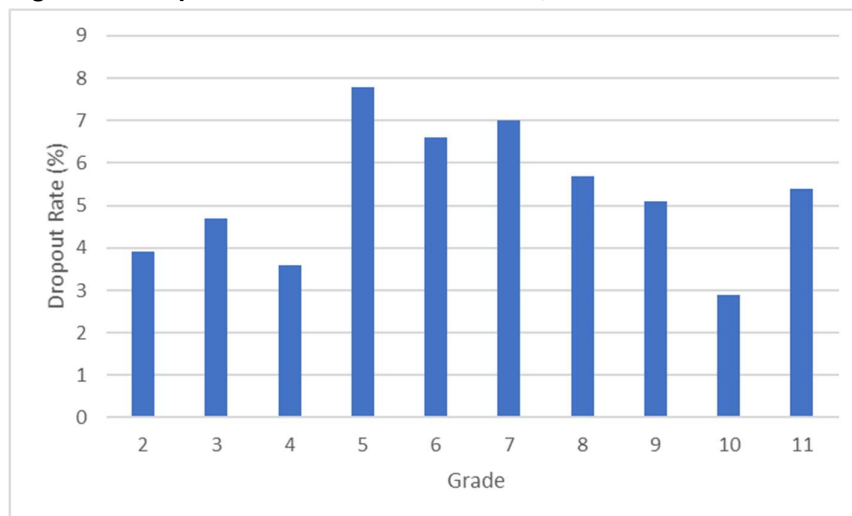
Source: MICS (2014)

Based on the 2014 MICS data there is some support for the idea that supply-side constraints make it harder for children to transition to higher levels (Figure 4.8). For example, nearly eight percent of the students enrolled in grade 4 in the 2012-13 school year dropped out rather than continue their studies in the 2013-14 school year; this is the highest dropout rate across all grades in Figure 4.8. The second highest dropout rate is in between grade 6 and 7 (about 7 percent), which is where supply again drops off noticeably. However, this trend does not continue, as there is actually a very low dropout rate in between grade nine (end of basic education) and upper secondary (grade 10).

The high bars at Grade 5 and 7 highlight the role of supply in determining how far children are able to study, and this topic is returned to in the Section 5 review of barriers and bottlenecks. However, dropout rates are fairly steady in the 4-7 percent range across all of the grades in Figure 4.8, so we cannot conclude that students exit the system simply because they do not have a school nearby to attend. Significant numbers of students are exiting each grade each year, which certainly helps explain the low attainment levels described in Section 4.3. In fact, perhaps the only positive side-effect of the late entry and overage student phenomenon in Guinea-Bissau is that these older children may be better able to leave their neighbourhoods (or communities) to attend schools that offer the next grade level.

4.5   Student Attendance Flows and Grade Attainment: Summary

The main takeaway from Section 4 is that relatively few young people in Guinea-Bissau are completing the basic education cycle (EB3), and a sizeable proportion are failing to even finish primary school. These problems were referenced as part of the Section 3 review of the different Out-of-School Children (OOSC) dimensions, but by continuing the analysis into higher age cohorts we get a more complete picture of just how low completion rates are across the basic education cycle. Late entry and grade repetition are likely causes, as well as supply constraints that limit access to each successive level. Although it is important to note that most children (75% or higher) are *eventually* completing primary school, but it is taking a very long time to do so.

This section's more detailed summary of grade attainment is relevant to the Out-of-School Children analysis because it provides some insight into how far students are eventually reaching in their education careers or, in other words, the likely product of attending school (at least in terms of credentials). In addition to highlighting the

low level of grade attainment for the average child, the summary also suggests a very low level of efficiency. For example, according to the MICS (Ministério da Economia e Finanças and Instituto Nacional de Estatística 2014) data the average age of entry into grade one was 7.6 years, and the average age of students who reported they had discontinued their education in the 2013-14 school year was 16.6 years. The most recent dropouts averaged about 4.5 years of completed education. Taken together, these three inputs provide a rough estimate of how (in)efficient the average educational career is in Guinea-Bissau: the average student has spent 8 or 9 years in the system, with less than 5 complete years of education to show for it.[5]

Another result that continues to stand out is the persistence of young people who are enrolled in grade levels that are far below their target age group. Conventional wisdom says that 16 and 17-year-old students – let alone older ones – who have not yet entered upper secondary school are likely to leave the education system rather than remain enrolled in primary or lower secondary grades. But in Guinea-Bissau this is not the case, and in the next section we will provide qualitative evidence about why so many children are continuing their education careers into adolescence and adulthood.

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[5] This is an imperfect way to estimate the lifespan of the average education career in Guinea-Bissau because it relies on an average grade one entrance age that is calculated for a cohort of (mostly) young people, and an endpoint (based on dropout) that is relevant to an older cohort. There is also the issue of the official primary school entrance age, which has changed from 7 to 6 during the lives of many of the children in the MICS data; hence the reference in the text to "8 or 9" years of total attendance since older children are likely to have begun grade one at an even later age than the current cohort of grade one students. Nevertheless, in the absence of detailed longitudinal data on student cohorts, these kinds of estimates are the best way to obtain a basic picture of what the average educational career looks like.

5 Barriers and bottlenecks

5.1 Introduction

The main focus of this section is to identify the causes of exclusion that are linked to different profiles of out-of-school children (OOSC) using the 5 dimensions of exclusion (DE) as a broad structure and guide. The analysis aims at identifying differences between causes and barriers related to out-of-school children and children likely to dropout from primary to lower secondary education.

As described in Section 2.3, the qualitative data used in this section were collected during May 2018 in the regions of Bafatá, Cacheu, Gabú, Oio, Setor Autónomo de Bissau and Tombali (Table 2.1). It also incorporates data from the mapping and desk study of all available educational literature about Guinea-Bissau. These qualitative data sources are the focus of this section, but when necessary quantitative data are brought in to provide additional details or context.

The Constitution of the Guinea-Bissau states in Article 16 that "The State considers the elimination of illiteracy a fundamental task," and in Article 49 that "Every citizen has the right and the duty of education; 2 - The State gradually promotes the free and equal access of all citizens to different levels of education". Yet, as outlined in the previous sections, despite the progress achieved since independence, the number of children in Guinea-Bissau that remain out-of-school or at risk of dropping out is high.

This section therefore examines the existing barriers and bottlenecks to education in Guinea-Bissau and organizes them into the following sub-categories:

1. sociocultural demand-side barriers;
2. economic demand-side barriers;
3. supply-side barriers and political governance;
4. capacity and financial bottlenecks.

This division is somewhat artificial since these barriers are often closely interlinked. It is therefore important to note that the barriers are not separate phenomena, existing in isolation of each other; they are instead often interdependent.

Guinea-Bissau overview of barriers and bottlenecks to education

Table 5.1 provides an overview of barriers and bottlenecks to education identified in existing studies, while Table 5.2 focuses on barriers and bottlenecks to education that were identified in the qualitative data collection and during the desk study. The data from Table 5.1 provided guidance in the preparation of data collection materials, and make it possible to compare the barriers and bottlenecks to education over time. This comparison allows us to find new trends and/ or identify changes in barriers and bottlenecks to education in Guinea-Bissau.

From the comparison between the two tables we can conclude that in general the same barriers and bottlenecks are present in Guinea-Bissau over time. However, the foster children and the sociocultural tensions between communities weren't previously identified in studies, and were only identified during the present qualitative survey.

Table 5-1 Overview of barriers and bottlenecks to education identified in previous studies

Type	Identified barriers
Sociocultural barriers	• Lack of child's/parents interest in schooling (Furtado 2007, Medeiros 2005, Cissoko et al. 1987) • Lack of parental awareness/ other parental factors/ parental education level (Carr-Hill and Rosengart 1982, Ahlenhed et al. 1991, Ba 1996, 1997, Furtado 2007, Monteiro 1996) • Negative beliefs/values towards girls' education and Female Genital Mutilation (Aimé et al. 1996, Monteiro 1996, RECEP-GB 2012, MSSFLCP 2008, UNESCO 2013) • Early Marriage (Aimé et al. 1996, Ba 1996, 1997, Furtado 2007, MENCCJD 2011, UNESCO 2013) • Teenage pregnancy (Aimé et al. 1996, Ba 1996, 1997, Furtado 2007, MSSFLCP 2008) • Negative attitude towards the disabled and low value placed on their schooling (Jao and Indjai 2012) • Verbal, physical and sexual abuse of children in the home and in the community (Aimé et al. 1996, RECEP-GB 2012) Child labour (MENCCJD 2011, MSSFLCP 2008, UNESCO 2013)
Economic Demand Side Barriers	• Family size and affordability of schooling (Barreto 2012b, UNESCO 2013) • Direct costs to schooling (Barreto 2012b, MENCCJD 2011, Monteiro 2005, RECEP-GB 2012, MSSFLCP 2008, Jao and Indjai 2012, UNESCO 2013) • Opportunity costs of schooling for the family (Monteiro 2005, Barreto 2012b) • Indirect and opportunity cost of schooling (UNESCO 2013) • Household Migration and other economic /agricultural factors (Cissoko et al. 1987, MEN 1981, MSSFLCP 2008, UNESCO 2013) Loss of economic earnings of a parent/ domestic work (death, divorce/separation) (Aimé et al. 1996, Fazzio and Zhan 2011, MSSFLCP 2008)
Supply Side Barriers	• Distance to school/ school offer for second school cycle / school offer for special education (RECEP-GB 2012, Jao and Indjai 2012, UNESCO 2013) • Inadequate school infrastructure (MENCCJD 2011, Monteiro 2005, UNESCO 2013) • Inadequate teaching and learning materials (Carr-Hill and Rosengart 1982, MENCCJD 2011, UNESCO 2013, Monteiro 2005) • Inefficient teacher supply, allocation and deployment / pupil/teacher ration (Benavente and Varly 2010, Campos 2009, Campos and Furtado 2009, UNESCO 2013) • Insufficient teacher training (Campos 2009, Campos and Furtado 2009, Benavente and Varly 2010, MSSFLCP 2008, Daun 1997, UNESCO 2013) • Teachers strike/ teacher absenteeism (Banco Mundial 2005, Daun 1997, Monteiro 2005) • Child-friendly instructional practice and classroom management/ child-cantered methods/ curricula not adapted (Carr-Hill and Rosengart 1982, Aimé et al. 1996, Lepri 1986, 1996, Barreto 2012a, Benson 1994, Gomes 1994, Gomes and Pereira 2004, Hovens 1994, 2002, Santos 1994, Monteiro 2005) • Inadequate school organisation (school regularly closed for different reasons, etc.) / incomplete schools (Barreto 2012a, Issler et al. 1996, Monteiro 2005, MENCCJD 2011, UNESCO 2013) • Repetition / children repeating classes (Barreto 2012a, Issler et al. 1996, Monteiro 2005, MENCCJD 2011, UNESCO 2013) • Lack of preschool offer (Portugal and Aveleira 2009, Monteiro, Buaró, and Delgado 1994, UNESCO 2013, Viegas 1995, Campos and Furtado 2009). Language of instruction (Benson 1993, 1994, 2003, Carr-Hill and Rosengart 1982, Cá 2005, 2008)
Political, financial and governance barriers	• Inadequate decision-making and slow pace of implementation (Barreto 2012a, Cá 2005, 2008, Furtado 2005, Monteiro 2005) • Educational policy tensions between expansion and quality improvement (Barreto 2012a, Cá 2005, 2008, Furtado 2005, Monteiro 2005) • Weak monitoring and evaluation capacity (Barreto 2012a, Cá 2005, 2008, Furtado 2005, Monteiro 2005) • Inadequate sector-wide coordination and collaboration (Barreto 2012a, Cá 2005, 2008, Furtado 2005, Monteiro 2005, Gomes 2014, Pehrsson 1996) Financial bottlenecks/ low investment in education/ resources wasting on children repeating classes (Pehrsson 1996, UNESCO 2013)

Source: author

Table 5-2 Overview of barriers and bottlenecks to education identified in the qualitative data collection

Type	Identified barriers
Sociocultural barriers	• Negative values towards regular education • Child labour • Negative attitudes towards girls education (tradition and religion; Early marriage; Teenage pregnancy; Gendered perceptions of insecurity of the trip to school) • Negative attitudes towards children with disabilities • Fosterage • Sociocultural tensions between communities
Economic Demand Side Barriers	• Household poverty in villages • Direct costs of schooling • Child labour and temporary dropout • Child hunger in the classroom • Negative image of public schooling
Supply Side Barriers	• Distance to an adequate school • Inadequate school infrastructure • Teacher's strike/ absenteeism • Competencies of teachers • Inadequate school culture and management • Lack of preschool offer • Lack of teaching and learning materials • Language of instruction • Insufficient teacher supply, allocation and deployment
Political, financial and governance barriers	• Lack of power of school management committees/ COGEs • Weak involvement of parents and communities in the school • Lack of accountability at all levels • Weak monitoring and evaluation capacity • Lack of communication at all levels • Inequitable and insufficient resource allocation Waste of public resources

Source: author

5.2   Socio-cultural demand-side barriers

This section explores how sociocultural factors directly and/or indirectly affect out-of-school children and children at risk of dropping out of school. The literature reviewed demonstrates how sociocultural values, beliefs and practices act as a barrier to school enrolment, retention and completion, especially for disadvantaged groups like girls, children living in rural areas and children with disabilities (Table 5.1). The data collected for this study provide additional details, and show how negative perceptions, cultural patterns and practices at the household and community level continue to prevent children from participating in school.

Table 5.3 provides a summary of the sociocultural barriers that impact the demand for education. They are organized by the 5 Dimensions of Exclusion (5DE) that were introduced in Section 1.3 (Figure 1.3). These include out of school children who are pre-primary age (DE1), primary age (DE2) and lower secondary age (DE3), as well as primary (DE4) and lower secondary (DE5) students who are at risk of dropping out.

Table 5-3 Sociocultural demand side barriers

Barrier	Dimensions of exclusion (DE)				
	DE1	DE2	DE3	DE4	DE5
Value of education		X	X	X	X
The impact of religion	X	X	X		
Attitude towards girls' education (Early marriage; Teenage pregnancy; Gendered perceptions of insecurity of the trip to school)	X	X	X	X	X
Attitude towards children with disabilities	X	X	X	X	X

Fosterage/ child placement	X	X	X	X	X
Sociocultural tensions between communities	X	X	X	X	

5.2.1   Value of Education

The studies reviewed state that one of the main reasons for children not attending school is the parents' and children's/youth lack of "interest" in schooling. This perspective is confirmed by several studies in Guinea-Bissau over time (Carr-Hill and Rosengart 1982, Ahlenhed et al. 1991, Ba 1996, 1997, Furtado 2007, Medeiros 2005, Monteiro 1996). The data collected for this study also indicates this tendency, in particular focus groups with students that are in school. The following extracts from the focus groups illustrates this:

> *Many children are out of school because their parents never attended school and do not know the importance of school, other parents because they lack funds to pay the direct and indirect costs of schooling. (Muitas crianças estão fora da escola, porque os pais nunca frequentarem a escola e não sabem da importância da escola, outros por falta de meios os outros encarregados)*

    (School principal, Mansoa)

> *Traditional beliefs and practices prevent children from going to school;(Os usos e costumes tradicionais impedem que as crianças vão à escola);*

    (School principal, Oio)

> *The first question [for school dropout] is the disinterest of the family and the second is the many home tasks that the girls have to do at home (A primeira a questão [para o abandono escolar] é o desinteresse da família e segundo as meninas porque tem muitos trabalhos em casa para fazer)*

    (School principal, Cutumbuel)

> *Children do not attend school because of their parents' negligence;(As crianças não frequentam a escola por negligência dos pais);*

    (Education School Committee member, Mambonco)

> *Other children stay away from school because parents do not know the importance of school and want children to be like them. The parents say that school has nothing good and is just for playing around (Outros ficam fora porque os pais não sabem da importância da escola e querem que os filhos sejam como eles. Dizem que a escola não tem nada de bom é só brincadeira).*

    (Child – Galamaro)

The lack of parental support is an issue raised in rural and urban areas alike, both in the data collected for this study and in the literature reviewed (Carr-Hill & Rosengart 1982, Ahlenhed et al. 1991, Ba 1996, 1997, Furtado 2007, Monteiro 1996). Commonly-cited explanations for a lack of parental support for their children's education include: poverty, traditional beliefs and low quality of education. The education quality factor is further discussed in the section on supply side factors. However it should be mentioned that almost all parents mentioned that education or both boys and girls was very important for them during the qualitative survey. School principals and teachers on he other hand, often felt that parents should value education even more.

Another issue that arises from the literature review and from the quantitative data from the previous section is late entry, particularly in the rural areas because of the parent's perception and values towards education. Children only go for the first time to primary school when they are 8, 9, 10 or even 11 years old. Parents often consider the MoE official age of entry in primary school (6 years old) too early for children to begin school, partly because of the long distance to school. This late entry in turn contributes to the number of students that are at risk of dropping out, and to the high prevalence of overage enrolment of students in primary and lower secondary school. However, during the qualitative data collection it was found that some mitigation measures are in place to address this issue. These include:

- preschool education is available for a significant number of children, at least in the urban sectors;
- awareness campaigns targeting communities;
- good relations between school and the community;

- good relations and coordination of activities and awareness raising between the school and religious/community leaders, and the parents/ tutors.

However, from the fieldwork there are also a number of examples of committed parents who play an active role in the life of the school (see below on Governance).

5.2.2 The impact of religion

The positive value attributed to other forms of schooling instead of official public schools is also an issue that is relevant in the context of Guinea-Bissau, particularly in the regions of Gabú, Bafatá, Oio and other areas where Muslim families are concentrated. This issue is present in all the studies which were reviewed and in the qualitative data collected for this study. Because the Government do not recognise all koranic centers, the children attending only this type of school are not accounted for.

> *I do not go to school because my parents do not let me. I was told that I have to go to Koranic center for 6 years first. Only after that my parents allow me to attend formal education* (Não vou a escola porque os meus pais não me permitiram. Me disseram que tenho primeiro que frequentar a escola corânica durante 6 anos. Só depois disso é que vão permitir frequentar o ensino formal) –

> *(Child – Pitche)*

> *Children who do not go to school are those who devote only Arabic / Koranic teaching, whose parents are foreigners* (As crianças que não vão a escola são aquelas que dedicam só ensino árabe/corânico, cujos pais são estrangeiros)

> *(*Parent – Bula)

In most communities, parents, community and religious/community leaders found strategies for the children to attend in the same day a madrassa/ koranic centers and formal school. Over 50% respondents reported that children attending madrassas or Koranic centers also attend formal school, although this is a declarative statement which cannot be checked. The majority of the qualitative survey participants also stated that religious education is very important for their future.

> *The children and young people who study in public schools also attend the Koranic centers - at alternate times. The children who attend public schools in the morning attend the Koranic centers in the afternoon and vice-versa -As crianças e jovens que estudam nas escolas públicas também frequentam as escolas corânicas – em horários alternados, ou seja, os que frequentam as escolas públicas de manhã, atendem as escolas corânicas à tarde e vice-versa).*

> *(*School Principal, Dará – Gabú)

The fieldwork surveys identified instances where participation in madrassas and koranic centers was related to one of the worst forms of child labour - forced begging (more details in section 5.2.4 – Child labour and temporary dropout). Nevertheless, there is a general perception that the community/parents have a positive view of these schools but do not accept the practices of some madrassa/koranic centers masters who ask children to beg.

> *(…) many of the Koranic centers in fact are not Koraniccenters because the teachers take advantage of these children and do not repay them with anything even the Quran. Why do they go out to beg from morning until evening? When will these children have time to learn the Quran? Yet, in my school the children do not go out to beg, they learn Quran and Portuguese language at the same time. --(…) muitas das escolas de alcorão no fundo não são porque os mestres tiram proveitos dessas crianças e não lhes retribuem com nada e nem o dito alcorão. Porque saem para pedir esmola de manhã até à noite quando é que essas crianças vão ter tempo para aprender alcorão? Mas na minha escola as crianças não saem para pedir esmola, mas sim aprendem alcorão e português ao mesmo tempo.*

> (School Principal - Bafatá)

How prevalent is attendance in Madrassas or Koranic centerscenters? Madrassas are officially recognized by the Ministry of Education because they follow the national curriculum (Corbel et al. 2013), and DGEPASE has data on enrolment in this sector. However, the data are not complete and monitoring trends over time is somewhat difficult. For Koranic centers—where instruction revolves mainly around the Koran—there is even less information on enrolment.

What is known is that, based on quantitative data sources like MICS, there are very large discrepancies in school attendance rates by religion. For example, over 80 percent of the total number of young people aged 15-18 who have never entered school in the MICS 2014 are from Muslim households (Figure 5.1), and these are heavily concentrated in just three regions (Oio, Bafatá and Gabú). One complication is the definition of school attendance in household surveys like MICS. Unfortunately, the MICS (2014) does not specify which school system enrolled children are attending, so it is not possible to identify Muslim children who are enrolled in Madrassas or Koranic centers.

Figure 5-1 Percentage of Total Number of Children Aged 15-18 who Have Never Entered School by Specific Sub-Groups , 2014 MICS
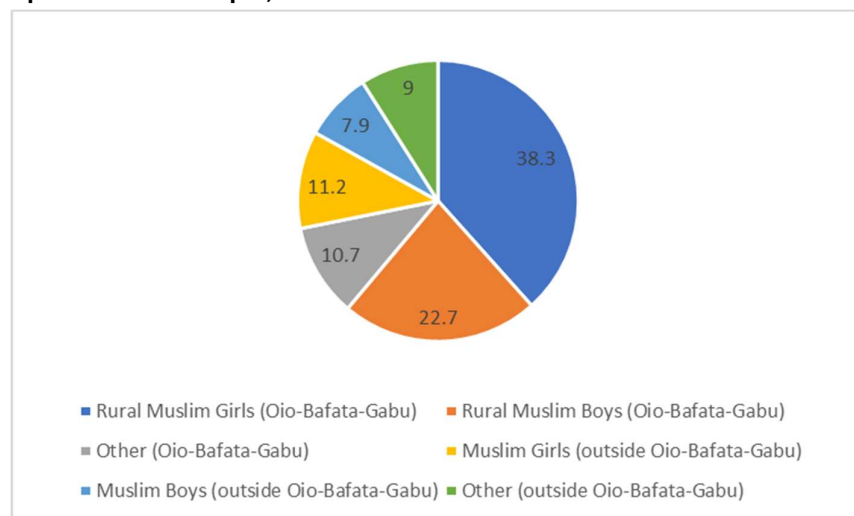
Source: MICS (2014)

If surveys like MICS count Madrassa school attendance as being in school (or entered at some point), then the large numbers of Muslim children who are out of school are either attending (or attended) a Koranic center, or they have never entered any type of school. A sizeable Koranic center sector is potentially problematic if little attention is given to official curricular components. However, we simply do not have enough information available to concretely determine what is happening with this segment of the population.

5.2.3   Attitudes towards girls' education

The results from the quantitative data summary showed that girls are significantly less likely than boys to be in school, especially as they enter lower-secondary school age range (12-14), and as a result their grade attainment is substantially lower than boys. This situation has improved in the last 15 years, but the country is still a long way from reaching gender parity in basic education. Several factors contribute to girls having a more limited access to education in Guinea-Bissau. These include tradition, religion and social norms, and regional differences. These factors influence parental perceptions and attitudes towards education and place Guinea-Bissau women and girls at a significant disadvantage in relation to the family educational investment. In this way, these negative sociocultural beliefs and values in relation to female education have a significant impact in the education sector and in the future of the next generation of Guinea-Bissau children.

An especially important factor is a cultural bias in favour of male education. The traditional roles attributed to girls in the society and at home play a major role in this barrier to educational participation: girls/women have less authority then boys/men, and girls have to take care of domestic work and care of household members (younger children or elderly).

According to the desk study and qualitative survey, the main factors contributing to girls having limited access to education in Guinea-Bissau are:

- Religious reasons (limited school attendance for muslim girls)
- Traditional role models;

- Early marriage;
- Teenage pregnancy;
- Gendered perceptions of insecurity of the trip to school

These categories of influences are now addressed in separate sub-sections.

Religious Influences

The intersection of religion, gender and region is especially important for understanding school attendance variation. As shown in Box 5.1, there is evidence that Muslim girls fare worse than their male siblings, and the gaps between boys and girls in Muslim households are larger than the gaps between boys and girls in non-Muslim households. But these dynamics are not uniform across the four regions where Muslims are concentrated, as in Gabú and SAB Muslim (and non-Muslim) girls have similar school attendance rates as boys in this age range.

This topic was addressed in the field work as well, and the responses highlight possible mechanisms for reducing biases that may work against female school attendance.

Box 5.1. School Attendance, Gender and Religion

Figure 5.2 compares school attendance summaries for children aged 12-17 by religion and gender within the four regions in the country where most Muslims reside: Oio, Bafata, Gabu and the SAB. The results confirm that muslim children are more likely to have never entered school, or dropped out, compared with non-muslim children. And in Oio and Bafata there is also a tendency for Muslim girls to be especially impacted. However, it should be noted that in Gabu and SAB the gender differences within Muslim households are not very large, as boy and girls in the 12-17 age range have similar probabilities of being enrolled in school.

Figure 5-2 School attendance summary for children age 12-17 by Region, Religion and Gender, 2014 MICS
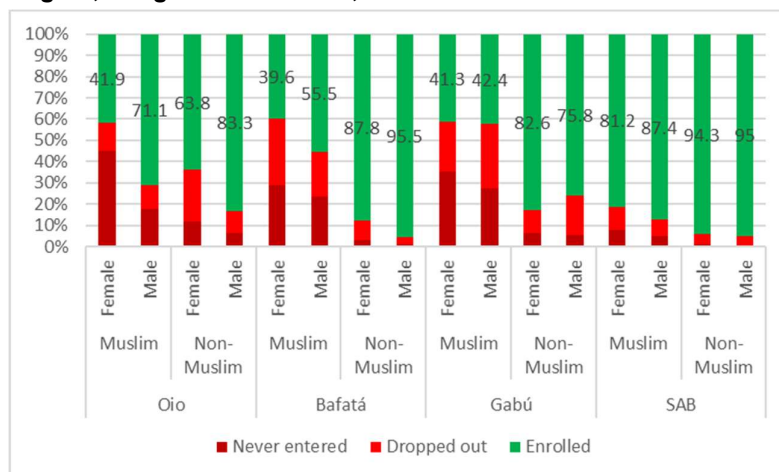
Source: MICS (2014)

In the voice of the participants:

One of the measures we have adopted is parents and girls' sensitization to not abandon school and the importance of school. We also gathered and decided that no father should allow his children to leave school. In case the children leave school, me as vice-principal in collaboration with the village leader, call the father of the child to compel him to send his son or daughter to school because as I said you cannot leave school because the others want to study and cannot find a place to study and those who can get a place in school cannot play around (Uma das medidas que adotamos é sensibilizar os pais e as meninas no sentido de não abandonarem a escola é informamo-los sobre a importância da escola, reunimos e decidimos que nenhum pai deve permitir que os seus filhos abandonassem a escola e se por a casso uma das crianças vier a abandonar eu na qualidade vice-diretor em colaboração com o líder dessa tabanca mando chamar o pai da criança para obriga-lo a mandar o seu filho ou filha para a escola porque como já disse não se pode abandonar a escola porque os outros querem estudar e não conseguem lugar para estudar e os que conseguem não devem brincar) - School principal – Djabicunda

To reduce these phenomena, in collaboration with the management committee, and the Imam, we carry out sensitization campaigns to raise awareness of the community door-to-door and in the mosque, about the importance of school for children (Para reduzir estes fenómenos, em colaboração com a comissão de gestão, e do Imame, fazemos campanhas de sensibilização da comunidade porta a porta e na mesquita, sobre o quanto é bom escolarizar as crianças) – School Principal, Dará – Gabú

Early marriage and pregnancy

The practice of early marriage, which often leads to early pregnancy, remains another significant barrier for girls and is cited as on the important reasons for girls dropping out of school by over 75% of respondents. The data collected for this report is clear about this issue, particularly in the Eastern part of Guinea-Bissau and in rural

areas. The participants refer to this practice as "casamento forçado" (forced marriage) or casamento precoce (early marriage). When the participants refer to this practice as "forced marriage", it seems they manifest a position against this practice and when referring to this practice as "early marriage", it seems that they manifest some kind of agreement with it. Some participants even state that early marriage is what the girls of a certain age want, they are looking to find a husband and have children of their own.

In relation to the girls, they are now in their 4th, 5th or 6th year of schooling and begin to have behaviours that leads parents to choose marriage before they become pregnant. For us, Muslims, it is an insult our daughters to get pregnant outside marriage (*Em relação as meninas, estes, assim chegam no 4º, 5º ou 6º ano começam a ter comportamentos que levam com que os pais optem por lhes dar casamento antes de engravidarem porque para nós, muçulmanos, é um insulto sua filha engravidar fora do casamento –*

(Parent, Gabú)

Box 5.2. At What Age do Women Get Married and Have Children in Guinea-Bissau?

According to the MICS (2014) sample of women aged 15-25, early marriage (and early pregnancy) are not widespread in the country. For example, at the age of 17 around 10% of girls declare having a child and/or being married. It is still a problem, as marriage before 18 is illegal, but it appears to affect only a small minority of girls. However, both the marriage and child-bearing rate increase very rapidly from the age of 18, which could have implications for enrolment for overage girls.

Figure 5-3 Percentage of women who have ever been married or have at least one child by age (15-25), 2014 MICS

In the studies reviewed and in the qualitative data collected, teenage pregnancy is one of the causes for girl's dropout with no particular distinction from rural to urban areas. There are certain structural barriers and stigmatization of pregnant teenage girls as most schools refuse to allow them to continue with the idea that they will have a bad influence on the rest of the students. Yet, many young girls also decide not to continue in school.

Girls give up because of early/ child marriage, forced marriage during schooling, early pregnancy and harvest/ work in the fields; School transfer during the school year; Lack of good performance. (As meninas desistem por causa do casamento precoce/infantil, casamento forçado em plena escolarização, gravidez precoce e trabalhos de campo; Transferência escolar em plena decorrência do ano letivo; Falta de bom aproveitamento). School Principal, Bula, Cacheu

The issue of early marriage and pregnancy is clearly relevant in Guinea-Bissau, but it is important to put this issue in proper context in terms of how it impacts out-of-school children. The data in Box 5.2 (above) show that less than 10 percent of 15-17 year olds report being married or having children in the 2014 MICS, although marriage and pregnancy rates increase substantially beginning at age 18. In many countries school attendance is largely completed by late adolescence, so pregnancy and marriage at age 18 and above is not likely to interfere with basic education completion (i.e. primary through lower secondary). But in Guinea-Bissau the massive age-grade distortion that was described in Sections 3 and 4 means that late- or post-teenage pregnancy and marriage may impact basic education attendance given the large numbers of girls who are older than 17 and are still enrolled in school. In other words, the qualitative interview references to the importance of early marriage and pregnancy are valid, and this does appear to be an important factor in explaining why girls are leaving school. But it is important to note that this appears to be happening in late adolescence, and not when girls are in their early teenage years (e.g. 13-16).

What can be done about this problem? The general perception from the qualitative survey is that the main strategy in place to overcome early marriage is awareness raising campaigns. These campaigns are very eclectic in terms of participants and promoters. They are promoted by NGOs, school principals, community/ religious leaders using radio, *djumbai* in the communities/bancadas, before/after the religious celebrations. These

awareness raising campaigns use children/youth, school principals and community/religious leaders to spread the message to parents/ tutors and all the rest of the community members.

> *One of the measures I have taken is to raise parents' awareness by radio with messages about the importance of school, particularly for girls.* (Uma das medidas que adotei é a sensibilização dos pais por via radiofónica e promover mensagens no sentido de as meninas não abandonarem a escola e informamo-los sobre a importância da escola). - School Principal, Bafatá

> *To reduce this phenomenon, we organize awareness-raising campaigns with the community, door-to-door and at the Mosque, in collaboration with COGES and Iman. (Para reduzir estes fenómenos, em colaboração com a comissão de gestão, e do Imame, fazemos campanhas de sensibilização da comunidade porta a porta e na mesquita).* - School Principal, Dara, Gabú

Gendered perceptions of insecurity of the trip to school

The real and perceived insecurity on the way to school is another key factor leading to children being out-of-school or at risk to drop out, particularly for girls. The parents prefer to keep children safe at home, especially in the rural areas and when there is a long distance from home to school. This factor is directly linked to the supply-side barriers that will be analysed below. A distinction, however, must be drawn between the wide range of reasons that may be reported as insecurity and keep both girls and boys from attending school. Insecurity can range from attacks/violence, natural barriers and harassment. Girls are targeted by harassment and this is a powerful factor for parents, particularly when girls develop secondary sexual characteristics and/or are in the age of menarche. The fear of the girl losing her virginity (voluntarily or forced) and becoming pregnant before marriage is a key motivating factor for the parents to get their daughters out-of-school or married at an early age. This factor does not necessarily mean that parents place less value on education but children's safety, particularly the older girls, is an issue. This factor is also closely linked to the girls/women's authority in the society.

5.2.4   Attitudes towards children with disabilities

In Guinea-Bissau there is a general social stigma about disabilities, and access to education is not only a physical challenge, but also a social one, especially for girls. The promotion of inclusive education is a particular challenge, given the common beliefs that individuals with disabilities cannot do anything, and should be hidden by their families. In Bissau, there are special schools where children with disabilities can enrol that are more suitable to their needs (physical, social and in teacher training) and NGOs that develop inclusive education projects in schools.

At the national level, many children with disabilities (especially girls, according to Humanité & Inclusion) do not enrol in school, even more so outside of the capital. Nevertheless, the Federação das Associações de Defesa e Promoção das Pessoas com Deficiências da Guiné-Bissau (Federation of Associations for the Defence and Promotion of People with Disabilities from Guinea-Bissau) is trying to spread to the interior of the country with focal points in the regions of Biombo, Bafatá, Gabú and Cacheu (Jao and Indjai 2012). From the data available, it is possible to state that at the national level at least 59% of the children with disabilities do not attend school (Jao and Indjai 2012). In 2015 the NGO Humanity and Inclusion, in partnership with the Associação de Pessoas com Deficiência da Guiné-Bissau (Association of Disabled People of Guinea-Bissau) and other national and international partners, started an inclusive education programme aiming to encourage the integration of children with disabilities into the regular education system in the Autonomous Sector of Bissau (SAB) and Oio region. Handicap is closely linked to poverty in Guinea Bissau, and to school exclusion.

One interesting finding from the field survey is that schools built for children with disabilities are attended by all children :

The school started with only deaf students but now include all disabilities as well as "normal" people - inclusive education but always focusing on people with disabilities. (...) it is difficult to find statistical data that accurately determine the exact number of people with disabilities, but in fact, school has the capacity to take considerable numbers of people and this can be explained by the number of "normal" people who are attending this school (*A escola iniciou-se com apenas surdos e mudos, mas agora incluem todos os deficientes assim como pessoas normais- educação inclusiva, mas sempre com foco nas pessoas com deficiências. (…) Pois, é difícil encontrar dados estatísticos que precisão o número exato das pessoas com deficiência, mas, na verdade, escola tem capacidade para levar o número considerável de pessoas e isto pode ser explicado pelo número das pessoas "normais" que estão a frequentar a escola*) - Special Needs School Pedagogic Coordinator, Bissau – SAB

During the qualitative survey, two teenagers with disabilities were identified in the Cacheu region, and have never been to school. Neither the teenagers, nor their parents or the local school director had any knowledge of any school for children with special needs.

Nevertheless, in the data collection for this study it was possible to identify a few examples where the stigma about disabilities is being overcome, and as a result it is possible that access to education for children with disabilities is gradually changing.

"The school is much more important for the handicapped because we cannot do any type of work. I am an example of this because I am handicapped however I dedicated my life to obtain knowledge so that I can be a free man and thanks to God I am already benefiting from the school. This stems from the fact that I am already making money from my sweat. I did not know anything about the Koran, but now thanks to the knowledge I already know many things about the Koran because there are now many Arabic books in Portuguese thanks to this I know many things about religion. We are all equal and have the same rights, therefore we have to treat people equally no matter if he is healthy, disabled or foster children".

(A escola é muito mais importante para os deficientes porque não podemos fazer nenhum tipo de trabalho eu sou exemplo da disso porque sou deficiente no entanto dediquei a minha vida a obter conhecimento para que eu possa ser um homem livre e graças a Deus agora já estou a usufruir do benefício da escola porque já estou a ganhar dinheiro do meu suor e não sei nada do alcorão mas no entanto agora graças ao conhecimentos que adquire já sei muitas coisas do alcorão porque agora existe muitos livros árabes em português graças a isso sei muitas coisas da religião muçulmana. Mas esse entendimento é errado porque somos todos iguais e temos os mesmos direitos, portanto temos que tratar as pessoas de igual modo não importa se ele é saudável, deficientes ou filhos de criação). - School Principal, Djabicunda - Bafatá

Finally, it should be noted that there is not much national data related to disabilities, which complicates the task of assessing the relative importance of this factor as a determinant of OOSC. The next round of MICS (2018) will include a section on disabilities, which should help to develop profiles of the disabled as well as help analyze outcomes like school attendance. The national census in 2009 (RGPH) included some basic questions about disabilities (deaf, blind, etc.), and the results showed very few people in these conditions. But what is needed is a more complete set of questions that cover physical handicaps as well as problems related to emotional, learning and other developmental aspects.

5.2.5   Fosterage and placed children

In the studies that we were able to access and review there is no clear reference to fosterage and the possible influence of this issue in the children's schooling. Nevertheless, the issue is important enough to warrant further follow-up, so it was included in the qualitative data collection for this study. In this study the term "fosterage" includes children that are in the care of relatives or other tutors, but are not necessarily (and often are not) orphans.

There is evidence from the perceptions and specific cases raised by at least 50% of the participants that fostered children are less likely to enter or attend primary school in Guinea-Bissau compared to the household head's biological children.

In the words of the participants:

"Foster children are more vulnerable, especially girls." said a school director in Bafata.

The situation of these children is very unfortunate in our village, it is not good to take responsibility for being a guardian of children and restrict their freedom to go to school. Many people who have custody of children treat these children badly in detriment of their own children because they understand that this child is a servant. Sometimes they are also treated as if they were scraps at home, they do not wear new clothes but rather the old ones of the children of the house. (Só que a situação dessas crianças é muito lamentável na nossa tabanca porque não é bom trazer ou assumir a responsabilidade de cuidar ou ser tutor das crianças restringindo-lhes a liberdade de ir a escola como fazem muitas das pessoas que tem a guarda da criança que tratam mal essas crianças em detrimento dos seus filhos porque entendem que essa criança é um criado / a deles. Ou então são tratados como se fosse restos

em casa elas/ es não usam roupas novas mas sim as velhas do filhos da casa). - School Principal, Galomaro/ Cossé – Bafatá

There are certain children who do not go to schools because they are "meninos di criação" [foster children] and are always busy with domestic work that their tutors impose. (*Há certas crianças que não frequentam escolas só pelo facto de serem "meninos di criação" e ficam sempre ocupados com trabalhos em casa que as suas mestras lhes impõem.* - Children, Bissau – SAB

The MICS data from 2014 includes a question for each person in the household that defines their relationship to the head of household. Less than two percent of children aged 6-14 in the MICS 2014 sample are classified as adopted or are not related to the head of household. 2.9 percent of children are classified as more distant relatives, which means they are not children, grandchildren or cousins/nieces/nephews of the head of household. Figure 5.4 summarizes school attendance status for children aged 6-14 by their relationship to the head of household. The numbers show that children, grandchildren, cousins and adopted children have the highest current attendance rates (and lowest rate of being out of school). More distant relations and especially children who are not related to the head of household are less likely to be in school. This is consistent with fieldwork that describes differential treatment for children who are not close relatives. However, the majority of the non- and distant-relation children are still reported as being in school, so young people in these categories do not likely account for a large share of out-of-school children.

Figure 5-4 School attendance summary for children age 6-14 by relation to head of household, 2014 MICS
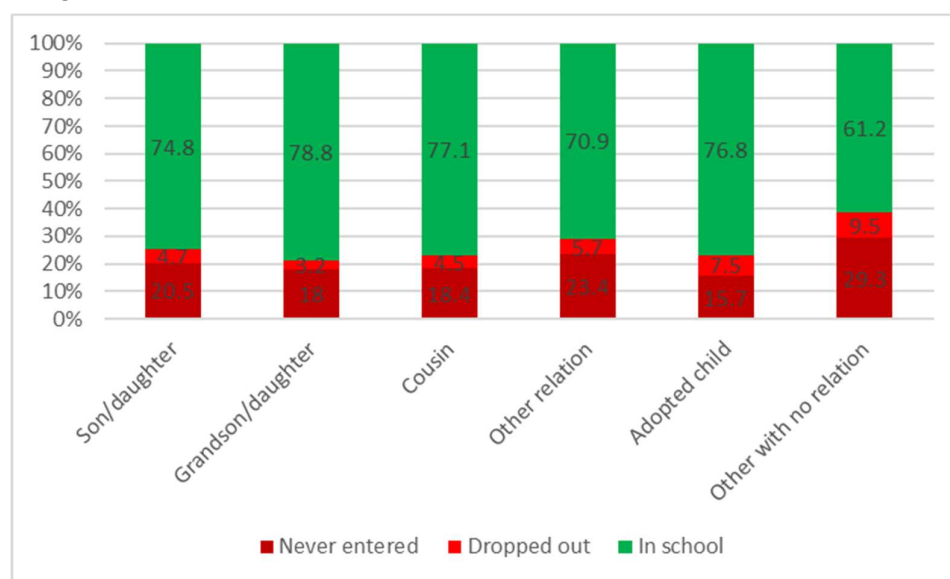
Source: MICS (2014)

5.2.6 Sociocultural tensions between communities

In the Gabú region,tension between neighbouring Mandinga and Fula communities emerged in the data collection. For instance, if the school is closer to the Mandinga community, the Fula do not send their children to school, and vice versa. Most participants also stated that even when there is an agreement in the school location, if the teacher is Fula, the Mandingas do not send their children to school, and vice versa. This kind of tension between communities identified during data collection was not mentioned in the existing studies. This issue seems to be related with Guinea-Bissau's historical, cultural and social idiosyncrasy. It directly affects out-of-school children because the parents do not let them attend school, and it could also affect children who are enrolled in school if the teacher changes or the tension between communities increases.

5.3 Economic demand-side barriers

Almost 100% of the participants mentioned thatthe household's ability to afford the direct and indirect (opportunity) costs associated with schooling impacts school attendance. The main economic demand-side

barriers addressed in this section are: household poverty, the direct costs of schooling (particularly after 4th grade), child labour, and child hunger in the classroom. As shown in Table 5.4, these barriers impact all 5 DEs across all regions, although their weight will vary by gender, region, and household wealth profile.

Many households suffer from several economic factors which results in high rates of household vulnerability, forcing parents in difficult economic situations to make strategic decisions when it comes to sending their children to school. Some flexible arrangements, discussed in the next section, can help addressing households needs in a flexible manner, and are likely to be effective in reducing the number of children who are out of school due to economic influences.

Table 5-4 Economic demand-side barriers

	Dimensions of exclusion (DE)				
Barrier	DE1	DE2	DE3	DE4	DE5
Household poverty in villages	X	X	X	X	X
Direct costs of schooling	X		X		X
Child labour and temporary dropout		X	X	X	X
Child hunger in the classroom	X	X		X	

5.3.1   Household poverty in the villages

Household poverty has a very important impact in Guinea Bissau on schooling and child wellbeing. 69 percent of the population was living below the poverty line in 2010, compared with 64 percent in 2002 (Ministère de l'Education Nationale 2015b). 25 percent suffer from chronic malnutrition, according to the World Food Programme (WFP). In spite of an irregular growth in national wealth since 2010, the situation hasn't improved much for the population.

The country suffers from its dependence on the agriculture sector (almost 85% of the population depend on agriculture as their main source of income) with the cashew nut being the main crop – the crop is seasonal generally in April/ May. The country is currently experiencing a food crisis (Temudo Abrantes 2013, 2015), with 11% of Guinea-Bissau households being food insecure, though this figure can be as high as 51 percent in some areas[6].

The higher probability of poorer children, and rural residents, being out of school has already been shown using survey data in sections 3 and 4 (see Figures 3.6, 3.11 and 4.6). Figure 5.5 provides a more detailed summary of OOSC status by location (urban-rural) and region. The results confirm the tendency for higher rates of OOSC in rural areas, especially in Oio, Bafatá and Gabú. In rural areas, many *tabancas* (villages) suffer from poverty and even extreme poverty and households have difficulty providing for their children's basic needs such as food, clothing, and housing.

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6 Figures from WFP

Figure 5-5 School attendance summary for children aged 6-17 by location and region, 2014 MICS
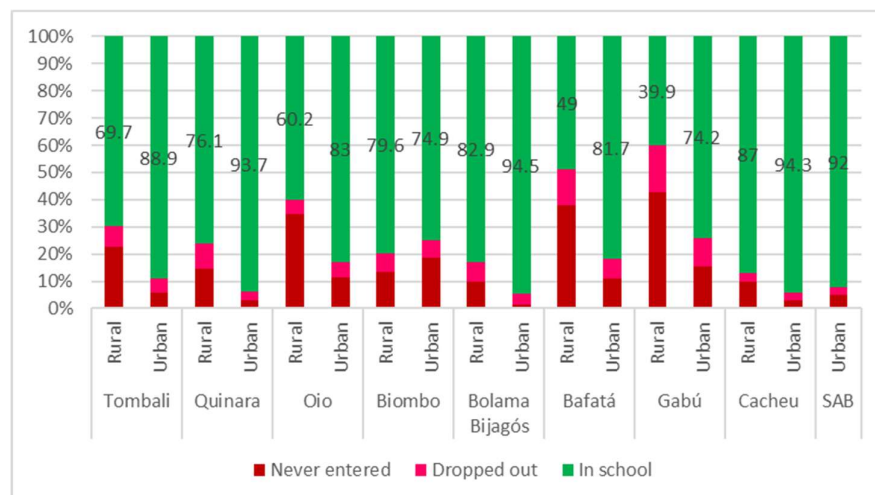
The qualitative survey interviews and focus groups provide additional details on how poverty impacts schooling. Economic barriers were mentioned by all participants in Cacheu, Oio and Tombali as the first and most important one, above all in tabancas.

> *"In our village, we have only first clycle of education, and when a child gets to 4th Grade he/she stops to go to school beause we do not have resources. For example mano of us do not have family in Gabu to stay there and continue studying".* (*Na nossa tabanca só temos primeiro ciclo razão pelo qual quando alguém termina a 4.ª classe pára de ir à escola porque não tem meios, por exemplo muitos de nós não tem familiares em Gabu para ir continuar os estudos)* - child in the Gabu region

In more than 90% of the fous groups or interviews, the respondents of the qualitative survey mentioned that tabanca children do not go regularly to school because it is simply too far to travel (7- 10 kilometres sometimes), which also helps explaining why these children tend to enter school later than the official 6 years old, when parents think they will be able to go to school safely. around 50% of the respondents mentioned that several NGOs provide bicycles to *tabanca* children in order to facilitate the transportation to school.

The data gathered shows that this household poverty in the villages is mainly a cause for dropout (4DE, 5DE), but not necessarily a barrier to enrolment to primary school (2DE) as most children go to school at least for some years, even children living in *tabancas*. All the out-of-school children interviewed mentioned that they would go back to school if their financial condition would improve.

5.3.2   Direct costs of schooling

Article 12 of the Lei Base do Sistema Educativo (2010) states that until 6th Grade public education is completely free. Starting in 7th grade, education should be free, in agreement with the State's financial resources: "*Até 6º ano de escolaridade, o ensino básico é totalmente gratuito. A partir do 7º ano de escolaridade, o ensino básico é tendencialmente gratuito, de acordo com as possibilidades económicas do Estado. Ensino básico gratuito significa isenção de propinas, taxas e emolumentos relativos à matrícula, frequência e certificação, assim como uso gratuito de livros e materiais didáctico*s".

The law establishing free education in EB1 and EB2 in public schools (1st to 6th grade) was published in the Official Bulletin n°13-2011, which means there has been plenty of time to be applied across the whole country.

However, there seems to be a significant gap between what is stipulated by law and what really happens. around 25% of the respondents of the qualitative survey, especially the regional directors of education, did mention that school is free until 6th grade. But almost all parents complained about not being able to pay for the school fees, which strongly suggests that at least some schools are still collecting school fees in 2018 in some way.

The inability to pay school fees is one of the main reasons for respondents of the qualitative survey to explain OOSC and school dropout. Family participation in the funding of education is, historically, very high in Guinea Bissau, regardless of the level of education (primary, secondary, superior). Their contribution represented an

average of 63% of national education expenditure in 2015, which makes the weight of household expenditure in national education expenditure greater in Guinea-Bissau than the average of the 24 comparator countries (28%) (Ministère de l'Education Nationale 2015b). Table 5.5 provides a summary of family spending on education by level and various background characteristics.

Table 5-5 Annual average expenditure of Bissau Guinean families per child enrolled by level of education by gender, geographical area, standard of living and type of school (in CFA francs), (Pole de Dakar, 2013)

	Primary school (EB1 and 2)	EB3
Gender	-	-
Girls	15 763	59 007
Boys	19 975	25 829
Sector		
Rural	15 359	25 315
Urban	25 824	47 782
SES quintile		
Q1,2,3,4 (the 80% poorest)	17 148	32 558
Q5 (the 20% richest)	23 480	54 682
Type of school		
Public	15 685	26 972
Private	26 022	66 209
Community school and madrasas	11 617	nd
Total	18 174	36 325

According to the RESEN 2015 (Ministère de l'Education Nationale 2015), the most important expense is school fees (cost of inscription, APE), which represents 58 to 88% of total household contributions depending on the level of education. This is followed by school manuals (6 to 26%), uniforms, and transportation to school.

Fee paying is different in the autogestão sector that has a different organizational structure where parents pay some additional fees for teachers in order to avoid strike. The topic of teacher strikes/teacher absenteeism is covered in the next section. Other public schools contract additional teachers because they do not have enough state teachers appointed to the school and pay their salaries with fees parents have to pay.

In private schools, the school fees and other costs are even higher and as a result are largely inaccessible to many households. In SAB, the survey included two neighbourhoods where only private schools could be found, and children would have to go further away from home to attend a public school. Prices are very high:

> "*The school is non-for-profit and the fixed price for enrolment is accessible for the whole community: preschool costs 12000 XOF per month, EB1 costs 6000 XOF and EB2 9000 XOF per month. It is accessible".* (*Escola funciona sem fins lucrativo e o preco fixado para matricula e acessivel a toda comunidade. jardim paga 12.000 XOF mensal, 1° ciclo 6.000 XOF e 2° ciclo 9.000 XOF portanto, é acessivel*")- Director from a private school in SAB

This is not very accessible for the average family, given that the annual average expenditure for Guinean families appears to be 18,174 XOF/year for cycle 1 and 2, against 6,000 and 9,000 XOF per month cited above.

What could be done? One of the proposed activities in the Education Sector Plan 2017-2025 is to reduce the financial burden on families by gradually setting up operating endowments for schools and promoting access for the poorest. In fact, this seems to be already in place in some schools: a private school director in Reino Injaca (SAB) mentioned that in his school, there are already 15% of children from poorest households who are exempted of school fees:

> *"15% of the children in this school are in the group of the most disadvantaged and are exempted from payment of fees, in order to avoid dropout"* (*15% das criancas na escola são consederados como as mais carenciadas e são isentos de pagamento das propinas. tudo para não permitir o abondono a escola das criancas*).

However, this support comes strictly from NGOs like SOS, Plan International or Ceu e Terras, not from the Government, at least not at the present time. Research about this topic points out that when countries depend on privatisation to expand educational access, this may conflict with the promotion of universalisation of access, especially for the poor (Rose 2009, Lincove 2007, Verger, Fontdevila, and Zancajo 2016, Rizvi 2016).

> *"The children's needs do not correspond to the school offer, as there are no public schools, there is a huge and abusive raise of fees private schools are asking for. Many parents couldn't pay for school for their children and foster children which led to increased numbers of out-of-school children"* (*As necessidades das crianças fase à escolas não correspondem minimamente, vendo ausência das escolas públicas, provocou um aumento significativo e abusivo de largas cobranças nas escolas privadas os quais pais ficavam sem conseguir pagar as escolas dos seus filhos e encarregando, fator ao qual levou a que muitas crianças fiquem fora do sistema*)
>
> (Community leader in SAB)

Additional support comes from NGOs like Plan International, directly for the children: payment of school fees in community schools, distribution of school kits, bicycles for children living in *tabancas*, school manuals, etc:

> *"Plan International offers school manuals, exercise books, bicycles, and others to the best students. This helps a lot to retain children at schoo until the end of the year"* (*A Plan oferece os matérias escolar livros, cadernos bicicletas e mais para os melhores alunos isto ajudava muto porque as crianças ficam na escola até fim do ano*).

This material support seems much appreciated by almost all children and parents, and seems to have a strong effect on children staying at school. Providing bicycles to children that live in the *tabanca* seems to be a very effective solution to reduce the direct costs of transportation to school.

5.3.3 Family size and opportunity costs of schooling for the family

In Guinea Bissau, the fertility rate stands at nearly 5 children per woman (in 2014). Polygamy is frequent, which means fathers may have to provide for or participate in the education of more than 10 children. From the information collected during the qualitative survey, around 50% of the parents expressed the need to make strategic decisions regarding sending their children to school even though all respondents told us that they believed all children should go to school, if possible.

A common strategy cited by parents in the qualitative interviews was to send their younger children to school (age 8-14 in average) for some years, before taking them out so that girls can take care of younger siblings during the day, cook and clean, while teenage boys will work outside the house. However, as seen in sections 3 and 4, there are also a significant number of overage children/teenagers attending school, which means they entered late/dropped out temporarily and/or repeated many classes. Part of this situation can probably be explained by the opportunity costs of schooling for the family, the need to take care of siblings and/or have some of the children working during some period of time to help paying for school for other siblings. In these cases, either female or male children or both will be forced to be out-of-school or will be at risk of dropping out if they cannot attend their classes regularly.

Figure 5.6 is taken from the 2014 MICS data, and confirms that school attendance is lower for children aged 6-17 when they have more siblings. For example, 85 percent of children who have no siblings (e.g. single child) are currently attending school, compared with roughly 65 percent of children who have three or more siblings. The numbers do not vary much by gender, which is consistent with the qualitative data in that both boys and girls may be pulled out of school to help support the family in various ways.

Figure 5-6 School attendance summary for children aged 6-17 by gender and the number of children aged 0-5 in the household, 2014 MICS
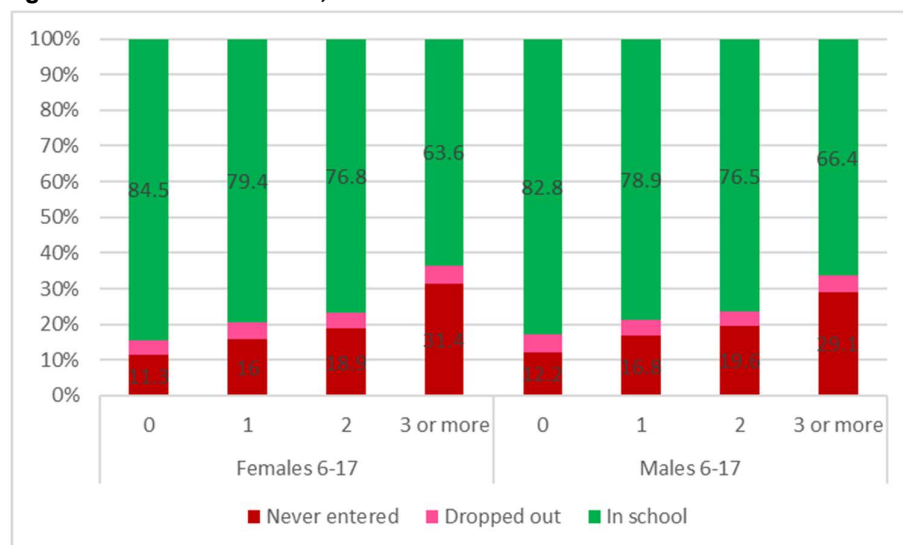
Source: MICS (2014)

5.3.4   Child labour and temporary dropout

Child labour activities and their effects on children are an important factor for out-of-school children (2DE and 3DE) and for children at risk of dropping out (4DE and 5DE). One recent study estimated that 87% of children in Grade 2 and 93% of children in Grade 5 in Guinea-Bissau have work activities including house work and productive work (Ministère de l'Education Nationale 2015a). Guinea-Bissau has ratified all key international conventions concerning child labour and established policies in this regard (USDOL-ILAB 2016). Nevertheless, child labour activities appear to be widespread, and in some cases involve exploitative activities related to forced begging and sex trafficking.

In general, children in Guinea Bissau are engaged in the following labour activities:

- Agriculture - farming, including the production of cashews and fishing;
- Services - domestic work, street work, including car washing and shoe shining;
- Worst Forms of Child Labour - forced labour in domestic work, agriculture, and street work, including begging and commercial sexual exploitation, often as a result of human trafficking (USDOL-ILAB 2016)

Given the potential importance of child labour as a factor in OOSC, there are three general questions that need to be addressed. First how many hours on average are children spending in work, and what kinds of activities are most prevalent? Second, how do these dynamics vary by gender, region, time of season, etc.? And third, how does child labour impact school attendance?

The results in Box 5.3 confirm that many young are engaged in work activities, even at the ages of 5 and 6. The data are taken from the 2014 MICS, and include three categories of work activities: economic, household and carrying wood.

Figure B8 in Appendix B compares total work hours by gender using the same MICS (2014) data from Figure 5.7. Boys and girls have identical

Box 5.3. Child Labour in Guinea Bissau

The 2014 MICS included a special child labour supplement for children aged 5-14, with questions about how much time children spend working in different activities in the home and economic production. Figure 5.7 summarizes the results. As expected, weekly work hours increase by age, with younger children averaging less than 8 hours per week, and older children (12-14) averaging closer to 12 hours. The most common activities are related to household work, followed by economic production and carrying wood.

Figure 5-4 Weekly hours in different child labour activities by age, 2014 MICS

work rates until the age of 10, when girls begin to report more work than boys. This divergence between boys and girls at the beginning of adolescence is consistent with the divergence that begins to happen by gender in school attendance rates. In other words, one of the mechanisms that may help explain lower rates of school attendance for girls as they get older is an increased demand for their work in the home or outside.

Figure 5-8 Total weekly hours in child labor activities by age and school attendance, 2014 MICS
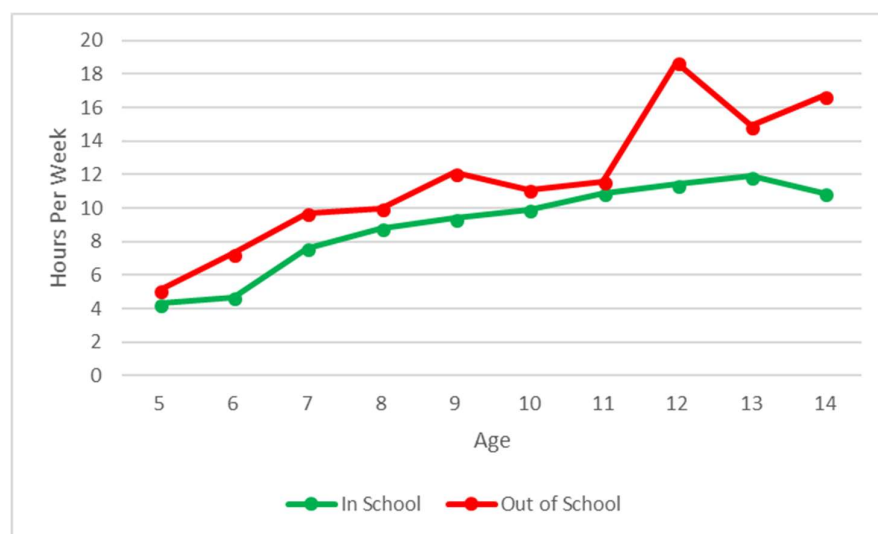
Source: MICS (2014)

Figure 5.8 addresses the third key question: how does child labour impact school attendance? The numbers show that children aged 5-14 who are not in school report more total time spent in work activities compared with children who are currently enrolled (based again on MICS 2014). However, the gap is not very large, at least in the 5-11 age range. This suggests that many children in Guinea-Bissau are able to combine work and school

attendance. This is not an ideal situation since work activities leave les time for homework, rest and preparation. But it is a reminder that child labour and school attendance are not necessarily mutually exclusive. However, as children get older this tradeoff may become more consequential, and Figure 5.8 does show a larger gap in work hours between enrolled and non-enrolled.

The data in this section provide a useful initial overview of the child labour barrier and its potential to impact school attendance. Nevertheless, the linkage between school attendance and child labour is potentially multifaceted, so in the following sub-sections we address more specific topics related to seasonality (the cashew harvest) and daily work activities, with feedback from interview subjects (including children).

5.3.4.1   Cashew harvest

About 85 percent of the population depends directly or indirectly on cashew nuts in Guinea Bissau[7], and in fact, the main cause of dropout mentioned in Bafata and Gabu (by 100% of respondents) is the cashew harvest. It is also mentioned by around 90% of the respondents in all the regions visited. Despite the obvious potential for the cashew harvest to interrupt schooling, this activity is also considered as one of the best way to collect money to pay for school:

> *"The only strategy we have is to harvest and prepare cashew nuts to save money for our children's education" (A única estratégia que adotamos é de fazer a cultivo das colheitas e empenhar na castanha de caju e depois depositamos esses dinheiros para a escolarização dos nossos filhos),*

> *(*Parent in Bafata)

The consequences of the cashew harvest are more important for some regions where entire households migrate temporarily inside the country to work on cashew fields. Most households take their children with them, thus forcing the children to be out-of-school for some weeks/months as the period of migration does not coincide with school holidays.

> "*Mothers take their children who are cursing primary school to the South of the country to help them harvest cashew nuts" (Para o 1° ciclo, as mães levam consigo os seus filhos para o Sul do país a fim de lhes ajudarem na apanha de caju)*

> (School director in Gabu).

When the head of the household migrates without the children, it also affects the children's education, as without a parent around, children can decide whether to attend school or not.

For others, the cashew harvest results in children dropping out for a day or several days in a row to harvest cashew for their families, relatives who need additional workforce, or even to create a little income for themselves.

> *"At the beginning ot the school year, all children come to school. But during he cashew harvest period, many drop out of school. As an example: 100 children enrol in school at the beginning of the year. At this stage, we must have 40 or 50 dropouts or even 60" (No início das aulas todas as crianças vêm a escola. Mas neste período de campanha de comercialização de castanha de caju há muitos desistentes. Dou só um exemplo: se matricularem 100 crianças a esta altura já devem ter desistido mais de 40 ou 50 e até posso dizer 60),*

> *(Parent in Gabu)*

When children go back to school after the harvest, many schools do not accept them back because they have missed too many classes. Or, when accepted back in class, they may fail the exams organised at the end of the school year in June, and repeat the class.

> "*We confirm that here children come back to school after the cashew harvest but they do not manage to pass the class due to their long absence and lack of learning"*

> *"verifica-se aqui o regresso das crianças à escola depois da campanha de caju só que não conseguem transitar por excesso de faltas e também por falta de assimilarem a matéria".*

(Father in Gabu)

The qualitative evidence suggests that the cashew harvest plays a potentially critical role in affecting out-of-school children rates in Guinea-Bissau. Children have to leave school temporarily to participate in the harvest, this then results in dropout or grade repetition, which in turn increases the age of the student and helps explain (together with late entry) the massive age distortion in the system (see sections 3 and 4). Nevertheless, what is missing is a definitive quantitative summary of just how many children are impacted by the cashew harvest across all communities in the country. The challenge is that measuring the impact of seasonal labour demand can be very difficult without a specialized survey, especially since household responses about child labour activities may be different depending on the time of the year.

Since the MICS (2014) data were collected during the months before, during and after the cashew harvest, it is possible to assess the effect of this factor on school attendance rates. Figure 5.9 shows that school attendance rates for children aged 5-14 decrease in the months of April, May and June (relative to March and July), and child labour activities increase. This is consistent with a temporary harvest impact on attendance, and the nearly 30 percent decrease in school attendance rates in May (compared with March) is an attention-grabbing result. Unfortunately, these comparisons are based on a sub-sample of households in the MICS (2014) sample, so they cannot be used to extrapolate to the entire country.

Figure 5-9 Agricultural work rates, school attendance rates and weekly hours in economic production for children aged 6-14 by month of survey, 2014 MICS
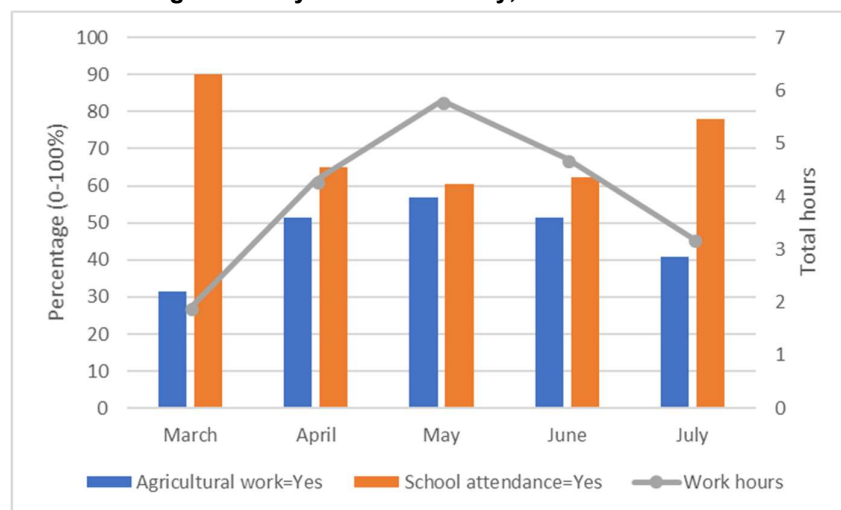
Source: MICS (2014)

5.3.4.2   Daily work for children

Apart from the months of April and May, busy with the cashew harvest, most children are also working. Almost all children interviewed during the qualitative survey declared that they had a working occupation, either at home (cleaning, cooking, shopping) or outside the house (agriculture, sales, mechanic, domestic work, etc). For some of them, because of the different school shifts, this may not impact their school attendance, but it certainly impacts on their capacity to concentrate in school and complete homework, which ultimately can result in underachievement and school dropout. In addition, when they grow up, children become increasingly vulnerable to child labour activities and can engage in hard labour, which is a major barrier for school retention.

In the qualitative data collection, it was mentioned that in SAB children and youth engage in working activities to cope with schooling costs and other living costs. It was even stated by 10% of the respondents that some girls engage in commercial sexual exploitation (one of the worst forms of child labour) as a way to obtain income.

"Some children have to do cleaning work and that endangers their studies. Some are forced to assume certain abnormal attitudes that a human being should not adopt [prostitution],especially women around 17 to 20 years old" (Alguns são obrigados a fazer trabalho de limpeza e muitos os filhos é que custeiam os seus estudos, obrigando-lhes a assumirem certos atitudes anormais que um ser humano

*não deve adotar [prostituição], na maioria deles são as mulheres de 17 a 18, 20 anos de idade) -
Teacher in SAB*

Another factor that constitutes a barrier to schooling, particularly in the rural areas, is the parents' reluctance to send their children to schools because this affects labour mobilization capacity, both directly and indirectly. The direct effect is via the loss of the child's time, the indirect impact is that school attendance strengthens the attitude of depreciation of agricultural work but at the same time the school, in general, does not provide adequate skills for the job market. This issue arises from the literature review (Temudo and Abrantes 2013, 2015, Carr-Hill and Rosengart 1982, Monteiro 2005), particularly in studies based in rural communities that are not specific to educational issues. However, it is important to state that based on the data collected for this study there is also a perception that parents and the community/religious leaders are keen to send their children to school. The majority of the respondents stated that the school is important for the children's future.

5.3.5 Child hunger in the classroom

Another barrier that places children at a greater risk of dropping out (4DE) is hunger experienced in the classroom or, more generally, the family's inability to ensure that the child is fed before going to school (1DE, 2DE):

> "*In the villages, parents cannot give the children breakfast, you can imagine that there is no transportation either*" (*Nas tabancas, os pais não tem condições de dar nem o pequeno almoço imagina se vão ter transporte*) - Parent in Cacheu region

Hunger provokes non-attendance, lateness and lack of attention at school, which may result in underachievement and eventually in dropout. Children may also leave school early in search of food.

In Guinea Bissau, substantial support is already provided by the World Food Programme (WFP), which provides over 173,000 hot meals to school children in eight regions through the Cantina escolar school meals programme. This is designed to encourage school enrolment and attendance, and contribute to the improvement of the diet of schoolchildren. Almost all respondents said that the Cantina Escolar Programme, which is reaching around 80% (Ministère de l'Education Nationale 2015a) of schools in the country, is a great support and has had success in attracting children to school and retaining them.

WFP Take-home food rations for female students encourage girls to attend and remain in school. This was mentioned by many respondents as a very efficient measure to increase girls' attendance:

> "At each month-end, girls take food rations home if they have attended school properly, this helps maintaining them in school" (Em cada fim de mês há géneros alimentares para meninas que não ausentaram ou seja que não tem 4 faltas na escola, isso para poder manter elas para não faltarem às aulas) -School director in Tombali

WFP is also working to strengthen the Government's capacity to manage the school meals programme so that it can eventually take ownership of this programme (WFP 2016) as planned in the Education Sector Plan. For now, many schools remain out of the programme and child hunger is a real issue in many of them. Another example illustrating the importance of this programme is the presence of students in the schools all morning/afternoon even when the teacher is absent, until the school meal time.

5.4 Supply-side barriers

This section explores the key education supply factors that limit school attendance due to the lack of educational opportunities offered in Guinea-Bissau and the low quality of education. These factors are tied to and linked with other factors from other sections

The literature review on Guinea-Bissau demonstrates how supply-side barriers like distance to an adequate school, inadequate school infrastructure, teachers strikes/teachers absenteeism, lack of seating and writing places in schools, lack of teaching materials, the negative image of public schooling and preference for private schooling, language of instruction and pedagogy and quality/quantity of teachers, act as a barrier to school to enrolment, retention and completion (Table 5.6).

Table 5-6 Supply-side barriers

	Dimensions of exclusion (DE)				
Barrier	DE1	DE2	DE3	DE4	DE5
Distance to an adequate school	X	X		X	
Inadequate school infrastructure		X		X	X
Bad reputation of public schools	X	X	X	X	X
Teacher's strike/ absenteeism		X	X	X	X
Competencies of teachers				X	X
Inadequate school culture and management		X	X	X	X
Lack of preschool offer	X				
Lack of teaching and learning materials		X	X	X	X
Language of instruction				X	X

5.4.1   Distance to an adequate school

The distance to school is closely related to school supply. The limited supply of complete primary schools (EB1 and EB2), and lower secondary schools, has already been referenced (see Box 3.1). When communities do not have complete primary schools (or higher), children either discontinue their studies after completing the highest grade available, or have to commute to schools located in other communities. School supply constraints in Guinea-Bissau therefore have far-reaching consequences for initial enrolment and continuation/dropout, as well as progression while enrolled given the extra time that is often required to reach the school.

In the qualitative data collected for this study, the participants all stated that distance is a barrier for schooling. Around 50% of teachers also mention that the distance they must travel to go to school (bicycle and motorcycle) is a challenge for them in order to start the classes' on-time or even being motivated and in shape to teach.

> *"For example a teacher who has no means of transport and has to walk every day 7 km to school in order to give classes and then come back, this teacher gets tired. Most of the times without receiving the salary"*
> *(Exemplo de um professor que não tem meio de transporte que é o caso de alguns de nos aqui, esse professor teve que andar todos dias 7 km para escola a fim de dar aulas e volta chega um determinado tempo esse professor fica cansado, ainda por cima sem receber o salario)* - Teacher in Pirada – Gabú

Distance to schools, particularly in remote rural areas, is a significant barrier to accessing education. According to the 2011 RESEN (UNESCO, 2013), 60 percent of children have a school within 15 minutes walking from home, 19% have to walk 30 minutes, 8% have to walk 30 to 45 minutes, 3% have to walk 45 to 60 minutes and 10% have to walk more than 60 minutes. This makes the distance to school is a barrier to schooling, especially for younger children. According to RESEN, when children have to walk more than 15 minutes this has a significant negative impact on school attendance and dropout. The ability of children to access education is related to the lack of schools, the long distance to school and also the natural barriers that children have to face (e.g. rivers). Natural barriers can also impact on the parents' perceptions of security and can be linked to the high number of late entry students. This stem from the fact that these children have to wait until they are considered mature enough by the parents to face the challenges posed by the journey to school.

> *"Usually they leave the other villages with bicycles and become very tired because they have to go and return every weekday. There are others that usually leave their communities and have to cross the river*
> .(*costumam sair das outras tabancas com bicicletas ficam muito cansado porque têm que ir e voltar todos os dias de semana. Os outros costumam sair das outras tabancas e têm que atravessar o rio)* - Parent in Oio

The distance to an adequate school also seems to encourage communities to create schools, particularly in the Bafatá Region. This factor it is also linked to historical, political and social-cultural factors because some

communities are more willing to participate in education than others (Barreto 2012b, Lopes 2007, Ribeiro 2001, Sanhá 2014).

5.4.2 Inadequate school infrastructure

The inadequate school infrastructure includes the lack of appropriate facilities, sanitation, desks, chairs, books and other physical requirements. Investment in infrastructure, specifically buildings, desks, chairs and books were also found to be of high importance by most participants in this study, including children, teachers, and religious/community leaders. This issue is directly linked to the political, financial and governance barriers, taking into consideration that the national and international partners are the main contributors to the school infrastructure because the education budget is almost exclusively dedicated to payment of education staff salaries (97%) (UNESCO 2013).

Figure 5-10 Percentage of Government Schools that Have Basic Infrastructure Elements by Level, 2014-15 DGEPASE
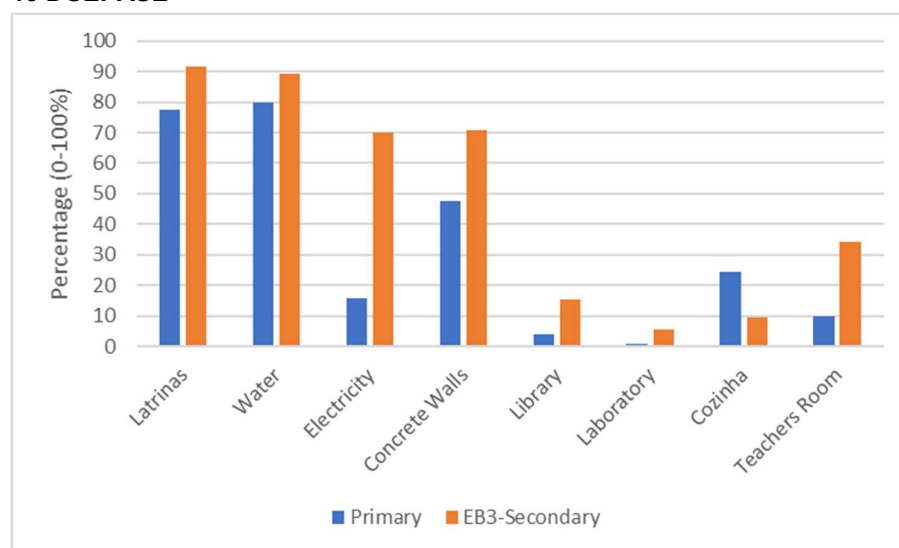
Figure 5.10 shows a summary of the percentage of schools that report having a series of infrastructure items. These are only public-government schools and do not include any private or autogestão schools. The results are separated by school level since the primary schools tend to have fewer things than the EB3-secondary schools (which of course are far fewer in number). Only around 15% of public primary schools have electricity, and a bit more than 20% still do not have latrinas.

Schools infrastructure problems with leaking roofs and structures that are unsafe in adverse weather can cause irregular school participation and attendance. In the studies reviewed there is an estimation that 13% of classrooms have a precarious construction, and are made of quirintim[8].In the qualitative data collection for this study there is also evidence that a high number of classrooms are made of quirintim. For instance, in the Bafatá region the Regional Education authorities stated that they attempt to complete the exams before the rainy season considering the prevalence of this type of classroom in the region.

Another issue raised in the literature and from the participants of this study is the inadequate and/or the absence of seating/writing places and the overcrowded classrooms. "Children bring their own chairs to seat" (As crianças trazem suas cadeiras para se sentar), said a teacher in Oio. The number of students per teacher varies substantially in consideration of local circumstances and the strategies adopted by the school to face students' demands. In primary school the average number of students per teacher in the regions of Bolama /Bijagos and Cacheu is 48. However in all the other regions of the country is 62, reaching 72 in Bafatá. All of these indicators highlight a strong need for classroom construction and a high risk of children dropout of the school. (Ministere de L'education Nationale 2015). Yet, in the post-primary level the student teacher ratio is 101, reaching the minimum

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[8] bamboo

value off 72 in Tombali, 127 in Biombo and 135 in the Autonomous Sector of Bissau (Ministere de L'education Nationale 2015).

This issue can lead to poor performance among children, loss of interest in schooling and eventually to dropout. The participants in this study reported that a considerable number of children are out-of-school because schools only accept a limited number of students (depending on sitting availability, number of teachers and classrooms etc).

In the voice of the participants:

> *"The government must build decent schools in all the villages with all the necessary teaching materials and infrastructures needed to allow more access. They should also recruit qualified teachers to teach and train inspectors to supervise teachers and pay them on time to avoid strikes"* *(o governo deve construir escolas condignas em todas as tabancas com todos os materiais didáticos e infraestruturas necessárias para poder permitir mais acesso e colocar professores capacitados para lecionar e formar inspetores para supervisionar os professores e paga-los a tempo e a hora para não haver greves).*

> (Parent in Galamaro – Bafatá)

> *"In order to improve access, the government must build decent schools in all the village and recruit qualified teachers to teach and pay them on time to avoid strikes and develop conditions or strategies to encourage the female students to attend school following the strategies used by the organizations that support like WFP, Plan, and UNICEF"* *(Para melhorar o acesso o governo deve construir escolas condignas em todas as tabancas e colocar professores capacitados para lecionar e paga-los a tempo e hora para não houver greves e criar condições ou estratégias para poderem incentivar as alunas como fazem as organizações que nos apoiam entre os quais o PAM, a Plan, e o UNICEF.*

> (Community leader, Xitole - Bafatá)

The final infrastructure issue concerns incomplete schools, which has already been referenced in other sections of the study (see Box 3.1). In primary school EB1 – grade 1 to 4 – almost half of the students at national level (47%) are not able to continue their basic education studies in the same schools (e.g. they have to transfer to another school for grade five and beyond). This forces these students (about 147,000 in total) to seek a place in other schools that are often located in other communities which can generate additional education expenditures for families. These two phenomena are widespread in the country and contribute extensively to children dropout.

> *"There is only one public school with grade 1 to 4 in this area and there are almost twelve villages"* *(Existe somente uma escola pública nessa zona, e faz parte quase de doze tabancas, e temos somente o primeiro ciclo do ensino básico).*

> (School Principal, Salquenhandim – Oio)

5.4.3   Reputation of public schools

Public schools generally have a bad reputation in Guinea Bissau, justified by the reasons mentioned above related to infrastructure, etc. The private schools in Guinea-Bissau have been expanding over the last decades, in response to state failure and disenchantment with the public system. Nevertheless, when analysing, for instance, the Education Act, the Education for All National Plan of Action and the Education Sector Policy Paper we can see that the privatisation of services discourse is present, especially the valorisation of the private sector (Silva, Santos, and Pacheco 2015). In this way, at least in terms of the political discourse, the education marketization/ commodification in the country is increasing (Silva, Santos, and Pacheco 2015).

> "*Public schools are made of precarious materials and do not have a good learning environment because teachers are not paid on time and are always on strike*" *(As escolas públicas são de barracas e não tem um bom ensino porque sempre fazem greve e não pagam os professores)*- Child – SAB

This negative image of the public school reinforces the attraction to private schools for parents and children and encourages schools to change their status from public schools for autogestão (see teachers strike/teacher absenteeism below for more details). When asked to give an example of a good school, all children mentioned private schools they knew. When they have the financial capacity, parents do not hesitate to change their children from public to private school:

Once I studied in a public school, but when the teachers went on strike my father enrolled me in this private school until today", (a uma vez estude na escola pública, mas quando deu greve o meu pai matriculou-me na escola privada até hoje) - Child – SAB

"I always studied in private schools because public schools always have strikes" (Eu sempre estudei em escolas privadas porque as públicas sempre têm greves) - Child – SAB

Not surprisingly, private schools are more expensive (UNESCO 2013, Ministere de L'education Nationale 2015), but are also able to avoid strikes and provide better working/studying conditions and services. However, the quality of teaching varies, and not all private schools benefit from good infrastructure and equipment. In some rural areas, the private sector provision of schooling is not profitable enough due to low income. Community schools are increasing in numbers and changing their public-school status to autogestão (Barreto 2012b, Lopes 2007, Sanhá 2014) . This change of status from public schools to community school (autogestão) allows them to ask parents to pay fees, which they use among other things, to add a top-up to the teachers' salaries and prevent strike. The quantitative data analysed for this report do not show a systematic changeover from public to autogestão at the national level. Nevertheless, it indicates a preference and an emphasis by the participants in the autogestão as the best option to overcome the challenges posed by the teachers strikes and the lack of funding in the schools.

"We implemented self-management (autogestão) because before we joined the strikes but not now. Another strategy we have is the management committee that makes community awareness so parents do not let children drop out of school" (Implementamos a autogestão porque dantes aderíamos às greves mas agora não. Outra estratégia que temos é o comité de gestão que faz a sensibilização na comunidade para os pais não deixem as crianças a abandonarem a escola) - School Principal, Bafatá)

5.4.4 Teachers strike and absenteeism

Problems with teachers such as strikes and absenteeism need to be viewed as systemic features and problems with deep-rooted causes, and cannot simply be attributed to the teachers themselves. Teacher absenteeism is directly related to compensation, which has been analysed previously (see Table 5.1) as well as in the qualitative data collected for this study. Low compensation, or a failure to pay teachers their salaries on time, results in low morale, absenteeism, strikes, a lack of interest in the profession and corruption.

Teacher strikes/teacher absenteeism is identified as one of the main reasons mentioned as a driver for low school quality, limited number of days of schooling per year, student dropout and negative perceptions from the communities about public schools. In response to this issue schools and communities are adopting various strategies. It seems that the more common strategy used is the adoption by the public schools of the autogestão status. This status means that the schools can charge school fees and/or ask other types of contributions from parents/tutors, pay teachers to work when there is a strike, top-up teacher salaries and have funds for day-to day school expenses.

This autogestão status change strategy adopted by some schools has the benefit of allowing for more flexibility to deal with problems, and can also make schools more accountable to the community. As a result, this policy helps keep the schools running even when there are strikes, which can reduce dropout and grade repetition. Nevertheless, these benefits come with a cost: the undermining of the free education policy in place at the national level which can, paradoxically, lead to an increase in the number of dropouts, grade repeaters and excluded children, particularly for the poor and vulnerable. This issue is directly linked to the economic and demand side barriers as well as the political, financial and governance barriers.

"We want to ask the government to pay teachers on time to avoid the strike". (queremos pedir ao governo que pague os professores a tempo para evitar a greve.) - Mother in Dará – Gabú.

In my analysis, children drop out of school for various reasons but I will point out only two or three: the first reason I highlight is the teachers' strikes - twenty days of classes for forty days at home". (Nas minhas constatações, as crianças abandonam a escola por várias razões mas vou apontar somente duas ou três: a primeira razão que eu destaco é a questão da greve – vinte dias de aulas quarenta dias em casa); - Parent in Gabu

5.4.5   Competencies of teachers

Previous research has shown that the lack of skilled/trained teachers has been one of the major barriers to education in Guinea-Bissau (Benavente and Varly 2010, Campos 2009, Campos and Furtado 2009, Cunha and Ba 2008, Daun 1997). For example, in a recent (2015) study only 6 percent of tested teachers demonstrated mastery of the Portuguese language at the primary (grade 5) level, and only two percent were competent in mathematics (Ministère de l'Education Nationale 2015a). Since independence, developing teacher capacity has been a priority for the MoE. Yet, the country still faces major challenges in training, recruiting and deploying a sufficient number of teachers in all the regions, particularly outside the capital city.

In general teachers have a low level of formal qualification, no initial teacher training, they do not have access to continuous teacher training and there is a high rate of teachers with precarious employment conditions (Campos and Furtado 2009, Benavente and Varly 2010). The majority of teachers master the basic subject skills, yet they do not master the specific skills to teach (Benavente and Varly 2010). The studies reviewed also state that low-skilled teachers are sent to the most difficult areas and the permanent teachers have better levels of competence than contracted and community teachers as they often benefited from pre-service training (Benavente and Varly 2010, Ministere de L'education Nationale 2015). The 2015 RESEN also states that pupils who have community teachers have the lowest scores in Portuguese and Mathematic exams (Ministere de L'education Nationale 2015).

Teacher training and teacher competencies (lack of subject knowledge, and pedagogy skills) are clearly one of the key reasons for bad performance and school failure leading to dropout. The education Sector Plan 2017-2025 includes a key component around capacity strengthening for teachers (see section 6). Inadequate school management

School management is also an issue that has influence in the OOSC phenomenon, particularly the risk of children dropping out (Ministere de L'education Nationale 2015). There is not a lot of research on this topic, but one recent study states that the management of schools needs to be modernized, school principals should have access to training regarding management skills, and the current management procedures are outdated and are inefficient (Landim 2010).

Many participants in the data collection for this study reported issuesrelated to inadequate school management, such as: schools closed for several days with no apparent reason; no follow-up of the student at risk of dropping out; teachers at schools but not teaching with no apparent reason.

High repetition rates

The high repetition rates in Guinea-Bissau were already detailed in Section 4, which are much higher than the 10% recommended by the Fast-Track initiative and also higher than the West Africa average. There is a strong correlation between repetition and dropping out – figures for repeating classes is much higher than recommended and higher than WA average (around 11-12% in Primary and Secondary).

School dropout also creates an important waste of resources for the country and for every child, as these resources were invested for a child to complete an education cycle he/she will never complete, thus leaving school without the necessary package of skills.

Any child who repeat a grade or drops out causes a waste of resources for the education system. In fact, those who repeat grades use additional resources to follow the same teaching while those who drop out use resources that ultimately will not benefit them or society. The Internal efficiency coefficient in primary education in Guinea Bissau is around 53%. This means that almost 47% of the resources invested in primary school is considered wasted. This waste is much more due to the fact that many students do not complete the entire cycle and drop out. Without any dropout during the cycle, the internal efficiency coefficient would increase up to 86% (Ministere de L'education Nationale 2015).

But participants also highlighted positive cases where there is a positive school culture and management that combine the following characteristics:

- good relation between school and the community;
- good relation and coordination of activities and awareness raising between the school and the religious/community leaders;
- the school principal follow-up the students at risk of dropout of school and puts in place mechanisms to encourage retention and decrease absenteeism.

In the voice of the respondents:

"There are meetings with parents and tutors in order to raise their awareness about children to remain in school" (São reuniões feita com os pais e encarregados da educação a fim de sensibilizar os responsáveis das crianças e jovens a permaneceram) - Parent Cabelol – Tombali

"We provide awareness-raising information about the importance of schooling for children and young people in the mosques, bancada meeting and in the community" (Fazemos informações de sensibilização nas mesquitas, bancadas encontros de reuniões, sensibilizamos a comunidade na escolarização das crianças e jovens) - School Principal, Quebo- Tombali

5.4.6   Lack of preschool supply

Early childhood education (ECE) is recognized as an important building block for children's lives, considering education, health, nutrition, and general protection. Yet, ECE is often viewed only from a narrow perspective - to prepare children to attend primary school. In Guinea Bissau preschool includes educational services for children from age 3 to 5, before they reach the official entrance age for primary school (6 years old) (Portugal and Aveleira 2009). Most preschools in Guinea-Bissau are community/parent based programmes (32%), promoted by religious or nongovernmental organizations, and government run (Portugal and Aveleira 2009, Monteiro, Buaró, and Delgado 1994, UNESCO 2013, Viegas 1995, Campos and Furtado 2009, Ministere de L'education Nationale 2015). The MoE with the development partners and the various stakeholders is defining an education policy for this area and harmonizing ECE and the respective curriculum. As discussed in Section 3, the available data show that attendance in preschool in the Guinea-Bissau is low (22%), which is directly related to a lack of supply. Other studies have demonstrated the positive impact of preschool attendance. For example, a national assessment in 2015 found that preschool attendance was associated with a positive and statistically significant impact on the student test scores in grade 2 and 5 Portuguese and Mathematics (Ministere de L'education Nationale 2015).

Previous studies (Table 5.1) and the qualitative data collected consistently demonstrate the importance of early childhood education initiatives led by communities. It is also clear that these initiatives contribute to: increasing the enrolment and improving the retention of students in primary education; increasing the number of children in primary school with the adequate age (6 year old), and increasing the number of students with more language and other important skills to have higher success in primary school.

5.4.7   Lack of teaching and learning materials

The availability of textbooks and other teaching and learning materials is an important input for effective teaching and learning, and children and parents/tutors highlighted their importance by describing them as prerequisites for a good learning environment. Although there was recently (school year 2017-2018) a national distribution of textbooks for children from grade 1 to 6, the perceptions of around 50% of the participants in this study is that children from these grades do not have the full complement of core textbooks, and children from the other grades do not have any textbooks. The qualitative study results also indicate that there is frequently no chalk for the blackboard, no notebooks, no pencils, among others.

The data from the 2015 RESEN show that textbooks had a positive effect in the test score of students (Ministere de L'education Nationale 2015).

5.4.8   Language of instruction

The language issue in Guinea-Bissau is complex and full of ambiguity. Although the official language and the main language of instruction is Portuguese, only 5% of the population speak it as their mother tongue and a majority understands and speak some creole. Most inhabitants speak one or more indigenous languages of which there are 20 (Monteiro 2005, Benson 2010, Observatório da Língua Portuguesa 2009)[9]. Taking this into consideration, the language of instruction is a cross-cutting issue and represents an additional supply-side barrier and bottleneck for education in Guinea-Bissau.

Previous research has identified the language issue as a factor that can contribute to students losing interest in learning and participating in school, which in turn leads to low learning results for students and, eventually, high rates of grade failure (e.g. Barbosa 2012, Benson 2010, Baldé 2013). Nevertheless, from the studies available,

it seems that it is accepted to some degree that the Portuguese language (the official language of instruction) should be used in the education system. Where there is disagreement is whether Portuguese should be taught as a foreign language, as a second language and/or as the only instructional language. Most of the studies found that students that used Guinean Creole as a home language and/or as mother tongue had better school results than the other language combinations, when taking into consideration the many languages of the country (Scantamburlo 2005, 2012, Gomes 1994, Solla 2005, Benson 2003, 2002, 1994, 1993).

The language issue was not mentioned directly by participants in the qualitative surveys, but it is clear from the fieldwork that 90% of the respondents from the group of parents/tutors and children from grade 1 to 6 were unable to speak Portuguese.

> *"The school has great importance for example I did not know to speak Creole but now because I attended school I speak Creole and when I see a word I can read It and I am able to speak more at ease with the people"* - *(A escola tem grande importância por exemplo eu não sabia falar crioulo mais agora com a escola eu falo crioulo e quando vejo uma palavra consigo ler falo mais à-vontade com as pessoas)* - Children, Pitche - Gabú

5.5   Political governance, capacity and financial bottlenecks

This section presents evidence related to the political, financial and governance bottlenecks in Guinea Bissau using the 5DE conceptual framework. The political and governance bottlenecks include the lack of power and recognition of school management committees and COGES, the weak involvement of parents and communities in the school, the lack of accountability at all levels of the education system, a somehow weak monitoring and evaluation capacity and a lack of communication at all levels. The financial bottlenecks include an inequitable and insufficient resource allocation in general, and a waste of public resources caused by high rates of grade repetition and dropout.

Table 5.7 below presents the main barriers to OOSC across the 5DE's discussed in this section.

Table 5-7 Main barriers to OOSC across the 5DE's discussed in this section

	Dimensions of exclusion (DE)				
Barrier	DE1	DE2	DE3	DE4	DE5
Institutional capacity and effectiveness					
Lack of power of school management committees/ COGEs				X	X
Involvement of parents and communities in the school	X	X	X	X	
Accountability at all levels	X	X	X	X	X
Weak monitoring and evaluation capacity	X	X	X	X	X
Lack of communication at all levels	X	X	X	X	X
Financial bottlenecks					
Inequitable and insufficient resource allocation	X	X	X	X	X
Waste of public resources	X	X	X	X	X

5.5.1   Institutional capacity and effectiveness

5.5.1.1   Lack of power of school management committees/ COGEs

The involvement of school management committees (COGES) in the decision-making process about the school functioning is critical to the good performance of the school. The participation of the school management committee in school administration enables parents to exercise their right and duty to actively participate in the

education system and to increase accountability. Collective school planning can provide an enabling environment for better governance (Merchant et al. 2018).

Community participation is one of the key features of the education system of Guinea Bissau (Merchant et al. 2018). Various forms of school management committees have been implemented but there is no official definition of their role and power. These committees do not have legal authority in most cases.

One of the key objectives outlined by the Basic Education Law is "to promote the participation of all of the population, namely students, parents and caregivers, teachers, and other actors in the education process, in the definition of education policy and school administration". Public participation is broadly recognised and parents and communities often support the school when the Government resources are insufficient. Community schools are created and managed by groups of parents and community in answer to a lack of capacity of the public education system.

However, public participation in school management is not well institutionalised in the country's legislation (Merchant et al. 2018), despite the key role of the community: two types of school committees have been officially recognised and co-exist in schools but many more have been created in response to donor programs and persist in other forms (for example the administration of the WFP School Meal Programme).

The comissões de gestão (school management commissions) play a role in the budget management of the school fees collected in the 3rd cycle of Primary and in Secondary. The commission includes the school director, a finance staff from the school, a teacher and a parent.

The comités de gestão escolar (school management committees, or COGES) have been formed to raise additional funds (to pay for additional teachers for example) and manage school resources mainly in primary school. COGES have a broad representation, including the head of the *Tabanca*, two students, two parents, a religious authority, and school staff.

The Government, with support from the General Directorate of Education, the Instituto Nacional para o Desenvolvimento da Educacao (INDE) and some NGOs, has been trying to formalize these entities and strengthen their capacity in order for them to have a clear management role in the school (Ministère de l'Education Nationale 2017).

Almost all the schools visited during the qualitative surveyhad a school management committee or a COGES, but in some cases, the members did not seem to have a clear understanding of their role, outside of the running of the School Meal Programme.

Ina few cases, the COGES took action in order to prevent school dropout and raise awareness in the community:

"We have meetings and adopt measures with the agreement of parents to avoid dropout, for example this year we decided that nobody would leave school to harvest cashew nuts" (fazem reuniões e adotam medidas com consenso dos pais para que as crianças não abandonem a escola por exemplo este ano decidimos que ninguém vai deixar a escola para ir colher castanha de caju)- COGES member in Bafata

Another member added *"we also adopt other measures like go to the house of a student who doesn't show up at school, aslo to avoid dropout"* (também adotam outras medidas de ir buscar a criança em casa dois pais quando essa não apareceu na escola também isso esta a ajudar para prevenir o abandono escolar).

These quotations from interview subjects highlight the potential for school management committees to support education and reduce out of school children. However, the evidence to date suggests that these entities have not been used to their fullest capacity.

5.5.1.2 Involvement of parents and communities in the school

An issue that is related to school management committees is the limited involvement of parents and communities in the school, which can have a far-reaching impact on learning and underachievement for children and, ultimately, on retention and dropout. In many cases during the qualitative survey it appeared that school directors and teachers were not satisfied about the role parents are playing in their children's life at school. Many complained that parents do not understand the value of education, and prioritize child labour for the immediate financial return it brings. Five tteachers mentioned that parents often send their children to school without having eaten and with dirty clothes and poor hygiene (in SAB for example). A school director in Cacheu mentioned that

parents are frequently asked to help clean the school or do minor repairs, but rarely accept to dedicate some time to it.

In general, many respondents mentioned that parents' involvement could be increased:

> "*We registered low participation of parents invited to meetings*" (*Temos registado pouca participação dos pais nas reuniões convocadas*") **-** Regional Director of Education in Ingore

It may also be a result of the poor return on investment that parents can see in their children's education, even when paying fees. The lack of involvement may reflect deep-seated concerns about the quality of education that is being provided, or the benefits that schooling will provide. There is also the issue of parental capacity and education levels; illiterate or poorly educated parents may feel disconnected from the education system, even when their children are participating.

However, from the fieldwork there are also a number of examples of committed communities and parents who play an active role in the life of the school. This must continue and these initiatives must be strengthened.

In many cases, the qualitative data showed that the school works together with the community to organize the school calendar and school activities to accommodate children who go to both madrasas and formal school:

> "*Our relationship with the community is very good: for example we work on the school calendar together with the community for children who study in koranic centers and these children can study here in the morning and in the koranic centers in the afternoon"* (*Nossa relação com a comunidade é muito boa, por exemplo caso das crianças que vão à escola corânica fizemos calendário junto com a comunidade, as crianças estudam aqui de manhã e vão a escola corânica à noite*)**-** School Director in Gabu

Numerous testimonies also showed that the community is active in the prevention of school dropout, especially in the regions of Bafatá and Gabú:

> "In my role as village leader, I can call on a father to oblige him to send his boys and girls to school because like I said, it is not possible to drop out of school during the year since others would like to study but did not get a spot. So the ones who got a space cannot waste this opportunity" (*eu na qualidade de líder dessa tabanca mando chamar o pai da criança para obrigar o pai a mandar o seu filho ou filha para a escola porque como já disse não se pode abandonar a escola porque os outros querem estudar e não conseguem lugar para estudar e os que conseguem não devem desperdiçar dessa oportunidade*)**-** Community leader in Bafatá

In many cases the school and the community leaders get organized to prevent dropout due to cashew harvest, but also early marriage and teenage pregnancy. They try to raise awareness in the community by speaking about these issues at Church or at the Mosque, during community gatherings, and sometimes try to convince a parent whose child is out-of-school to take action.

The Regional Director of Education in Ingore mentioned that the Parents association (Associação dos Pais e Encarregados de Educação (APEE)) has been restructured specifically to organise awareness raising activities around dropout.

Another sign of the involvement of parents in school is the growing number of *autogestão* schools, where parents accept to pay some additional money to teachers, on order to avoid strikes:

> "Parents give their contribution to avoid strikes, a value of 2500 XOF for three months from 7th to 12th grade" (*Os pais dão as suas contribuições para evitar as greves no valor de 2500 XOF por 3 meses de 7° a 12° ano)*" - father in Oio)

5.5.1.3   Accountability of regional education offices and inspection

Public school institutions in Guinea-Bissau at the local level are very weakly managed, according to the 2015 RESEN (Ministere de L'education Nationale 2015). There is a need for stronger management and leadership capacity at the regional level to ensure equitable school quality through deployment, teacher accountability and performance (including time-on-task).

Weak governance and oversight by state actors explains why there is little information accessible at the school level about statistics, teacher performance, school opening days, etc. The Government would need to monitor

the efficiency not only of schools, but also of the Regional Directions of Education and of the inspection Department.

> "*The Ministry has the duty to enforce the law, and has to do its job, because school manuals offered to children are being selled in the Bandim market*" (*O Ministério publico que tem o dever de fiscalizar a legalidade, devem fazer os seus trabalhos porque os livros ofertados para as crianças estão a ser vendidos no passeio da feira do Bandim*) - School director in Bafatá

According to the INDE Director and the studies reviewed, there has been a considerable number of training targeting school directors (through support from several donors and partners), but there is a lack of oversight of their work.

The General Inspection has been lacking resources for some years now. Salary issues, staff retirements and lack of transportation equipment meant that in recent years the inspection was almost non-existing in the regions. Regional Directors of Education confirmed during the qualitative survey that inspectors were not visiting many schools due mainly to the lack of transportation budget.

In SAB, only three inspectors where covering all of the schools. However, with support from the GPE, the Government has recently selected and trained 180 new inspectors for all levels of education, including ECD. These inspectors started working in March/April 2018, and will also visit private and community schools, according to the General Inspector. Inspectors already working have also obtained a salary raise and there is hope that this will lead to increased activity, even though the transportation costs are still an issue in the regions.

The studies reviewed (e.g. Furtado 2005, Santos and Silva 2017) and the INDE Director mentioned during an interview that the education system is highly politicised, with high turnover of MoE staff when the Minister changes. That brings instability in the education system and could very well explain the lack of accountability observed at all levels.

According to the INDE director, there is no monitoring of teachers, school directors or regional education staff attendance. During the qualitative data collection, this perception was confirmed.

5.5.1.4 Weak monitoring and evaluation capacity

The Government cannot rely on up-to-date and accurate data on key education indicators: there is an existing EMIS, but the data collection at the school level in Guinea Bissau is paper-based, with insufficient coordination, and lacks resources (to print the questionnaires and send them back to the central level, for instance).

There is no existing tracking mechanism for out-of-school children and children who have dropped out. According to DGEPASE, there is a lot of unorganized existing data on the education system at central and regional level, but a lack of capacity to collect this data properly, analyse it through the EMIS and translate it into operational policy. The DGEPASE director mentioned that school directors are not trained to provide good data, and that there is low capacity in most of the schools when it comes to data collection and school management more generally. In addition, many community schools and private schools are reluctant to share their data with the Government, according to DGEPASE.

There is an urgent need for capacity development of staff at school, local, regional and central level to improve the educational statistics by improving data collection, analysis and preparation of action plans, and to start tracking OOSC. This would also allow for a better understanding of the main causes for OOSC and an improvement of the policies for school retention and school completion at local and central level.

According to the SABER country report, there is no regular assessment of school performance in Guinea Bissau, nor national regular student assessment, that would also improve the monitoring and evaluation capacity of the Government and place the MoE in a position of improving education policies (Merchant et al. 2018).

Funding from the GPE allowed DGEPASE to receive technical support from UNESCO Institute of Statistics (UIS) during the last years: statisticians were trained, and then trained 1800 school directors on how to fill the EMIS questionnaires for 2014/2015 school year data collection. Additional capacity development and resources is however still necessary for school directors and regional statisticians to improve the data collection process.

5.5.1.5 Lack of communication at country level

It appears from the qualitative survey that one of the main bottlenecks comes from a lack of communication and coordination at country level. In the regions, most people are not aware of significant information that should have been disseminated widely: some people are still ignorant of the fact that children should start school at 6 years old, hence numerous late entry. Very few respondents were aware that there are existing schools for children with special needs, in SAB but also in other regional capitals, where children with disabilities could still receive an education if not integrated in regular classes.

Existing laws forbidding child labour and child marriage are not systematically disseminated and enforced.

> "The Government has to implement a low prohibiting parents to give their girls to marriage before finishing 12th grade" (*Governo deve implementar uma lei que proíbe os pais de dar as suas filhas casamento antes de terminar 12.° ano*) - School Director in Gabu

Domestic violence, child marriage and female genital mutilation (FGM) have been forbidden since 2011. The Civil Code (Ministério da Justiça 2007) states that minimum age for access to labour is 14 years old (since 2009), and the legal age for marriage is 16 years old for girls and 14 years old for boys (INEP 2006). However, UNICEF estimates that 38% of children are working (excluding domestic work), in the country, which is one of the highest child labour rates in the world.

Some good examples must be retained: in the Bafata region, the Regional Direction of education has made several awareness raising campaigns to convince parents to send their children to school, but proper funding is needed to scale-up these initiatives.

5.5.2 Financial bottlenecks

5.5.2.1 Inequitable and insufficient resource allocation

Public expenditure in education is low in Guinea-Bissau compared to other countries with similar characteristics. Education is constrained by limited resources, with 1.7% of GDP allocated to the sector in 2013 (partly due to a one of the lowest fiscal pressure in Sub Saharan African: less than 8% in 2013), far below the average (3.9% of GDP) in Africa in the same year. Almost all current public expenditure on education is staff expenditure (97%), leaving no room for other expenses. The remainder of the budget has very low levels of execution and the sector is heavily dependent on donor support (Merchant et al. 2018).

Figure 5-11 Current expenditure on education as % of current expenditure excluding state debt, international comparisons
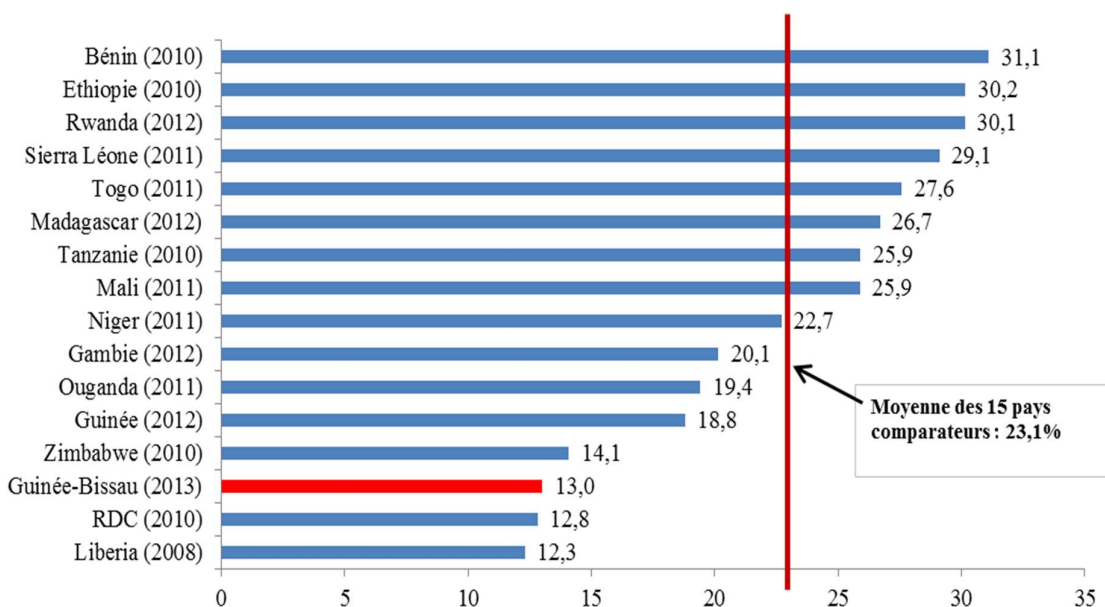
Source : (Ministère de l'Education Nationale 2015b)

In addition, the issues of planning and management of the budget are complicated by the non-transfer of operating budgets to schools: "Resources distributed to schools by the central level in 2016-17 included only chalk and a record book for each school" (Merchant et al. 2018).

Schools at the EB3 (third cycle of basic education) and secondary level can generate some income coming from school fees and employ part of it to manage the school, this provides some flexibility to deal with resource constraints, although it does impact equity in terms of access. But this mechanism is not available for the first and second cycles of basic education (EB1-EB2). That potentially leads to the schools changing the status for autogestão, to raise additional funds from parents, community, donors and NGOs, which are necessary for the day-to-day functioning. During the qualitative survey, the teams have visited Primary schools which were in a very poor state, with quirintim class rooms, bad infrastructure and almost no equipment. All of these problems are directly related to the state of affairs with school finance, there is simply no way to get around the fact that the country is not investing sufficient resources in education.

5.5.2.2   Insufficient teacher supply, allocation and deployment

On the one hand, resources are insufficient, and on the other hand, the Government does not distribute them equitably and is not specifically targeting the less advanced regions (Ministère de l'Education Nationale 2015a). . The pupil-classroom ratio varies a lot from a region to another, even if the average was at 62 for public schools in 2015. In the regions of Bolama /Bijagos and Cacheu the ratio dropped to 48, but was higher than 62 in all other regions of the country, reaching even 72 in Bafata (Ministère de l'Education Nationale 2015a).

The supply, allocation and deployment of teachers is an issue that leads to school dropout and/ or exclusion and this conclusion arises from the studies reviewed (e.g. Benavente and Varly 2010, Campos 2009, Campos and Furtado 2009, Cunha and Ba 2008) and from the qualitative data collected for this study. The shortage of teachers (trained teachers) in Guinea-Bissau is a national phenomenon, but especially acute in rural areas, deprived regions of the country and in specific subjects. It is particularly difficult to hire trained teachers in remote and rural areas. Further compounding the lack of teachers is the shortage of female teachers, particularly in post-primary education and outside the capital city (Benavente and Varly 2010). The projections available state that Guinea-Bissau needs to hire an average of 450 teachers a year to achieve universal primary and secondary education by 2020 (Ministère de l'Education Nationale 2015a).

Civil servants and contractual teachers represent an important and increasing part of the total number of teachers, even though there are regional disparities. In many schools, the shortage of teachers forces school directors to employ additional non-state teachers (contratados), who are community teachers, hired on a contract basis and who sometimes do not have the required qualifications. They are paid through additional fees paid by parents, or through NGOs, community, etc. In 2012-2013, they were 333 community teachers officially accounted for in the system (RESEN 2015). However, they are not equally distributed in the country; if in SAB, Biombo, Bijagos for example, there are almost no community teachers, many more community teachers are employed in Cacheu, Oio and Tombali.

5.6   Summary of main factors

One of the main challenges in OOSC research is identifying the most important factors that explain whether or not children are in school. In most countries the OOSC phenomenon is a result of a complex interplay of factors operating at various levels: system or institutional deficiencies related to the supply and quality of schooling, structural features that affect poverty and factors like child labour, cultural factors that may vary across regions and communities, and household (and child) characteristics that can also be quite diverse. Not only are there many potential influences on school attendance outcomes, but their effects may be different across the various levels of schooling, or they may be more relevant to specific categories of OOSC than others (never attended, dropped out, etc.).

The main contribution of this study on OOSC in Guinea-Bissau is the scope of the analysis, which is based on a very complete set of information. Between the household survey data (especially MICS), administrative data (DGEPASE) and a qualitative data collection organized explicitly around the topic of out-of-school children, there

is an abundance of potentially relevant factors to consider. The challenge now is to prioritize these findings in order to highlight the main messages from the various data analyses. This will in turn help set the stage for the policy recommendations that follow in Section 6.

The following sections provide a brief overview of the main factors that are related to school attendance and OOSC, divided into qualitative and quantitative research categories. The division by data source is necessary because of the very different nature of the findings, and the scope of the variables that are available. The qualitative research was extremely inclusive, and managed to address a range of issues including institutional features of the education system, cultural factors that operate in the household and community, and schooling processes. The advantage of the qualitative dimension is the scope of the factors that are considered, and the depth of the analysis and follow-up that was possible for a number of topics. However, the tradeoff with qualitative data is that the samples are not nationally representative, which in turn limits generalizability.

The quantitative data has the advantage of coming from large, nationally representative samples, and the data format facilitates statistical tools (like multivariate analysis) that are designed to help identify the most important (or significant) variables that explain outcomes like OOSC. However, the tradeoff is that a very limited set of independent variables are available in the MICS and DGEPASE data sets, so a number of important elements are missing in the analyses.

It is important to state up front that a *definitive* summary of the most important factors affecting OOSC, with a clear demarcation of how the various factors compare with each other in terms of importance, is not possible. There are simply too many potential influences operating at different levels. However, it is possible to identify features that stand out so that policymakers have some guidance about where interventions are most needed. The data summarized in the following sections will provide inputs into the summary of the main findings in Section 6, which then set the state for the policy recommendations that provide guidance on how to transform research results in to actions.

5.6.1   Main Barriers and Bottlenecks: Qualitative Research

Main barriers and bottlenecks studied through qualitative data come from two main sources: an extensive desk review of all existing documents and a qualitative survey conducted in several regions of Guinea Bissau on the OOSC and early dropout topic.

From a careful review of the qualitative data collected through these sources, we are in a position to list the main barriers to access and retention in Guinea Bissau:

Regarding **socio-cultural barriers and bottlenecks**, it is clear that the impact of **religion** is important, and that Muslim parents tend to consider negatively the formal education system. Children and parents alike consider that religious education is very important, and many parents prefer to send their children first to madrasas, and then to formal school, if at all. However, many children also attend both koranic and formal school.

 The majority of the respondents of this study said that they will likely send both girl and boys to school. However, parents express the need to make strategic decisions regarding sending their children to school, leading to some preference for boys. The early marriage and early pregnancy are mentioned as the main causes for girl's dropout: however, as the quantitative data shows, in most cases marriage and pregnancy happen between 16 and 18 year olds and are only a cause of dropout in lower grades because of the age distortion that characterizes the education system, as detailed in Section 4.

In terms of **economic barriers and bottlenecks**, it is clear that the **household poverty in the villages** in rural areas if affecting access to quality education and retention. Poorer *tabanca* children do not have access to transportation to go to school, are more likely to go to school with an empty stomach and their parents have more difficulties to pay the school fees. Financial resources are a barrier mentioned by 100100% survey respondents: that raises the question of the absence of school fees in EB1 and 2 and how this is applied in reality.

Another very important barrier is **child labour**, widely spread and particularly mentioned in the context of the cashew harvest, which leads many children to temporary dropout.

From the **supply side**, one of the main problem is simply the lack of schools and grades available and the **distance to an adequate school**: very few schools provide more than Grades 1-4, in some places, only

expensive private schools can be found, and in some *tabancas*, children have to travel more than 7 kilometres to find a school even for EB1 or 2. When children could study in EB3, they would need to travel to and live in an urban centre, which can prove very expensive.

Another main barrier is the **poor infrastructure** of existing schools. This has been mentioned very often by survey respondents and clearly impacts the quality of teaching in these schools. It is also clear that **teachers are poorly trained** and in many cases, are not able to teach well, or even speak Portuguese well. Parents' image of public schools would be greatly improved if the public education offer was improved: fewer strikes, better infrastructure, reasonable number of children in one classroom, etc.

Regarding **political governance, capacity and financial bottlenecks**, main problems are a lack of measures targeting specifically the **most disadvantaged groups**, specifically in rural areas (teacher deployment, infrastructures, etc). One of the main problem is also the irregular payment of teachers' salaries, leading to long **strikes** and loss of school-days.

5.6.2   Main Barriers and Bottlenecks: Quantitative Research

Sections 3 and 4 provided a detailed summary of out-of-school children categories via the 5 Dimensions of Exclusion (5DE), with some additional background that identified the kinds of children (girls, rural, low SES, etc.) that are more likely to be out of school. Throughout Section 5 there have been references to additional barriers and bottlenecks where quantitative data are available, such as the number of siblings and early-age marriage and child bearing.

Additional evidence about barriers is provided based on statistical analysis of the MICS (household survey) and DGEPASE (administrative) data.   Appendix C (MICS) and D (DGEPASE) provide more details about the methods and the results. The overarching goal of the statistical analysis is to identify significant predictors of school attendance outcomes, with some ranking of factors by level of importance. As is discussed in more detail in each appendix, the cross-sectional nature of the data (i.e. measured in only one point in time) means that the results are not strictly causal, but are instead statistical "associations". Nevertheless, a number of relevant factors from the household (MICS) and school context (DGEPASE) are available to be analysed together using multivariate methods, which makes it possible to flag variables that stand out – or do not stand out – as predictors of key outcomes.

The main results are summarized as follows:

The MICS data are especially useful for analysing family background indicators, and a number of variables are significant predictors of the different outcomes. Standing out is **family SES**, which is measured by household possessions and access to services, **ethnicity, rural location** and **marriage/child bearing**. For example, among 6-22 year olds, young people from the wealthiest households (SES Quintile 5) are about 15 percent more likely to be currently enrolled in school than children from the poorest households (SES Quntile 1), and they have accumulated more than *four total years* of educational attainment. Rural children complete about three years less education than urban children, even when controlling for differences in SES and other factors.

Ethnicity includes both **religious** and **language** components. As referenced throughout this study, Muslim children are much less likely to be reported as being in school in MICS, with less completed education. This finding must be qualified, to some degree, since it is possible these children are attending some kind of school (e.g. a koranic center). But the effect size is still quite large, and roughly the same magnitude as the family SES impact. For language the results show that children from Fula and Mandiga households are much less likely to be in school, and complete 3-5 years less education than their Criolo-speaking counterparts.

Young women (aged 15-22) who are married and have children are much less likely to be in school, and complete fewer years of education. For males there is no significant association between marriage and school attendance, but young men with children are also less likely to be in school; the effect is smaller than for girls. These results are consistent with early marriage and child bearing impacting school attendance, but it should be restated that this problem is mainly relevant for young people over the age of 17.

Additional significant family background predictors of OOSC include **parental education**, **family size** and the **child's relationship** to the head of household. The father's education is generally a more significant predictor

of schooling outcomes for children, although girls are slightly more affected by the mother's education. The number of siblings aged 0-5 is negatively associated with attendance, especially for girls. And non- or distant-relatives are less likely to be in school. These results are generally consistent with previous research, but it is important to note that their effects are not as large as SES or ethnicity.

The statistical analysis of the DGEPASE data (see Appendix D) makes it possible to identify school and teacher variables that are associated with higher (or lower) rates of grade completion ("aprovados") and desertion ("desistentes"); this analysis is done at the turma level, and not with individual student level data. The most significant predictors include **school type**, **preschool access**, **teacher contract status**, and the **number of students in the classroom**. For school type the main result is that private schools (including community schools and madrassas) have significantly higher pass rates than public schools. Also, autogestão schools have less desertion than public schools.

Schools that have preschools attached have significantly better outcomes. The average pass rate is about four percent higher in these schools, and desertion is about two percent lower on average. Pass rates are significantly lower in turmas where the teacher is a **Contract Teacher**, or where they are paid by the community (in comparison with regular full time staff). The results suggest that classroom crowding can have consequences, as the number of students in the classroom is negatively associated with the pass rate, and positively associated with desertion (i.e. more students leads to more dropout).

Schools that report having a functioning **COGES** have marginally higher pass rates, although this impact is not as large (or significant) as the other main predictors. The same is true with controls for infrastructure, which are generally not significant predictors of pass rates or desertion in the DGEPASE data.

6 Main Findings and Policy Recommendations

6.1 Main Findings

Main Finding Number 1: Despite significant progress in recent years, there is a serious problem of Out-of-School Children (OOSC) in Guinea-Bissau

The detailed summaries in sections 3 and 4 show that a large proportion of children aged 5-14 are not in school in Guinea-Bissau. In percentage terms the OOSC rate has declined significantly between 2000 and 2014, from roughly 50 percent (2000) to 33 percent (2014). Furthermore, most of the children who are primary age (6-11) and are not in school will eventually enter a school, which is also markedly different from 2000 when most out of school children were not likely to eventually enter. These references to eventual entry and recent progress are important from a policymaking standpoint, but they do not hide the basic reality of basic school attendance in Guinea-Bissau, which is that a very large proportion of children who should be in school are not attending. This is the main finding from this study, and the remaining conclusions and policy recommendations are designed to address this situation by focusing on the underlying causes of different forms of being out of school.

Main Finding Number 2: Excluded children – meaning children who will never attend formal schooling – are highly concentrated in Muslim households located in three regions (Bafatá, Gabú and Oio).

Almost all of the children that are classified as excluded in household survey data (like the MICS) –meaning they have never been to school and are not likely to ever attend – are from Muslim households. It is likely that at least some of these children are enrolled in Koranic centers, or even Madrassa schools that are recognized by the MOE and should be counted as school attendance in surveys. Our study was not able to definitively resolve the issue of Muslim school attendance, which is a large topic that will require coordinated efforts among the government and partners to better understand what these children are doing and, for those that are in schools, what they are learning. It will also require better data on school attendance in the Madrassa schools and Koranic centers. One notable result is the concentration of these excluded children in the three poorest regions of the country (Bafatá, Gabú and Oio), which contrasts with regions like SAB where Muslim children tend to be enrolled in school; this highlights the multifaceted nature of this issue, which is related to poverty, school supply and ethnicity/language, and not just religion. During the qualitative study, all respondents said they want to send their children to formal school, and there is no example of parents or community/religious leader openly opposed to public school. However, all respondents complained about the quality and cost of the public education system and therefore make choices, sometimes leading to sending their children to koranic centers for some years before sending them to public school. A more details study would be needed to know exactly the number of children who are not attending formal school but are only enrolled in koranic centers, and why.

Main Finding Number 3: The Core Problem in School Participation in Guinea-Bissau is Inefficiency

It should be restated that almost all children – especially from non-Muslim households – are attending school at some point, and in most cases they appear to be attending for six or more years. However, it is alarming how little most of them have to show for this education investment in terms of actual grades completed. The problem is massive inefficiency in the system, which is a product of several factors.

Late entry. Guinea-Bissau children are entering primary school at a late age, and even when preschool is available parents are often enrolling their children at a much older age than what is required. Late entry has at least two serious consequences for school attendance. First, it results in children being enrolled in levels that are designed to attend to the needs of younger children; this is especially important in preschool, but even for grades 1 and 2 of primary there are aspects of the curriculum that are specific to younger children. Second, the late start at the beginning of the school investment potentially reduces the total time available to spend in school. This of course depends on how persistent children are, and in Guinea-Bissau they appear to be quite persistent (see below), but the simple truth is that a late start in education can have consequences at a later date.

Why are children starting school so late? One problem is related to supply, as parents are reluctant to let their small children walk very far to school, and not all communities have primary schools (and very few have preschools). But there may also be a cultural factor at work, as families may be too concerned about child readiness and may prefer to wait to enrol in the belief that they will do better at a more advanced age.

Grade failure and repetition. Once children are enrolled in school in Guinea-Bissau they tend to repeat many grades, often multiple times. This is not just at the transition points like grade one (beginning of primary) or grade seven (beginning of lower secondary); grade repetition rates are above 10 percent in almost all grades of the system. The high rates of grade failure are key to understanding the inefficiency in the system. An enormous amount of resources are wasted when children are spending six or more years in school but completing three or less grades.

What are the causes of repetition? One issue is low school quality which results in low levels of learning, and teachers are poorly prepared to deal with students who have fallen behind. Poor attendance and temporary dropout – which appears in many cases to have a seasonal component related to the cashew harvest – put further pressure on both the student and the teacher. As a result, the student often has to simply start the grade over the next year. Finally, it is possible that high grade failure is related to deficient teacher grading practices, or may even be a product of supply constraints in higher grades that restrict the number of students who advance.

Vicious cycle: Older children become vulnerable. The defining characteristic of the Guinea-Bissau education system is the massive age-grade distortion that is present across the entire basic education sequence. It is not unusual to have children aged 15 and older in primary school, and 18 and older in lower secondary (or even primary). These distortions are a natural consequence of late entry, grade failure/repetition, and persistence. In fact, it is remarkable how persistent the average student is, as evidenced by the overage enrolment in lower grades. But these older children are also vulnerable to work- and family-related demands. For example, one of the most commonly cited reasons for why girls leave school early is due to marriage and/or child bearing. But this does not appear to be happening in the 14-17 age range. What is happening instead is "early grade" dropout rather than "early age" dropout, as these older girls (and boys) who are starting families are leaving school before completing primary or (especially) lower secondary schooling, but they tend to be 18 years old and above.

Main Finding Number 4: Vulnerable Populations Fare Significantly Worse

The study has identified a number of sub-populations that have significantly lower rates of school attendance, and are more likely to be in one of the various OOSC categories. These results are generally consistent with previous research in Guinea-Bissau (and beyond), but given the primacy of equity in policy discussions it is necessary to highlight these groups. This information will also help guide the policy recommendations below.

The most vulnerable groups include rural children (versus urban), children from poorer households, and children from Muslim households. Once again the issue with Muslim education is complicated by the lack of information on school attendance in koranic centers and madrassa schools. Gender is a transversal issue, meaning it cuts across all of these groups. Rural girls, poor girls and especially Muslim girls fare worse than their male counterparts.

As discussed above, another aspect of vulnerability in basic education in Guinea Bissau is related to age. Older children who have completed relatively few grades are especially vulnerable to external pressures, and once again it is females who are most at risk for factors like marriage and pregnancy.

Figure 6-1 (below) provides a graphical depiction of key policy "entrance points" in the average school attendance life cycle for young people in Guinea-Bissau. It illustrates the main takeaways from the research in this study, and is a segue into a more detailed policy discussion in the following section. Five key junctures or entrance points are briefly detailed here. First there is a need for an expansion of preschool opportunities to provide better preparation for children before they enter primary school. Also, an expansion of preschool should be accompanied by a doubling down of efforts to insure that children enter this level at the correct age to avoid eventual late-age entry into primary.

The second entrance point is correct-age entry in primary school, which is one of the most problematic aspects of school attendance in the country. This appears to be determined in part by supply-side constraints and the complications they create for young children to access schools. But even when schools are available locally not all children are entering at the correct age, which reinforces the importance of messaging on this topic, which includes the "6-6" (enter school at age 6, stay six years) campaign that is currently being supported.

Improving efficiency of grade completion (entrance point 3) touches on a range of issues, including teacher quality and assessment practices, language of instruction, curriculum and demand-side factors related to poverty and child labour. Grade repetition stands out as a factor in the age-grade distortion problem.

Figure 6-1 Five Critical Policy Entrance Points in School Attendance Life-Cycle

1. Improve preschool access

3. Improve efficiency of grade completion

5. Support older, vulnerable students

IDADE 3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18

2. Improve correct-age enrolment in primary school

4. Improve access to complete primary schools and secondary schools
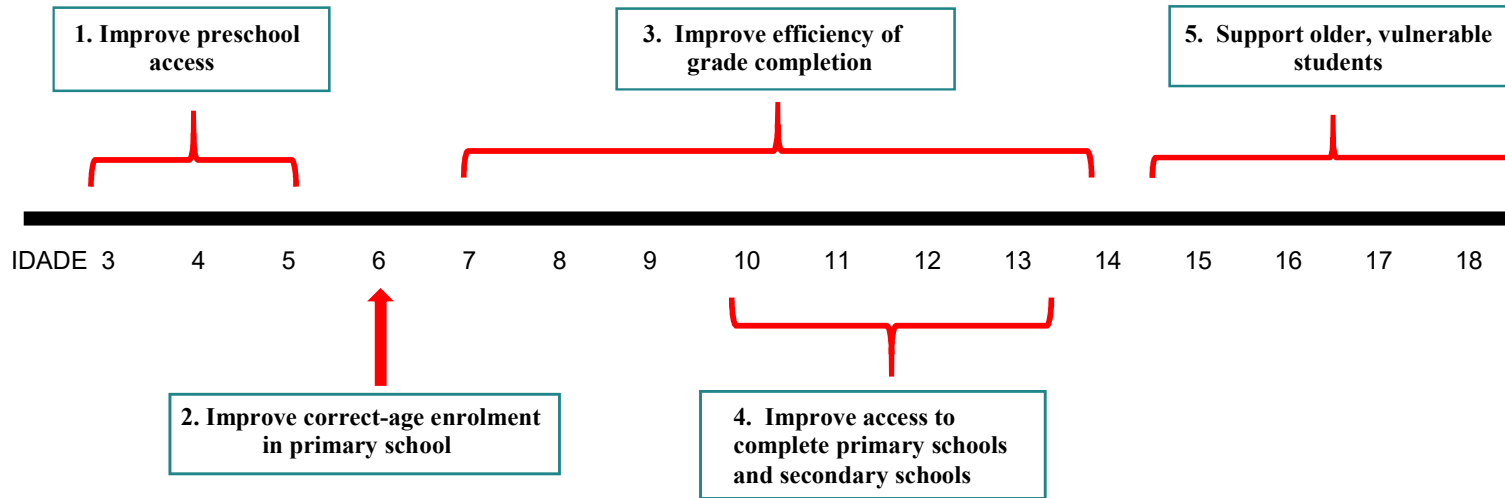
The fourth entrance point is improving access to complete primary schools and lower secondary schools. This is the third policy area related to supply (preschools, primary schools, lower secondary), which is a potentially expensive intervention. But given the sharp drop off in access to schooling after grade 4 of EB1 it is impossible to ignore this situation, especially when confronted with the large number of children who are not completing all three cycles of basic education.

Finally there is support for older and more vulnerable students, especially girls. It should be noted that the best way to support overage children is to reduce their numbers, which is the intended goal of the first four policy areas. But for those that are still enrolled in basic education there are a number of demand- and supply-side options to consider (see below).

The policy options in the next section are not organized explicitly around these five entrance points. They instead address policy options using the same organizing themes that were used in the barriers and bottlenecks summary (sociocultural, economic demand side, etc.). A number of the proposed policy options map quite well onto Figure 6-1, but they also go beyond what is depicted in this summary of key points.

6.2   Policy Recommendations

The barriers and bottlenecks which have emerged from Section 5 require new policies and strategies which Government, development partners and civil society can jointly act on to contribute to achieve Goal 4 of the Sustainable Development Goals.

This section highlights potential strategies for addressing those barriers and bottlenecks for OOSC and early dropout. It also outlines the key policies currently being implemented by the MoE, their effectiveness and the implementation gaps which need addressing for each key barrier. The recommendations are based on a grounded approach using the quantitative analysis of existing official data, key informant interviews and focus groups, as well as the desk literature review.

We must take in consideration that out-of-school children – which includes children who have not yet entered school, children who have dropped out and children who are enrolled but are overage – rarely face one single identified barrier to schooling (e.g., economic or cultural or supply), but face multiple obstacles that end up excluding them from education (or slowing down their progress). This part of the section is divided into four sections: 1) sociocultural demand-side policies and strategies, 2) economic demand-side policies and strategies, 3) supply-side policies and strategies and 4) political governance, capacity and financial policies and strategies

The Ministry of Education and all the relevant stakeholder will need to fully take into account health, child protection and welfare issues in their thinking while developing strong operational partnerships with other relevant ministries (Health, Social Affair, among others) to address the multifaceted nature of the OOOSC phenomenon.

6.3   Sociocultural demand-side barriers policies and strategies

Barrier	Strategies to address barriers and bottlenecks
Negative attitudes towards formal education	Promote non-formal education/adult education particularly for young mothers and women, to increase parental awareness Community sensitization on the value of formal education particularly for young mothers and women
Negative attitudes towards girls education	Existing best practices in girls education scaled-up and financed/supported (take-home rations, Conditional Cash Transfers, community awareness raising, etc)

	Designing 'safe walk' systems, with community support
Negative attitudes towards children with disabilities	Strengthening inclusive education in Guinea Bissau in order to integrate children with disabilities in formal school
	Community sensitization on the importance of inclusive education approaches
Fosterage/ child placement	Awareness raising campaign on the reality and negative effects of child placement
Sociocultural tensions between communities	Develop specific peace and citizenship education programs in the communities/ schools where there are sociocultural tensions
	Establish an agreement between community leaders to identify schools as "Peace zones"

The table above summarises the key bottlenecks currently existing and complementary strategies which could be developed to address the sociocultural barriers to OOSC in Guinea-Bissau. Three main strategies were identified to address sociocultural demand-side barriers. These include: Developing targeted measures to improve girls' access to education; implementing a national strategy for inclusive education and special education; and developing awareness raising/ communication campaigns based on social behaviour change communication, capitalizing past and present experiences.

6.3.1   Implement a national strategy for inclusive education and special education

Children with disabilities are another marginalized group, very often out-of-school or dropping out early. The NGO Humanity and Inclusion, in partnership with local organizations, is working on inclusive education in public schools in SAB. There are also existing special needs schools in the SAB region, receiving children with light handicap.

In the Education Sector Plan (2017-2025) there are plans for the development of inclusive schooling. The MOE will undertake a mapping of handicaps existing in the country, to use the geographical distribution to plan for those children to be incorporated in mainstream schools. New infrastructure should also be adapted for motor handicaps.

The NGO Humanity and Inclusion, in partnership with national organizations, already developed a mapping of children with special needs in SAB, which can be used as a starting point.

The recommendations for this issue are:

> **Box 6.1. The Ghanian Experience with Inclusive Education**
>
> **Ghana** is one of the most advanced countries in the region regarding inclusive education. The development of inclusive education was conducted through a participatory process and was based on a strategic harmonized approach for planning, implementation and monitoring of all activities in order to reach all students with special needs in the country. The management of educational services has been reorganized in order to meet the diverse needs of all learners. All stakeholders were involved in the process (development partners, public institutions, universities, NGOs, civil society, private sector and communities) including political administrative and traditional leaders, and the media. The strategy was based on three levels of action:
>
> - at a political level (funding an implementation plan, handing over the social protection and community involvement),
> - at a systemic level (inclusive education in curricula, developing teaching and learning materials on inclusive education, training, capacity development and revision of infrastructures)
> - and at a class level (particularly in terms of monitoring, supervision and provision of adapted educational materials).
>
> The evaluation drew encouraging conclusions and one of the main lessons learned focused on the importance of the inter-sectoral and multi-sectoral character so that all players are considered as stakeholders. Ghana received the "Innovative Policy 2016" award during the 2016 Zero Project conference at the United Nations Office1.

- Develop and pilot a national strategy for inclusive education, capitalizing on existing experiences on integrating special needs children in mainstream education;

- Community sensitization campaigns on the potential for children with disabilities to access school and learn;

- National pre-service and in-service teacher training programme including adapted methods of teaching for children with special needs.

6.3.2   Awareness raising/communication campaign at community level on the value of education

A series of discussions should be held targeting communities at national and regional level regarding the benefits of education and the rights of children, particularly girls. The issue of OOSC should also be advocated in such discussions. However the campaign should also take into consideration the regional and community's characteristics to be able to communicate more effectively.

The awareness raising/communication campaign should include back-to-school campaigns targeting children who dropped out-of-school. The pilot and/or small scale experiences that are being implemented in some regions, usually through the leadership of community and religious leaders, could be replicated and scaled-up, for example the communications at church or at the mosque and in the public place through Djumbais[10]. Community radios may also be very useful in rural areas.

This awareness raising/communication campaign should sensitize parents and communities on the value of formal education and its importance for the future of their children. Key messages should target late entry, early pregnancy or marriage, temporary dropout for cashew harvest, child labour, etc.

The promotion of adult education and non-formal education could also be efficient, particularly for young mothers, through night school for example. This already exists in many places in Guinea Bissau and should be scaled-up and publicized.

6.3.3   Developing targeted measures to improve girls' access to education

The analysis highlighted that several regions – Gabú, Bafatá and Oio – are suffering from high out-of-school rates for girls (and also boys in a certain measure). A coordinated approach will be needed to change the situation and achieve long-term and sustainable progress.

One of the major challenges to implementing interventions to challenge traditional role models is that it is about changing social norms in which attitude and behavioural change is intrinsic. This work takes time and has to be sustained in the longer term to be efficient. A major step to achieve this is the effective implementation and regular monitoring and evaluation of the strategies presented in the Education Sector Plan (2017-2025) regarding girls education – communities and school principals awareness campaigns; report violent or illicit behaviours that girls may be victims of; improve the school environment to make it more attractive (rehabilitation, latrines, water, etc.); and establishment of literacy programs for adults with focus in women and young girls.

Past and present experiences should be capitalized, particularly pilot and/or small scale projects that are being implemented to improve girls access to education in Guinea Bissau. Plan International and UNICEF are conducting projects in Gabú and Bafatá targeting girl's education through youth awareness groups, provision of school supplies, bicycles, but also scholarships to encourage girls attendance. They are also working on transforming behaviour to encourage the abandonment of female genital mutilation (FGM) in the same regions.

These activities have to be scaled up by the Ministry of Education at a national level in order to increase efficiency and ensure sustainability.

Recommendations for actions include:

- Child rights and protection: Interventions in this area include improving legislative frameworks and awareness raising from national to local levels on child rights and protection. Implementation strategies could include policy advocacy and capacity development of education, health, justice, police services and child protection professionals.

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[10] Djumbais are gatherings in villages, communities, typically below the biggest tree of the village.

- Girls' education and empowerment: interventions focusing on getting girls into school and lengthening their time in school to allow access to better economic opportunities for girls and their families.

- Life skills: Sexual and reproductive health and adolescent sexual and reproductive health programmes.

- Maternal and child health: Programmes provided for older adolescents and youth as well as adult women.

- Community awareness and mobilisation: Awareness raising activities can address girls' education, girls' rights and gender, with the objective of changing prevailing attitudes to girls' education and women's roles, showing communities how girls' education can have a positive financial impact – Interventions may take the form of community meetings, shows (use of puppets, theatre, videos etc), working through role models (girls attending school in the community, female teachers, well-educated mothers, etc.) or focused work led by and with community organisations and community leaders (Wetheridge and Antonowicz 2014).

- Recruiting and training female teachers. More female teachers would strongly contribute to improving the perception of schools among communities and households, as they are significant role models for girls;

- Promote accelerated education programmmes, non-formal education/adult education particularly for young mothers and women;

Community/ local/ religious leaders should be playing a leading role in ensuring community buy-in for girls' education. The qualitative data from this study and past research has highlighted the strength of a community-led approach in creating demand for education.

6.4   Economic demand-side policies and strategies

Section 5 outlined several economic demand-side barriers and bottlenecks facing out-of-school children in Guinea Bissau, including: household poverty, direct and indirect costs of schooling, and child labour.

This section reviews the following strategies to tackle economic barriers: 1) strategies addressing the direct costs of education, 2) strategies addressing the indirect costs of education, and 3) social protection programmes.

Barrier	Strategies to address barriers and bottlenecks
Household poverty in villages	Targeted financial incentives (Grants for poorer households)
Direct costs of schooling	Conditional cash transfer for tabancas
	Grants for poorer households
	Extend fee-free education to EB3 (primarily to girls)
	Awareness raising campaigns on the school fee issue
Family size and opportunity cost of schooling	Better target social protection programming such as school feeding and take-home rations.
	Transport to school
	Micro-finance programmes for mothers linked to girls' schooling.
Child labour and temporary dropout	Community awareness raising on child rights and child protection laws
	Encourage a change in the holiday period as a transitory measure
	Decree to force schools to accept children back after temporary dropout
	Government support to CSOs to implement flexible school systems
Child hunger in the classroom	Scale-up school feeding programme

	Take-home rations for girls

6.4.1 Strategies addressing the direct costs of education

Reinforced transparency for school fees at EB1 and 2 in public schools

Since 2010, the Government of Guinea Bissau abolished school fees for EB1 and 2. Fee-free education refers to exemptions for all tuition fees, rates and emoluments relating to enrolment, school attendance and certification, as well as the free use of books and teaching materials.

However, based on the qualitative study findings, there seems to be an important gap between what the law stipulates and what really happens, as many parents complained that they had difficulties to pay school fees including in EB1 and 2. In the absence of more detailed information, the main recommendation here would be to ensure more transparency at the school level: school accountability is further developed below in section 6.3. Parents should be made aware of the costs they are paying for, and the reason why it is necessary.

At the moment, primary schools do not receive any operating budget from the Government. However, the Education Sector Plan 2017-2025 includes "the strengthening of the fee-free policy through the increase of the budget made available to schools" in EB1 and 2.

More accountability and transparency may also result in a decrease of school fees in EB1 and 2, as we can assume that some schools were still asking parents to contribute to some costs.

Abolition of school fees for additional grades

The abolition of school fees for EB3, if feasible for the Government of Guinea Bissau, should contribute to increasing the transition rate between EB2 and EB3, as the number of children transitioning from EB2 to EB3 is currently low. However, this is an expensive reform and the Government would certainly need to first stabilize the situation of public schools offering only EB1 and 2 which must function without an operational budget, before extending the fee-free policy to other grades.

The same applies for pre-primary education: Offering one year of free pre-primary education would have several positive effects, among others: ensuring school readiness for children enrolled in pre-primary education, reducing late entry, and also possibly reducing early dropout of children (usually girls) who have to take care of their younger siblings at home.

However, this would also be an expensive change as currently most of the preschool offer is either private or financed by the international cooperation. We would recommend keeping this measure in mind with a view of implementing it in the long-term.

6.4.2 Strategies addressing the indirect and opportunity costs of schooling

These strategies should act as incentives for families to enrol children in school, and ensure attendance. They can also help in making the transition from Basic education to Secondary education.

The indirect costs of schooling can be perceived as unacceptable, as poor children do not receive quality education in under-performing schools, particularly in rural areas. Because of poor performance of these schools, children in deprived areas are also repeating classes more often thus creating yet a bigger cost of schooling for their families with no visible result.

Expand school feeding programmes and take-home rations for girls

A significant number of survey respondents said that the school-feeding programme is an efficient social intervention in relation to increasing enrolment and retention, and reducing poverty. Evidence from research in Guinea-Bissau (Gomes 2014) and other developing countries (Sabates et al. 2010, Ganimian and Murnane 2016) also state the importance of school feeding programs or take-home rations to increase enrolment and retention. It should now be extended to the whole country as a sustainable measure.

WFP Take-home food rations for female students have also been proven efficient to encourage better attendance for girls at a time when they normally begin to drop out of the educational system, and should be extended: As

part of the school feeding programme implementation, girls in Grades 4-6 receive a 4-kg bag of rice each month if they have at least 80 percent attendance. (DGIPASE and WFP 2016).

The ESP plans to establish school canteens in schools which are not enrolled in the WFP Programme. WFP is already working to strengthen the Government's capacity to manage the school meals programme so that it can eventually take ownership of this programme (WFP 2016).

Several recommendations can be made, including:

- Deliberately target schools in the poorer neighbourhoods and *tabancas*. WFP and the MOE formerly selected the schools based on several criteria which privileged larger schools, and this had the effect of targeting students from wealthier backgrounds.

- In addition, MOE and WFP depend heavily on communities to support the optimal functioning of the SFP: we would recommend WFP and MOE standardize the role of COGEs and the community in the SFP and to train them accordingly to improve operationalization. Grants should be introduced gradually in the school budget for the management of school canteens at local level.

Box 6.2. Cash Transfers in South Africa and South Sudan

Evidence from the South African Child Support Grant Programme, launched in 1998, revealed that cash transfers were an effective strategy for reducing child poverty, and improving access to education and retention. Over the past 14 years, South Africa's social grant programme has evolved into a comprehensive social protection system.

Social protection policies can also build the resilience of poor and vulnerable households by enabling them to better manage risk without compromising with their children's education. An impact assessment showed that children who were enrolled in the CSG at birth completed significantly more grades of schooling than children who were enrolled at age six, and achieved higher results. Impacts for girls and for children whose mothers had less than 8 years of schooling were particularly significant[1].

South Sudan

Through a Cash Transfer (CTs) programme, the Girls Education South Sudan Project (GESS), led by the Ministry of Education, has supported girls by providing them with unrestricted, conditional CTs, dependent on their enrolment and regular attendance in classes Primary 5 – Senior 4, with highest dropout rates for girls. These transfers promote gender equity in the home and at school, encouraging families to prioritise girls' education as much as boys'. An evaluation showed that for 75% of surveyed CT-recipient households, the money received benefitted the whole household, reducing the burden of paying school-related costs. Further, schools with CT recipients reported increased enrolment by between 7-8% the following year[1].

- MOE and WFP are also encouraged to explore the feasibility and implications of implementing a cost-sharing system (i.e. between Government and parents/communities) in order to expand the school feeding programme and reinforce sustainability, as donor funding might never match that needed by the Government to scale SFP to all primary-aged students. The Government is planning to study the operational functioning of canteens to identify the possibilities of using less costly local food, and other good practices for operating the canteens efficiently.

Tackle child labour

Even though the Civil Code (Ministério da Justiça 2007) states that minimum age for access to labour is 14 years old, Section 5 shows that almost all children in Guinea Bissau are involved in some kind of productive work outside of school, for their parents or for other relatives. This reduces their time to attend school, do homework, and rest.

The following recommendations to reduce child labour could be implemented:

- Propose a change in the school calendar so that long holidays are scheduled during the cashew harvest season: this could only be a transitory measure as the long-term objective is that no children work in cashew harvest, but such a measure could greatly improve school attendance until the end of the year and as such, reduce repetition rates. Currently, many schools do not accept children back to school after the cashew season, if they stopped attending school for the harvest months.

- Enforce the legislation regarding the minimum age for access to labour and communicate around it. Communication campaigns at community level might be efficient to tackle child labour and highlight the need for a child to be at school until the end of EB3.

6.4.3   Implement a social protection programme based on conditional cash transfer or a grant system

Based on the findings of this study, we recommend the Government to specifically target the most disadvantaged groups, in rural areas (*tabancas*) and from the poorest quintiles.

The Education Sector Plan 2017-2025 plans to reduce the financial burden on families by gradually setting up operating endowments for schools and promoting access for the poorest. One of the measures supporting this objective could be to exempt children from poorer households from school fees in EB3. Some NGOs already have a grant programme and target some of the poorest children, but the Government does not participate yet.

Grants and conditional cash transfer programs have proven very efficient in similar contexts in developing countries (see Box 6.2) and could be adapted to Guinea Bissau. The Government should focus on social protection interventions which are transformative and empowering (and do not generate dependency): microfinance, agricultural support for vulnerable and high productivity groups (women), youth employment programs.

It is essential to directly address the financial constraints of the most vulnerable households. To do this, financial transfers (scholarships, resource transfers) and/or in-kind support (school kits, nutritional support, health care) targeting the poorest families should be efficient. A clarification of the regulatory framework, including eligibility and selection criteria for this support targeting the most disadvantaged groups as well as a monitoring system, is necessary.

A number of outreach activities should also be put in place to promote education, reduce child labour and promote access to or even reinsertion in school for children who dropped out (UNICEF 2014).

6.5   Supply-side policies and strategies

Barrier	Strategies to address barriers and bottlenecks
Distance to an adequate school	School mapping to target locations where school infrastructure is still not being provided
	Provide *tabanca* children with bicycles to access schools
	Designing 'safe walk' systems, with community support
Inadequate school infrastructure	Increase provision of infrastructure based on child friendly designs including gender friendly water and sanitation facilities
Attractiveness of private schooling reinforces inequality	Recognition of private schools by the Ministry and strengthened control over their management and fees.
	Expanding public provision of school and preschool infrastructure targeting the most deprived areas
Teacher's strike/ absenteeism	Teachers housing in school
	Guarantee that teachers' salaries are being paid on time using alternative salary payment such as mobile transfer
Competencies of teachers	Promotion of child-centred, participatory teaching and learning methods in schools through in-service and pre-service training
	Address training of unqualified teachers
	Provide coaching to teachers and ensure regular supervision visits by school directors and inspectors
Inadequate school management	Implement interventions to address repetition and improve retention
	Institutionalize school development plans based on quality standards with participatory management by school communities.

Lack of preschool offer	Development of government-led preschool offer to ensure school readiness
	Increase ECD facilities and provide one year of free pre-primary education
Lack of teaching and learning materials	Adequate supply of TLM and storage facilities to ensure a one to one textbook pupil ratio
Language of instruction	Develop a national language of instruction strategy
	Keep report of teachers' mastery of local languages
	Setting an ambitious and pragmatic research agenda in both short and long term to address the language issue taking in consideration the lessons learnt from the pilot experience in the 1990s and the current autogestão schools in the Bijagó Archipelago
Quality of schools to retain children	Develop and implement national quality standards for pre-schools and primary schools to create enabling learning conditions to retain children in school.
	Special attention to be paid to ensure gender responsive and safe environment in school and community.
	Institutionalize regular monitoring of learning through school inspection systems

Some of the largest challenges in addressing OOSC issues at the school level are the inadequate school infrastructure, teacher strikes/absenteeism, unqualified or poorly qualified teachers and the language of instruction. The previous table outlines some of the main strategies related to each of the key barriers and bottlenecks identified in Section 5.

6.5.1   Address training of unqualified teachers

The national teacher training programme for unqualified teachers that will be developed at national level should include and/or give relevance to strategies that address repetition and improve retention of students, by improving teacher education and management skills and promoting a culture of formative assessment and remediation in the classroom throughout the school year. Qualified teachers should also receive training regarding strategies to address repetition and improve retention of students.

Several measures have been planned to happen in the ESP:

- Strengthening of teacher training schools and the creation of additional training schools;
- The improvement of teacher knowledge in Portuguese and mathematics;
- The development of an adapted in-service training programme with additional resources to develop the training sessions.

The Global Partnership for Education is participating financially in the creation of two new decentralized initial teacher training schools and in the elaboration of the continuous professional development programme currently being elaborated.

This will contribute to reducing the dropout rates in primary education and to increase transition rates between the primary and lower secondary education, as previously experienced in other developing countries (Masino and Niño-Zarazúa 2016, Zuilkowski, Jukes, and Dubeck 2016, Ganimian and Murnane 2016, Sabates et al. 2010).

6.5.2 Strengthen non-formal education and TVET

There are children in Guinea-Bissau who only attend alternative schooling (madrassas, koranic centers, and shadow schooling[11]). The participation of children in alternative options of schooling, in particular the madrassas and koranic centers, show the parents/tutors' perceptions of the prestige of this type of schooling.

The ESP includes several objectives regarding non-formal education:

- Deepen, consolidate and extend alternative models of education for adolescents aged 09-14 years and youth aged 15-25;
- Increase the supervision of alternative models of schooling and develop links/ integration between non-formal education initiatives into formal education
- Strengthen the articulation of these alternative models of education with the formal system of education (general and vocational training);
- Develop and implement quality standards in non-formal education as well as a certification and validation mechanisms for training;
- Create Community educational resource centres and develop access to reading and books;
- Implement a training strategy, capacity building and professional empowerment of actors, NGOs, civil society operators and their organizations.

Promote accelerated learning for the persistent over-aged students

As shown in Section 4, there is a considerable number of older children and teenagers who are still attending school in EB1 or EB2. For these students, an accelerated learning program can be the solution.

INDE is currently working with Plan International and UNICEF on an accelerated learning program for out-of-school-children. The programme would reach children between 12-16 years old and would guide them until the certification at the end of Grade 6. Classes will be held in the evening in multi-shift schools and INDE is planning on involving parents and communities.

We would also recommend extending the accelerated learning programme to students who currently are enrolled in a grade at a much older age than they should (for example an 18 years old student enrolled in Grade 4 or 5). These students are so much older than the rest of the class that it is likely they will not learn well in such an environment. Plus, students of so many different ages can be hard to manage for teachers.

> In 1998, Liberia adopted an Accelerated Learning Programme (ALP) for youth aged 8 to 18/24 whose education had been interrupted by the civil war. This program was based on the same model as the primary schools but condensed into 3 years. Students could then transfer from the ALP system to a formal secondary school. The program included four main subjects, and employed Ministry of Education teachers and community teachers. In 2013, the existing ALP textbooks were adapted to design an Accelerated Basic Education Programme targeting specifically OOSC to reduce the high illiteracy rate. These two programs highlighted the need for flexible learning programs that can fill a temporary need.

6.5.3 Expanding public provision of school infrastructure targeting the most deprived areas

Adequate infrastructure is critical to guarantee access and retention and also to provide a positive learning environment for children in school. The data from the previous sections suggests that there is a considerable number of schools that have leaking roofs and structures that are unsafe in adverse weather and cause irregular school participation and attendance. There is also a high number of classrooms that have a precarious construction which makes learning impossible during the rainy season. Another challenge faced by schools is the inadequate and/or the absence of seating/ writing places and overcrowded classrooms and the phenomenon of incomplete schools. Rural areas in Guinea Bissau are currently highly disadvantaged in the access to education. A comprehensive school infrastructure programme targeting rural areas would reduce inequities and should be prioritized.

The ESP includes several measures regarding school infrastructure:

- Development and utilization of the school mapping (including conditions for school creation);

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[11] Private tutoring that mimics the curriculum used by mainstream schools

- Elaboration and implementation of a concerted school construction programme;
- Application of architectural norms for school construction taking into account climate characteristics;
- Identification of effective community involvement practices in school construction;

In addition to these activities, we also recommend the following additional measures:

- Improve temporary school structures in areas where these are to be used for a longer period of time;
- Promote the development of a comprehensive mapping and costing exercise to support investment in pre-school;
- Include the creation of preschool infrastructure next to existing schools in the school construction programme

6.5.4   Develop public preschool to ensure school readiness

The studies reviewed and the qualitative data collected shows the importance of early childhood education initiatives led by communities. It is also clear that these initiatives contribute to: increasing enrolment and improving retention of students in primary education; reducing late entry, and increasing school readiness. Therefore it is necessary to develop a Government-led early childhood development programme.

The Education Sector Plan (2017-2025) plans the construction of 48 new formal pre-school classrooms and the recruitment of 129 new preschool teachers by 2025.

The Ministry of Education with support from UNICEF, Plan International, ESSOR, FEC, is implementing the Child Friendly School + in the region of Gabú, Bafatá, Oio, Quinara and Tombali. 18 Djemberéns - non-formal pre-school structures have already been constructed, and 36 are under way. The project activities include the training of preschool community teachers, and the construction and equipment of the preschool structure. However, communities have to pay the teachers and maintain the preschool. This could be scaled-up easily as it only requires a budget to launch the preschool structure but it is then sustained by the community.

UNICEF also supported the elaboration of early learning standards and are supporting the elaboration of the curriculum promoting activities to promote parental competencies of childcare, awareness raising campaigns of the regional Ministry of Education staff and producing and distributing materials for early childhood care and education. Trained preschool teachers will be certified by the MoE.

All these initiatives should also be coordinated by the Local Pre-School and Early Childhood Care and Education Group, which should progressively be led entirely by the Ministry, to guarantee sustainability.

Creating a full system of public preschool may be too ambitious for now, as Guinea Bissau does not have the necessary resources for it, but the inclusion of one-year pre-primary class as part of the basic education first cycle is recommended. This would improve school readiness. This initiative can also provide high returns on investments by reducing repetition rates and early dropouts.

Recommendations are:

- Promote the scaling up of early childhood development programmes and pre-school infrastructures based on the current pilot projects implemented by UNICEF, Ministry of Education and NGOs.
- Include a year of free pre-primary in EB1.

6.5.5   Develop a national strategy for the language of instruction

The language issue in Guinea-Bissau is complex and is a factor that can contribute to low learning achievement and to students losing interest in learning and participating in school. It was identifiedas one of the key issues that prevented students from learning which had led to low learning results for students causing low retention rates. For instance, most of the parents/tutors and children from grade 1 to 6 from this qualitative study were unable to speak Portuguese. The participants who spoke creole but had a different mother tongue stated that they learned creole in primary school.

The strategies adopted should take into consideration the evidence from pilot studies in Guinea-Bissau (Benson 2003, 2010, Hovens 1994, 2002, Gomes and Pereira 2004, Scantamburlo 2005, 2012) and other similar countries (e.g. in Burkina Faso, Mali, and Niger) where national languages have been used in the early grades, leading to better learning achievement in reading and numeracy and an improved mastery of the official language (French,

in these cases). In these countries, evidence also showed that dropout rates decreased following the change to mother-tongue instruction (Nikièma 2011).

The ESP includes the following measures:

- - The elaboration of a linguistic policy, and tools to implement it and progressively introduce national languages in public life, press and media.
- - The promotion of Portuguese, kriol, and national languages as languages of instruction;
- - Develop a national map of languages used.

The main recommendations regarding the language of instruction are:

- Develop and implement a national strategy for the language of instruction, capitalizing past and current best practices and lessons learned taking into consideration the country's language diversity;
- Develop and implement a national teacher training programme to disseminate and develop teachers' capacities in the national linguistic policy;
- Setting an ambitious and pragmatic research agenda in both short and long term to address this issue, taking into consideration the pilot experience in the 90's and the project that is being implemented since 1998 in the Bijagós Archipelago by the FASPEBI and the Ministry of Education in autogestão schools12;

6.5.6 Establish limitations to grade repetition

The huge grade repetition rate in Guinea Bissau is damaging to student motivation, often provokes early dropout and in addition produces a waste of public resources which should be avoided. Given all the negative effects of the current grade repetition policy on the education system, it is urgent to rethink it in order to significantly reduce the percentage of repeaters in the system. Some measures are included in the ESP:

- Setting up a sub-cycle policy (non-repetition in certain grades)
- Training teachers on evaluation techniques and awareness of the negative effects of repetition,
- Definition and implementation of guidelines on repetition establishing consultation on repetition decisions and prohibiting repetition as a form of sanction,
- Establishment of maxima annual repetition by region,
- Prohibition of the use of bad marks or zeros as punishment for student behavior;

6.6 Political governance, capacity and financial policies and strategies

This section focuses on the key strategies currently in place or envisioned to ensure improved governance and financial efficiency in relation to the OOSC challenge.

Barrier	Strategies to address barriers and bottlenecks
Lack of power of school management committees/ COGEs Lack of accountability at school level	Strengthen their capacity through regular training on school management. Provide them with some resources to develop some activities targeting OOSC to prevent dropout. Formalize and consolidate national policies to clearly define authority in the education system, clarify roles and enable accountability. Develop capacities of the bodies that have been given authority at school level Establish real-time community based monitoring systems through COGES
Weak involvement of parents and	Increase accountability of the schools to parents and communities

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12 See 2015 final evaluation report from the UNESCO project "Improvement of teacher qualification and setting up of a system for the management of learning outcomes in Guinea-Bissau", and Scantamburlo (2005, 2012) and Gomes & Pereira (2004).

communities in the school	Clarify roles and responsibilities of parent committees and empower them and other mechanisms to involve parents in schools
Weak monitoring and evaluation capacity	Elaboration of a simple tracking system for teacher deployment (including community teachers) and OOSC
Lack of communication at all levels	Awareness campaign on existing laws regarding child labour, early marriage, etc
Inequitable and insufficient resource allocation	Revise budget allocation to reflect schools needs in most deprived areas. Provide schools teaching only EB1 and 2 with minimum resources, as they are not allowed to ask for fees.
Insufficient teacher supply, allocation and deployment	Rationalisation of teacher supply and deployment in schools Effective targeting of educational resources to most deprived areas particularly in relation to trained teachers

The major strategies reviewed in this section include 1) creation of an institutional framework to address the OOSC challenge, 2) improvement of school autonomy and accountability, 3) improvement of financial equity, efficiency and effectiveness.

6.6.1   Create an institutional framework to address the challenge of OOSC and early dropout

Enhance education stakeholder coordination around the issue of OOSC and create an institutional framework

A key recommendation would be for the Government to set up an institutional framework to address the challenge of out-of-school children and those at risk of dropping out. This framework would allow an increased coordination between different stakeholders: Ministry of Education, Ministry of Social Affairs, International donors, UN agencies (WFP, UNICEF), NGOs, CSOs. An institutional framework would also clarify roles and responsibilities of each institution in the activities to tackle the OOSC challenge, and would allow a better planning of activities linked to an adequate budget (from external donor support, Government or other sources).

Having national quality standards for pre-schools and primary schools will go a long way in supporting the institutional framework to retain children in schools.

To meet the quantity and diversity of inclusive education needs, it will be essential to rely on NGOs and private organisations, including private schools, community schools, and Koranic centers madrasas. The private sector and NGOs should be mobilized and involved at all levels. Public-private partnerships could support the integration of excluded children in difficult locations (rural, isolated), and with different objectives (support for the transition between school cycles, assistance at the start of the school year, identification of activities for children at risk, etc.) (UNICEF 2014).

An institutional framework should be adopted to promote inclusion activities and prohibit exclusive attitudes towards students. Some restrictions could be announced and communicated to school directors, for example, a ban on excluding or denying access to school for pregnant girls, young mothers, disabled children, children who have not paid their registration fees, children who are too old, children who have not registered their civil status, etc.

Any school exclusion or denied registration should be justified and approved by a local MOE staff, in addition to the school director. All administrative bottlenecks that hamper school enrolment (school fees, birth certificates) should be permanently lifted and an obligation to welcome all children could be formalized.

In the case of denied registration due to lack of space, a solution for transfer to another school nearby should be offered by school principals. If there are no other realistic educational alternatives, the child should be allowed to stay in school. The objective therefore would be to promote affirmative action for the most vulnerable children and formalize an objective of 'zero enrolment refusals' and 'zero dropouts'(UNICEF 2014).

Reinforce control of all schools, including community schools, Madrasas and Koranic centers

Until now, community schools are mostly receiving support from NGOs, but operate outside of the Government's control. DGEPASE mentioned that private schools, community schools and madrasas do not willingly share their statistics with the Government.

Private schools have been expanding over the last decades, in response to state failure. The negative image of public schools reinforces the attraction for private schools from parents and children and for schools to change their status from public school for *autogestão* schools[13]. Private schools/community and *autogestão* schools are able to avoid strikes and provide other working/ studying conditions. Yet, some of these schools are expensive and unaffordable for a considerable number of families/ tutors.

Main recommendations are:

- Explore use of public private/ community partnerships to expand access to school;
- Recognition of private/ community schools by the Ministry of Education and strengthened control over their management, performance and fees.

In addition, koranic centers, madrasas and community schools seem to provide a service adequate to the needs and aspirations[14] of a part of the population. These schools need to be included into the official system, for increased accountability and supervision from the Government and their specificities should be acknowledged.

The Education Sector Plan includes several actions to address the challenge of including madrasas and koranic centers in the official system and supervise them. The Government plans to improve access to community schools and madrasas through 1) progressively bearing the cost of their operating expenses through the assignment of qualified teachers and the distribution of teaching materials, 2) the development of a comprehensive census and mapping of these schools, 3) the development of partnerships between MOE, communities, partner organizations and NGOs to improve the functioning of Community schools and Madrasas.

Since 2008, the MoE has been developing a steering document targeting the integration of madrassas in formal schooling (INDE 2009). These efforts need to be capitalized in order to tackle the OOSC challenge.

A mapping of all these schools is necessary. When possible, community schools, koranic centers and madrasas should be made into mainstream public schools and should receive special support to be able to do this. The official curriculum could be adapted to the specifics of madrasas and Koranic centers and these schools if willing to implement the official curriculum, should be recognised as community schools and included in the formal education system.

Box 6.3. Islamic Education Examples in the Region

The example of Senegal

In Senegal for example, an *Inspection des Daaras* (Daaras Inspection) inside the Ministry of Education supervises all the koranic centers in the country which are following the official curriculum, together with the teaching of Koran. The Ministry of Education supervises these koranic centers and retain control around their creation, teaching activities, etc.

The example of Nigeria

Nigeria has experienced a pragmatic and efficient programme "Cluster Tsangaya", implemented under the Education Sector Support Programme (ESSPIN). Cluster Tsangaya did not focus on mainstreaming the secular education in Koranic centers, but in articulating the teaching of both schools (community school and Koranic centers). This promising example has provided rich lessons so far.

However, a major obstacle to koranic centers modernization in some West African countries has been the Koranic teachers refusing to convert the Koranic institution and blocking all projects that plan to modernize Koranic centers. Other alternatives might be explored, like the Cluster Tsangay experience in Nigeria (see Box 6.3) (UNICEF 2016).

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[13] This change to *autogestão* allows the school to charge fees and other contribution from parents/ tutors to tackle insufficient funding and teacher strikes.

[14] Parents feel it is their obligation to educate their children to koranic centers and by sending children to study the Quran they hope to be rewarded by God (Thorsen 2012)

Collect comprehensive data on OOSC

The MOE decided to develop and set up the mechanisms and activities that guarantee the availability of reliable data on the sector (Ministère de l'Education Nationale 2017). Activities to strengthen data collection, analysis and dissemination will be undertaken with the support of GPE funding.

The first step in improving the measurement of OOSC is to support the activities of DGEPASE, which is charged with carrying out the annual school census and EMIS-related activities (calculating gross/net enrolment rates, submitting data to UNESCO Institute for Statistics, etc.). DGEPASE has a long history of collecting data on enrolments, but due to resource and capacity constraints the only recently available data are for the 2012-13 and 2014-15 school years. Given the importance of data for all government and development partner activities in the education sector, this is clearly an important entity to support and develop.

DGEPASE can also consider adding OOSC indicators to the basic group of indicators they monitor. The inputs for calculating both the OOSC raw total and rate are available since they are also used to calculate the Adjusted Net Enrolment Rate (ANER). So adding basic OOSC indicators to DGEPASE reporting would not entail new data collection, just an expansion of their reporting function.

Finally, additional indicators for OOSC monitoring and analysis should be considered for the DGEPASE school census work. This includes collecting information on students with disabilities and summarizing the reasons for why children are leaving school.

Reinforce communication to prevent dropout

The Government plans to encourage the reduction of late entry to eradicate age-related dropouts, especially for girls, through the improvement of children's birth registration and awareness campaigns targeting parents and communities about the disadvantages of late entry, and the key dates for the school year timetable (registration, exams, holiday period, etc). The awareness campaigns could be facilitated through a cooperation programme between the regional education directorates and the school management committees.

6.6.2   Improve school autonomy and accountability

The Education System in Guinea Bissau is partially decentralized to the regional level and parents and communities are considered to be key partners of the education sector. This strength should be used to give more responsibility and power to regional and local actors in the management of their education system, where the Ministry of Education clearly cannot cover all the needs.

This would however require a better definition and official recognition of their roles, capacity development for local actors and a dedicated budget. The Government, in the Education Sector Plan, plans to strengthen the decentralized institutions of the Ministry of Education and redefine their roles according to the sectorial reform.

Increase school autonomy in planning and management of the school budget

Legal authority over operational funds is centralized in Guinea-Bissau. Schools in Guinea-Bissau do not receive any operating budget, and there is no clear process for school budget planning (Merchant et al. 2018). School fees are only collected for EB3, but the schools offering only grades until EB1 or 2 do not receive any operating budget, thus making the issue of planning and management of the school budget much more complex.

Teachers are hired through the civil service at central level, together with some non-teaching staff. A large number of non-teaching staff are also hired informally by the schools with salaries determined at the school level, but this is not officially recognized.

All schools have the authority to accept funds from other sources and (Dispatch n°10/GM/02) schools are reliant on these funds raised from donors, NGOs, and community, given the lack of centrally-provided resources (Merchant et al. 2018). However, the scope of authority should be more clearly established with written policies to avoid mismanagement and corruption.

The Education Sector Plan includes the objective of providing schools with an operating budget. The Ministry of Education will need to develop policies, procedures and tools for schools to receive an operating budget linked to their anticipated needs for the school year and manage it properly.

One option, detailed in the SABER report, is to start transferring small grants directly to primary schools, using fixed amounts based on school size and location. Then progressively start using the data collected on school performance and local conditions to adjust these amounts.

The Regional Education directorates will need to be strengthened to provide guidance to schools in developing their operating budget plans and control them. At the school level, school directors and school management committees will need to be trained as well. The Government will need to provide them with clear tools and mechanisms to prepare the operating budget plans, and transparency and accountability mechanisms to inform and involve parents and the wider community. Another recommendation is to clearly communicate about the possibility for schools to raise additional funds from a range of actors (NGOs, donors, private sector). However, this raises the question of equity as some schools will be likely to attract more funding than others.

Strengthening COGES for a larger implication of communities/parents in their school

One of the main findings from this study is that parents and communities are not satisfied with the quality of education their children receive. They feel that the investment they are making may not be worth it and consequently, many parents feel disengaged.

Some regulations are already in place regarding accountability of education actors, for example regarding complying with rules for financial management and school operations. However, there is no linkage of rewards or sanctions for compliance, and as such, there is no incentive for schools to improve their operations.

Participation of the School Council in School Governance is a key feature of the education system in Guinea-Bissau. Various forms of school management committees are present throughout the system but none of these school management committees have legal authority over the School Director (Merchant et al. 2018). The COGES already have a role in preparing non-salary budget at school level, but final responsibility lays with the School Director, and COGES do not have any role in supervising learning inputs (Merchant et al. 2018)..

It is important to ensure that people have a trusting relationship with the school and the management of funds should be transparent at all levels: Participation of the school management committee in school administration increases accountability. Collective school improvement planning can provide an enabling environment for better governance (Merchant et al. 2018). School development plans based on quality standards are a useful entry point for better management of schools.

Local control helps create better conditions for improving student learning in a sustainable way, since it gteache rs and parents an opportunity to increase their mutual commitment to student learning and promote a more efficient use of school resources. A real-time community based monitoring using technology can be a possible solution to ensure that schools are monitored better.

In the Education Sector Plan 2017-2025, strengthening the role of parents and communities is identified as a key objective: The objective is to strengthen the role of parents in raising communities' awareness about issues like school performance, learning achievements, repetition, late entry, attendance monitoring and the management of school facilities. The ESP also plans the development of extracurricular activities to stimulate community engagement. This should be done through the systematic establishment of COGES, the development of management tools and adequate training to use them, regular awareness-raising meetings around schooling (Ministère de l'Education Nationale 2017).

The Government will need to work on a clear, harmonized definition and responsibilities for school committees and develop the appropriate policies for the general set up and functioning of these bodies. Some small-scale pilot models exist and their tools could be adapted to a large-scale policy. COGES will need to receive training along with standardized guidelines and tools.

6.6.2.1   Reinforce inspection and school evaluations

Due to the lack of resources, the scope and frequency of inspections have been very limited for the past years and Guinea Bissau lacks regular assessments of school performance. National examinations are not regularly conducted either, and there is no provision for sharing and reporting of the results.

School inspections do not monitor learning outcomes and schools do not conduct self-evaluations. Inspection results and school evaluations do not result in pedagogical or operational adjustments (Merchant et al. 2018). Monitoring of learning outcomes as part of school management system is recommended.

> **Data collected during inspections:**
>
> - Data to monitor the number of students, shifts and teachers
> - Is the teacher on time or not?
> - School and classroom cleanliness
> - use of teaching plans
> - classroom conditions, including language used, student participation, use of time, respect for gender, etc.

A key aspect of school autonomy is the regular assessment of school performance, and the use of the results to inform parents and society and to make adjustments to improve learning.

The ESP includes planned activities to strengthen the pedagogical and administrative supervision of schools through I) the definition and standardization of inspections (development of tools, rules and standard for inspection), ii) the strengthening of the inspectors training, and III) training of school directors in their role as tutors or coaches for teachers.

The main recommendations regarding this section are:

- To enable the implementation of school performance assessments on a precise schedule and use the results to make the necessary adjustments to school operations, human resource needs and pedagogical practices, to improve students' performance.
- To increase the capacity of the Inspectorate to conduct school inspections (provide the necessary resources and train the inspectors)
- Have national quality standards for pre-schools and primary schools. This would support in analysing the results at central level and provide feedbacks to schools on their strength and weaknesses. This would also allow comparison between regions, and between the different types of management structures.
- Alternatively, instead of using inspectors to evaluate schools, school directors and school committees could be trained to utilize a short and standardized self-assessment tool for their schools. Results could be directly used for the elaboration of their operating budget plan.
- School directors should be responsible for monitoring teacher absenteeism closely.

6.6.3   Improving financial equity, efficiency and effectiveness

Targeted budgeting for disadvantaged regions

Public expenditure in education is low in Guinea Bissau, comparing to other countries with similar characteristics. The Government, in the ESP, is committed to:

- Increase the education budget to attain 16,5% of the State budget in 2019 and 20% in 2025, and to find any necessary additional financing to complete the sectorial education plan.
- Increase the budget share for EB1 and EB2

In addition, any additional budget should deliberately target the disadvantaged regions to ensure equity throughout the country: the rural and remote sectors of Guinea Bissau are severely disadvantaged in terms of education services compared to urban areas, who benefit from the best infrastructure, equipment, and human resources.

Improve teacher management

Around 40% of school days were lost in the 2012-2013 school year due to teachers strikes, and multiple months were also lost in the 2015/2016 and 2016/2017 school years (Merchant et al. 2018). Teacher strikes are mainly due to the lack of payment of their salaries, but also to bad working conditions in many cases, especially in rural areas. It is thus urgent to improve teacher satisfaction in order to guarantee good education provision.

The allocation of teachers in primary schools is not regulated: teachers are more numerous, and more experienced in SAB than in rural and remote areas. It is necessary to ensure greater efficiency and equity in the use of public money.

The following recommendations could be applied, some on a very short-term basis and some at longer term:

- Create a computerized tool that is fed by school data to identify understaffed and over-staffed schools and to define reallocations and additional human resources needs;

- Implementation of staff allocation criteria in order to reduce existing regional disparities and apply criteria for deployment in schools within a region. Discourage staff mobility during the school year.

- Establish a teacher motivation framework to encourage teachers who work in a difficult context (isolated or difficult areas) or who provide a specific service (Multi-grade teaching, etc.) to stay in the same school. This framework should include teachers housing when possible, especially in rural areas.

- Strengthen the monitoring of teacher absenteeism.

- Create mechanism for teachers to be paid close to their place of duty to reduce teachers' absenteeism linked to payments far away from their workplace or use alternative salary payment such as mobile transfers.

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8 Appendices

Appendix A. Overall Enrolment Calculations, Figures and Tables

One of the purposes of this study is to provide an updated, comprehensive overview of school attendance in Guinea-Bissau. This is an important first step in the analysis of out-of-school children, and the data inputs that are used to calculate Gross and Net Enrolment indicators can also be used for OOSC calculations (and monitoring). A second objective of this consultancy is to provide support to the Guinea-Bissau government in the analysis and monitoring of out-of-school children. DGEPASE is the entity that is in charge of education statistics management and monitoring, and we worked closely with DGEPASE staff throughout the process to obtain data and also contribute to capacity development and better OOSC monitoring policies through a short workshop conducted in September 2018 with DGEPASE staff as well as staff from other departments.

Table 8-1 provides a summary of primary and lower secondary Gross and Net enrolment rates from 1999 to 2016. This table not only provides a useful summary of progress in basic education participation in the last two decades, but it also makes it possible to compare results across different administrative (DGEPASE), censal (RGHP 2009), household survey (MICS, ILAP) and other data collections (School Manual national survey).

Table 8-1 Summary of Gross and Net Enrolment Rates by Data Source and Level, 1999-2015

Year/Data Source:	Primary		Lower Secondary	
	GER	NER	GER	NER
1999-2000				
MICS	70.8	42.9	12.8	7.7
EMIS	76.5	----	25.4	----
2000-01 (EMIS)	89.9	----	28.5	----
2001-02 (ILAP)				
2003-04 (EMIS)	106.8	----		----
2004-05				
MICS*	112.9	59.4	34.4	4.7
EMIS	114.0	----	39.7	----
2005-06				
MICS	116.9	60.1	20.5	4.3
EMIS	120.0	----	41.4	----
2008-09 (Census)				
Census	100.0	49.7	43.5	5.4
MICS*	119.5	63.9	53.1	13.1
2009-10				
MICS	122.2	66.2	64.2	15.7
EMIS	120.3	----	54.6	----
ILAP	124.8	68.3	74.7	21.6
2010-11 (EMIS)	116.2	----	54.9	----
2012-13				
MICS*	121.4	62.4	60.2	10.0
EMIS	121.7	----	60.7	----
2013-14 (MICS)	119.1	62.0	60.9	9.6
2014-15 (EMIS)+	141.6	----	62.5	----
2015-16 (School Manuals)	122.6	----	----	----

Table 8-1 is just one example of the summaries that were prepared for this study, and shared with Ministry of Education departments (including DGEPASE) during the workshop. One important result from this background work is that the various indicators – including raw enrolment totals –are generally similar across the different data

sources. This does not insure accuracy of any given source of data, but it is nonetheless encouraging that the numbers are similar. One complication in this work is the various sources of population projection data that are available in the country, which are provided by INE, United Nations, UNESCO Institute of Statistics (UIS) and also the RESEN (2013) report. Calculations related to GER, NER and OOSC depend on an underlying population by age range to be calculated, so it is imperative that the country continue to work towards improving the availability (and accuracy) of population figures.

Table 8-2 Age-Specific Attendance Rates, by Level of Education and Gender (MICS 2014)

Age	Pre-Primary	Primary	Lower Secondary	Upper Secondary	Tertiary	Total
Females:						
5	27.1	15.3	0.0	0.0	0.0	42.4
6	22.6	31.8	0.3	0.0	0.0	54.6
7	15.2	56.5	0.0	0.0	0.0	71.7
8	13.4	63.3	0.0	0.0	0.0	76.7
9	6.9	72.2	0.0	0.0	0.0	79.1
10	4.5	73.5	0.8	0.0	0.0	78.8
11	1.5	80.1	0.7	0.0	0.0	82.2
12	1.5	79.2	2.9	0.0	0.0	83.6
13	0.7	69.4	9.5	0.3	0.0	79.9
14	0.0	65.1	14.9	0.7	0.0	80.7
15	0.0	55.6	15.1	2.9	0.0	74.1
16	0.3	41.6	22.3	8.3	0.0	72.6
17	0.5	26.4	25.3	9.4	0.0	61.6
Males:						
5	24.1	15.3	0.0	0.0	0.0	39.4
6	23.0	32.1	0.0	0.0	0.0	55.1
7	16.6	49.9	0.0	0.0	0.0	66.4
8	9.3	64.4	0.0	0.0	0.0	73.7
9	4.7	71.7	0.3	0.0	0.0	76.6
10	2.3	81.8	0.7	0.0	0.0	84.8
11	1.1	82.6	1.5	0.3	0.0	85.5
12	1.1	80.9	3.2	0.0	0.0	85.1
13	4.9	71.6	8.2	0.2	0.0	80.5
14	0.2	66.6	17.5	1.9	0.0	86.1
15	0.3	48.4	22.0	7.2	0.0	77.9
16	0.2	42.3	28.7	11.1	0.0	82.3
17	0.0	32.6	31.4	10.7	0.0	74.8
Total:						
5	25.7	15.3	0.0	0.0	0.0	40.9
6	22.8	32.0	0.1	0.0	0.0	54.9
7	15.9	53.1	0.0	0.0	0.0	69.0
8	11.3	63.9	0.0	0.0	0.0	75.1
9	5.8	71.9	0.1	0.0	0.0	77.9
10	3.4	77.5	0.7	0.0	0.0	81.7
11	1.3	81.5	1.1	0.2	0.0	84.1
12	1.3	80.1	3.0	0.0	0.0	84.4
13	0.6	70.5	8.9	0.2	0.0	80.2
14	0.0	65.9	16.3	1.3	0.0	83.6
15	0.2	51.9	18.7	5.2	0.0	76.1
16	0.3	42.0	25.5	9.7	0.0	77.5
17	0.2	29.6	28.4	10.1	0.0	68.3

Data source: MICS (2014)

Table 8-3 Percentage of Pre-Primary Age Children who Are Not in Pre-Primary or Primary Education by Gender and Other Characteristics (MICS 2014)

Age	Not Attending School	Attending Pre-Primary	Attending Primary School	Attending Either Pre-Primary or Primary
		Females:		
Residence:				
Urban	35.7	49.5	14.8	64.3
Rural	71.7	12.7	15.6	28.3
Wealth Index Quintile:				
Quintile 1	73.9	9.8	16.3	26.1
Quintile 2	65.8	15.2	19.0	34.3
Quintile 3	69.0	20.2	10.8	31.0
Quintile 4	52.3	36.2	11.4	47.7
Quintile 5	22.7	58.9	18.4	77.3
Religion:				
Catholic	35.4	50.9	13.8	64.7
Muslim	64.5	22.2	13.3	35.5
Anemista	61.2	21.4	17.4	38.8
Language:				
Crioulo	31.1	52.9	16.0	68.9
Fula	73.5	14.0	12.5	26.5
Balanta	67.5	14.1	18.4	32.5
Mandiga	87.9	7.3	4.7	12.1
Child Labour Status:				
Child labourer	59.3	31.1	9.6	40.7
Not child labourer	48.3	32.1	19.5	51.7
TOTAL	57.6	27.1	15.3	42.4
		Males:		
Residence:				
Urban	32.3	50.7	17.0	67.7
Rural	74.2	11.4	14.4	25.8
Wealth Index Quintile:				
Quintile 1	76.0	11.2	12.8	24.0
Quintile 2	72.7	12.9	14.4	27.3
Quintile 3	73.0	14.1	13.0	27.1
Quintile 4	39.0	41.8	19.2	61.0
Quintile 5	17.9	62.2	19.9	82.1
Religion:				
Catholic	37.7	42.7	19.6	62.3
Muslim	64.5	20.7	14.8	35.5
Anemista	75.0	14.2	10.9	25.0
Language:				
Criolo	33.8	46.1	20.1	66.2
Fula	63.8	17.3	19.0	36.2
Balanta	71.3	15.6	13.1	28.7
Mandiga	81.5	10.5	8.0	18.5
Child Labour Status:				
Child labourer	52.4	25.2	22.4	47.6
Not child labourer	63.9	22.6	13.5	36.1
TOTAL				
		Total:		
Residence:				
Urban	34.2	50.0	15.8	65.8
Rural	73.0	12.0	15.0	27.0
Wealth Index Quintile:				
Quintile 1	75.1	10.6	14.4	24.9
Quintile 2	69.3	14.0	16.7	30.7
Quintile 3	70.8	17.5	11.8	29.2

Quintile 4	45.3	39.2	15.6	54.7
Quintile 5	20.9	60.1	19.0	79.1
Religion:				
Catholic	36.5	46.9	16.7	63.5
Muslim	64.5	21.5	14.1	35.5
Anemista	68.3	17.7	14.0	31.7
Language:				
Criolo	32.3	49.9	17.8	67.7
Fula	68.9	15.5	15.5	31.1
Balanta	69.6	14.9	15.5	30.4
Mandiga	84.5	9.0	6.5	15.5
Child Labour Status:				
Child labourer	49.9	29.4	20.7	50.0
Not child labourer	62.1	25.8	12.0	37.9
TOTAL	59.1	25.7	15.3	40.9

Data source: MICS (2014)

Table 8-4 Percent and Number of Primary School Age Children Out of School, by Age, Gender and Other Characteristics (MICS 2014)

Age	FEMALE:		MALE:		TOTAL:	
	Percent (%)	Number out of school	Percent (%)	Number out of school	Percent (%)	Number out of school
Age						
6	67.9	13,739	67.9	16,310	67.9	30,049
7	43.5	8,978	50.1	10,675	46.9	19,653
8	36.7	6,789	35.6	7,200	36.2	13,988
9	27.8	5,661	28.1	5,415	27.9	11,076
10	25.7	4,797	17.5	3,021	21.8	7,817
11	19.3	3,000	15.6	3,041	17.2	6,041
Residence:						
Urban	26.7	13,443	24.6	11,562	25.7	25,005
Rural	46.4	29,520	45.8	34,099	46.1	63,619
Wealth Index Quintile:						
Quintile 1	42.1	9,225	43.6	11,632	42.9	20,857
Quintile 2	47.4	10,626	48.2	12,481	47.8	23,107
Quintile 3	43.7	10,405	43.7	11,032	43.7	21,437
Quintile 4	31.6	7,877	27.9	6,558	29.8	14,435
Quintile 5	23.1	4,831	19.6	3,958	21.4	8,789
Religion:						
Catholic	22.2	4,994	21.0	4,883	21.6	9,877
Muslim	47.7	26,720	46.7	27,948	47.2	54,668
Anemista	35.3	7,482	38.6	9,274	37.0	16,756
Language:						
Criolo	23.8	9,549	20.2	7,904	22.0	17,453
Fula	48.3	12,892	50.7	13,410	49.5	26,301
Balanta	37.4	6,249	39.9	8,663	38.8	15,092
Mandiga	61.4	8,528	58.3	9,484	59.7	18,011
Child Labour Status:						
Child labourer	35.2	7,364	33.4	5,596	34.4	12,960
Not child labourer	35.2	2,953	39.8	5,305	38.0	8,259
TOTAL	37.7	42,963	37.6	45,661	37.6	88,624

Data source: MICS (2014)

Table 8-5 Percent and Number of Primary School-Age Children Out of School by Gender, 2000-2014

	FEMALE:		MALE:		TOTAL:	
	Percent (%)	Number out of school	Percent (%)	Number out of school	Percent (%)	Number out of school
MICS Year:						
2000 (7-12)	60.2	65,045	52.8	57,049	56.5	122,094
2006 (7-12)	39.3	48,016	37.4	49,702	38.3	97,693
2010 (7-12)	35.9	41,579	31.7	37,263	33.7	78,645
2014 (6-11)	37.7	42,963	37.6	45,661	37.6	88,624

Data source: MICS 2000, 2006, 2010, 2014

Table 8-6 School Exposure of Primary School-Age Out of School Children, by Gender (MICS 2014)

School Exposure:	FEMALE: (%)	MALE (%)	TOTAL (%)
Left school	7.8	8.3	8.2
Expected to enter in future	70.8	78.6	74.6
Expected to never enter	21.4	13.1	17.2

Data source: MICS 2014

Table 8-7 Percent and Number of Lower Secondary School Age Children Out of School, by Age, Gender and Other Characteristics (MICS 2014)

Age	FEMALE:		MALE:		TOTAL:	
	Percent (%)	Number out of school	Percent (%)	Number out of school	Percent (%)	Number out of school
Age						
12	17.9	2,664	15.9	2,705	16.9	5,370
13	20.8	3,930	20.0	3,669	20.4	7,599
14	19.3	2,599	14.1	2,091	16.5	4,690
Residence:						
Urban	7.2	1,667	7.6	1,699	7.4	3,366
Rural	31.4	7,526	24.4	6,766	27.6	14,293
Wealth Index Quintile:						
Quintile 1	21.3	1,699	19.0	1,829	20.1	3,528
Quintile 2	30.4	2,570	25.8	2,609	27.9	5,178
Quintile 3	33.3	3,149	21.9	2,279	27.3	5,428
Quintile 4	12.0	1,184	11.2	1,042	11.6	2,225
Quintile 5	5.2	592	6.5	707	5.8	1, 299
Religion:						
Catholic	2.7	309	6.2	735	4.5	1,044
Muslim	32.4	7,149	27.6	6,451	29.9	13,600
Anemista	16.1	1,383	9.1	800	12.6	2,183
Language:						
Criolo	4.1	799	4.4	806	4.3	1,605
Fula	41.3	4,069	33.4	3,177	37.4	7,246
Balanta	15.2	1,006	11.4	935	13.1	1,941
Mandiga	51.3	2,334	37.1	2,609	42.6	4,943
Child Labour Status:						
Child labourer	18.3	1,182	4.5	1,496	14.6	2,679
Not child labourer	14.3	280	15.7	25	15.0	306
TOTAL	19.5	9,193	16.9	8,465	18.1	17,659

Data source: MICS (2014)

Table 8-8 Percent and Number of Lower Secondary School-Age Children Out of School by Gender, 2000-2014

	FEMALE:		MALE:		TOTAL:	
	Percent (%)	Number out of school	Percent (%)	Number out of school	Percent (%)	Number out of school
MICS Year:						
2000 (13-15)	58.2	22,232	44.8	18,208	51.3	40,445
2006 (13-15)	36.0	16,713	31.2	14,778	33.6	31,513
2010 (13-15)	31.3	15,996	20.9	10,774	26.2	26,882
2014 (12-14)	19.5	9,193	16.9	8,465	18.1	17,658

Data source: MICS 2000, 2006, 2010, 2014

Table 8-9 School Exposure of Lower Secondary School-Age Out of School Children, by Gender (MICS 2014)

School Exposure:	FEMALE: (%)	MALE (%)	TOTAL (%)
Left school	38.2	40.3	39.2
Expected to enter in future	11.7	14.6	12.8
Expected to never enter	50.1	45.2	48.1

Data source: MICS 2014

Figure 8-1 OOSC Status for Primary Age Children by SES Quintile, MICS 2014
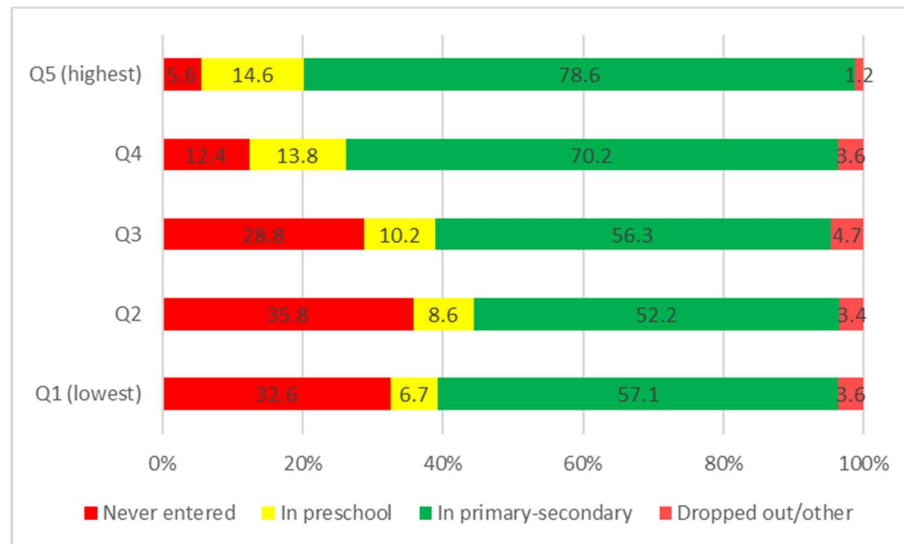
Source: MICS 2014

Figure 8-2 OOSC Status for Lower Secondary Age Children by Location, MICS 2000-2014
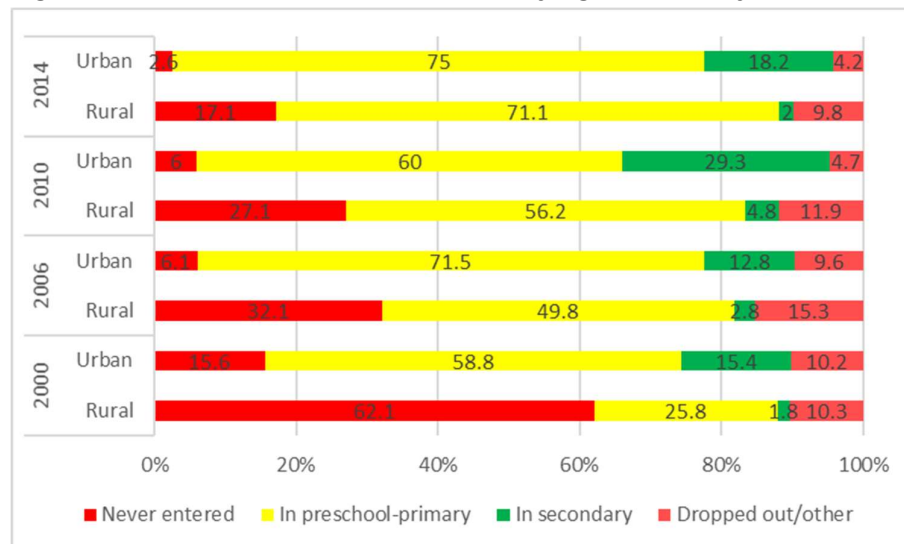
Source: MICS 2014

Figure 8-3 OOSC Status for Lower Secondary Age Children by SES Quintile, MICS 2014
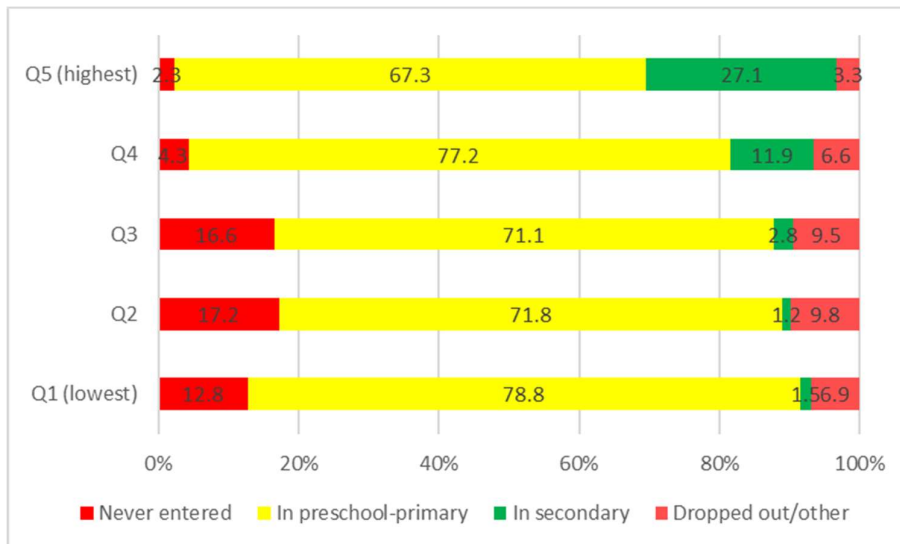
Source: MICS 2014

Figure 8-4 OOSC Status for Primary Age Children by Region, MICS 2014
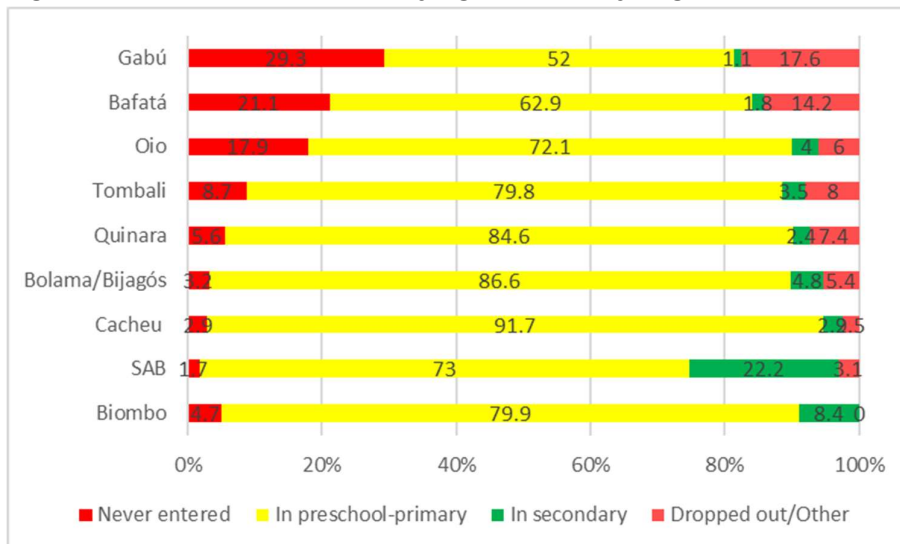
Source: MICS 2014

Figure 8-5 Age of Students Entering EB3 (Grade 7), MICS 2014
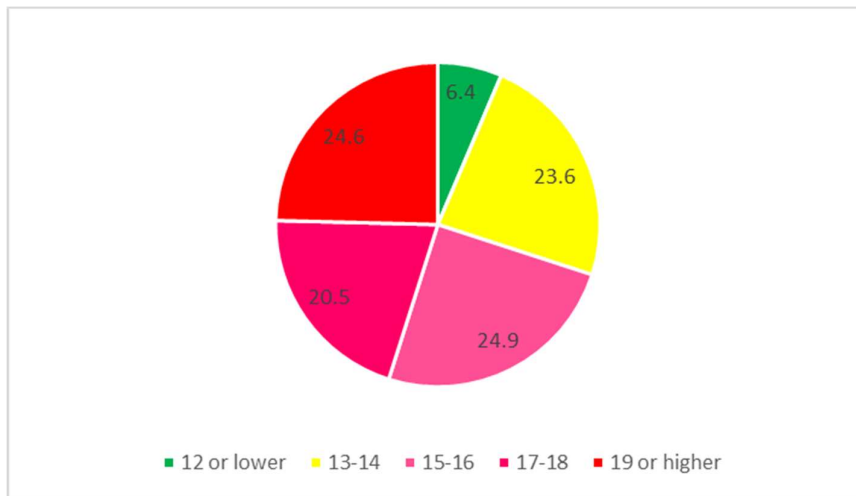
Source: MICS 2014

Figure 8-6 Percentage Enrolled in School by Age and Education Level, 2014 MICS
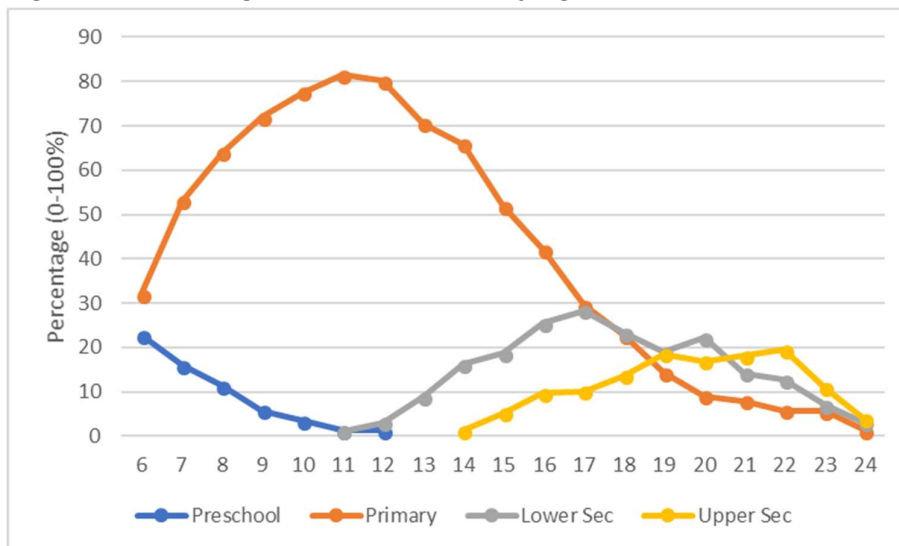
Source: MICS 2014

Figure 8-7 Grade Attainment by Gender and Region, 2014 MICS
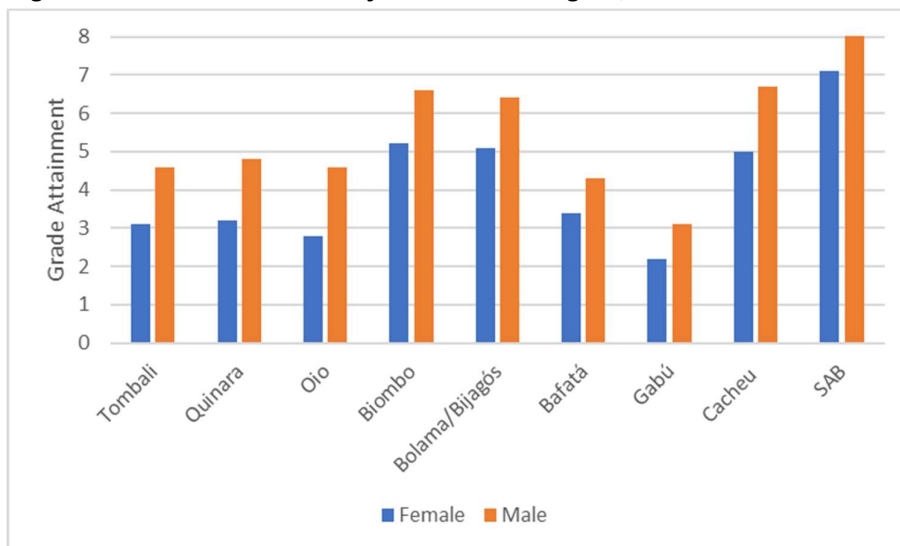
Source: MICS 2014

Figure 8-8 School attendance summary for children age 12-17 by Religion and SES Quintile in Oio, Bafatá and Gabú regions, 2014 MICS
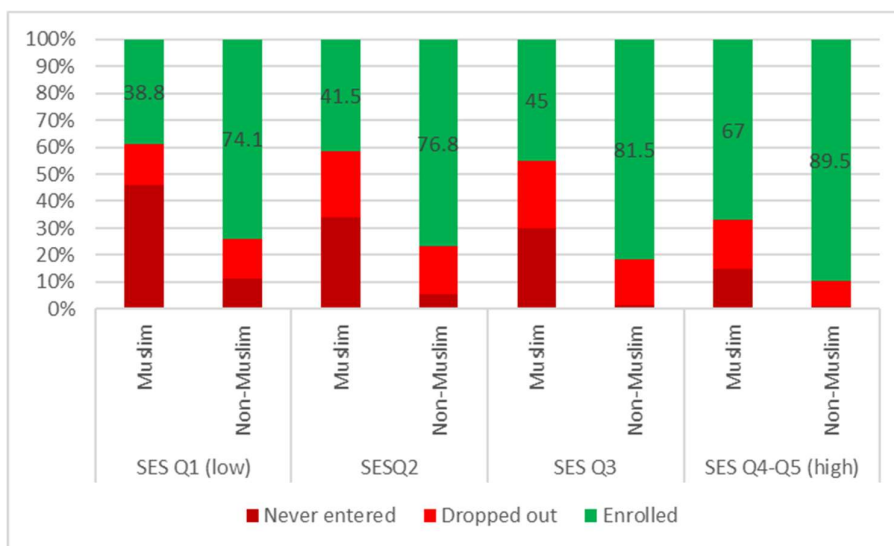
Appendix C: Multivariate Analysis of MICS 2014

Sections 3, 4 and 5 have identified a number of variables that are associated with OOSC status in sample-based (e.g. MICS) and administrative data (DGEPASE), or were identified in the qualitative interviews. But with so many potential factors related to OOSC it is only natural to ask which ones are the really determinant, or most important predictors? Answering this question poses a considerable challenge, and it is important to state up front that it is not possible to provide an exhaustive review of the relative importance of all of the factors that have been identified in the quantitative and qualitative data sources.   Nevertheless, it is necessary to address this question based on the information that is available.

In this section we use multivariate analysis methods to analyze the 2014 MICS data in more detail. The purpose is to identify child, family and contextual characteristics that are significantly associated with different measures of OOSC. The MICS data include multiple outcomes that are related to OOSC (never entered school, current attendance, grade attainment), as well as a large number of potential predictors of these outcomes. With multivariate analysis it is possible to simultaneously consider the effect of each independent variable on the outcome while controlling for other variables. This ability to consider multiple variables is the defining feature of multivariate analysis, which in turn facilitates the work of identifying variables that stand out as predictors.

The statistical model takes the form:

$$Y_{in} = \beta'_X X_i + \beta'_C C_n + \beta'_R R_n + \epsilon_i \qquad\qquad (1)$$

where outcome *Y* for individual *i* who resides in cluster *n* is analyzed as a function of independent variables that include individual and family characteristics (*X*), cluster-level measures (*C*) (like urban-rural), and a set of regional controls (*R*). Clusters refer to the 341 sampling units used in the MICS data collection, with each cluster including up to 20 households. Three dependent variables are incorporated: ever attended school, currently attending school (in 2014), and grade attainment. Because they are binary outcomes, logistic regression is used for the ever and current attendance dependent variables; a censored normal regression specification is incorporated for grade attainment.[15] Additional extensions include a fixed effects (FE) model that replaces the cluster (*C*) and region (*R*) controls with cluster-specific controls; this model allows for more precise estimation of individual and family-level measures, but cannot be used in all models.[16]

The specifications also vary by age group of the study subjects, the independent variables that are included and location.   For example, young adults (15 and over) were asked questions about marriage and child-rearing, which makes it possible to analyze the effect of these factors on current attendance and grade attainment in a sub-sample of older children. Separate estimations are also included for females and males, and for a rural-only sub-sample.

The results that are generated in this analysis are extensive. Three tables are presented below that summarize the covariates of current attendance (Table 9.2), grade attainment and ever attended (Table 9.3), and current attendance and grade attainment in rural areas only (Table 9.4).

Finally, it is important to restate that the results generated by equation 1 are interpreted as statistical associations rather than causal effects. The cross-sectional data are only measured in one point in time ("snapshot"), which means it is not possible to look at a trend over time (like school attendance year after year) and see how individual variables predict departing from trend. The purpose of this analysis is therefore to identify variables that are statistically significant predictors of OOSC outcomes and grade attainment, and add this information to the discussion about the key factors that determine OOSC. The main findings are detailed in the next section, and are also briefly referenced in Section 5.6.

Summary of Results

For the current attendance and ever attended dependent variables the presented coefficients are marginal effects, which are interpreted as percentage changes in the odds (or likelihood) of a positive outcome. For

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[15] The censored normal regression (cnreg command in Stata version 14.0) is applicable because of the censored nature of the dependent variables which occurs when the survey takes place before the individual has completed their education (right hand censoring). This results in a bunching up of values at the lower range of the distribution.

[16] For the ever attended dependent variable the problem is that in a large number of clusters there is no variation, so these cases are dropped. The fixed effects extension is not possible in the censored normal regression model for attainment, although the results do not vary much when using fixed effects with a regular linear model. Finally, the sampling weights cannot be included in the FE extensions, which is another possible limitation.

example, the -0.042 coefficient for Female in the first estimation in Table 9.2 means that girls are 4.2 percent less likely than boys, *ceteris paribus*, to be currently enrolled in school. The term *ceteris paribus* refers to "all else being equal", which is another way of saying "when controlling for other variables in the model." For the grade attainment dependent variable the coefficients refer to the number of years of education. To aid interpretation the mean for each dependent variable is displayed at the bottom of each column. Also, continuous variables (like number of household members) are standardized (z-score), which means they are interpreted on the basis of how one standard deviation increase impacts the dependent variable.

The main findings are summarized by independent variable grouping.

Gender. Female have less education than males in the 2014 MICS, even when controlling parental education and SES. Girls aged 6-22 are 4.2 percent less likely to be currently (2014) enrolled in school than males (Table 9.2), and they have attained 1.2 fewer years of education (Table 9.3). The grade attainment gap stands out since the overall average for 6-22 year olds is only 2.9 years. In rural areas the gaps are even larger: males are roughly seven percent more likely to be in school, and they have attained 1.4 years more than females (Table 9.4).

Additional differences between females and males are referenced within the other independent variable blocks.

Household demographics. Female headed households are not associated with much of an impact on education, although girls generally fare better in these household. When the mother is not living in the home (see variables for Mother's education) the consequences fall mainly on the girl: they are significantly less likely to be in school (Table 9.2), especially in rural areas (Table 9.4). However, there is no effect of absent mothers on grade attainment for girls (or boys) (Table 9.3).

The number of people in the home is also significantly associated with schooling. School attendance is negatively associated with the number of children aged 0-5 who are in the home, and positively associated with the number of young people aged 6-17 (Table 9.2). These results suggest that some children need to stay at home to take care of younger siblings, while the presence of more school-aged children may facilitate attendance by having older children accompany younger ones to school, or by sharing work chores. Girls are again more significantly impacted by siblings, especially the presence of younger ones, and the effect is larger in rural areas (Table 9.3).

Finally, there is no evidence that grandchildren, cousins or formally adopted children fare worse than household head children in terms of schooling. Children who are more distant relatives, or are not related to the HH, do have very different school attendance and grade attainment rates. But there are relatively few of these cases (especially non-related children).

Parental Education. The father's education level has a stronger overall effect on schooling than the mother's education. For example, children with fathers who have secondary education or higher are about 10 percent more likely to be in school than children whose fathers never attended school; the corresponding effect for the mother's education is about 6 percent (Table 9.2). However, the mother's education is more significant for female children, while the father's education has a relatively larger effect on the males' education.

SES. The MICS data include different measures for socioeconomic status (SES) of the household, with separate urban and rural measures that are based on different variables. The results in Tables 9.2-9.4 are presented using quintiles, with the poorest households (quintile 1) as the reference category. As expected, the results show that families with more resources are much more likely to have children in school, and those children advance farther. For instance, quintile 5 young people have 3-5 full years more completed education than quintile 1 children, even when controlling for other differences like location and parental education.

Other secondary indicators of SES are also significant, although they are not as impactful (or consistent) as the quintile measures. When the household reports having a bank account, children are more likely to be in school, and accumulate more years of education. However, it is interesting that this is only significant for male children, and not for females. Also, the presence of mosquito nets in the household—which is included as an indicator of family resources and concern about health—is moderately (but significant) associated with schooling in most of the estimations. Although the impact is smaller in rural areas (Table 9.4).

Religion and Language. It was already shown in Sections 3-5 that children from muslim households are less likely to be in school. With multivariate analysis we can make a more fine-grained comparison by controlling for region and household SES, among other variables, in order to help isolate the association between education and religion. The results in Tables 9.2-9.4 are very consistent, and show that children from muslim households

are significantly less likely to be in school, and complete fewer grades, than the reference category (Catholics). The effect is generally more negative for females. For example, muslim girls aged 6-22 are 13.2 percent less likely than Catholic girls to be in school (Table 9.2), whereas for muslim boys the gap with their Catholic counterparts is about half as large (7.4 percent). The corresponding differences in overall grade attainment are 3.96 fewer years completed for girls, versus 2.3 fewer years for boys (Table 9.3). These very large, significant marginal effects on education outcomes suggest cultural factors are relevant, and that the differences in muslim households (compared with other groups) are not explained by a greater concentration of these families in poorer regions of the country. Nevertheless, it is important to restate that muslim boys are also less engaged in education, so gender alone is not the driving force in this dynamic.

The language results also show significant differences in attendance and attainment between the reference category (Criolo) and children who speak Fula, Mandiga and, to a lesser degree, Balanta and Papel. These significant effects may also be related to cultural perceptions about education, but they may also be related to regional variation in school quality (including access) and labor market dynamics.

Marriage and child-bearing. Table 9.2 (columns 6-7) summarizes the results for a sub-sample of young people who were selected for the MICS follow-up surveys on marriage and child bearing. The age group is restricted to 15-22, but given the problem with overage enrolment in Guinea-Bissau this is not a serious limitation. Three results stand out. First, even when controlling for religion, SES, region, etc., females who report genital mutilation (FGM) are significantly less likely to be in school than females who have not had this procedure. One possible explanation is related to physical side-effects of the actual procedure, which can impact daily attendance.

Second, married females aged 15-22 are roughly 25 percent less likely to be in school than non-married females, but for married males in this same age group there is no significant association with school attendance. It is not surprising that married females are less likely to attend school, but the lack of an effect for males is unexpected.

Finally, school attendance for both females and males is negatively associated with having children. For females the effect is larger: females aged 15-22 who reporting having had at least one child are about 19 percent less likely than non-mothers to be currently attending school (Table 9.2, Column 6). The corresponding effect for males is about 14 per cent.

Land holdings and child labor. For the rural-only estimations (Table 9.4) the family's land holdings are included as predictors. The results show that school attendance is marginally lower in households with less land, but it is interesting to note that children from households with very large land holdings are not more likely to be in school (or attain more grades).

In separate analyses (not presented) the child labor information collected by MICS for 6-14 year olds was included in the analysis. The results show that male children are significantly less likely to be in school when they report more work in economic-oriented activities (like agriculture). But overall there is not evidence of a strong tradeoff between work and schooling. This could reflect the seasonal nature of work in Guinea-Bissau (especially related to cashew harvest), which can be difficult to capture in household surveys. It is also possible that older children are able to combine work and schooling, perhaps by attending irregularly.

Table 8-10 Summary of Covariates of Current School Attendance, 2014 MICS

Independent Variable	Ages 6-22			Ages 6-22 (Fixed Effects)		Ages 15-22 (with extra variables):	
	National (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)
Female	-0.042** (-5.49)	----	----	----	----	----	----
Age	0.009** (5.75)	0.006** (2.80)	0.013** (5.85)	0.008** (3.52)	0.017** (7.89)	-0.007 (-1.28)	-0.056** (-7.11)
Relation to household head (reference= child):							
Grandchild	0.009 (0.61)	0.006 (0.31)	0.015 (0.84)	0.017 (0.82)	0.025 (1.46)	0.038 (1.02)	0.013 (0.28)

Cousin	-0.018	-0.018	-0.016	-0.026	-0.034*	-0.029	0.052+
	(-1.54)	(-1.13)	(-1.05)	(-1.52)	(-2.41)	(-1.25)	(1.75)
Adopted	0.023	0.027	0.015	-0.017	-0.026	0.029	0.163*
	(0.74)	(0.72)	(0.39)	(-0.38)	(-0.65)	(0.49)	(1.93)
Other without relation	-0.217**	-0.169+	-0.257**	-0.076	-0.235**	-0.343**	-0.122
	(-4.34)	(-1.62)	(-4.47)	(-0.80)	(-3.60)	(-3.41)	(-1.25)
Other relation	-0.138**	-0.178**	-0.042+	-0.235**	-0.027	-0.030	0.005
	(-9.03)	(-10.09)	(-1.79)	(-11.09)	(-1.42)	(-1.22)	(0.14)
Household head= Female	-0.004	0.005	-0.012	0.009	-0.014	-0.021	-0.021
	(-0.31)	(0.31)	(-0.76)	(0.62)	(-1.03)	(-1.08)	(-0.68)
Household head religion (reference= Catholic):							
Evangelical	0.008	-0.020	0.031	0.009	0.042+	-0.006	0.013
	(0.34)	(-0.59)	(1.10)	(0.34)	(1.78)	(-0.17)	(0.28)
Muslim	-0.107**	-0.132**	-0.074**	-0.106**	-0.040+	-0.071**	-0.020
	(-5.89)	(-6.54)	(-2.93)	(-4.41)	(-1.70)	(-2.52)	(-0.46)
Anemista	-0.051**	-0.074**	-0.029	-0.049*	-0.020	-0.033	-0.003
	(-2.72)	(-3.25)	(-1.18)	(-2.07)	(-0.91)	(-1.13)	(-0.07)
Mother's education (reference=none):							
Primary	0.065**	0.072**	0.053**	0.061**	0.034*	0.087+	-0.116
	(4.32)	(3.75)	(2.93)	(3.19)	(2.14)	(1.86)	(-1.52)
Secondary or more	0.060*	0.055+	0.056	0.050	0.033	0.046	0.01
	(2.28)	(1.80)	(1.39)	(1.42)	(1.13)	(0.48)	(0.00)
Mother not in home	-0.034*	-0.052*	-0.014	-0.077**	-0.037+	0.010	-0.102*
	(-2.14)	(-2.26)	(-0.58)	(-3.11)	(-1.69)	(0.35)	(-1.98)
Father's education (reference= none):							
Primary	0.064**	0.056**	0.070**	0.042*	0.068**	0.097**	0.161**
	(4.46)	(3.01)	(4.24)	(2.11)	(4.08)	(2.69)	(2.78)
Secondary or more	0.102**	0.089**	0.114**	0.099**	0.112**	0.074	0.01
	(4.78)	(2.93)	(4.08)	(2.73)	(3.94)	(1.47)	(0.00)
Father not in home	0.028+	0.008	0.038*	-0.009	0.046**	0.089**	0.073
	(1.90)	(0.36)	(2.20)	(-0.41)	(2.76)	(2.89)	(1.34)
Family SES quintile (reference=Q1)							
Quintile 2	0.040**	0.049**	0.029+	0.073**	0.012	0.032	-0.090*
	(3.18)	(3.13)	(1.88)	(3.93)	(0.82)	(1.48)	(-2.53)
Quintile 3	0.072**	0.076**	0.061**	0.095**	0.044**	0.043+	-0.002
	(4.69)	(3.91)	(3.26)	(4.55)	(2.59)	(1.83)	(-0.04)
Quintile 4	0.100**	0.094**	0.102**	0.0117**	0.083**	0.073**	-0.033
	(5.51)	(4.21)	(4.20)	(4.71)	(3.99)	(2.66)	(-0.70)
Quintile 5 (highest)	0.141**	0.155**	0.116**	0.232**	0.113**	0.115**	-0.024
	(5.63)	(5.36)	(3.21)	(6.61)	(3.74)	(3.13)	(-0.39)
Number of household members:							
0-5 years old	-0.030**	-0.036**	-0.019**	-0.036**	-0.011+	-0.018*	-0.017
	(-3.61)	(-5.00)	(-2.74)	(-5.02)	(-1.78)	(-2.32)	(-1.03)
6-17 years old	0.018**	0.023**	0.014*	0.022**	0.018**	0.010	0.025
	(3.06)	(2.95)	(2.04)	(3.29)	(3.02)	(0.94)	(1.43)
18-59 years old	0.010	0.007	0.011	-0.0001	0.009	0.008	-0.002
	(1.58)	(0.83)	(1.56)	(-0.01)	(1.47)	(0.88)	(-0.09)
60 or older	-0.005	-0.002	-0.006	0.001	-0.010*	-0.009	-0.020+
	(-1.16)	(-0.49)	(-1.09)	(0.05)	(-2.06)	(-1.12)	(-1.63)
Language spoken in home (reference= Criolo):							
Fula	-0.109**	-0.110**	-0.112**	-0.110**	-0.130**	-0.063**	-0.170**
	(-6.00)	(-4.88)	(-4.62)	(-4.16)	(-4.43)	(-2.50)	(-3.74)

Balanta	-0.030+	-0.017	-0.041+	-0.009	-0.044+	-0.014	-0.086+
	(-1.72)	(-0.71)	(-1.81)	(-0.32)	(-1.70)	(-0.52)	(-1.77)
Mandiga	-0.172**	-0.194**	-0.156**	-0.179**	-0.142**	-0.168**	-0.205**
	(-8.07)	(-7.79)	(-5.76)	(-6.29)	(-4.56)	(-4.75)	(-3.47)
Manjaco	0.021	0.041	0.007	0.057	0.124*	0.027	0.050
	(0.64)	(1.06)	(0.15)	(1.08)	(2.22)	(0.58)	(0.81)
Papel	-0.051+	-0.028	-0.078*	-0.029	0.026	0.002	-0.132*
	(-1.82)	(-0.88)	(-2.34)	(-0.69)	(0.66)	(0.06)	(-1.94)
Family has bank account	0.040*	0.028	0.060**	0.035	0.072**	0.021	0.137**
	(2.20)	(1.21)	(2.64)	(1.44)	(2.95)	(0.83)	(3.05)
Ratio of mosquito nets to HH members	0.016**	0.016*	0.015**	0.014*	0.015**	0.013+	0.013
	(3.20)	(2.42)	(2.66)	(2.12)	(2.56)	(1.67)	(1.10)
Rural cluster	-0.110**	-0.117**	-0.104**	----	----	-0.108**	-0.180**
	(-7.16)	(-6.55)	(-5.18)			(-4.81)	(-5.81)
FGM	----	----	----	----	----	-0.055*	----
						(-2.06)	
Ever married	----	----	----	----	----	-0.236**	0.011
						(-9.85)	(0.18)
Ever had children	----	----	----	----	----	-0.188**	-0.138**
						(-11.82)	(-3.53)
Dependent variable mean	0.69	0.67	0.72	0.67	0.72	0.66	0.53
Region controls?	Yes	Yes	Yes	No	No	Yes	Yes
Sample Size (n)	18,819	9,111	9,708	8,873	9,434	3,456	1,634
Pseudo-R^2	0.26	0.31	0.22	----	----	0.46	0.29

Data source: MICS (2014)

Notes: **Current Attendance** =1 if person reported attending school during 2013-14 school year. Additional predictors (not presented) include control for month of survey and region controls. T-statistics (parentheses) are corrected for clustering at sample cluster level. **Coefficient significant at $p<=0.01$ level; *Coefficient significant at $p<=0.05$ level; +Coefficient significant at $p<=0.10$ level

Table 8-11 Summary of Covariates of Grade Attainment and Ever Attended School, 2014 MICS

Independent Variable	Grade Attainment Ages 6-22:			Ever Attended School Ages 6-17:	
	National (1)	Female (2)	Male (3)	Female (4)	Male (5)
Female	-1.19**	----	----	----	----
	(-7.28)				
Age	0.61**	0.53**	0.69**	0.024**	0.029**
	(16.86)	(11.36)	(14.85)	(10.86)	(15.42)
Relation to household head (reference= child):					
Grandchild	-0.05	-0.22	0.19	-0.016	-0.001
	(-0.17)	(-0.50)	(0.51)	(-0.79)	(-0.06)
Cousin	-0.61**	-0.76*	-0.46	-0.033+	-0.021
	(-2.62)	(-2.18)	(-1.54)	(-1.89)	(-1.21)
Adopted	0.30	0.24	0.21	0.032	-0.021
	(0.47)	(0.28)	(0.26)	(1.04)	(-0.66)
Other without relation	-4.23**	-3.82*	-4.79**	-0.078	-0.89
	(-3.85)	(-2.02)	(-3.97)	(1.08)	(-1.12)
Other relation	-3.09**	-3.56**	-1.36**	-0.095**	-0.081**
	(-10.37)	(-10.42)	(-2.80)	(-4.63)	(-2.77)
Household head=Female	0.22	0.46	0.01	0.032*	-0.011
	(0.90)	(1.43)	(0.05)	(1.97)	(-0.67)
Household head religion (reference= Catholic):					
Evangelical	-0.21	-0.89	0.39	-0.030	-0.001
	(-0.39)	(-1.25)	(0.67)	(-0.87)	(-0.06)
Muslim	-3.18**	-3.96**	-2.26**	-0.130**	-0.101**
	(-7.63)	(-8.42)	(-4.14)	(-5.06)	(-3.30)
Anemista	-1.47**	-2.01**	-0.92+	-0.065*	-0.052*
	(-3.75)	(-4.36)	(-1.88)	(-2.42)	(-2.08)
Mother's education (reference=none):					
Primary	1.27**	1.43**	1.08**	0.062**	0.048**
	(3.82)	(3.37)	(2.78)	(3.87)	(3.73)
Secondary or more	0.49	0.47	0.42	0.049+	0.053+
	(0.91)	(0.73)	(0.54)	(1.85)	(1.85)
Mother not in home	-0.16	-0.75	0.45	-0.053**	-0.002
	(-0.48)	(-1.58)	(0.95)	(-2.74)	(-0.07)
Father's education (reference=none):					
Primary	1.40**	1.45**	1.35**	0.064**	0.054**
	(4.44)	(3.47)	(3.70)	(4.13)	(4.57)
Secondary or more	1.91**	2.13**	1.78**	0.092**	0.059**
	(4.05)	(3.29)	(2.94)	(3.35)	(2.62)
Father not in home	0.55	0.26	0.63+	0.021	0.039*
	(0.92)	(0.58)	(1.76)	(1.08)	(2.41)
Family SES quintile (reference=Q1)					
Quintile 2	1.15**	1.46**	0.79*	0.050**	0.024+
	(4.17)	(4.29)	(2.48)	(3.02)	(1.90)
Quintile 3	2.01**	2.15**	1.71**	0.069**	0.061**
	(5.97)	(5.19)	(4.32)	(3.44)	(4.07)
Quintile 4	2.90**	3.10**	2.58**	0.118**	0.090**
	(7.14)	(6.61)	(5.09)	(5.37)	(3.92)
Quintile 5 (highest)	4.36**	4.94**	3.56**	0.124**	0.104*
	(8.12)	(8.19)	(4.68)	(3.93)	(2.46)

Number of household members:

0-5 years old	-0.68**	-0.80**	-0.40**	-0.019**	-0.010+
	(-6.38)	(-5.47)	(-3.16)	(-2.80)	(-1.66)
6-17 years old	0.31*	0.42**	0.20	0.007	0.003
	(2.29)	(2.58)	(1.25)	(0.93)	(0.45)
18-59 years old	0.35**	0.27	0.37*	0.011	0.018*
	(2.48)	(1.60)	(2.28)	(1.35)	(2.24)
60 or older	0.004	0.13	-0.09	0.005	-0.002
	(0.04)	(1.23)	(-0.78)	(0.85)	(-0.50)
Language spoken in home (reference= Criolo):					
Fula	-2.84**	-2.76**	-3.00**	-0.077**	-0.077**
	(-6.63)	(-5.20)	(-5.28)	(-2.77)	(-3.03)
Balanta	-1.28**	-0.96*	-1.55**	-0.022	-0.075**
	(-3.17)	(-2.00)	(-3.02)	(-0.91)	(2.79)
Mandiga	-4.85**	-5.42**	-4.34**	-0.158**	-0.157**
	(-9.39)	(-8.87)	(-6.89)	(-6.06)	(-6.64)
Manjaco	0.40	0.48	0.37	-0.005	-0.01
	(0.57)	(0.57)	(0.44)	(-0.12)	(-0.02)
Papel	-1.45**	-1.07+	-1.91**	-0.029	-0.048
	(-2.47)	(-1.70)	(-2.54)	(-1.07)	(-1.45)
Family has bank account	0.93**	0.71	1.32**	-0.013	0.035
	(2.45)	(1.47)	(2.85)	(-0.48)	(1.08)
Ratio of mosquito nets to HH members	0.41**	0.39**	0.42**	0.018**	0.015*
	(4.00)	(2.78)	(3.62)	(2.69)	(2.46)
Rural cluster	-2.79**	-2.89**	-2.65**	-0.087**	-0.069**
	(-8.23)	(-7.62)	(-6.27)	(-5.04)	(-3.79)
Dependent variable mean	2.94	2.73	3.15	0.82	0.83
Region controls?	Yes	Yes	Yes	Yes	Yes
Sample Size (n)	18,759	9,070	9,679	6,804	7,429
Pseudo-R^2	0.21	0.23	0.20	0.28	0.29

Data source: MICS (2014)

Notes: **Grade attainment** refers to number of completed years of education. **Ever Attended** =1 if person reported ever attending school at some point. Additional predictors (not presented) include control for month of survey and region controls. T-statistics (parentheses) are corrected for clustering at sample cluster level. **Coefficient significant at $p<=0.01$ level; *Coefficient significant at $p<=0.05$ level; +Coefficient significant at $p<=0.10$ level

Table 8-12 Summary of Covariates of Current Attendance (2014) and Grade Attainment in Rural Areas Only, 2014 MICS

Independent Variable	Current Attendance Ages 6-22:			Grade Attainment Ages 6-22:		
	National (1)	Female (2)	Male (3)	National (4)	Female (5)	Male (6)
Female	-0.069**	----	----	-1.38**	----	----
	(-6.29)			(-7.30)		
Age	0.015**	0.008**	0.021**	0.58**	0.45**	0.71**
	(6.65)	(3.07)	(7.07)	(14.59)	(10.51)	(13.12)
Relation to household head (reference= child):						
Grandchild	0.001	0.023	-0.009	-0.27	-0.15	-0.19
	(0.03)	(0.79)	(-0.36)	(-0.77)	(-0.33)	(-0.44)
Cousin	-0.018	-0.017	-0.013	-0.33	-0.38	-0.22
	(-0.98)	(-0.71)	(-0.55)	(-1.13)	(-1.03)	(-0.56)
Adopted	-0.010	0.002	-0.024	-0.23	-0.22	-0.52
	(-0.22)	(0.05)	(-0.44)	(-0.40)	(-0.36)	(-0.58)
Other without relation	-0.165**	-0.025	-0.293**	-1.06	-0.42	-2.02+
	(-2.72)	(-0.34)	(-3.48)	(-1.09)	(0.30)	(-1.75)
Other relation	-0.192**	-0.258**	-0.047	-2.83**	-3.04**	-0.94*
	(-9.53)	(-11.42)	(-1.48)	(-2.92)	(-9.24)	(-1.95)
Household head=Female	-0.006	0.014	-0.010	0.18	0.64+	-0.07
	(-0.36)	(0.64)	(-0.47)	(0.65)	(1.92)	(-0.18)
Household head religion (reference= Catholic):						
Evangelical	0.049	0.054	0.038	0.62	0.60	0.55
	(1.53)	(1.32)	(1.00)	(1.21)	(1.02)	(0.85)
Muslim	-0.132**	-0.108**	-0.141**	-2.88**	-2.94**	-2.60**
	(-4.10)	(-2.89)	(-3.50)	(-5.22)	(-5.07)	(-3.65)
Anemista	-0.042+	-0.041	-0.039	-0.96*	-1.07*	-0.75
	(-1.63)	(-1.34)	(-1.06)	(-2.30)	(-2.36)	(-1.20)
Mother's education (reference=none):						
Primary	0.060**	0.058*	0.055*	0.98**	0.97**	0.93*
	(3.11)	(2.32)	(2.22)	(2.99)	(2.53)	(2.17)
Secondary or more	0.063	0.092	0.046	0.81	1.05	0.75
	(1.10)	(1.04)	(0.76)	(0.92)	(0.88)	(0.74)
Mother not in home	-0.070**	-0.074**	-0.060*	-0.33	-0.66	0.03
	(-3.38)	(-2.65)	(-1.95)	(-1.01)	(-1.57)	(0.07)
Father's education (reference=none):						
Primary	0.080**	0.064**	0.096**	1.37**	1.24**	1.50**
	(4.34)	(2.79)	(4.44)	(4.34)	(3.27)	(3.83)
Secondary or more	0.145**	0.121**	0.162**	2.25**	1.90**	2.56**
	(4.73)	(3.05)	(4.08)	(4.13)	(2.87)	(3.70)
Father not in home	0.047**	0.021	0.050*	0.71*	0.33	0.72+
	(2.55)	(0.76)	(2.17)	(2.32)	(0.76)	(1.91)
Family SES quintile (reference=Q1)						
Quintile 2	0.082**	0.083**	0.086**	1.50**	1.37**	1.63**
	(4.77)	(3.47)	(3.93)	(5.72)	(4.07)	(4.18)
Quintile 3	0.101**	0.119**	0.086**	2.08**	2.25**	1.87**
	(4.93)	(4.43)	(3.49)	(6.18)	(5.62)	(4.29)
Quintile 4	0.130**	0.145**	0.115**	2.61**	2.64**	2.48**
	(5.41)	(4.53)	(4.10)	(6.84)	(5.36)	(5.33)
Quintile 5 (highest)	0.164**	0.166**	0.162**	3.41**	3.43**	3.27**
	(7.05)	(5.37)	(5.34)	(8.56)	(6.93)	(6.21)
Number of household members:						

0-5 years old	-0.026**	-0.035**	-0.009	-0.54**	-0.67**	-0.21
	(-3.60)	(-3.88)	(-0.99)	(-4.77)	(-5.14)	(-1.45)
6-17 years old	0.017*	0.017+	0.016+	0.18	0.13	0.19
	(2.34)	(1.77)	(1.73)	(1.41)	(0.91)	(1.15)
18-59 years old	0.007	0.010	0.003	0.38**	0.45**	0.23
	(0.91)	(0.98)	(0.26)	(2.81)	(3.11)	(1.25)
60 or older	-0.006	-0.005	-0.006	-0.009	0.12	-0.11
	(-1.10)	(-0.61)	(-0.86)	(-0.09)	(1.16)	(-0.89)
Language spoken in home (reference= Criolo):						
Fula	-0.133**	-0.176**	-0.101*	-3.03**	-3.18**	-2.89**
	(-3.69)	(-4.35)	(-2.43)	(-5.08)	(-5.13)	(-3.89)
Balanta	-0.054+	-0.038	-0.067*	-1.65**	-1.35**	-1.81**
	(-1.90)	(-1.06)	(-2.03)	(-3.44)	(-2.67)	(-2.99)
Mandiga	-0.244**	-0.310**	-0.192**	-5.31**	-5.90**	-4.61**
	(-6.44)	(-6.81)	(-4.49)	(-8.08)	(-8.12)	(-5.93)
Manjaco	-0.014	0.006	-0.033	-0.61	-0.52	-0.66
	(-0.29)	(0.10)	(-0.52)	(-0.78)	(-0.62)	(-0.66)
Papel	-0.086*	-0.061	-0.114**	-1.83**	-1.38*	-2.30**
	(-2.36)	(-1.42)	(-2.61)	(-3.07)	(-2.05)	(-3.12)
Family has bank account	0.080*	0.038	0.130*	1.50**	0.89	2.39**
	(2.03)	(0.82)	(2.28)	(2.48)	(1.28)	(2.70)
Ratio of mosquito nets to HH members	0.012+	0.009	0.016+	0.25*	0.18	0.33**
	(1.63)	(0.94)	(1.87)	(2.27)	(1.32)	(2.47)
Land holdings (reference=2-5 hectares)						
Zero hectares	-0.051*	-0.037	-0.069*	-0.55	-0.48	-0.71
	(-2.13)	(-1.26)	(-2.19)	(-1.44)	(-1.10)	(-1.46)
0-1 Hectares	-0.022	-0.036+	-0.006	-0.04	-0.23	0.23
	(-1.16)	(-1.87)	(-0.27)	(-0.15)	(-0.79)	(0.56)
6 or more hectares	-0.012	-0.020	-0.006	-0.21	-0.35	-0.10
	(-0.72)	(-1.08)	(-0.31)	(-0.77)	(-1.15)	(-0.32)
Dependent variable mean	0.57	0.52	0.62	1.80	1.56	2.01
Region controls?	Yes	Yes	Yes	Yes	Yes	Yes
Sample Size (n)	12,274	5,782	6,492	12,216	5,747	6,469
Pseudo-R^2	0.21	0.27	0.18	0.16	0.17	0.15

Data source: MICS (2014)

Notes: All estimations are restricted to households that are classified as rural in MICS 2014. **Current Attendance** =1 if person reported attending school during 2013-14 school year. **Grade attainment** refers to number of completed years of education. Additional predictors (not presented) include control for month of survey and region controls. T-statistics (parentheses) are corrected for clustering at sample cluster level. **Coefficient significant at $p<=0.01$ level; *Coefficient significant at $p<=0.05$ level; +Coefficient significant at $p<=0.10$ level

Appendix D: Multivariate Analysis of DGEPASE Administrative Data (2014-15)

The DGEPASE administrative data are a rich source of information on schools, communities and student outcomes. This section briefly describes the results from multivariate analysis of the DGEPASE data from 2014-15. This type of statistical analysis is also used to analyze the MICS data in more detail (see Appendix C).

The DGEPASE data summaries have several important outcomes related to student progress, which are also referred to as indicators of "student flows": percentage of children repeating the grade at the beginning of the school year, the percentage who passed the grade ("aprovado"), the percentage who failed the grade ("reprovado"), and the percentage who left school during the year ("desistente"). Each outcome is measured by individual class by comparing initial enrolment ("Matricula Inicial Idade") with the final enrolment and summary of results ("Matricula Classe Situacão Final"). There are also a large number of variables related to teachers (education, training, etc.), schools (infrastructure), the community (access to services, economic activities), and students (age, number in class). Using multivariate analysis it is possible to consider how numerous independent variables are associated with each of the student flow dependent variables.

The statistical model takes the form:

$$Y_{jln} = \beta'_T T_j + \beta'_G G_l + \beta'_E E_n + \beta'_S S + (\pi_n, \epsilon_j) \tag{2}$$

where outcome Y (pass rate, dropout rate, etc.) is measured at the turma level j within grade level l and school n, and the independent variables include teacher and classroom features (T) specific to each turma (number of enrolled children, teacher education, etc.), a series of controls for the grade level (G), and school variables (E) like infrastructure, number of grades offered, etc. The mixed model (or hierarchical linear model, HLM) has an error component that includes a random-effect at the school level (π_n) and remaining error at the individual turma level within schools. The model also incorporates sector-level fixed effects (S) for each of the 43 sectors in the population.

There are approximately 12,000 individual turmas with data in the 2014-15 DGEPASE summary, including preschool and up to secondary education grade 12. It should be restated that this information is not measured at the individual student level. The dependent variables are instead the percentage of desistentes, reprovados, etc. within each turma, and the turmas are then pooled across all grade levels within each school (about 1,600 schools in all).

The results generated by equation 1 are interpreted as statistical associations rather than causal effects. The cross-sectional data are only measured in one point in time ("snapshot"), so it is not possible to consider how changes in school and teacher variables directly determine (or cause) student flow outcomes. The addition of the school-level random effect, and the sector-level fixed effects, improve the causal properties of the model and help isolate the individual (or direct) effect of each variable in the model. But these extensions are not sufficiently powerful to generate causal results (or "determinants"), especially given the lack of information on family background and other key community characteristics.

The purpose of this analysis is therefore to identify variables that are statistically significant predictors of student flow outcomes, and include these in the discussion about school, teacher and community factors that help explain why some children are in school or not, or how children are progressing. Despite the inherent limitations of cross-sectional analysis of administrative data, the DGEPASE data provide information on school contexts that is missing in data sources like MICS. So this resource needs to be explored in order to understand as much as possible about the underlying factors that affect student progress in schools in Guinea-Bissau. The main findings are referenced in Section 5.6.

Table 8.5 summarizes the results for two outcomes: percent of students who passed the grade (aprobados), and percentage of students who left school during the school year (desistentes). Additional models were estimated using reprobados and repetentes as dependent variables, these are not presented and are available upon request. Each outcome is modeled for the entire population and then separately by gender. Asterisks are used to denote significant predictors.

The main findings are organized into five groups. First, the grade level controls capture some important dynamics in student flows across different levels, although this is mainly for the pass rate outcome rather than dropout. Pass rates decline significantly in lower secondary (EB3) level compared with grade one (the reference category), but then increase substantially in upper secondary. This suggests a more demanding evaluation regime in lower secondary school levels, which may provide some indication of rationing of spaces. However, in upper secondary the pass rates are much higher, which is consistent with a select group of students reaching this level who are not likely to fail the grade or leave during the school year.

The significant teacher effects are mainly related to training regime rather than education. For example, students studying with Contratado or "Pago pela Comunidade" teachers are 3-4 percent less likely to pass the grade. These are significant marginal effects on the pass rate, although these same variables are not significantly associated with dropout (desistente) rates.

The most significant predictors of pass and dropout rates (besides the grade controls) are the school type controls. The reference category is public schools. The point estimates show very large, (positive) effects on pass rates and negative effects on dropout when studying in different types of private schools, including Comunitario and Madrassas. Interestingly, there is no significant difference in pass rates in Autogestão schools versus public schools, but the dropout rate is 2-3 percent lower in Autogestão sector (relative to a mean of roughly 7 percent). This is a large difference that suggests that this type of school does a better job of retaining students in school, although not necessarily getting them from grade to grade.

The effects of school supply are somewhat mixed. On the one hand, when preschool is available at the school the pass rates are significantly higher (about 4 percent on average). However, the maximum grade offered in the school is not strongly related with pass rates or dropout.

Finally, the remaining predictors are generally not significant or only marginally important. This includes indicators of community involvement, infrastructure, accessibility and community services.

Table 8-13 Summary of Covariates of Turma-Level Percentages of Aprovados and Desistentes, DGEPASE 2014-15

Independent Variable	Aprovados:			Desistentes:		
	National	**Female**	**Male**	**National**	**Female**	**Male**
Number of students (turma)	-0.008**	-0.007+	-0.002**	-0.001	-0.006**	-0.002
	(-3.47)	(-1.70)	(-3.82)	(-1.42)	(-2.95)	(-0.78)
Grade level (reference=1º Ano):						
Preschool	0.094**	0.091**	0.098**	-0.013*	-0.012+	-0.013*
	(8.29)	(7.64)	(7.85)	(-2.29)	(-1.86)	(-2.12)
2º Ano	-0.039**	-0.043**	-0.035**	-0.014**	-0.016**	-0.013**
	(-7.36)	(-6.75)	(-5.84)	(-4.68)	(-4.56)	(-3.92)
3º Ano	0.006	-0.006	0.020**	-0.005	-0.005	-0.005
	(1.15)	(-0.97)	(3.41)	(-1.53)	(-1.25)	(-1.46)
4º Ano	-0.038**	-0.059**	-0.018*	0.001	0.001	0.001
	(-5.24)	(-7.08)	(-2.30)	(0.07)	(0.17)	(0.01)
5º Ano	-0.015	-0.032**	-0.001	0.003	0.003	0.004
	(-1.48)	(-2.67)	(-0.07)	(0.72)	(0.60)	(0.72)
6º Ano	-0.005	-0.021	0.010	0.005	0.007	0.005
	(-0.38)	(-1.49)	(0.75)	(0.91)	(0.98)	(0.74)
7º Ano	-0.036*	-0.047**	-0.024	0.008	0.001	0.014+
	(-2.38)	(-2.61)	(-1.58)	(0.96)	(0.15)	(1.63)
8º Ano	-0.038*	-0.068**	-0.013	0.001	-0.002	0.005
	(-2.31)	(-3.43)	(-0.83)	(0.07)	(-0.19)	(0.57)
9º Ano	-0.041*	-0.071**	-0.018	-0.001	-0.002	0.002
	(-2.30)	(-3.49)	(-0.91)	(-0.13)	(0.20)	(0.29)

10º Ano	0.125**	0.088**	0.155**	-0.015+	-0.012	-0.015
	(5.07)	(3.05)	(6.30)	(-1.71)	(-1.10)	(-1.59)
11º Ano	0.163**	0.111**	0.204**	-0.026**	-0.023*	-0.026**
	(7.37)	(4.17)	(9.27)	(-3.07)	(-2.17)	(-3.04)
12º Ano	0.187**	0.147**	0.222**	-0.039**	-0.028**	-0.045**
	(6.88)	(5.36)	(7.14)	(-4.18)	(-2.90)	(-3.98)
Teacher characteristics:						
Teacher is female	0.003	-0.004	0.008	0.006+	0.004	0.008*
	(0.33)	(-0.39)	(0.98)	(1.63)	(0.88)	(2.12)
Teacher education level (ref.=11-12 year):						
Licenciatura-Mestrado-Doctorado	-0.002	-0.001	-0.003	-0.004	-0.004	-0.006
	(-0.09)	(-0.04)	(-0.13)	(-0.53)	(-0.51)	(-0.60)
Bacherlato	0.016	0.013	0.017	-0.007	-0.008	-0.007
	(1.32)	(1.02)	(1.38)	(-1.11)	(-1.03)	(-0.96)
10-11 Year	0.013*	0.022**	0.007	-0.002	-0.005	-0.001
	(2.04)	(2.82)	(0.94)	(-0.65)	(1.13)	(-0.01)
6-9 Year	0.007	0.008	0.006	-0.003	-0.005	-0.001
	(0.74)	(0.68)	(0.57)	(-0.44)	(0.10)	(-0.22)
Teacher contract status (ref.=Efectivo):						
Contratado	-0.026**	-0.021*	-0.030**	0.005	0.006	0.003
	(-3.01)	(-2.03)	(-3.14)	(0.96)	(1.14)	(0.54)
Novo Ingresso	-0.015	-0.017	-0.014	-0.001	-0.001	-0.001
	(-1.45)	(-1.24)	(-1.32)	(-0.18)	(-0.03)	(-0.25)
Pago pela Comunidade	-0.036*	-0.039*	-0.035*	0.002	-0.001	0.004
	(-2.41)	(-2.22)	(-2.15)	(0.26)	(-0.08)	(0.41)
School Characteristics:						
School location=Urban	-0.007	-0.002	-0.009	0.007	-0.002	0.015*
	(-0.62)	(-0.12)	(-0.82)	(1.10)	(-0.25)	(2.21)
School type (ref.=Public):						
Public (autogestão)	0.016	0.021	0.011	-0.025**	-0.030**	-0.020+
	(0.77)	(0.94)	(0.54)	(-2.51)	(-3.03)	(-1.78)
Private (laico)	0.104**	0.112**	0.098**	-0.027**	-0.031**	-0.023*
	(5.93)	(5.99_	(5.43)	(-2.54)	(-2.81)	(-2.09)
Private (confeccional)	0.113**	0.119**	0.108**	-0.046**	-0.053**	-0.040**
	(6.73)	(6.60)	(6.14)	(-5.09)	(-5.31)	(-4.16)
Private (comunitario)	0.043**	0.045**	0.039**	-0.024**	-0.024**	-0.024**
	(3.55)	(3.33)	(3.08)	(-3.31)	(-2.93)	(-3.24)
Private (madrassa)	0.120**	0.130**	0.112**	-0.031+	-0.037*	-0.024
	(3.83)	(3.83)	(3.52)	(-1.92)	(-2.22)	(-1.42)
Preschool available	0.039**	0.044**	0.035**	-0.010+	-0.008	-0.014*
	(3.60)	(3.83)	(3.16)	(-1.80)	(-1.30)	(-2.25)
Maximum grade offered (ref.=Grade 4)						
Grade 1-3	-0.009	-0.009	-0.009	0.017*	0.015+	0.017*
	(-0.73)	(-0.66)	(-0.71)	(2.04)	(1.71)	(2.09)
Grade 5-6	0.007	0.008	0.003	0.011*	0.008	0.015*
	(0.66)	(0.79)	(0.35)	(1.94)	(1.29)	(2.38)
Grade 7/8/9	0.014	0.017	0.007	0.014+	0.010	0.016+

	(0.87)	(1.02)	(0.45)	(1.74)	(1.11)	(1.83)
Grade 10/11/12	-0.026	-0.019	-0.034+	0.009	0.001	0.015
	(-1.28)	(-0.84)	(-1.70)	(0.90)	(0.01)	(1.38)
Accessible during rain	0.014+	0.014	0.014	-0.003	-0.001	-0.005
	(1.64)	(1.43)	(1.56)	(-0.61)	(-0.04)	(-1.00)
School services (factor)	0.002	0.003	0.001	-0.003	-0.004	-0.002
	(0.36)	(0.67)	(0.12)	(-1.01)	(-1.43)	(-0.59)
Community Characteristics:						
Support functions (ref.= none):						
COGES	0.026+	0.022	0.032*	-0.012	-0.008	-0.016*
	(1.83)	(1.33)	(2.24)	(-1.37)	(-0.81)	(-1.97)
APEE	0.016	0.016	0.016	-0.002	-0.002	-0.002
	(1.27)	(1.15)	(1.23)	(-0.30)	(-0.27)	(-0.27)
COGES and APEE	0.009	0.005	0.011	0.004	0.004	0.004
	(0.73)	(0.35)	(0.92)	(0.54)	(0.46)	(0.53)
Community services index	0.024	0.016	0.029+	-0.010	-0.005	-0.017
	(1.51)	(0.92)	(1.74)	(-0.91)	(-0.43)	(-1.53)
Sector level Fixed Effects?	Yes	Yes	Yes	Yes	Yes	Yes
Number of turmas (n)	11,389	11,333	11,376	11,389	11,333	11,376
Number of schools	1,485	1,485	1,485	1,485	1,485	1,485

Notes: Dependent variable is the percentage of students classified as Aprobados or Desistentes by turma, with all turmas in school pooled together. Additional predictors (not presented) include teacher training institution, institutional support programs and controls for each of 43 sectors. T-statistics (parentheses) are corrected for clustering at school level. **Coefficient significant at $p<=0.01$ level; *Coefficient significant at $p<=0.05$ level; +Coefficient significant at $p<=0.10$ level