The Gambia:
Education Sector Public Expenditure Review
An Efficiency, Effectiveness, Equity, Adequacy, and Sustainability Analysis

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ABBREVIATIONS AND ACRONYMS

AMANA  Secretariat of the Arab-Islamic education in The Gambia
ASFR   Age-Specific Fertility Rate
BIA    Benefit Incident Analysis
CCT    Conditional Cash Transfer
CSR    Country Status Report
DEA    Data Envelopment Analysis
DOSE   Department of State for Education
DMU    Decision-Making Unit
ECD    Early Childhood Development
EFA FTI Education for All Fast-Track Initiative
EGMA   Early Grade Mathematics Assessment
EGRA   Early Grade Reading Assessment
EMIS   Education Management Information System
ESSP   Education Sector Strategic Plan
FTI    Fast Track Initiative
GABECE Gambia Basic Education Certificate Examination
GBoS   Gambia Bureau of Statistics
GDP    Gross Domestic Product
GER    Gross Enrollment Ratio
GPE    Global Partnership for Education
GPI    Gender Parity Index
GTTI   Gambia Technical Training Institute
HDI    Human Development Index
IHS    Integrated Household Survey
IIASA  International Institute for Applied Systems Analysis
IMF    International Monetary Fund
LBE    Lower Basic Education
LBS    Lower Basic School
M&E    Monitoring and Evaluation
MDG    Millennium Development Goal
MoBSE  Ministry of Basic and Secondary Education
MoHERST Ministry of Higher Education, Research, Science and Technology
MTEF   Medium-Term Expenditure Framework
NAT    National Assessment Test
NER  Net Enrollment Ratio
PCR  Primary Completion Rate
PCU  Project Coordination Unit
PDE  Population Development Environment
PE   Personal Emolument
PEFA Public Expenditure and Financial Accountability
PER  Public Expenditure Review
PFM  Public Financial Management
PMO  Personnel Management Office
PPP  Public-Private Partnership
RED  Regional Educational Directorate
SDG  Sustainable Development Goal
SIP  School Improvement Plan
SSA  Sub-Saharan Africa
SSE  Senior Secondary Education
SSS  Senior Secondary School
STR  Student-Teacher Ratio
TFR  Total Fertility Rate
TVET Technical and Vocational Education Training
UBE  Upper Basic Education
UBS  Upper Basic School
UIS  UNESCO Institute of Statistics
UNDP United Nations Development Programme
UNESCO United Nations Educational, Scientific, and Cultural Organization
UTG  University of The Gambia
WAEC West African Examination Council
WASSCE West African Secondary School Certificate Examinations
WDI  World Development Indicators

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Executive Summary

Macro environment

1. The Gambia has faced several significant socioeconomic and political challenges over the past few years, from droughts in 2011 and 2014 to the Ebola-related crisis in 2014 and, more recently, political unrest during the 2016 presidential election. The Ebola crisis led to a sharp contraction of the economy, which had yet to recover, when political unrest grew, including currency pegging, which was not resolved until after the election. These shocks, combined with persistent demographic pressures due to consistently high fertility rates, have left the country severely financially constrained. The country also faces significant development challenges as reflected by its low human development country ranking on the Human Development Index (HDI) in 2015 (173 out of 188 countries), which is driven mainly by its low health and education outcomes.

2. The macro fiscal landscape in The Gambia highlights the urgent need for increased efficiency in public resource use, as economic growth falls short of the current needs. The prospects for a strong economic recovery indicate that this may be a protracted and difficult process. As The Gambia seeks to build a foundation for long-lasting sociopolitical stability and robust economic growth, there are strong implications that the education sector will play a key role in the process. To adequately take on the challenges ahead and ensure inclusive economic growth for all Gambians, the government will have to be strategic and efficient in ensuring equity in the use of public resources. Greater access to education for all, increased education completion rates, and higher educational attainment of the labor force are all required to meet the needs of the labor market demand. As such, the objective of this education sector Public Expenditure Review (PER) is to provide the government with evidence-based recommendations that will assist in addressing the main challenges facing the sector and to ensure greater equity, efficiency, and effectiveness in the education system.

Sector performance and challenges

3. The Ministry of Basic and Secondary Education (MoBSE) has benefited from a consistent and strong management team during the past several years, which has been critical in addressing demographic and other socioeconomic challenges listed earlier. The government has made significant efforts to increase enrollment numbers at all levels of education, even in the face of rapid population growth. However, despite the government’s commitment to education, the sector performance tends to be low. In comparison to the SSA average, there has been limited progress in key access indicators across all levels of education between 2010 and 2015, with the exception of gender parity which has been achieved in preschool through secondary education. As an example, access to education is lower in The Gambia than the SSA average across all levels of education and most categories. In particular, inequality in access to education and out-of-school children pose significant challenges. Figure E.1 summarizes the gross enrollment rate (GER), which is the key access indicator for The Gambia based on 2015 data, across the different equity dimensions (area, gender, quintile) and provides comparisons.

1 2015 rates show an average of 5.7 births per woman compared with 4.9 births per woman on average in SSA. This has not seen any significant decrease since 2000.
to the Sub-Saharan Africa (SSA) average by level of education. Interestingly, youth literacy rates substantially increased between 2010 and 2015; however, the main learning assessment instruments require improvement to effectively capture and assess learning outcomes over time. Some of the main findings regarding key sector challenges are described in the following paragraphs.

4. **Lower basic school (LBS) (grades 1–6).** Access rates to primary education stagnated between 2010 and 2015, with the GER marginally decreasing from 90 percent to 87 percent, although the actual number of students enrolled increased from 228,495 to 308,729 (a 35 percent increase) during the same time. Access tends to be lower in rural areas (79 percent) and among the poorest households (73 percent). It is also lower than the SSA average that stands at 102 percent. The Gambia’s progress in achieving the Millennium Development Goal (MDG) objectives by 2015 is mixed. While the country was not able to achieve MDG#2 of reaching universal primary access by 2015, with a primary completion rate (PCR) of just 74 percent, it was able to achieve MDG#3 and reached gender parity in access at the primary level. In terms of internal efficiency, the primary level of education is also characterized by low repetition rates except at grade 1 where the average repetition rate is about 10 percent (13 percent in government schools). In addition, the rate of primary-school-age out-of-school children (7–12 years) has increased over time from 27 percent to 30 percent. This represents about 100,000 children, 95 percent of whom have never been to school. The remaining 5 percent have dropped out of the system.

5. **Upper basic school (UBS) (grades 7–9) and senior secondary school (SSS) (grades 10–12).** Access rates in secondary education are low, with the GERs of 62 percent and 44 percent in UBS and SSS, respectively—both lower than the SSA average of 71 percent and 47 percent, respectively. As in LBS education, access rates at the secondary level (combined) have also stagnated between 2010 and 2015, with the GER going from 53 percent to 54 percent although actual enrollment increased—from 77,408 to 90,838 (17 percent) at UBS and from 37,790 to 56,001 (48 percent) in SSS. However, importantly, gender parity has been achieved at this level of education, as in the case of primary. On the other hand, completion rates remain low, with 48 percent of students completing lower secondary and 38 percent completing upper secondary. Similar to primary education, the repetition rates are also quite low at both lower and upper secondary levels, ranging between 2 percent and 5 percent across the six grades, and as such do not represent a significant source of inefficiency. However, the out-of-school rates for lower-secondary-age children (13–15 years) is high at 30 percent, with 80 percent of them having never attended. The out-of-school rate among upper-secondary-age children (16–18 years) is even higher at 43 percent, which represents a slight decrease over time. The decrease is mostly due to the reduction in the dropout incidence among this age group and hides an increase between 2010 and 2015 in the incidence of those having never attended.

6. **Postsecondary education.** Access to higher education remains limited in The Gambia and is lower than the SSA average of 10 percent. Although there was a slight increase of 1.5 percent between 2010 and 2015, it currently stands at 6.5 percent. This level of education registers the largest disparities across equity dimensions. For example, the access rate in urban areas stands at 9 percent versus only 3 percent in rural areas, with the largest disparity being between the richest households (13 percent) and the poorest (3 percent).
Figure E.1: GER by level of education and socioeconomic categories

Source: Authors’ calculation based on Integrated Household Survey (IHS) 2015 for The Gambia and similar household surveys for the SSA average based on 41 countries.

Sector finance

7. The Public Expenditure and Financial Accountability (PEFA) assessment indicates weaknesses within The Gambia’s overall financial management and accountability environment. Despite these general weaknesses, the education sector public financial management (PFM) is expected to rate better on key PEFA indicators than the national average due to its strong management. However, there is limited information available to carry out a thorough evaluation of the system. Nonetheless, there are some key financial management and accountability aspects—such
as accounting, recording, and reporting—that require further strengthening within the sector. The education budget planning is a layered process involving discussions and negotiations with the Personnel Management Office (PMO) on the allocation of staff positions. The PMO accounts for the largest share of the education budget and is dependent on the allocation by the Ministry of Finance and Economic Affairs (MoFEA). In addition, the education sector financial management is semi fragmented, with some schools, known as grant-aided schools, and select Madrassah schools receiving direct subventions. The transfers are managed entirely by the school board and the Secretariat of the Arab-Islamic education in The Gambia (AMANA) for Madrassah schools, with limited accountability channels in place to record and report on the use of these public funds. Given that most of these funds are most likely used for paying teachers, the lack of a clear accountability mechanism makes tracking of teacher salaries difficult at the ministry level.

8. The education sector is funded in large part by private households that contributed about 58 percent of total spending in education in 2015, followed by the public sector, which accounted for 34 percent. The sector also relies heavily on donor contributions that were equivalent to more than 20 percent of non-household spending in 2015. The breakdown by level of education reveals that the public sector contributes close to 39.6 percent of total spending at the basic education level, while households contribute 47.4 percent. At the SSS level, households account for 53 percent of total spending, while the public contributes 37.4 percent. Lastly, donors contributed the most within the basic education level: 13 percent of total spending at that level compared. Although budget shows high share of commitment at the higher education level is mostly linked to the capital spending tied to the expansion of the University of The Gambia, execution rate is very low.

9. Public spending is increasing over time both in real and nominal terms, reflecting the government’s commitment to funding the education sector. As shown in Figure E.2, total education spending as a share of gross domestic product (GDP) has steadily increased from 2.6 percent in 2010 to 3.2 percent in 2015, although this allocation remains below the best practices benchmark of allocating 4–6 percent of GDP. The share allocated to the MoBSE has increased from 2.3 percent to 2.8 percent of GDP while the share of the Ministry of Higher Education, Research, Science and Technology (MoHERST) has remained around 0.3 percent throughout 2010–2015. It should also be noted that the government uses cash method budgeting, leading to high execution rates across the board, with execution rates of 97 percent for the MoBSE and 89 percent for the MoHERST.

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2 There are two general methods of budget recording: cash and accrual. The cash method focuses on the inflows and outflows of cash, that is, records when budget allocations are received and expenses are paid. Under the budget ceiling, the ministries request for funding based on spending plan once the actual amount is identified.
Medium- to long-term financing implications

10. Projections of the cost of education reveal that increasing access has significant implications on the government’s fiscal space and the government is unlikely to mobilize resources needed to achieve the desired level of access. Figure E.3 shows access levels and budget implications under three scenarios. The high scenario—achieve universal access in basic education—includes achieving universal access in LBS by 2025 and in UBS by 2030, doubling enrollment in early child development (ECD) and SSS from about 40 percent in 2015 to 80 percent in 2030 and increasing enrollment in higher education from 742 in 2015 to 1,030 by 2030 per 100,000 habitants. The medium scenario would mean increasing the access rate by 20–25 percent in general education and increasing enrollment in higher education from 742 in 2015 to 800 by 2030 per 100,000 habitants to keep the sectors improving gradually but not achieving universal basic education. Lastly, the low scenario would mean maintaining the current level of access while coping with the high population growth. The high scenario is a level of access desired by the government but there are large cost implications associated with this scenario and resources are unlikely to be mobilized—it requires the education budget to be increased from US$39 million in 2015 to US$86 million in 2030. Based on the available resources from both internal sources and development partners, this will create a funding gap of 32 percent by 2030, which is equivalent to 1.9 percent of GDP (if this gap is financed by loan, it may increase the national debt by 0.74 percent). Similarly, the medium scenario implies a budget increase from US$39 million to US$69 million with a 14 percent financing gap (equivalent to 0.6 percent of GDP).

11. While the government could opt for a mixture of different policies, optimizing staff utilization would help overcome some of the key financial limitations, given the main driver of the education sector budget is personnel costs. The government underutilizes teachers at all levels of education as the average student-teacher ratio (STR) is 28 at ECD, 33 at primary, 28 at lower secondary, and 27 at upper secondary (excluding teacher trainees). The average STR could increase to 35, 40, 35 and 30, respectively, to enable the public to provide high levels of service delivery (high scenario) at the low scenario cost level. Given that primary education onboards many children, an
increase of the average STR from 30 to 35, although lower than the Global Partnership for Education (GPE) benchmark recommendation, can allow the government to achieve the medium scenario access rate at the low scenario cost level. Furthermore, given the overall inefficient utilization of resources, potentially costing 18 percent of the budget as observed from the efficiency analysis, the government could also achieve the medium scenario access level through an improvement of efficiency. It is also very important for the ministry to further clean up the staff inequality following the recent audit report by the PMO.

Figure E.3: Enrollment projection by level of education (in thousands) and total education sector budget (US$, millions) under three scenarios—low, medium, and high

Source: Authors’ calculation based on IHS 2015, UN Population Division (UNPD), and MoFEA.

Key findings and policy recommendations

12. The main findings from the PER can be grouped under four areas for policy recommendations: (a) adopting measures to improve internal efficiency of the education sector to cope with the limited fiscal space in the short run and ensure the adequacy and sustainability of public spending; (b) ensuring public resources serve to improve equity through relevant intervention instruments; (c) improving capacity building to better evaluate service delivery, learning outcomes, and foster a resilient education system; and (d) improving the human capital development of the labor force through adequate provision of second chance education programs and raising the educational attainment among those who may have failed to complete their studies or who have never been to school. The policy recommendations are presented below.
Adopting measures to improve internal efficiency of the education sector to cope with the limited fiscal space in the short run and ensure the adequacy and sustainability of public spending

13. Given the financial resource constraints under which the public sector is operating, there is a strong rationale to explore potential efficiency savings, that is, savings arising from more efficient use of resources. The efficiency analysis results indicate that the same services can be provided with 18 percent fewer resources through optimal resource utilization. At the national level, efficiency scores\(^3\) stand at 82 percent with large variations by region, implying that some regions and districts have even more potential to optimize resources for greater efficiency. Given the constrained fiscal situation in The Gambia, the government needs to explore any areas of efficiency gain to deal with the challenges and provide consistent service delivery. Potential sources of inefficiencies to be addressed are the unequal distribution of teachers with the right qualification and training mix because teachers' salaries account for more than 90 percent of the school-level education budget and the variation of nonfinancial school inputs (infrastructure, learning materials, and so on) by school.

14. The teacher staffing process should be based on a predetermined set of criteria including STR, classrooms, school size, subjects taught, and facilities available at the school level. The current preservice teacher training program and hiring practice should be immediately reconsidered for hiring decisions based on the number and type of teachers needed. The number of teachers is the key driver of the cost of schooling and the growth in the number of teachers during the last five years is more than double the enrollment growth; thus, the STR has been declining and stands below the recommended level of 40:1 at LBS—for example, reduced from 41:1 in 2010 to 33:1 in 2015. Therefore, having the right number and qualification mix of teachers would also ensure better management of staff, including better compensation.

15. To further improve efficiency and school completion, the government should institute a policy that stipulates a mandatory enrollment age and automatic promotion at least at the primary education level. Survival and completion as well as delayed entry remain a key source of internal inefficiency despite the government’s tremendous efforts. For example, about 38 percent of children do not start school at the official school-starting age (age 7), and the share of overage children in the last grade of primary reaches 72 percent. From those who started grade 1, only 56 percent survive to the last grade of primary, 43 percent to the last grade of lower secondary, and 24 percent to the last grade of upper secondary.

16. Encouraging ECD programs could increase children’s readiness for primary school, promote learning, help reduce factors that affect internal efficiency (dropout, repetition, and delayed entry), and increase the probability of having longer productive lives in the labor market. ECD programs have the potential to strengthen the foundation of the education system, enabling children to transition more easily into primary school. This in turn increases the likelihood of joining LBS on time and therefore reduces the likelihood of dropping out and delayed entry, which are both sources of inefficiency in The Gambia. It also increases the likelihood of joining the labor market earlier, which could have a significant cumulative impact on the lifetime income stream of the individual.

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\(^3\) The efficiency score is calculated based on data envelopment analysis (DEA) and it measures how different schools use resources to produce outcome. It measures a relative efficiency and ranges from 0 to 1, where 0 is the most inefficient school and 1 is the most efficient school. The higher the efficiency score, the better is the resources utilization efficiency.
Although the government encourages ECD through different initiatives such as ‘annexing’ preschools to preexisting primary schools, the current enrollment is made up mostly of children from wealthier households, the government should therefore expand non-annexed preschools to address the poor communities’ needs.

17. To provide sustainable quality education for all children, the education budget should be increased in the medium to long term. As it currently stands, public investment in education in The Gambia is at 3.2 percent of GDP compared with the recommended level of 4–6 percent\textsuperscript{4} and the SSA average of 4.6 percent, which is far below the levels recommended to effectuate any real change to the sector. Although education spending as a share of total public spending stands at 20.4 percent (education receives the highest share of the budget in the country), education spending as a share of spending is low because the total public spending as a share of GDP is low (15 percent). This is also one of the key reasons why the post-basic education level relies heavily on household funding and most children from the bottom 40 percent are excluded from the system.

18. The government should use the unit cost as an instrument in the preparation of policies and associated budgets for effective utilization of funding. To ensure sustainability of the education budget, the unit cost should be a key tool used in the planning process, which is not the case currently. The cost of educating a child in The Gambia is high relative to many SSA countries and has been on an increasing trend—from example, at the basic education level, the unit cost grew by 34 percent between 2011 and 2015 while the corresponding growth rates for senior secondary and postsecondary education level were 73 percent and 110 percent, respectively. Similarly, The Gambia spends the equivalent of 15 percent of GDP per capita on each student at the primary level, which is higher than the SSA average (13 percent), and spends about 27 percent at the secondary level, which is slightly above the SSA average (22 percent). Increasing the unit cost might not be sustainable given the fiscal constraints facing the country and the large number of out-of-school children who still need to be accommodated into the system.

\textbf{Ensuring public resources serve to improve equity through relevant intervention instruments}

19. Pro-poor education policy intervention programs focusing on marginalized communities should be instrumented. Provision of financial support or vouchers for children from poor families would make school more affordable and help them overcome other socioeconomic-related barriers. Although the government has implemented several interventions to reduce regional and gender disparities, inequality in access to education remains a challenge across geographical zones and income status, with a higher incidence of out of school in rural areas, among children from the poorest quintile, and in regions 4–6. The cost of education remains unaffordable for the poorest, especially at the postsecondary level, given the high unit cost. More targeted interventions such as conditional cash transfers (CCTs) should be employed to encourage parents to send their children to school or school feeding programs to target children from poor families, rural areas, and remote regions, as poverty is one of the key factors that hinder school participation.

\textsuperscript{4}The actual recommended level is based on the country’s situation.
20. The government should consider employing incentives such as girls’ scholarship or special community grant to make school environment conducive for girls and increase their completion of adequate level of education. The availability of adequate school inputs and favorable learning environments are key for ensuring girls’ educational attainment and learning outcomes. As such, it is crucial that appropriate funds be earmarked to make the learning environment conducive to educational achievement. The disparities in the availability of adequate school infrastructures, including location of schools, are adversely linked to learning outcomes in The Gambia and affect the various school levels differently where girls tend to be affected the most, as observed for PCR. For example, in most of the remote regions, particularly region 5, there are overcrowded classrooms, poor classroom conditions, and limited separate toilet and water facilities and girls are the most affected group within the region. These regions also tend to have low learning outcomes.

Improving capacity building to better evaluate service delivery, learning outcomes, and foster a resilient education system

21. Improve the budget elaboration and preparation process to clearly reflect each level of education and the sectoral priorities of the government, especially with respect to the attainment of the SDGs. The budget preparation and elaboration process needs to reflect the sectoral priorities both at the allocation and at the execution stage. The current budget nomenclature is not aligned with the government’s education priorities and goals and does not allow an effective monitoring and evaluation (M&E) of the policy outcomes. For example, the budget code for some preprimary, primary, and lower secondary items are combined, even though each level of education has a specific target to achieve as outlined in the sector strategy. Furthermore, the nonalignment of the budget to the sector targets makes it difficult to raise local and international resources to achieve global targets such as the SDGs or even allow timely M&E of the effectiveness the programs. Therefore, it is important to have a budget that allows a breakdown of all levels of education separately.

22. The government should develop standardized learning instruments for better assessment and evaluation of learning outcomes over time. The Gambia should establish a standardized assessment at all levels of education to allow for comparability of results across time following elaboration of assessments based on the international standard. Appropriate instruments are missing to evaluate progress on learning outcomes over time—the existing instruments such as National Assessment Test (NAT), Gambia Basic Education Certificate Examination (GABECE), and the West African Secondary School Certificate Examinations (WASSCE) are not adequate to assess learning outcomes over time. A standardized learning assessment system is key to ensuring consistent and reliable evaluation of learning outcomes. In addition, it is important to allocate an appropriate share of the budget (at least 20 percent) to non-salary school level to provide sufficient school inputs and learning materials for better learning outcomes. LBSs are most affected by the shortage of school inputs and infrastructure. Given that spending on this level of education benefits the poor the most, increasing the share of non-salary funding at the school level will have a positive effect on the quality of education and the added benefit of improving the inequitable distribution of resources as well.

23. Strengthen school development plan committees and other types of community-level grassroots mobilization to create awareness on education, including developing sensitization campaigns for communities where participation in conventional public schools is low. This could be
combined with exploring opportunities to meet community demand while at the same time focusing on clear learning outcomes and equity measures. This may include provision of inputs (school feeding) and/or incorporation of religious instruction in exchange for commitments to provide the official curriculum and continued engagement with the community.

24. Enhance public–private partnerships (PPPs) focusing on marginalized populations in addition to the current partnership in Madrassah schools. Given that local private schools are more culture and community oriented, there are clear benefits from extending conventional private participation where the out-of-school issue is critical and providing additional support to integrate more Madrassah schools under the AMANA system. This can be done, for example, by providing grants to private schools to enroll children from poor households and communities where the out-of-school incidence is high.

25. Strengthen the Education Management Information System (EMIS) capacity by providing adequate technical and financial resources to produce reliable and consistent data for policy making and to ensure that all necessary indicators such as non-teaching staff are being captured in the data collected. The postsecondary-level EMIS in particular requires further advancement. Further, although the EMIS database is well developed in the MoBSE, it does not capture adequate staff information to assess other dimensions of efficiency such as share of non-teaching staff at both the MoBSE and the MoHERST. The availability of adequate and systematically collected data on all facets of education, including non-teaching staff, is key to ensure sound M&E and inform data-driven decision making.

Improving the human capital development of the labor force through adequate provision of second chance education programs and raising the educational attainment among those who may have failed to complete their studies or who have never been to school

26. Develop an appropriate distribution of the budget based on preset criteria and sector priorities to provide consistent and productive service delivery at all levels of education. This requires strategic planning of skills needed and an effective budget allocation to the correct levels of education to develop such skills. The increase in the human capital stock of the country would enable The Gambia to better meet the needs of the sectors and align the education sector with the evolving labor demand needs. The private returns to education are positive for all levels of education and more educated people tend to work for the public sector. However, the working-age population, on average, has not completed primary education (having an average of 3.7 years of schooling) and about 58 percent of them have no formal education. This has significant implications on The Gambia’s economic growth and global competitiveness. Given that the country depends heavily on the services sector which requires skills, the country should increase investment in human capital for economic growth to better compete in the global economy.

27. The government should consider the expansion of alternative learning programs to provide second chance education for parents and youth, giving them the opportunity to overcome educational and lifetime living standard gaps. Adequate provision of basic education opportunities for

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5 Private schools in the Gambia are classified under two—conventional private schools and Madrassah private schools.
parents could have positive effects, not only in raising their own education level but also in motivating them to send their own children to school, and could gradually narrow the inequality gap and cultural barriers. For example, given that the out-of-school issue is most pressing in the remote regions, where poverty rates are higher, parents are less educated, religious factors are high, and resources are sparser, funds could be dedicated to increasing the public provision of schooling.

**Matrix for policy recommendations**

28. Table E.1 summarizes the policy recommendations put forth, highlighting sequencing of actions (steps) for effective implementation of the recommendations to improve both equity and efficiency. The matrix also suggests a timeline for the policy action where some recommendations require immediate action but may require a longer time to be effectively completed. In this matrix, it was assumed that activities indicated as ‘short term’ are the ones that can be implemented in the next 1–2 years, medium term is 3–5 years, and long term is more than 5 years.

<table>
<thead>
<tr>
<th>Area/Issue</th>
<th>Policy</th>
<th>Action</th>
<th>Timeline</th>
<th>Responsible Unit</th>
</tr>
</thead>
</table>
| Improve efficiency to ensure sustainability | Ensure staff utilization is optimized | • Audit staff and determine the actual number and subject mix of teachers in place.  
• Ensure equal distribution of teachers based on a predetermined set of criteria including STR, classrooms, school size, subjects taught, and facilities available at the school level. | Short term | MoBSE, MoHERST |
| Improve internal efficiency | Ensure mandatory enrollment age to reduce internal efficiency and increase completion.  
• Institute automatic promotion at least within the primary education level to allow children to progress through the system with adequate support.  
• Encourage ECD programs to increase children’s readiness for primary school; promote learning abilities. | Short term | MoBSE |
| Ensure sustainability of public funding | Use unit cost as an instrument in the preparation of the education sector budget.  
• Base teacher staffing on a predetermined set of criteria including STR, classrooms, school size, subjects taught, and facilities available at the school level. | Short term | MoFEA, MoBSE, MoHERST and PMO |
| Equity | Improve equity in access | • Institute pro-poor education policy intervention programs focusing on marginalized communities by providing financial support or vouchers for children from poor families.  
• Conduct mobilization campaigns to generate awareness for education, including for communities to overcome social and cultural barriers. | Short to medium term | MoFEA, MoBSE |
<table>
<thead>
<tr>
<th>Area/Issue</th>
<th>Policy</th>
<th>Action</th>
<th>Timeline</th>
<th>Responsible Unit</th>
</tr>
</thead>
</table>
| Ensure girls complete adequate level of education | • Provide adequate school inputs and favorable learning environments to ensure girls' educational attainment.  
• Provide target intervention for girls such as girls' scholarship in target grades. | Short to medium term | MoBSE |
| Ensure adequate funding to improve learning environment | • Improve the budget elaboration and preparation process to clearly reflect each level of education and the sectoral priorities of the government.  
• Ensure appropriate funds are earmarked to ensure the learning environment is conducive to educational achievement.  
• Increase spending on education to the international benchmark while targeting the challenging areas. | Short to medium term | MoFEA, MoBSE, MoHERST |
| Ensure sustainability services delivery | • Strengthen school development plan committees and other types of community-level grassroots mobilization to create awareness of education, including developing sensitization campaigns for communities where participation in conventional public schools are low.  
• Enhance PPP focusing on marginalized populations in addition to the current partnership in Madrassah schools. | Medium term | MoBSE, MoHERST |
| Improve the M&E | • Establish a standardized evaluation system, which would allow for comparability of results across time and would also be linked to assessment of learning.  
• Strengthen the EMIS capacity to enable better M&E, particularly at the postsecondary level. | Medium term | MoBSE, MoHERST |
| Improve the educational attainment of labor force | • Expansion of alternative learning programs to provide second chance education for parents and youth | Medium term | MoBSE, MoHERST |
| Align education sector policy with National Development Plan | • Develop an appropriate distribution of the budget based on preset criteria and sector priorities to provide consistent and productive service delivery in all levels of education. | Long term | MoBSE, MoHERST, MoFEA |
I. Introduction

1. The Gambia is a low-income country with a real gross domestic product (GDP) per capita of US$472 and an estimated population of 1.9 million in 2015. The Gambia’s economy mostly depends on the services sector, especially tourism, which composes the largest share of Gambia’s GDP (65.5 percent), followed by agriculture (22.8 percent) and industry (11.8 percent). During the past five years, the country has experienced several economic and political shocks. These included the droughts that reduced agricultural productivity in 2011 and 2014, the regional Ebola virus disease outbreak in 2014 that affected the services sector, and macro instability largely due to the political instability preceding the presidential election including the currency paging. The poverty rate has remained unchanged between 2010 and 2015, with about 48 percent of the population living below poverty line. The Gambia also experienced high population growth (approximately 3.2 percent against the Sub-Saharan Africa [SSA] average of 2.4 percent). Due in part to the high population growth, in absolute terms, the number of the poor grew from 0.79 million in 2010 to 0.93 million in 2015. Overall, based on the Human Development Index (HDI)—which comprises economic, health, and education measures—The Gambia ranks 173 out of 188 countries in 2015.

2. The government’s commitment to education has been historically strong and it has embarked on a series of key initiatives to increase access and improve the quality of education. However, despite these commendable efforts and some improvement over time, key sector performance indicators remain low. The main challenges impeding the performance of the education sector include the following:

(a) Access to all levels of education has remained stagnant although enrollment numbers are increasing due to high population growth. This includes access to post primary education, which is low despite an increase in the actual number of students enrolled due to the high population growth.

(b) The universal primary education (Millennium Development Goal [MDG] #2) has not been achieved—as of 2015, the primary completion rate (PCR) was 74 percent, although it is important to note that gender parity has been attained.

(c) Disparities in access to education across geographic areas and social economic groups remain high, and there has been no improvement between 2010 and 2015.

(d) About one-third of primary-school-age children are out of school, which disproportionately affects some regions (principally region 5 and region 6). Furthermore, the out-of-school rate has grown between 2010 and 2015.

(e) The cultural and religious barriers to formal schools are difficult to overcome and the integration of the Madrassah schools is still a key challenge.

6 The Public Expenditure Review (PER) covers 2010 to 2015 because the actual budget data are available for 2015 and latest integrated household survey (IHS) is also for 2015.

7 Gender parity has been achieved in all levels except higher education.
(f) Post-school opportunities are severely limited for youth, and more than half of the working-age population has no formal education (58 percent).

(g) Although learning outcomes are improving, the existing learning instruments such as National Assessment Test (NAT), Gambia Basic Education Certificate Examination (GABECE), and West African Secondary School Certificate Examinations (WASSCE) lack key essential elements to measure progress over time.

(h) Resources are profoundly limited and the government faced tremendous financial challenges, although it has managed to pay teacher salaries on time. Despite the government’s pledge to overcome such challenges, the limited fiscal space and the uncertainty of the macroeconomic environment and donor support highlight the need to identify areas of improvement in efficiency and effectiveness of service delivery. The issue of linking inputs to outputs and outcomes to ensure value for money is especially important.

3. In light of the challenges outlined above, the main objectives of this PER are to (a) assess the adequacy and sustainability of public spending in the education sector; (b) assess the effectiveness and efficiency of spending; (c) evaluate the equity of public expenditures and affordability of schooling for the poor; (d) provide policy recommendations to feed into the preparation of the new sectoral plan and the management of public expenditure in the sector; (e) support capacity-building and training plans; and (f) provide input for new projects, the country National Development Plan, and any upcoming World Bank report such as the Country Diagnostic Study. As such, the PER focuses on an in-depth analysis of how the education sector is financed, with particular attention given to the effectiveness, efficiency, equity, affordability, and sustainability of the sector’s public spending in preprimary, primary, lower secondary, upper secondary, and higher education. The Technical and Vocational Education Training (TVET) subsector is considered part of the postsecondary education system, given that there is no separate line ministry and program due to the nascent postsecondary education system in the country.

4. This is the first PER of the education sector in The Gambia supported by development partners and some of the findings and recommendations of the 2011 Education Sector Country Status Report (CSR) were used as a reference point. Relevant to the PER focus areas, the following are the main findings and recommendations of the CSR.

(a) The education sector budget allocation was low and below the recommended levels.

(b) The functional allocation of budget did not favor post-basic education levels and an increase of budget allocation to the post-basic education subsector was recommended.

(c) Teachers’ salaries were low (2.5 times GDP per capita) as compared to the fast track initiative (FTI) benchmark (3.5 times GDP per capita); therefore, it is recommended to increase the salaries of teachers.

(d) Despite the free tuition policy, high cost of education was one of the principal reasons cited for not attending school, and households were the largest contributor to the education sector.
(e) Data on postsecondary education were inconsistent. A functioning Education Management Information System (EMIS) covering this subsector was highly recommended to improve the data system.

(f) Learning outcomes were low and the assessment instruments were not adequate to measure them; the development of quality instruments for comparable measurements and a benchmark system to enable education quality assessment over time were recommended.

**Data and limitations and methodology**

5. The quantitative data analysis is based on a mix of survey and administrative data from multiple sources. Overall, The Gambia has substantial administrative data as well as two comparable household surveys, conducted in a five-year interval (2010 and 2015), that were used for the analysis. However, there were two major limitations: (a) the current budget nomenclature did not allow tracking of the budget allocation at the regional level, and it could not be disaggregated by level of education for non-salary spending and (b) the Ministry of Higher Education, Research, Science and Technology (MoHERST) collected data only on admission of students (no enrollment number) and data of non-teaching staff are also missing for both ministries. While the availability of other surveys, such as the living standards household surveys, helped bridge the data gap in higher education, the data collection capacity of the higher education system is inadequate and needs to be prioritized and strengthened. The main data sources used to conduct the analysis were (a) the 2010 and 2015 IHS, as mentioned earlier; (b) the EMIS for 2010–2015 from the Ministry of Basic and Secondary Education (MoBSE); (c) budget and payroll data from 2009 to 2015 from the Ministry of Finance and Economic Affairs (MoFEA); (d) admission data and staff data from the MoHERST; and (e) learning outcomes data (Early Grade Reading Assessment and Early Grade Mathematics Assessment [EGRA/EGMA] of grades 1–3; NATs of grades 3, 5, and 8; GABECE of grade 9; and WASSCE of grade 12) from the West African Examination Council (WAEC). Several methods were employed in the analyses throughout the report, including regression analysis to establish the relationship between school inputs and outputs; benefit incidence analysis for equity assessment; data envelopment analysis (DEA) for efficiency; and projection models to estimate the medium- to long-term prospects of access and finance, which are linked to the affordability and sustainability analysis.

**Outline of the report**

6. The structure of this report is organized into 10 sections. Following the Introduction, Section II discusses the country context in terms of demographic trends and potential dividends and the fiscal space in relation to the increasing social sector demand. Section III provides an overview of the education sector context and structure, together with a chronological order of the education sector’s policies, goals, and priorities. Section IV analyzes key education sector performance indicators. Section V analyzes the education sector financing such as the budget framework and budget process, main actors, sources of funding, trends in public expenditure, and budget allocation. Section VI assesses the adequacy and sustainability of public spending. Section VII examines education sector management issues focusing on the efficiency and effectiveness of resources utilization. Section VIII

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examines equity, affordability, and the role of the government in protecting equity. Section IX simulates enrollment growth and the associated human and financial needs and provides projections of the labor force by educational attainment under various scenarios. The analysis is followed by Section X, a summary of the main findings and policy recommendations. The annex is divided into four sections: a methodological note, supporting tables, figures, and a section on examples of evaluated interventions.
II. Country Context

Economic context

7. The Gambia has a high incidence of poverty, with 48 percent of the population living under the national poverty line, and an estimated real GDP per capita of US$472 (2015). Although the country has successfully lowered the poverty incidence from 58 percent in 2003 to 48 percent in 2010, the poverty rate stagnated between 2010 and 2015 and hovers at 48 percent. The country faces important development challenges as reflected by the relatively low ranking in the HDI in 2015 (173 out of 188 countries) (UNDP 2015). The socioeconomic challenges have been compounded by the severe drought in 2011, which significantly negatively affected the agricultural sector resulting in a contraction of the economy (−4 percent) followed by a slow economic recovery (Table 1).

8. The Gambia is facing a serious financial crisis. Overvaluing the Dalasi policy by pegging the exchange rate against the U.S. dollar and other currencies, together with the Ebola crisis in the neighboring countries, has led to severe fiscal constraints. The Gambian economy is largely dependent on tourism and its agricultural sector. Although no Ebola cases were found in The Gambia, the 2014–2015 tourism earnings were estimated to experience a 60 percent reduction due to tourists avoiding the entire West African region. This has had a tremendous impact on the country’s GDP as services compose the largest share (65.5 percent) of The Gambia’s GDP, followed by agriculture (22.8 percent) and industry (11.8 percent). Combined with the substantial fall in crop production due to delayed rains in 2014, the impact of the regional Ebola outbreak led to a contraction of the economy with real GDP growth of 0.9 percent in 2014 (Table 1). The fragile medium- and long-term fiscal outlook highlights the public spending limitations facing all sectors of the economy, including education, and emphasizes the need to better understand the efficiency of public spending, and subsequently, potential efficiency gains that could help achieve the sector goals without adding to the fiscal burden.

<table>
<thead>
<tr>
<th>Table 1: Key macroeconomic indicators</th>
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<tr>
<td></td>
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<tr>
<td>Nominal GDP (millions of GMD)</td>
</tr>
<tr>
<td>26,662     26,465       29,191     32,324     34,774     38,581     42,252      47,164      52,403      57,789      63,565</td>
</tr>
<tr>
<td>Real GDP growth (%)</td>
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<tr>
<td>6.5        -4.3         5.9        4.8        0.9        4.3        2.2         3           3.5         4           4.5</td>
</tr>
<tr>
<td>GDP per capita (US$)</td>
</tr>
<tr>
<td>563        517          505        484        440        472        469         490         503         517         529</td>
</tr>
<tr>
<td>Revenue (millions of GMD)</td>
</tr>
<tr>
<td>5,026      5,619        7,397      5,980      7,720      8,333      8,450       10,800      12,629      13,869      15,001</td>
</tr>
<tr>
<td>Tax        3,528        3,780      4,221      4,590      5,529      6,790       7,056       7,169       8,856       10,171      11,569</td>
</tr>
<tr>
<td>Grants     1,065        1,355      2,611      711        1,287      733        718         3,066       3,144       3,005       2,733</td>
</tr>
<tr>
<td>Other revenues</td>
</tr>
<tr>
<td>433       484          565        679        904        810        676         566         629         693         699</td>
</tr>
<tr>
<td>Expenditures</td>
</tr>
<tr>
<td>6,292      6,871        8,675      8,760      11,128     11,459     12,591      14,055      14,778      14,967      16,145</td>
</tr>
<tr>
<td>Revenue as % of GDP</td>
</tr>
<tr>
<td>18.9       21.2         25.3       18.5       22.2       21.6       20          22.9        24.1        24          23.6</td>
</tr>
<tr>
<td>Total expenditure as</td>
</tr>
<tr>
<td>23.6       26           29.7       27.1       32         29.7       29.8        29.8        28.2        25.9        25.4</td>
</tr>
</tbody>
</table>

9 Headcount ratio, IHS 2010 (WDI).
10 Source: IMF Country Report No. 15/104.
The economic growth in The Gambia experienced several shocks as compared to the average SSA countries and it tends to be more volatile. The Gambia’s real GDP growth faced two recessions after 2010, which correspond to the crop failure in 2011 and the Ebola outbreak and another crop failure in 2014, as stated earlier. During the same period, the SSA’s growth rate remained nearly stable. However, despite some improvement in economic growth (with some fluctuation in the economic growth due to high population growth), the GDP per capita in The Gambia deteriorated until 2015 and was projected to increase thereafter (Figure 1).

Figure 1: Trends of GDP per capita and real GDP growth, The Gambia and SSA average

Demographic context

The Gambia is one of the smallest countries in Africa, with an estimated population of 1.9 million, an average annual growth rate of 3.2 percent,\(^1\) and a large proportion of youth—with those under the age of 25 constituting about 65 percent of the total population (Figure 2). As a result, the country has a relatively large school-age cohort, with an estimated 588,000 school-age children (7–18 years) in 2015, which is expected to increase to 831,000 by 2020. Among the school-age cohort, 50.2 percent are female. The lower basic education (LBE)-age cohort, ages 7–12, represents the largest subgroup and 2020 projections indicate that this will remain unchanged (Figure 2).

\(^1\) As per UNDP Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat projections. Gambia Bureau of Statistics (GBoS) is currently working on providing revised 2013 population data.
11. The Gambia’s progress in improving human development, as measured by the HDI, has been relatively slow compared to the SSA average and it ranks 173 out of 188 countries globally. The decomposition of the HDI components reveals that education is a key reason why The Gambia’s HDI score is low. Even though the education component slightly increased from 0.34 to 0.36 between 2010 and 2015, it remained lower than the economic component during the same period (Figure 3). The Gambia was closing the gap with the SSA average before 2000 (from a gap of 0.07 in 1990 to 0.04 in 2000) but since then has seen an increase in the gap (with a gap of 0.06 in 2010 and 0.07 in 2015). If this trend persists, it will be difficult for the country to compete in the global economy in general and in the services sector in particular.
12. **Malnutrition poses important challenges in terms of educational outcomes.** The three nutritional indicators for children indicate that the proportion of malnourished children displayed minor improvement between 2005 and 2015 in The Gambia as opposed to the SSA average. Malnutrition\(^\text{12}\) is not only an indicator of children’s well-being but has also been shown to have an impact on student learning and achievement. Malnutrition remains a hurdle in the country, as one in four children are stunted (Figure 4). Furthermore, severe wasting, which is the result of acute malnutrition, is higher in The Gambia than in SSA, on average. This has significant implications for cognitive development and learning outcomes. Therefore, there is a need to establish an integrated approach to early schooling and nutrition to improve educational attainment and consequently reduce the high poverty rate of the country.

**Figure 4: Under-five and infant mortality rates, 2005–2015**

<table>
<thead>
<tr>
<th>Year</th>
<th>The Gambia</th>
<th>SSA</th>
<th>The Gambia</th>
<th>SSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>97.9</td>
<td>81.4</td>
<td>101.2</td>
<td>83.1</td>
</tr>
<tr>
<td>2010</td>
<td>68.9</td>
<td>56.8</td>
<td>47.9</td>
<td>51.7</td>
</tr>
<tr>
<td>2015</td>
<td>79.5</td>
<td>65.8</td>
<td>56.3</td>
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</table>

**Source:** WDI.

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\(^{12}\) The nutritional status of children under age 5, as measured by stunting (low height for age), shows, nationally, 25 percent of children under age 5 are stunted, and 8 percent are severely stunted (DHS 2013). The corresponding figures for Senegal are 21 percent and 5 percent, respectively (DHS 2015).
III. Education Sector Context

Structure of the system

13. The MoBSE and the MoHERST manage the public education system. Until 2007, the management of the public education system at the central level fell under one ministry of education—the Department of State for Education (DOSE), which was responsible for basic, senior secondary, and higher education. However, the expansion of the responsibilities of DOSE, combined with the need to devote adequate resources to each level of education, led to a split of the central ministry into two separate entities. The MoBSE operations are partially decentralized across its six Regional Educational Directorates (REDs) that facilitate operational and management issues at the regional levels. However, financial management remains largely centralized. The MoHERST, on the other hand, is centralized at all levels of operations.

14. The two ministries developed a joint Education Sector Strategic Plan (ESSP 2014–2022), which outlines the sector’s strategies, targets, and priority areas to ensure consistency across all levels of education. The ESSP is being updated to extend to 2030 to align with the recently ratified education policy (2016–2030). The ESSP articulates the implementation of policy priorities for the MoBSE and the MoHERST and discusses sectorwide issues on education and training and the link between the two ministries on cross-cutting activities such as teacher training and post-basic TVET. The main policy focus areas are (a) access and equity; (b) quality and relevance; (c) research and development; (d) science, technology, and innovation; and (f) sector management.

15. The Gambia’s current formal education system follows an ECD-6-3-3-4 structure of early childhood development (ECD) covering ages 3–6, six years of LBE which officially begins at age 7, followed by three years of Upper Basic Education (UBE). Together, ECD, LBE, and UBE cover grades 0–9 and constitute the basic education level. This is followed by three years of senior secondary education (SSE) and four years of tertiary or higher education. The government encourages participation in ECD and has been proactive in expanding access to the ECD target age group, from 3 to 6 years, and there are four levels of the ECD programs. Non-tertiary, tertiary, and higher education institutions are equivalent to the International Standard Classification of Education (ISCED) of the UNESCO Institute of Statistics (UIS) levels 4, 5, and 6 and above, respectively. Tertiary programs can lead to a degree program of higher education institutions while non-tertiary cannot. The length of non-tertiary and tertiary programs varies from a few months to two or three years.

16. The current basic education structure was introduced in 2002. It replaced the primary-junior secondary—senior secondary system and effectively phased out the primary cycle examination as well as the primary school leaving certificate. The new structure promotes a unified basic education level with automatic promotion from grade 1 to 9 with continuous assessment at the school level. Although The Gambia has several national assessment instruments, the assessment system does not allow for evaluation of learning outcomes over time. There is a need to have instruments that not only measure progress toward learning outcomes but are also comparable over time.

13 Higher education refers to degree awarding institutions whereas tertiary tends to refer to nondegree or diploma awarding institutions.
17. **The NAT provides periodical evaluation of performance through the basic education cycle.** It is mandatory in grades 3, 5, and 8 and the results are intended to assess and highlight strong and weak areas of students' learning in each subject. The end of the basic education cycle is marked by a compulsory examination (GABECE) in 10 subjects\(^4\) for all students in grade 9. The GABECE is a crucial high-stakes exam, as its results are used to determine entry into senior secondary schools (SSSs).

18. **At the end of the senior secondary cycle, students take the WASSCE (or the International General Certificate of Secondary Education in private schools), the results of which are used to place students in higher and tertiary education.** The public sector is an important service provider of higher and tertiary education in The Gambia, with the University of The Gambia (UTG), The Gambia College, and Gambia Technical Training Institute (GTTI) being the three leading institutions.

19. **Other national assessments are EGRA and EGMA which were introduced in 2007 and 2013, respectively, to evaluate the basic literacy and numeracy acquisition in grades 1, 2, and 3.** They are administered on the basis of a representative sample of students every year and are designed to measure students’ specific knowledge or skill, thus it is considered a criterion-referenced test. EGRA aims to assess the literacy skills acquired by students and sheds light on student’s mastery of the curricula. The assessments inform policy makers about the quality of instruction and help identify needs for corrective measures early in the educational cycle. EGRA and EGMA are individually administered tests, and EGRA covers letter recognition, word reading, oral reading fluency, and reading comprehension, while EGMA covers number identification, quantity discrimination, shape identification, addition, subtraction, and so on.

\(^{14}\) Four of which are compulsory for all candidates—English, mathematics, science, and social and environmental studies. In addition, candidates opt for one, two, or three general subjects out of seven and one, two, or three prevocational skills subject out of five prevocational subjects (WAEC).
Public-private partnership

20. In The Gambia, government and grant-aided schools are categorized as public schools whereas private schools comprise the Madrassah and private conventional schools. All of the government and grant-aided schools that provide basic and secondary education are principally financed by the government. The grant-aided schools are managed by the school boards but the government funds their teachers’ salaries which are similar to teachers’ salaries in the government schools. To ease their integration into the conventional education system—that is, integration using the state curriculum—70 percent of the Madrassah expenditures are sponsored with government...
subventions. Although there is no formal public-private partnership (PPP) with private schools except with the Madrassah schools, the role of nonpublic providers is significant for enrollment, school facilities, and teachers’ provision. A summary of these key points is provided by level of education in the following section.

Early childhood development (ECD)

21. As of 2015, conventional private centers accounted for the highest share of enrollment in preschool (60.5 percent), followed by government schools, which accounted for 23.8 percent. The government runs 376 ECD centers (33 percent of the total number of centers), of which 86 percent are attached to primary school facilities and about 100,000 children are enrolled. Government-run ECD centers host 18.5 percent of the ECD teachers, with the remaining in privately run centers. Overall, the private schools play a key role in providing ECD education with costs fully borne by families, and there is limited formal partnership with the government. There is also a growing realization in the region that early interventions could be enhanced if a working partnership can be established with Koranic schools. The Gambia could be an early pilot of such an approach.

Basic education

22. At the basic education level, 55.9 percent of the schools are public (government and grant-aided schools) in 2015, which accounted for more than half of total enrollment (74 percent) and employed 71.5 percent of the teachers. The private schools (Madrassah and conventional private schools) represent 44.1 percent of the total number of schools. As of 2015, 17.5 percent of the total basic education level students (391,688) were enrolled in the Madrassah schools and the remaining 9.1 percent were enrolled in the conventional private schools. The government provides financial support to the Madrassah schools to facilitate the integration of the conventional education system curriculum. The primary goal of the PPP at this level of education is to motivate the religious schools to provide formal conventional schooling and participate in national examinations.

Senior secondary education

23. At the senior secondary level, the enrollment in conventional private schools has increased to about 20 percent but the government still has the dominant share of enrollment (71.8 percent). Overall, 56,001 children are enrolled in approximately 160 SSSs and there are 2,312 teachers employed at this level. Most public SSSs are grant aided (72 percent).

Postsecondary

24. There are about 67 postsecondary institutions and the number of students enrolled in 2015 stood at 14,777, of which 72 percent are enrolled in public institutions. Depending on the type of certification, postsecondary institutions in The Gambia are classified under three categories: non-tertiary (provide certificates and diplomas), tertiary (provide certificate and diplomas, which can lead to higher education institutions), and higher education (provide degrees). In 2015, there were nine

15 Mission finding from head of Madrassah school management interview.
public institutions, of which two are universities. Most of the students enrolled in public institutions are teacher trainees, accounting for 62 percent of total enrollment.
IV. Key Sector Performance Indicators

Key messages in this section include the following: (a) Gross enrollment rates (GERs) show that access to education has stagnated at all levels of education in The Gambia, with the exception of the postsecondary level, which has shown a slight improvement in access; (b) The PCR remains below both government and international targets and the MDG to reach universal primary access by 2015 has not been achieved; however, the gender parity index (GPI) has been achieved in all levels of education except in higher education; (c) Repetition rates are low in all levels of education; however, it is increasingly higher in grade 1, thereby raising concerns with regard to the internal efficiency of the education sector; (d) The out-of-school incidence is significantly high—30 percent of primary-school-age children are out of school, of which 95 percent have never attended formal education; the dropout rate increases by level of education; (e) The appropriate assessment instruments needed to evaluate students’ progress over time at all levels of education are missing; however, based on existing evaluation instruments, learning outcomes appear to be increasing; (f) The combined effects of the high out-of-school incidence and the increasing share of the dropout rate have affected the educational attainment of the labor force, lowering the human capital base for the country; and (g) On average, the working-age population has not completed primary education and more than half of the population has no formal education. This poses a threat to the country’s economic growth and global competitiveness.

Enrollment, completion, and gender parity

25. Key enrollment and completion indicators have remained largely stagnant, although the actual number of enrollments has been growing due to the high population growth. The education sector in The Gambia has shown little improvement in access between 2010 and 2015 in terms of the share of school-age children enrolled. The GERs have been stagnant at all levels of education except at the postsecondary level. For example, between 2010 and 2015, the actual number enrolled increased from 228,495 to 308,729 (35 percent increase) at the lower basic school (LBS) level and from 115,198 to 164,839 (27 percent increase) at the secondary level. However, GERs reduced at the preschool and primary level between 2010 and 2015, with the largest decrease registered at the primary level where the GER decreased by 3 percent (about 100,000 LBS-level-age children are out of school). Access at the secondary level has increased slightly by 1 percent during the same period. The GER at the postsecondary level only registered a 1.5 percent increase (from 5 percent to 6.5 percent) over the same period (Figure 6). The PCR stands at 74 percent, which is below the target level (100 percent). Unlike the GERs, the GPI has improved since 2010 except at the postsecondary level. The gender parity rate is more than 100 percent at the preschool, primary, and secondary levels of education. However, the postsecondary education level is still lagging behind, with a decrease from 74 percent to 69 percent between 2010 and 2015.
Repetition and dropout

26. Although The Gambia does not practice a mandatory promotion system, the average repetition rate is low in all levels of education. However, of concern is an increase in the repetition rate at grade 1 of primary education. The low repetition rate indicates that students are more likely to complete their education cycle on time, which decreases the likelihood of dropping out and joining the labor market provided that they start school on time. The repetition rate is especially low in the UBE level at 3.1 percent, followed by 4.4 percent in the SSE level and 5.2 percent in the LBE level. There are slight variations in the repetition rates across grades and types of school. In grade 1, the government schools display a higher repetition rate than the grant-aided schools (Figure 7). Even though The Gambia has a lower repetition rate as compared to most of the SSA countries, the higher rate of repetition in grade 1 (8.3 percent in government schools) should be monitored carefully.

Source: Authors’ estimations based on EMIS.
Out of school

27. **Despite the government’s efforts to increase enrollment, about one-third of primary and lower secondary school-age children remained out of school in 2015.** The majority of the out-of-school children in all levels of education are those who have never been to school. One implication could be that a large share of the youth population will enter the labor market without adequate literacy and numeracy skills. For example, children of LBS age (ages 7–12) who never attended school represented 28.8 percent and those who dropped out accounted for 1.5 percent in 2015 (Figure 8). Moreover, the dropout rate increases with the level of education, reaching 16.2 percent at the SSS (Figure 8). This suggests that the achievement of the key MDG and Sustainable Development Goals (SDGs) would be problematic unless the out-of-school rate is minimized. The detailed analysis of the out-of-school incidence including its characteristics, determinants, and costs associated with enrollment are presented in the equity section.

**Figure 8: Trends of out-of-school rate for LBS, UBS, and SSS-age cohort children breakdown by never attended and dropout (%)**

![Figure 8: Trends of out-of-school rate for LBS, UBS, and SSS-age cohort children breakdown by never attended and dropout (%)](image)

*Source: Authors’ estimations based on IHS 2010 and 2015.
Note: UBS = Upper basic schools.*

28. **At the national level, there were 330,749 LBS-age children in 2015, of which 100,000 were out of school.** The out-of-school incidence is higher in regions where the population size is larger. For example, region 2 has both the highest share of out-of-school children (27 percent) and population (39 percent). Overall, the out-of-school rate is largely driven by the population growth within regions. However, the share of out-of-school children of LBS age is higher than the LBS-age population share in regions 4, 5, and 6. This indicates that the out-of-school incidence is more acute in regions 4, 5, and 6 than the other regions (Figure 9).
Figure 9: Distribution of total number of out-of-school children and LBS-age children by region

Source: Authors’ estimations based on IHS 2015.

29. By international comparison, The Gambia tends to have a higher out-of-school rate of children of primary-school age than other countries in SSA. The out-of-school rate is at 30 percent in The Gambia whereas the SSA average stands at 24 percent. This has strong implications about the country’s ability to respond to the growing needs of the economy and further reinforces the need to strengthen a strategy/policy to address the large out-of-school population in The Gambia (Figure 10).

Figure 10: Comparison of primary-age children out-of-school rate (%)

Source: Authors’ estimations based on IHS 2015 for The Gambia and similar household surveys for the rest.
Learning outcomes and national examinations

30. Although the appropriate assessment instruments needed to evaluate the students’ progress over time are missing, learning outcomes appear to be increasing based on youth literacy rates. There are four national examinations in The Gambia that are used to assess learning outcomes: EGRA/EGMA, NAT, GABECE, and WASSCE. However, the current design of the assessment instruments does not fully measure the quality improvement of learning over time except for EGRA and EGMA. Therefore, survey-based indicators such as literacy rates were used to provide an evolution of the learning outcomes in The Gambia. The current educational composition of the working-age population indicates that the literacy attainment of the labor supply has significantly improved between 2010 and 2015. The literacy rate has increased in The Gambia among the working-age population (19 percent) and youth (40 percent). However, the educational attainment of the youth has decreased over the same period. For instance, the proportion of the youth with no formal education has increased from 31 percent to 34 percent and the proportion of the youth who have some primary education has decreased from 23 percent to 21 percent. This suggests that the improvement of literacy was not driven by increase in years of schooling but related to improvement in quality (Figure 11).

Figure 11: Literacy rates among youth and the working-age population (left) and educational attainment of youth (right), 2010, 2015

Source: Authors’ estimations based on IHS 2010 and 2015.

Education attainment of labor force

31. On average, less than half of The Gambia’s working-age population has completed primary education and more than half of the population has no formal education—a concern for future economic growth and global competitiveness. The Gambian working-age population tends to have a weaker educational attainment. In 2015, the average years of schooling equaled 3.7 at the national level, 5.3 among the youth population, and 1.4 among the older cohort. This suggests that the labor market comprises workers with low skills who have not completed primary education. This increases
the likelihood of working in the informal sector, which hinders the productivity of the country (Figure 12).

![Figure 12: Average years of schooling](image)

**Source:** Estimations based on IHS 2015.

32. However, the distribution of the working population in terms of age group shows that the educational attainment of the labor force in The Gambia is growing. More specifically, the youth cohort (15–24 years) is increasingly more educated. For instance, 34 percent of the youth cohort has not received any formal education—a significantly lower proportion than the adult cohort with no formal education which stands at 87 percent. When the distribution of the working-age population is disaggregated by gender and geographic location, the following are evident.

(a) There are more women (63 percent) than men (53 percent) who have not received a formal education. This gender gap is likely going to be a constraint to productivity, trapping a segment of the population in low-productivity sectors that do not require a high level of skills, which are usually developed through schooling. To increase economic growth, barriers that keep adolescent girls and women from going to school need to be removed.

(b) Rural areas, especially region 5, have the highest percentage of working-age people with no education. For example, 81 percent of the population in region 5 has not received any formal education; globally, 72 percent of the rural population has no education. (Figure 13).
Figure 13: Distribution of the working population by level of education in terms of age group, gender, area, and region (%)

Source: Estimations based on IHS 2015.

33. **An international comparison of the labor force’s educational attainment shows that The Gambia has one of the lowest educational attainment rates among SSA countries.** The fraction of the population who has never been in school is higher in The Gambia (58 percent) than in SSA, where the average is 33 percent. For example, the adult cohort (ages 25–64) in The Gambia ranks 30 out of the 40 SSA countries—about 60 percent of the adult population has no formal education (never completed first grade of formal education) (Figure 14).

Figure 14: Share of labor force population with no formal education, ages 15–24 and ages 25–64

Source: Authors’ estimations based on IHS 2015 for The Gambia and similar household surveys for the rest.

Note: No education includes population who has not completed first grade of primary education but attained preschool or grade 1 of primary education.
V. Education Sector Financing

Key findings of the section include the following: (a) Public spending on education has been increasing over time both in real and nominal terms, reflecting the government’s commitment to fund the sector; (b) Nonetheless, the education sector is largely funded by the households and dependent on the contribution of the development partners; (c) The breakdown of the funding sources indicates that the share of the government contribution is high at the basic education level and the donors’ share is concentrated at the higher education level due to the capital spending for the expansion of the UTG; (d) The key public financial management (PFM) indicators are improving but remain weak; the current budget planning process in The Gambia is not fully consolidated under the ministries; some roles are performed by the Personnel Management Office (PMO) and others are made through direct subvention to public and private schools; (e) The government follows a ‘cash method’ budgeting system, leading to a high execution rate at all levels of education; (f) The functional allocation shows that The Gambia’s spending on education is biased toward basic education and the higher education level receives only 13 percent of the budget, which is very low in comparison to the SSA countries; and (g) The government allocates an appropriate share of the budget for non-salary spending, but most of the non-salary spending is executed at the central level on expenses that are not related to learning outcomes such as contributions paid to international organizations, thereby leaving little room for quality improvement at the school level (about 93 percent of the recurrent spending at the school level is used to pay teachers’ salaries).

Budget planning and execution process

34. The education budget preparation process is centralized within the education line ministries. The approach remains practical given the small size of the country. The initial phase of the budget preparation process begins when the MoFEA sends out a ‘call circular’ for capital and non-salary recurrent budget. This is normally based on the previous year’s budget and the resource envelope forecast (which consists of revenue and budget support). The call circular sets the ceiling for each ministry, after which each ministry prepares its preliminary budget and submits it to the MoFEA. The MoFEA and the ministries conduct discussions ministry by ministry to defend their proposals. Once the MoFEA approves the proposals, the budget is sent to the Cabinet for comments. Afterwards, a second draft is prepared by the MoFEA based on the comments received from the Cabinet. This draft is subsequently sent to the National Assembly, where it is debated, and ultimately approved. As soon as it is approved by the National Assembly, it becomes the final budget. To formulate a preliminary budget, the MoBSE plans the central and regional offices’ activities and ensures that they are aligned to the sector objectives. The budget ceiling that is sent in the call circular is only for the capital expenditure and non-salary recurrent expenditure, and it does not apply to the budget for Personal Emoluments (PE), as the PE budget is discussed between the PMO and the MoBSE and the PMO approves it. The PMO is an agency under the Office of the President and is responsible for personnel budgeting and control among other duties. The PMO also has to agree to the number of teachers that the MoBSE will hire.
35. **There is a pay scale that determines the entry salary of all civil servants (teachers and staff) based on qualifications.** The MoBSE determines all additional allowances for teachers and staff. The MoBSE is responsible for setting the salary of all grant-aided and government teachers who teach in grades 1–9 (they make up 90 percent of all government teachers), whereas the PMO sets the salary of government teachers who teach in grades 10–12.

36. **The MoBSE fixes the amount of school grant each school receives based on a ‘per student’ formula.** Each school management committee develops its school improvement plan (SIP), which dictates how the school grant will be used. The SIP is approved by the REDs and the Standards and Quality Assurance Directorate of the MoBSE.

37. **The MoFEA has introduced the Medium-Term Expenditure Framework (MTEF) in most ministries including the MoBSE, even though it has not yet been operationalized.** The MoFEA has five directorates: the National Treasury, Budget Management, Aid Coordination, Debt Management, and Economic Management and Planning. The MTEF is a budgeting instrument through which medium-term sector plans and strategies will be translated into concrete budget allocations, whereas the current budgeting system captures only a single year, with a line-item budget focus.

**Execution of salary payments**

38. **The salary payments are carried out by the National Treasury Directorate of the MoFEA, upon employment verification.** The MoBSE provides the employment list to the MoFEA every month through the Integrated Financial Management Information System. Based on the list, the National Treasury sends the funds to the Central Bank and the Central Bank makes a direct payment into the bank account of each employee. The teachers and staff who do not have access to banks as well as first-year teachers who are yet to open a bank account are paid through The Gambia Teachers’ Union Co-operative Credit Union.

**Human resource management**

39. **The RED monitors the teachers’ deployment as well as absences and leave.** There are six REDs in The Gambia. Each RED is tasked with sending a list of the needed teachers for the following year and participating in the annual posting exercise for the existing teachers. Additionally, the MoBSE sends a circular requesting for an update about the nominal role, which each RED update with teachers’ current information and submits. Teachers’ absences or leave without authorization are reported by the head teacher to the assigned RED and then the concerned RED reports it to the MoBSE.

40. **Each grant-aided school has an agreed number of staff, which is negotiated with the MoBSE Planning Directorate each year.** The subventions given to the grant-aided schools are based on the agreed posts and the qualifications and the seniority of each teacher and tend to be similar year over year. These schools are supervised by their individual school board and therefore they are able to respond quickly to teachers’ absenteeism, which has helped improve the management of the schools. As a result, learning outcomes in the grant-aided schools tend to be better than the government schools on average.
41. **The MoBSE estimates the number of teachers to be enrolled in The Gambia College based on the MoBSE Planning Directorate's projections and holds discussions every other month at the Coordinating Committee Meeting with various education stakeholders.** Upon assessing the number of teachers, the MoBSE informs The Gambia College the number of teachers to enroll in each course and subject. This number has to be carefully determined because the future teaching positions are guaranteed for those who graduate from The Gambia College’s education department after passing the examinations.

42. **Lecturers in institutions such as the UTG and The Gambia College are directly employed by the institution and therefore they are not discussed with the PMO.** These institutions decide to employ lecturers from their own funds or subventions received by the MoHERST. Even though the lecturers are considered as public staff, they are not civil servants and, therefore, are not on the government payroll.
Figure 15: Budget process and flow

**Education budget preparation process**

1. MoFEA (Capital and non-salary recurrent)
   - Sends out a "call circular"
2. Ministry (i.e. MoBSE and MoHERST)
   - Prepares budget proposal in line with budget ceiling from MoFEA, and submits budget proposal
3. MoFEA
   - Discusses the proposal with Ministry and submits the agreed proposal to Cabinet
4. Cabinet
   - Provides comments
5. MoFEA
   - Submits the second draft to National Assembly
6. National Assembly
   - Approves the budget

**Education budget execution process**

1. MoBE (Central)
   - Capital (Basic and Secondary)
   - Recurrent (Personnel Basic and Secondary)
   - Recurrent (Non Salary Basic and Secondary)
2. MoBSE (Central)
   - MoBSE - Regional Education
   - Lower Basic Schools
   - Upper Basic
   - Senior Secondary
3. MoHERST (Central)
   - MoHERST Staff
   - Subvented Tertiary

Source: Author’s workshop with the MoFEA, MoHERST, and MoBSE.

**Education sector PFM**

43. A Public Expenditure and Financial Accountability (PEFA)\(^\text{16}\) assessment was conducted in 2010 and 2014 in The Gambia. Some of the important indicators that are relevant to the education sector include policy-based budgeting, predictability and control in budget execution, accounting and reporting, external security and audit, and management of donors. The education sector’s strengths include, for example, policy-based budgeting. Budgeting takes place annually on time, starting in July

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\(^{16}\) Project No. 2014/337137/1. It was funded by the European Union and implemented by ACE International Consultants. PEFA is a tool for assessing the status of PFM. Although the PEFA indicators assess the expenditure and financial accountability of not specific sectors but overall of all the ministries, the PEFA Framework is helpful in identifying common PFM issues across sectors.
and completing by December with the National Assembly’s involvement at every step for legislative scrutiny. However, the MoBSE and the MoHERST are affected by a lack of budget predictability and non-guaranteed receipt of budget allocation every month. For example, in 2015 after the Ebola crisis, both ministries received much less than the approved budget and had to cut many of their capital activities. As they cannot predict the budget amount for the coming years, it is difficult for them to develop longer-term concrete plans. For accounting and reporting, the MoBSE does not have a transparent system to record how the funding is spent for some of the non-salary expenditures, such as the payroll for grant-aided schools and contributions to other government units and international organizations. For the external audit, an independent government body, the National Audit Office audits all the ministries and also all schools annually and prepares reports. The donor coordination unit of the MoFEA lacks up-to-date disbursement data on the donor-funded projects.

**Education sector financing sources**

44. **The education sector in The Gambia is largely financed by households, which contribute the largest share, followed by the government.** The Gambia also depends heavily on donor financing with more than 20 percent of the non-household spending coming from development partners. In 2015, about US$87.3 million was spent on education, of which 58 percent was funded by households, followed by the government which contributed 34 percent, and development partners which contributed 9 percent (Figure 16A). The breakdown by level of education reveals that the public sector contributes close to 39.6 percent of total spending at the basic education level, while households contribute 47.4 percent. At the SSS level, households account for 53 percent of total spending, while the public contributes 37.4 percent. Lastly, donors contributed the most within the basic education level: 13 percent of total spending at that level compared. Although budget shows high share of commitment at the higher education level is mostly linked to the capital spending tied to the expansion of the University of The Gambia, execution rate is very low (Figure 16B). The household contribution, on the other hand, is the highest at all levels of education, with increasing trend with level of education.
The distribution of funding by source and level of education reveals that the largest share of the total public spending is allocated to basic education where the majority of children are enrolled, while households tend to allocate more of their resources to secondary education. In 2015, 75 percent of the public resources went to basic education, which accommodated 86 percent of total enrollment; 13 percent of the resources went to senior secondary, which accommodated 10 percent of total enrollment; and 12 percent of the resources went to postsecondary education, which accommodated only 5 percent of total enrollment (Figure 17). Households contributed a slightly higher share at the secondary level (45 percent) than at the primary level (41 percent) because basic education is already heavily subsidized by the government. Household contribution at higher education level is 14 percent of total household spending. However, it should be noted that the pattern of the household spending varies slightly by type of school. In fact, the distribution of the enrollment in private schools is higher in basic education (36 percent) than in secondary education (32 percent) and higher education (25 percent). The household spending in private schools follow the same pattern—51 percent in basic, 42 percent in secondary, and 7 percent in postsecondary education. The distribution of the public budget by level of education is slightly biased toward basic education and has not been improved since 2011—this was one of the key findings and recommendations from the 2011 CSR.
Figure 17: Share of education spending and share of enrollments by level of education

Source: Authors’ estimations based on IHS 2015 and MoFEA budget data.
Note: HH = household.

Budget allocation and execution

Trends of budget allocation

46. **The education budget both in real and nominal terms has been increasing since 2010.** Trends by ministry indicate that the rise has been particularly strong and consistent for the MoBSE. The public expenditure trend in basic education has been in line with the government’s pro-education policy between 2010 and 2015—the average nominal growth of education spending was 14 percent (real growth 7 percent). In particular, the MoBSE budget increased sharply after 2012.
The Gambia education sector budget follows the cash method, leading to a high budget execution rate in both education ministries. The MoBSE has an average execution rate close to 97 percent while the MoHERST’s average rate is 89 percent (Figure 19). In both ministries, the execution rate of the capital budget fluctuates. Although the execution capacity cannot be evaluated due to the nature of the budget, the high execution rate for both ministries confirms that these ministries have no budget execution issues.

17 Under the cash method, income is not counted until cash is actually received, and expenses are not counted until actually paid. Under the cash basis, revenues and expenses are recognized when payment is made or received.
48. **The budget allocation in The Gambia is consistently biased toward basic education and the allocation to postsecondary is particularly low.** The share of the budget allocated to basic education hovers around 75 percent while the share allocated to senior secondary and postsecondary hovers around 10 percent with a slight improvement over time (Figure 20). As stated earlier, the spending by level of education is proportional to the enrollment distribution in the respective level of education; however, most of the working-age population of The Gambia has no formal education (58 percent) and a very small segment has post-basic education. Therefore, there is a need to improve the functional allocation of budget.

![Figure 20: Budget allocation by level of education](image)

*Source: MoFEA budget data.*

49. **An international comparison of the functional allocation of public spending confirms that The Gambia spends less on postsecondary education levels and more on the secondary level than other countries.** From the data available on 36 SSA countries on spending by level of education, only six countries spend less on postsecondary education compared to The Gambia whose spending is at 12.5 percent (Figure 21). However, The Gambia's spending on primary education stands at 51.1 percent which is in line with the recommended benchmark of 50 percent by Global Partnership for Education (GPE) (former FTI), even though about a third of primary-school-age children are out of school. The allocation to secondary education puts The Gambia among those SSA countries with a high share of public spending allocated to secondary education. In 2015, The Gambia spent 36.5 percent in 2015 on secondary education level, but this comes at the expense of low allocation toward higher education. Because the education sector management and budget system combine the spending on primary and lower secondary education, for a comparison of the functional allocation of the budget in the three levels of education, the level of spending on secondary education is found by adding the spending on lower secondary and upper secondary education.
50. The economic allocation of the budget in The Gambia is in line with the suggested best practice benchmark—one-third of the recurrent budget is allocated to non-personnel recurrent spending to provide adequate school inputs at the school level. However, most of the non-personnel recurrent spending is not consumed at the school level. At the postsecondary level, the share of personnel cost is higher because postsecondary education institutions are mandated to collect fees for services and these fees are used to hire permanent and part-time staff. The spending share at the postsecondary level is similar to the higher education spending pattern in most of the SSA countries. At the MoBSE, the share of recurrent spending between 2010 and 2014 stood around 80 percent but dropped to 71.7 percent in 2015, mainly due to the school grant program, which absorbs a high share of the non-personnel recurrent spending. For example, the non-salary recurrent spending accounted for 23 percent of the total recurrent spending in 2015 (which was 92.6 percent of the total MoBSE budget) but accounted for 15 percent of the total recurrent spending in 2014 (Figure 22). Importantly, because the non-salary spending is managed and executed (mostly) at the central level, the effectiveness of the economic allocation of the budget depends on how much of the non-salary recurrent spending is actually filtered down to the school level.

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Even though the non-salary spending is in line with the good practices benchmark, as shown above, the geographical allocation of the budget indicates that non-salary spending is limited at the regional level, making it difficult to allocate funding toward quality school inputs. At the regional level, the share of the MoBSE budget received was about 88 percent on average, only 7 percent of which was allocated to non-personnel spending (Figure 23 left panel). Importantly, the non-personnel spending at the school level has increased from 3 percent in 2010 to 12 percent in 2015—an increase driven by the school grants that accounted for 66 percent of the regional-level non-salary spending in 2015, but it could be potentially higher at the school level. On the other hand, the share of non-personnel spending is high at the central level (60 percent on average); however, most of the central-level non-personnel spending is transferred to other institutions instead of serving as school-based input for quality improvement (Figure 23 right panel). Overall, although the economic allocation of the budget seems to leave room for non-salary spending, such spending does not always filter down to the school level for quality improvements.
Figure 23: Trends of breakdown budget allocation by central and regional (left) and breakdown of non-salary recurrent spending at central level by major categories (right)

Source: MoFEA budget data.
Note: Central-level spending refers to the MoBSE management unit while regional-level spending refers to school-level spending.
VI. Adequacy and Sustainability of Public Spending

Key findings from this section include the following: (a) The education sector is underfunded—it receives only 3.2 percent share of GDP, which is below the recommended level of 4–6 percent; (b) The cost of education has been increasing as measured by the unit cost. This increase might not be sustainable because of the fiscal constraints and the large number of children that are still out of school; (c) Teacher’s salaries remain low (1.9 times GDP per capita) and below the benchmark level (3.5 times GDP per capita). Although the government does use a varying allowance scheme to attract teachers in remote areas and to cater for special needs such as the hardship allowance and double shift system, teachers are typically paid at a lesser rate than the other public sector workers; (d) Teachers consume the highest share of the budget at the school level. This is mainly driven by the large growth in the supply of teachers (the number of teachers grew annually by 11 percent compared with student growth of 5 percent between 2009 and 2015); (e) The student-teacher ratio (STR) has been declining (41:1 to 33:1) and it now stands below the recommended level at LBS (40:1); (f) The key driver of the growth in the teacher’s supply is the government’s arrangement of teacher trainees, which is not based on the demand for teachers and is done without prior strategic planning. Given the limited fiscal space and the education sector needs, this approach is not affordable and sustainable; and (g) The disparities in availability of adequate school infrastructure, including school locations, affect the various levels of education differently, and this is adversely linked to learning outcomes in The Gambia. Although the government is on the right path to achieve the goal of providing a school within 3km of communities and provision of some school-level inputs is adequate, there is also a great shortage in some of the important school inputs, for example, electricity, library, and textbooks—although this also varies by region.

The adequacy and sustainability of the education sector finance in The Gambia is measured based on the following key parameters: (a) public spending on education as a share of GDP and total public spending compared with the best practices benchmark; (b) unit costs; (c) teacher’s compensation and utilization such as STR; (d) classroom availability; (e) adequacy of school facilities such as laboratories, libraries, electricity, water, toilets; and (f) textbooks.

Budget allocation to the education sector

At 20.4 percent (2015), the government spending on education as a share of total public spending is within the recommended range of 17–25 percent. However, the country’s education spending as a share of GDP is lower than the recommended level, standing at 3.2 percent (2015) against a recommended level of 4–6 percent. The high education allocation as a share of total public spending is due to overall low public spending as a share of GDP in The Gambia. The portion of public resources committed to the education sector in terms of share of GDP did increase from 2.6 percent in 2010 to 3.2 percent in 2015 (Figure 24), but, as mentioned earlier, it remains low. During the same period, the education spending as a share of GDP for the MoBSE increased the most, from 2.3 percent to 2.8 percent, while the MoHERST’s share increased in 2014 and then stabilized at 0.3 percent. Resources committed to the education sector as a share of total public spending decreased between 2011 and 2013 and increased thereafter, ultimately shifting from 18.7 percent in 2010 to 20.4 percent in 2015. As shown in Figure 24, the share of the education budget in both ministries
decreased between 2012 and 2014 even though the normal budget allocation increased, which is likely attributable to the political instability and adverse effect of the Ebola outbreak in the region.

**Figure 24: Education spending as share of GDP (left) and total public spending (right) by ministry and total (%)**

![Graph showing education spending as share of GDP and total public spending by ministry and total.]

*Source: MoFEA budget data and WDI.*

54. **An international comparison of The Gambia’s education spending with other SSA countries shows that The Gambia has one of the lowest spendings on education as a share of GDP.** Based on 39 SSA countries, the average education spending as a share of GDP stands at 4.6 percent, and average education spending as a share of total public spending is 17.1 percent. Only 12 countries spent less on education as a share of GDP than The Gambia (Figure 25). The Gambia’s spending on education as a share of GDP is 1.4 percentage points lower than the SSA average, while its spending on education in terms of total public spending is above the SSA average. Given that about a third of children are out of school, there is heavy reliance on donors, and the share of spending as a share of GDP is low, investment in education remains inadequate in The Gambia. In addition, fiscal space is limited, which presents risks to the adequacy and sustainability of the sector financing.
Per student allocation (unit cost)

55. **The unit cost estimate by level of education has been increasing over time both in nominal value and as a share of GDP per capita.** This implies that the cost of educating a child is increasing. At the basic education level, the unit cost grew by 34 percent between 2011 and 2015, while the corresponding growth rates for senior secondary and postsecondary education level were 73 percent and 110 percent, respectively (Figure 26). At the postsecondary level, per student spending as a share of GDP per capita increased from 59 percent in 2011 to 111 percent in 2015, although the unit cost was actually expected to decrease because of the increase in postsecondary GER, as described earlier. At the MoBSE level, although per student spending as a share of GDP per capita increased slightly, this rise is largely associated with the increase in the personnel staff where the majority of funds are allocated—between 2010 and 2015 the average annual growth rate of the number of teachers was 11 percent compared with an enrollment growth rate of 5 percent. Due to the high rate of the out-of-school incidence in the country, an increase in the unit cost is difficult to reconcile. Further, growth in unit cost is unsustainable given current fiscal challenges.
Figure 26: Trends of public unit cost comparison (left) and per student per capita spending (right) by level of education

![Graph showing trends of public unit cost comparison and per student per capita spending by level of education.]

Source: Authors’ estimations based on Ministry of Budget, EMIS, IHS 2015, and WDI.

56. An international comparison of the public spending per student as a share of GDP per capita indicates that The Gambia spends relatively higher at the primary and secondary levels, but this is below the SSA average at the postsecondary level. The Gambia spends the equivalent of 15 percent of GDP per capita on each student at the primary level, which is higher than the SSA average (13 percent), and spends about 27 percent at the secondary level, which is slightly above the SSA average (22 percent). At the postsecondary level, spending is 111 percent, which is below the SSA average of 153 percent (Figure 27). The comparison suggests that spending is suitable for the children within the system except at postsecondary level; however, it is at the expense of the children outside the system (out-of-school children).

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19 Public expenditure per student is the public current spending on education divided by the total number of students by level, as a percentage of GDP per capita. Public expenditure (current and capital) includes government spending on educational institutions, education administration, and subsidies for private entities (students/households and other private entities).
Figure 27: International comparison per student public spending as share GDP per capita (%)

Source: Authors’ calculation based on Ministry of Budget and UIS for comparison countries.

Teachers’ compensations

57. Even though the personnel cost is the largest portion of the education sector budget, estimates based on the 2015 IHS indicate that the education sector staff are paid at a lesser rate than other public sector staff. The education sector staff accounts for close to a third (28 percent) of the wage bill in the public sector. The salary of the education sector staff is below the public sector average wage (GMD 3,913 per month) and is significantly less than the health sector staff salary (Figure 28). Overall, the high spending on personnel cost in the sector is associated with high growth in the number of staff but not in the improvement of salaries. This might discourage talented and motivated teachers from joining and staying in the teaching force.
58. The breakdown of the pay of education staff by level of education shows low pay for primary education staff—1.9 times GDP per capita compared to the recommended level of 3.5 times GDP per capita. The education staff in secondary schools are paid significantly more than those at the primary level. In contrast, the salary in higher education is higher in the public sector, which is reflected in the higher unit cost at that level (Figure 29). At the primary and secondary levels, the private sector remunerates its teachers better than the public sector while it is the opposite at the postsecondary due to the nature of the provision (short term and non-tertiary levels) in the private postsecondary institutions, as discussed earlier. The underpayment of The Gambian teachers was also documented in the 2011 CSR. The salary rate, which was 2.5 times GDP per capita in 2011 at LBS, has worsened over time and now stands at 1.9 times GDP per capita at LBS. While several policy actions are required to solve the staff management issues, including the rapid growth in the number of teachers, a budget increase to the sector is imperative to stimulate a competitive teacher remuneration to attract qualified and motivated teachers.

Source: Authors’ estimations based IHS 2015.
Figure 29: Average monthly earnings by level of education for education sector and other sectors (in GMD)

Source: Authors’ estimations based on IHS 2015.

59. The government established a compensation system to attract and deploy teachers to remote areas and to incentivize them to take on additional responsibilities such as hardship allowance and double shift teaching—it is made up of a basic salary and allowances. The basic salary scale increases with the level of education taught and teachers in the same level of education receive almost the same salary, regardless of which region they are teaching: LBS teachers receive an average monthly salary of GMD 1,330 whereas the SSS teachers are paid GMD 3,350 (Figure 30). Allowances are also increasing with the level of education but are higher in the remote areas (regions 3–6) in post primary levels of education because they are used as an incentive to attract qualified teachers. For instance, the average allowances in region 6 is 4.58 times the average allowances in region 1 at the upper basic level (GMD 8,218 versus GMD 1,793 per month) (Figure 30). The objective of paying high allowances in the remote regions is to reduce the disparities in access and learning outcomes. Although deployment of qualified teachers has improved due to these policies, access rates and learning outcomes remain low in these remote areas. The available data do not allow the evaluation of qualified teachers and the analysis of salary differentiation by level of education. However, the distribution of teachers by experience, region, and level of education displays some patterns of salary differentiation (see Figure C1 for teachers’ average salary by experience, region, type of school, and level of education).

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20 Allowances include travel home to office allowance, cost of living allowance, civil servants special allowance, special skills allowance, and double shift allowance.

21 EMIS data do not capture staff qualification although the line item is available on the census questionnaire and is expected to emphasize the next census.
The STR has been declining at all levels of education mainly because the hiring rate of teachers has been growing faster than the student enrollment. The supply of teachers grew by 11 percent annually while student enrollment grew by 5 percent between 2010 and 2015. In 2015, the STR in lower basic public schools stood at 33:1, which is well below the government policy target (45:1) and the SSA average recommended level (40:1) (Figure 31). One of the key drivers of the lower STR in The Gambia is the government’s arrangement concerning the teacher trainees who are not technically mandated to teach before graduating from The Gambia College unless there is a shortage of regular teachers. However, in practice, the supply of these teachers is not based on the demand and is done without prior strategic planning. Additionally, the distribution of regular teachers and teacher trainees by region and level of education indicates that some regions have a high STR, which suggests issues with deployment. For example, in region 6, there is large variation in STR, as shown by the spread of the box plot (Figure 31). Given the tightened fiscal space, better deployment could address areas with high STRs and optimize resource utilization, especially given that teacher salaries consume the largest share of the education sector budget.
Figure 31: Trends of STR by level of education (left) and regional distribution of total teachers with and without teacher trainees by level of education 2015 (right)

Source: Authors’ estimations based on EMIS.

Supply of school facilities and materials

61. Some other school inputs, such as school materials, and electricity are not always widely available in The Gambia. As post primary schools have better infrastructure inputs and learning materials, school inputs are therefore evaluated at the LBE level where there is a higher variation of the availability of such inputs. Key input indicators on adequately available resources (classroom, class size, seats, desk, and so on) and resources that are in shortage (electricity, textbook, library, and so on) are presented in the annex section by level of education. The results of the assessment of the nonfinancial school inputs at public LBS are mixed—some schools have adequate inputs whereas other schools face a significant shortage. An index of key school inputs was computed by district at the LBS level to investigate the adequacy of the resources. The resource index captures the following: (a) the share of schools with electricity, (b) the share of schools with a library, (c) the availability of clean water, (d) the share of adequate separate toilets, (e) the share of seats in good condition, (f) the share of desks in good condition, (g) the share of classrooms in good condition, (h) the availability of computer labs, and (i) the average student textbook ratio for English and mathematics. Overall, there is a huge variation in the distribution of the resource index by district, ranging from 0.47 to 0.94 with a national average of 0.74 (Figure 32). Because learning outcomes are positively correlated with the resource index (annex C Figure C5), it is critical to focus on optimizing the distribution of resources based on defined criteria such as school size, number of students, location of school.
62. **Most primary schools are located within a 3 km radius of each community, which is in line with the government policy to reduce the walking distance to schools and reduce the out-of-school rate due to the inaccessibility of schools.** However, this measure only considers students who are enrolled in the system and not those who are out of school (if no child enrolled from a community the measure does not capture) so the available data assess the distance of school from communities of the enrolled students. Out of the total number of enrolled students, 92 percent are located within 3 km from primary schools and the corresponding proportions for UBS and SSS are 76 percent and 64 percent, respectively (Figure 33). At the regional level, 57 percent of the students are located within 1 km from primary schools, which varies slightly across regions—it is lowest in region 2 at 49 percent and highest in region 3 at 75 percent. However, at the secondary level (SSS), the variation by region is high with 51 percent of children in region 6 traveling more than 3 km to get to school compared to 20 percent in region 3.

*Source: Authors’ estimations based on EMIS.*
Figure 33: Share of enrollment by average distance from schools by level of education and region, 2015

Source: Authors’ estimations based on IHS 2015.
VII. Efficiency of The Gambia Education System

The Gambia education sector efficiency is based on an assessment of the resource utilization efficiency; internal efficiency (delayed entry, repetition, survival, and completion); and the external efficiency, focusing on key labor market indicators. Key findings include the following: (a) The education sector can achieve efficiency gains through optimal resource utilization. The average efficiency scores at the national level stand at 82 percent, implying that the same educational outcome could be realized using 18 percent less resources or that the same inputs could produce higher outcomes if resources were efficiently used across all schools; (b) There is large variation of the unit cost by school level and type of school across regions. The key driver of the unit cost is teacher salaries: more than 90 percent of the education budget at the school level goes toward teacher salaries. A large number of teachers, as is evidenced by the low STR, and the disparities in the deployment of teachers, together with the low compensation of teachers in The Gambia, have contributed to the variations in the unit cost; (c) Grant-aided schools are generally associated with a lower unit cost, implying better efficiency; however, the data are not available to carry out in-depth analysis which might more clearly explain the comparatively higher efficiency of the grant-aided schools; (d) The government has made tremendous efforts to reduce the internal inefficiency caused by repetition; however, delayed entry, and survival and completion rates still result in large internal inefficiencies. About 38 percent of children do not start school at the official school-starting age (age 7) and the proportion of overage students in grade 6 is 72 percent; (e) In terms of school survival rate, from the total number of students who started grade 1, only 56 percent survive to grade 6, 43 percent survive to grade 9, and 24 percent to grade 12; and (f) The labor market signals that private and public investments in education are associated with a high rate of return. The private rate of return to education is positive for all levels of education. Individuals with a higher level of education tend to work in the public sector for several reasons including job security. However, about 58 percent of The Gambian working-age population has not received formal education and the investments in education are not translating into higher educational attainment (years of schooling) to create better economic outcomes both for the public and private individuals.

Efficiency of resource utilization—value for money analysis

Methodology of efficiency measurement

63. The DEA is used to examine the efficiency of resource utilization by linking the inputs to outcomes through a value for money analysis. In particular, this section aims to investigate the efficiency and effectiveness of resource utilization in relation to how schools in different areas transform input to output in relative terms. The main purpose of the DEA model is to analyze how different schools utilize the available resources to generate education outcomes and to identify the input mix needed to improve efficiency and effectiveness of service delivery outcomes. The analysis is especially helpful in identifying lessons to be learned or good practices to be adopted from more efficient schools in the country. In other words, how can the same amount of funding be used more
efficiently to produce improved gains in learning outcomes and access.\footnote{22 This efficiency analysis is a relative and not an absolute efficiency analysis—it does not consider whether it is theoretically possible for schools to be more efficient or effective than the most efficient and effective schools in The Gambia.} The methodology is presented in Annex A.

64. \textbf{Given that the financial and human resources requirements differ at all levels of education, the efficiency analysis is first conducted for each level of education and then, at all levels of education, based on the common input and output measures.} The output measures are captured by three indicators: (a) the total number of enrolled students in schools receiving public resources, (b) the repetition rate, (c) the respective learning test results—NAT grades 3 and 5 for lower basic, NAT grade 8 and GABECE grade 9 for upper basic, and WASSCE for grade 12. The input resources include (a) the total salary allocation at the school level; (b) the STR; (c) the teacher’s average weekly work period; (d) the teachers’ years of experience; (e) the distribution of teachers’ qualifications; (f) textbook availability at the LBS, UBS, and BCS levels; and (g) the indexes of different school inputs such as classrooms, seats, desks, laboratories, libraries, electricity, water, toilets.

65. \textbf{At the primary level, the efficiency estimate shows that, on average, the same services can be provided with 18 percent less resources through optimal resource utilization.} At the national level, the efficiency score at the primary education level is 82 percent. Although the least efficient school is found in region 3, on average, the schools in region 2 appear to be the least efficient. In each region, there is at least one fully efficient school, suggesting that the other schools in the same region could employ similar efforts for improved efficiency. In particular, given that region 2 is the most populated region, more efficiency gains can be realized in the region because both human and financial allocation are high in relative terms. An appropriate policy should be designed to maximize the potential savings, keeping in mind the varying context across regions.
A comparison of the efficiency by level of education significantly varies within the regions. BCSs are generally less efficient while SSSs are relatively more efficient, and the average efficiency scores stand at 50 percent and 82 percent, respectively (Figure 35). As stated earlier, approximately 75 percent of enrollments in public SSSs are in grant-aided schools. These schools tend to have a higher efficiency score, which is one of the key reasons why the SSSs are relatively more efficient overall. At the primary education level, more efficient schools are located in regions 1 and 2.
67. **The variation of the unit cost by school type and region is associated with inefficient resource utilization.** In general, grant-aided schools are relatively more efficient than government schools. With the exception of region 5 at the LBS level and region 4 at the SSS, grant-aided schools have a lower unit cost (Figure 36). The unit cost distribution by region reveals that there is inefficient resource utilization across regions and that the cost of a student differs from one region to the other. Moreover, remote regions are expected to have a higher unit cost due to allowances paid to compensate for hardship, but this is not always the case. For example, region 6 has a lower unit cost at the LBS level and a higher unit cost at the SSS level while in region 1, the unit cost is among the highest at LBS but the lowest at SSS. Overall, while many factors outside of the inefficiencies discussed above affect unit costs, using unit cost as a tool for allocating resources could help improve the efficiency across regions and school types.

**Figure 36: Unit cost comparison by level of education and type of schools attended at school level based on personnel cost**

![Graph showing unit cost comparison by level of education and type of schools attended at school level based on personnel cost.]

*Source: Authors’ estimations based on budget, EMIS, and payroll data.*

**Internal efficiency**

68. **Starting school on time provides several benefits such as increased likelihood of completing the education cycle and achieving higher lifetime earnings.** Early investment in education is one of the three core tenets of education investment because it allows the foundational skills to be acquired early in childhood, which make a lifetime of learning possible. However, in The Gambia, 38 percent of the children enrolled in grade 1 do not start school at the official school entry age (7) and 29 percent of them are underage due to the limited access to preschool (Figure 37). An underlying reason why parents do not send their children to school on time is the child’s readiness to attend school. Being ‘too young’ from the parents’ perspective has different meanings and may refer to lack of developmental readiness for schooling, lack of preschool offerings, or far distance to school.

23 Learning for All, investing in people’s knowledge and skills to promote development - World Bank Education Strategy 2020, 2011.
Notably, 28.5 percent of out-of-school children at the primary level have never been in school, of which 33 percent indicated ‘being too young’ as the main reason why they have never been in school. On the other hand, there are children starting school underage, which is also a challenge. While the percentage of underage children in grade 6 is low, standing at 14 percent, the percentage of underage children in grade 1 is higher, standing at 29 percent. This suggests that children of preschool age who enroll in grade 1 early are likely not advancing through the system year over year. The percentage of overage children by grade 6 is high, at 70 percent, as compared to grade 1 where it stands at 38 percent. As shown earlier, the repetition rate at grade 1 is high and it has been rising and therefore an integrated policy action is required for enrolling the children on time and moving them smoothly through the system.

**Figure 37: Breakdown of enrollment in grade 1 by age group - underage, on time, overage by 1–2 years, and overage by 3+ years**

![Graph showing enrollment breakdown by age group](image)

*Source: Authors’ estimations based on HIS 2015.*

69. **The school survival rate, which is estimated based on the reconstructed cohort method of the United Nations Educational, Scientific, and Cultural Organization (UNESCO), indicates that The Gambia has a very low survival rate like most of the SSA countries.** The survival rate in each level of education is extremely low. At the LBS level only 56 percent of students stay in school until grade 6, only 43 percent continue until grade 9, and only 24 percent remain in the system until grade 12 (Figure 38). Although The Gambia is able to increase the intake rate of children into the school system (grade 1 intake rate is 122 percent), ensuring their survival throughout the cycle remains a key challenge because of the internal inefficiencies discussed above. In addition, as indicated earlier, many children are not enrolled in the grade that corresponds to the appropriate official school age, which creates high internal efficiency related to completion rates. For example, the school attendance tree for ages 15–24 shows that, at the national level, only 2.4 percent of youth finish upper secondary, while 21 percent are still in upper secondary.
70. Different socioeconomic factors have various impacts on schooling decisions in each education cycle. To determine the factors that influence decisions for schooling at each transition level, a sequential logit model was employed (the methodology is shown in Annex A, Figure A1). The probability of transitioning at different levels depends on various factors, including the availability of nearby schools, the educational attainment of the community, and the wealth of the household, all of which should be considered for decisions in supporting increased enrollment and lower dropout rates at the primary level (Figure 38). Some factors affect all transition stages while others are specific to certain stages in the transition. For example, all factors seemed to matter at the first transition stage, the decision being whether to start school or not. Higher household wealth and higher educational attainment of the household head positively affect the decision to start school, whereas the following characteristics reduce the chances of starting school on time: female, being from rural area, household head with no formal education, too young, and a large household size. The effect of wealth is even more relevant at the secondary transition.

Figure 38: Survival rate through grade 12 and school attendance tree for ages 15–24

<table>
<thead>
<tr>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
<th>Total</th>
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<td>Primary</td>
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<td>42.9</td>
<td>37.6</td>
<td>23.9</td>
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</tr>
</tbody>
</table>

Source: Authors’ estimations based on IHS 2015.

71. An alternative measure of internal efficiency shows that The Gambia’s educational attainment is lower than other SSA countries relative to its GDP per capita. There are several countries in SSA who accumulate more years of schooling at a lower GDP per capita than The Gambia (Figure 39). This affects the country’s ability to adequately provide the skilled human capital required in an economy that largely depends on the services sector and further reinforces the need to strengthen the education system in The Gambia.
Figure 39: Share of labor force population with no formal education, ages 15–24 and ages 25–64

Source: Authors’ estimations based on similar HIS.
Note: Countries with GDP per capita, PPP above 5,000 were excluded.

External efficiency

72. The Gambia’s labor market signals better returns and employment opportunities for higher level of skills. While education has direct and indirect economic and social impacts, this section only focuses on the economic effects. As such, the efficiency of the education sector is measured in terms of the value that education offers through earnings and employment opportunities. For example, average estimated earnings increase from GMD 2,299 for the working-age population with no formal education to GMD 4,581 for those with a postsecondary education level (Figure 40). A high share of wage employment appears to be in the services sector and the poverty rate among wage employees is generally low. In The Gambia, more educated individuals tend to work in the services sector because it offers better economic benefits and formal employment. Only 34 percent of the working-age population with no education works in the services sector whereas 91 percent of the labor force working in the services sector has a postsecondary education. On average, 12 percent of the working-age population has wage-paying jobs; of those, the proportion of the working-age population with a postsecondary education is high at 81 percent.
Figure 40: Average monthly earning in GMD (left) and distribution of employment by sector and type (right), by level of education

Source: Authors’ estimations based on IHS 2015.

Rate of returns on education

73. The estimates of the returns on an additional year of schooling broken down by gender and sector of activity are positive. The actual rate of return varies across sectors and gender. At the national level, an additional year of schooling yields a 6 percent return (Figure 41). For the same amount of education, women have a higher rate of return (7 percent) than men (5 percent). This suggests that there are fewer educated women than men in the labor force. The rate of returns on education in the services sector is higher than in the other sectors, suggesting that productivity in the services sector is higher.

Figure 41: Rate of returns on additional years of schooling by gender and employment sector

Source: Authors’ estimations based on IHS 2015.
The rate of returns on education increases with each successive level of education attained in The Gambia and confirms that education is a key determinant of livelihoods (Figure 42). At the national level, the rate of return ranges from 15 percent for LBE to 87 percent for higher education. Higher education is the level that leads to remarkably high returns in all categories: 79 percent for male, 97 percent for female, 100 percent for those that work in the private sector, and 101 percent in the services industry.

**Figure 42:** Rate of returns on education by level of education, gender, sector of employment, and employer type

Some primary | Some lower secondary | Some upper secondary | TVET | Some post secondary
---|---|---|---|---
National | Male | Female | Private | Public | Agriculture | Industry | Services

Source: Authors’ estimations based on IHS 2015.

Education is a strong predictor of wage employment and employment in more productive sectors. It increases the chances of employment in sectors with high returns and gaining contract employment that offers greater stability (Figure 43). An additional year of education increases the probability of working in wage employment and in non-wage non-agriculture employment by 37 percent and 21 percent, respectively. Similarly, an additional year of education increases the likelihood of working in industry and services by 20 percent and 31 percent, respectively, compared to the agricultural sector. Additionally, differences in employment opportunities are found by gender and the sector of activity. For instance, a man with an additional year of education has a higher likelihood than a woman of finding employment in industry (7 percent more) and services (5 percent more). Compared to working in the private sector, an individual has a 34 percent greater chance of working in the public sector with an additional year of schooling. Women are 10 percent less likely than a man to be employed in the public sector.
Figure 43: Probability of employment in better return sector, employment type, and employer for additional year of schooling

<table>
<thead>
<tr>
<th>Industry</th>
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<th>Wage</th>
<th>Non-wage non-agriculture</th>
<th>Public</th>
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</thead>
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<td>Male</td>
<td>Female</td>
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<td>Male</td>
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<td>20%</td>
<td>24%</td>
<td>17%</td>
<td>43%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Source: Authors’ estimations based on IHS 2015.
VIII. Inequality, Affordability of Schooling, and the Role of Government

Key findings of this section include (a) Access: The Gambia achieved gender parity in access at all levels of education except higher education; however, disparities still remain. The PCR for boys stands at 82 percent compared with 66 percent for girls, whereas the national average was 74 percent in 2015. The disparities in access by area of residence, region, household wealth, and ethnic group are striking, adversely affecting individuals living in rural areas, remote regions (regions 4–6), and children from the poorest quintiles. The inequality in access increases with each level of education from primary to higher education. (b) Out of School: The out-of-school incidence is high among children from the poorest quintiles and individuals living in rural areas as well as regions 4–6 (the highest out-of-school rate at the district level (80 percent) is found in region 5). Most of the out-of-school children are those from the poorest households where the head has no formal education and works in the agriculture sector. (c) Affordability: The cost of schooling is not affordable to the poor. The poorest households spend 98 percent of their income per capita on education as compared to wealthier households who spend 46 percent. The contribution of the households to the education sector has been increasing faster than the government’s contribution. (d) The government spending on education is biased toward the rich in all levels of education. Despite the government’s implementation of several interventions aiming at lowering the regional disparities in access to education, the wealth gap in access to education is still visible and a holistic intervention system has not been successful in reducing the gap. As a result, resources available for children from the poorest quintile are limited in all levels of education, and poorer children tend to leave the school system early when faced with multiple socioeconomic challenges, thereby contributing to the intergenerational poverty trap. While the government has made tremendous efforts to reduce the school fees for all students, uniform and boarding/food costs are not affordable for the poor and an ‘all-inclusive’ subsidy structure might not be effective enough in helping the poor to overcome all economic challenges.

76. The assessment of the equity of public spending, affordability of schools, and the role of the government is evaluated based on the inequality in access to education, the out-of-school incidence, the affordability of education costs, and the role of the government in protecting the poor. The inequality in access and the out-of-school incidence are broken down by gender, area of residence, region, ethnic group, wealth quintile, and districts. While access to education shows the distribution of students in different levels of education, the out-of-school analysis measures the rate incidence and the reasons behind it. The affordability and the role played by the government focus on the ability of the poor to pay for the costs of education and the capacity of the government to assist the poor and the vulnerable in bearing those costs.

Inequality in access

Gender

77. Gender disparities in access to education, as measured by the GER, net enrollment ratio (NER), and completion rates have nearly been eliminated at all levels of education except at the
postsecondary level. Girls register a higher GER and NER at both lower basic and secondary levels while boys have a higher completion rate in those same levels. For example, the GER for girls is at 66 percent at the upper basic level whereas the GER for boys is at 57 percent (Figure 44). Although girls are advantaged in terms of enrollment in lower basic and secondary education levels, boys are more likely to complete their studies compared to girls except at the lower secondary level.

**Figure 44: Disparities in GERs, NERs, and completion rates by gender, 2015**

![Graph showing disparities in GERs, NERs, and completion rates by gender, 2015](image)

*Source: Authors’ estimations based on IHS 2015.*

78. **Although girls are catching up with both the lower basic and secondary education levels in access, their progress through the system tends to affected by socioeconomic factors.** Key factors associated with lower completion rate among girls include the following: (a) dropout rate for girls above age 15 is higher than boys—for example, 22 percent of girls of age 16 dropped out in 2015 compared with 14 percent among boys of the same age; (b) non-availability of key infrastructure (transportation, roads, schools, health center) adversely affects girls than boys—for example, the gap in completion between boys and girls increases at least by 8 percent for households living in less accessible locations; (c) households which have dependence on a religious organization in case of an emergency or a member of a religious organization tend to disfavor primary completion rate for girls; (d) being in a remote area also disfavors girls’ completion rate—for example, in almost all districts in region 5, girls lags boys in education completion, contributing negatively to the national level completion rates for girls; and finally, (e) some ethnic groups disfavor girls. Figure 45: Disparities in gender completion rates across area, quintile, ethnic groups, and districts in region 5 presents a summary of completion by district for region 5 and ethnic group.
Areas of residence: urban versus rural

79. *Children living in rural areas are largely disadvantaged in terms of access to education at all levels.* Enrollment and completion rates across all levels of education are lower in rural areas compared to urban areas. For instance, the GER is at 96 percent for the urban population at the lower basic level, while the GER for the rural population is at 79 percent (Figure 46). Ensuring equal access to education is fundamental for reducing poverty and inequality and specific targeting in rural areas given that the higher poverty incidence is critical.
Household wealth quintile

80. Access to education services tends to be significantly biased toward the rich in The Gambia; the poorest households benefit less at all levels. Enrollment by wealth quintile illustrates that the preprimary and post primary levels are dominated by children from wealthier families. For example, at the ECD level, the GER for children from the poorest quintile is 26 percent compared to 62 percent for the richest quintile (Figure 47). The post primary competition rates are significantly higher for children from the richest households. Because the rate of returns on education increases with the level of education, the inequality in access to education has a negative effect on inequality in livelihoods.
The differences in access to education across ethnic groups are significant and varied. For instance, the GER in LBSs is 109 percent for Jola, whereas for Wolof, the GER is at 60 percent (Figure 48). This implies that policies that target children coming from key ethnic groups are required to ensure equal access to education.

**Figure 48: Disparities in GERs by ethnic groups and level of education, 2015**

Regional disparities in access to education, as illustrated by variations in the GER. Region 2 has the highest GER in preschools (48 percent) and in UBSs (79 percent) while region 5 registers the lowest GER in both preprimary education level (15 percent) and primary education (53 percent) (Figure 49). This is not particularly surprising given that region 5 is in a remote area with less education infrastructure as opposed to more affluent regions, such as region 2. The government has been targeting interventions to mitigate sociocultural issues that may affect enrollment and completion rates, yet the problem persists. Additional resources are required to reduce regional inequalities.
There are inequalities in access to education within regions and across districts. For many regions, the districts with a low GER at the preschool level also have a low GER at LBE, although it varies by region. Region 5 has the district with the lowest GER in both preschool (3.5 percent) and LBS (24.4 percent) (Figure 50). Analysis of equity in enrollment by district allows for targeting of particular districts which require additional support to improve equal access. Analogous to the inequalities in access to preprimary and primary education, there are critical disparities in access to secondary education as well. Districts with better access to UBE tend to also have better access to SSE, even though this comparison varies across regions. For example, enrollment in UBSs is low in Upper Saloum (10.3 percent) while enrollment in SSSs is low in Kantora (5.3 percent) (see Figure C2).
Figure 50: Disparities in preprimary and LBS GERs at the district level, 2015

Source: Authors’ estimations based on IHS 2015.

Inequality in out-of-school incidence

Gender and areas of residence

84. **Boys and children living in rural areas have a higher out-of-school incidence, whereas girls have a higher dropout rate.** In 2015, rural areas registered 55.5 percent out-of-school children of senior secondary age compared to 33.2 percent in urban areas (Figure 51). About 95 percent of the out-of-school children of primary school age have never been to school, while the remainder (5 percent) dropped out of school. The out-of-school incidence varies with the level of education. In particular, it is slightly lower at the upper basic level (28.9 percent) but increases at the senior secondary level (42.8 percent) with a higher dropout rate.
Figure 51: Out-of-school rate by gender and areas of residence by level of education

Source: Authors’ estimations based on IHS 2015.

Wealth quintile

85. **The out-of-school incidence is higher among children from poorer backgrounds.** For instance, at the lower basic level, 43.6 percent of children from the poorest wealth quintile are out of school, while only 16 percent children from the richest wealth quintile are out of school (Figure 52). Additionally, for children of senior secondary age, the out-of-school rate in the poorest wealth quintile is driven by the proportion of children that have never been to school while in the richest wealth quintile, it is driven by the dropout rate.

Figure 52: Out-of-school rate by quintile and by level of education

Source: Authors’ estimations based on IHS 2015.

Ethnic group

86. **The out-of-school status is also subject to ethnic variations in The Gambia and it is particularly high among the Wolof ethnic group at the lower basic level (49 percent) and upper basic level (47.7 percent).** Moreover, children from the Serahulleh ethnic group experience the highest out-of-school rate at the SSE level. Head of household education level, employment status, and the
sector of employment are key factors that affect the decision to send children to school (Figure 53). The following impacts are observed (see Figure C9): (a) the out-of-school rate decreases with the education level of the household head, (b) children from households in which the household heads work in the service sector face a lower out-of-school rate, and (c) children from families where the household head has wage employment tend to have a lower out-of-school rate.

**Figure 53: Out-of-school rate by ethnic group and by level of education**

Source: Estimations based on IHS 2015.

**District level**

87. **The breakdown of the out-of-school incidence by district in LBSs shows variations within regions and districts with out-of-school rates reaching 80 percent.** Districts in regions 1 and 2 have a lower rate, although it varies across districts (Figure 54). The disparities between particular districts is staggering. For example, the out-of-school rate is lower in Banjul City Council District (5.8 percent) in region 1 while it reaches 80 percent in the Upper Saloum District in region 5. Overall, there is at least one district in each region with an out-of-school rate below the national average (30.3 percent). Except in region 1, all regions also have a district with an out-of-school rate above the national average.
Figure 54: Out-of-school rate by district at LBS level

Determinants of out-of-school rates

88. The analysis of the determining factors of the out-of-school\textsuperscript{24} incidence shows that the level of education of the household head is the main factor influencing the incidence across all school-age groups. This suggests that policies aimed at addressing this issue need to take into account the ability of the household head to make informed decisions. Given that more than half of the adult population has no formal education and that religion is one of the key reasons cited for being out of school, there may be a link between the household head’s level of education and different social factors. For example, when the head of household has no education, the probability of school attendance of the children for all age cohorts registered above 20 percent compared with no education for the children (Figure 55). In particular, demand-side factors have the highest impact on out-of-school rates. Household-head’s sector of activity and being from the poorest household wealth quintile both correspond with an increase in the out-of-school incidence.

\textsuperscript{24} The regression analysis referred to in this section determines whether individual and household characteristics have a statistically significant effect on school attendance and whether this effect is positive or negative and its magnitude.
Inequality in affordability of education—role of households

89. **Education is increasingly less affordable for poorer households despite the increased share of resources devoted to education.** The share of education in per capita spending and the share of education spending in total consumption in 2010 and 2015 show that more resources have been committed to education, both as a share of per capita consumption, which has increased from 18.7 percent to 61.8 percent, and as a share of total consumption, which has increased from 1.5 percent to 5.9 percent (Figure 56).

90. **Households from the poorest quintile allocate the majority of their education spending on primary education and often cannot afford post primary education, whereas households from the**
Wealthiest quintile allocate the majority of their education spending toward post-basic education. The poorest quintile households allocate 67 percent of their total education toward primary-level spending, whereas the wealthiest quintile households allocate 39 percent (Figure 57). On the other hand, at the tertiary level, for families in the poorest quintile, the share of education spending is only 5 percent, whereas for the wealthiest households, the share is 27 percent. Unit costs in postsecondary education are a particularly heavy burden for the poorest households—the unit costs represent 100 percent of their per capita income for preschool, 87 percent for LBS, 122 percent for UBS, 132 percent for SSS, and 169 percent at the post-education level. Given that the inequality gap between the rich and the poor is high, poorer households may face greater difficulties in sustaining their investment in education, which would undermine other efforts to break the poverty cycle.

Figure 57: Distribution of household education spending by level and wealth quintile (left) per student per capita spending by level and wealth quintile (right)

Source: Authors’ estimations based on IHS 2015.

Available resources per student

91. Children from the poorest households face a significant resource shortage compared with children from affluent families at all levels of education. For example, in public primary schools, a household from the poorest wealth quintile spends, on average, GMD 1,240 compared to GMD 3,604 for a child from a wealthier quintile (Figure 58). With better access to resources and lack of targeting of poor households, children from richer quintiles may benefit from higher spending on uniforms, books, and so on and may attend better schools charging higher fees. To the extent that these inputs lead to better student learning and performance, the education outcomes of poor students would be expected to be worse than those of wealthier students given the disparity in access to financial resources.
92. The household unit cost increases significantly at the lower secondary level. This increase disproportionately affects the poorest quintile, creating a significant barrier to entry for children from poorer households. The unit cost in public schools at the lower secondary level is on average twice that at the primary level. The substantially higher financial burden on households at the lower secondary level, whether in public or private schools, puts poorer households at a disadvantage and makes it financially burdensome to support children’s transition into post primary education.

93. Private schools are not affordable alternatives for poorer households. Private school costs, on average, are more than double the costs of public schools at the primary level and are roughly equal to double the cost at the lower secondary level. Children from poorer households have access to substantially less resources than their richer counterparts and, therefore, less access to private schools. At the postsecondary level, the household unit cost in higher education is GMD 17,914, which makes it extremely difficult for poor children to attend higher education institutions given the resources available.

Figure 58: Unit cost by level of education, wealth quintile, and school type attended

Source: Authors’ estimations based on Ministry of Budget, EMIS, IHS 2015.

94. School fees, which consist of enrollment fees, tuition fees, uniform, and textbooks are the second highest share of all school-related charges across all levels of education. ‘Lunch, pocket money, and school meals’ and food costs account for about 63 percent of the total household education spending at the preschool level, 52 percent at the primary level, 50 percent at the lower secondary, 33 percent at the upper secondary, and 14 percent at the higher and tertiary education level (Figure 59). Households also spend significantly on uniforms. Cost allocation toward transportation, school fees, and uniforms varies by level of education. Because poorer households tend to rely more on the public schools, given that they are more affordable than public schools, the costs of meals are generally a key cost driver for these households (see Figure C8).
Economic and social factors as key determinants of schooling

Following the preceding analyses of disparities in the out-of-school incidence, the reasons for the out-of-school incidence by gender, location, and education attainment are now presented. Religion seems to be the greatest motive for the out-of-school children at all levels of education (Figure 60). The proportion of children reporting religion as the main reason for being out of school is particularly high among males and population leaving in urban areas.

Figure 60: Reason for being out of school by level of education, breakdown by gender and area of residence

Source: Authors’ estimations based on IHS 2015.
96. The extent to which religion is cited as the key reason for remaining out of school varies across wealth quintiles, regions, and ethnic groups and also varies depending on the level of education of the household head. It is most often cited by the wealthiest households because other reasons are not much of a concern for them and the out-of-school rate is low for those located in region 5, the Wolof ethnic group, and children coming from households in which the head has no formal education (Figure 61). The motive for out-of-school children differs across districts within regions and between regions (see Figure C8).

Figure 61: Reason for being out of school by wealth quintile, region, ethnicity, and household head’s education, breakdown by gender and area of residence, LBS (ages 7–12)

Source: Authors' estimations based on IHS 2015.

97. There is a wide gap in school retention between students from wealthier households and those from poorer and less-advantaged socioeconomic backgrounds. The survival rates of four different cohorts are compared in Figure 62 to illustrate the wide variation in retention: male children from high-income, rural households where the household head has no education; male children from low-income, rural households, where the household head has no education; female children, from high-income, urban households, where the household head has completed secondary education; and female children from low-income, urban households where the household head has completed secondary education. On one hand, the comparison shows that the socioeconomically advantaged students fared much better. Survival rates are the highest for these cohorts, even though the female students are less likely to complete education than the male students. On the whole, these cohorts manage to stay in school longer. On the other hand, both male and female students in the disadvantaged cohorts have the lowest participation and survival rates through all levels of education. They tend to drop out of the system equally by secondary school (Figure 62). These divergent trends highlight the growing inequality in the system that stems in part from the systemic, financial barriers for poorer households.
Although the trend in income distribution in The Gambia indicates that the income of the poor (the first three quintiles) increased from 29.7 percent to 33.8 percent between 2010 and 2015, it remains low, especially for the poorest quintile. The trend seems to be positive even though the poverty incidence remained unchanged between 2010 and 2015 as the inequality in income distribution has lessened. However, significant disparities in the resources across income levels are still extreme. Twenty percent of the poorest households account for just 7.1 percent of total income, which is less than half of their proportional share (Figure 63). Because the high-schooling costs in The Gambia have already excluded many children from participating in the education system, especially at the post primary level, it is critical for policy makers to institute pro-poor education policies to break the intergenerational poverty trap and cultural barriers.
Inequality in public resources distribution, role of government

99. **The overall public spending on education in The Gambia is pro-rich.** The analysis of total public spending on education reveals that, overall, the poorest quintile receives only 16 percent of the total education funds (4 percent less than its share of the population), while the richest quintile receives 24 percent of the total benefits (4 percent above its share of the population) (Figure 64). The distribution of public spending appears to be largely equitable at the primary level where almost all quintiles receive a share of public benefits (20 percent) equivalent to their share of the population, with the exception of the richest quintile which received 4 percent less than their population share (16 percent). However, this trend is reversed at the senior secondary and higher education levels where enrollment from poor families starts declining. For example, at the senior secondary level, while the richest quintile receives 30 percent of total spending, the poorest quintile receives only 10 percent. Similarly, 49 percent of the total spending in higher education went to the richest quintile compared to 7 percent for the poorest quintile. Thus, education expenditures at the primary level are poverty neutral whereas post primary expenditures are regressive because they tend to favor the non-poor. However, demographic factors such as family size could negate the poverty neutrality of primary education spending.

![Figure 64: Results of Benefit Incident Analysis](image)

Figure 64: Results of Benefit Incident Analysis

**Source:** Authors’ estimations based on IHS 2015, MoFEA Budget, and EMIS.

100. **The distribution of public spending in basic and secondary education is relatively better than income distribution, while distribution in higher education is worse than income distribution and disfavors the poor.** The Benefit Incident Analysis (BIA) shown earlier is presented in an alternative way using the consumption concentration curve to evaluate the targeting of government subsidies. The provision of public resources by level of education is compared to the consumption concentration curve which is a proxy for wealth and income inequality across quintiles. Compared to the consumption concentration curve, the expenditures on basic and secondary education are relatively more equitable than the general wealth distribution (Figure 65). Therefore, while public spending in lower basic, upper basic, and senior secondary education levels is not pro-poor per se, this is somewhat mitigated by the fact that the provision of public resources promotes greater equality than the observed income inequality. In contrast, higher education is not pro-poor and
regressive. The distribution of public spending on higher education is worse than the general wealth inequality because the richest quintile receives the most benefit from public spending.

Figure 65: Equity in the provision of public resources to the education sector

Source: Authors' estimations based on IHS 2015, MoFEA Budget, and EMIS.

101. **Access to public schools in The Gambia is relatively pro-poor at the ECD, LBS, and UBS levels.** For example, at the ECD level, 22 percent of children from the poorest quintile have access to public school while 20 percent of children from the wealthiest quintile have access to public schools (Figure 66). However, accessing public schools at the postsecondary level favors mostly children from the wealthiest quintile.
102. **Access to private schools in The Gambia is intensely pro-rich at all levels of education.** For instance, while only 7 percent of students attending private schools belong to the poorest quintile, 70 percent are from the richest quintile (Figure 67).

**Figure 67: School participation by quintile, private - conventional**

*Source: Authors’ estimations based on IHS 2015.*

103. **Overall, access to Madrassah schools in The Gambia is heavily biased toward the poor at all levels of education.** For example, 29 percent of children from the poorest quintile have access to Madrassah schools while only 12 percent of children from the wealthiest quintile have access to Madrassah schools given that they could afford private school or other choices (Figure 68).
Figure 68: School participation by quintile, private - Madrassah

Source: Authors’ estimations based on IHS 2015.
IX. Human Capital Development

The human capital base would greatly improve if the government achieves the target of universal primary education by 2025 (MDG#2). The risk of youth entering the labor market without having completed the primary education cycle would be reduced by 30 percent if this goal is achieved. There are significant additional financial and human resources required to achieve MDG#2. To realize the PCR by 2025, student enrollment as well as the supply of teachers must increase by 67 percent and 70 percent, respectively, thus requiring an increase of 67 percent in the government’s education budget, provided that households maintain their current levels of contribution. Because the economy is largely dependent on the services sector which requires a higher level of skills, The Gambia has to increase its investments in human capital development (education) to foster economic growth and global competitiveness.

104. This section presents the projection of enrollment, teachers, costs of schooling, and educational attainment of the working-age population. The analysis aims to provide guidance to the government on the best ways to allocate resources based on the short- and long-term needs. It can also serve to inform the budget planning process and help prioritize and direct the education funds to the relevant levels of education. In particular, the enrollment and financial projections explain the implication of the current financial and education policy environment on the sustainability of the system in the medium and long term, while analysis of the educational attainment of the working-age population helps assess the human capital stock. While proper projections of human capital require both demand- and supply-side information in a macroeconomic framework (foreign direct investment, GDP, and so on), the main focus of this projection exercise is to show how the achievement of MDG#2 will change the labor market conditions in terms of the educational attainment by 2030.

105. The projections employ two methods—a reconstructive cohort method for the current enrollment and a Population Development Environment (PDE) model for the working-age population (details about both methods are described in Annex A Note 4). The key assumptions for the projections are the following: (a) there is a growth in the appropriate age for the particular level of education—ages 6–11 for primary, ages 12–18 for secondary, and ages 19–23 for higher and tertiary education based on the UNDP projections; (b) the current pattern of student flow (intake rate, promotion, repetition, and transition rate, and so on) continues; (c) there is a PCR targeted by the government’s new primary completion target date (2025); (d) there is a drop in the out-of-school incidence at the primary school age from 30 percent to 10 percent by 2030; (e) the current unit costs (public and household unit costs) remain the same in nominal terms; (f) the share of students directly enrolled in private schools remains unchanged at all levels of education; (g) the STR remains the same for the model but because the STR is a low-cost saving option, the optimal STR is also considered; (h) the age-specific fertility rate (ASFR) is estimated from DHS; and (i) the PDE detailed methodological note and assumptions are presented in the annex.

106. Access indicators and associated budget implications were estimated under three scenarios give the fiscal space issues to realize optimal target. The high scenario—achieve universal access in basic education—including achieving universal access in LBS by 2025 and in UBS by 2030, doubling
enrollment in early child development (ECD) and SSS from about 40 percent in 2015 to 80 percent in 2030 and increasing enrollment in higher education from 742 in 2015 to 1,030 by 2030 per 100,000 habitants. The medium scenario would mean increasing the access rate by 20–25 percent in general education and increasing enrollment in higher education from 742 in 2015 to 800 by 2030 per 100,000 habitants to keep the sectors improving gradually but not achieving universal basic education. Lastly, the low scenario would mean maintaining the current level of access while coping with the high population growth. The high scenario is a level of access desired by the government but there are large cost implications associated with this scenario and resources are unlikely to be mobilized—it requires the education budget to be increased from US$39 million in 2015 to US$86 million in 2030. Based on the available resources from both internal sources and development partners, this will create a funding gap of 32 percent by 2030, which is equivalent to 1.9 percent of GDP (if this gap is financed by loan, it may increase the national debt by 0.74 percent). Similarly, the medium scenario implies a budget increase from US$39 million to US$69 million with a 14 percent financing gap (equivalent to 0.6 percent of GDP). Given the Government’s aspiration to achieve the high scenario, the result below is based on high scenario and Annex B (Table B2 – Table B7) present full comparison of the three scenarios. However, without hard choice on staff management, the high scenario is highly unlikely to be achieved.

Projection of enrollment by level of education

107. The path to achieving the primary completion target by 2025 gradually improves access and completion at all levels of education. Key observations from the enrollment projections include the following: (a) ECD enrollment is projected to increase from 37 percent in 2015 to 81 percent in 2030 under the current pattern; however, additional resources and policies might be needed to fully achieve universal access; (b) the PCR, which is 74 percent, is unlikely to be achieved by 2025 despite the government’s target; and (c) the access to post-basic education remains low even under the PCR completion target by 2025. This indicates that substantial effort is needed to ensure the school survival rate of students throughout the cycle. Overall, on average, The Gambia needs to increase primary education enrollment by 7 percent annually between 2015 and 2025 to meet the PCR completion target. The next section breaks down the increase in terms of the actual number of enrollment, teachers, and the budget allocated by level of education.
Figure 69: Projection of primary GERs by level of education and primary and lower secondary completion rates, 2015–2030

Source: Authors’ estimations based on IHS 2015, EMIS, UN Population Division (UNPD), and UIS.

Projections of the number of students, teachers and financing

108. **Demographics in The Gambia are a key issue in achieving education for all.** The primary school-age population represents 17 percent of the total population (one of the highest among the SSA countries) and is expected to grow faster than other countries in SSA. Out of the 330,749 million primary school-age children (ages 7–12) in 2015, 308,729 million were enrolled in primary schools. The projection suggests that the number of children enrolled is expected grow to 568,715 by 2030—with an annual growth rate of 5 percent. At the ECD and post primary levels, the enrollment is projected to increase by more than 100 percent (Figure 70). While the population growth rate has contributed to the high demand for public services, the system is also characterized by high enrollment of overage children, which has led to the large share of students at the primary level.

109. **Based on the projected enrollment of students, 226,822 additional teachers will be needed at all levels of education (ECD to senior secondary) between 2015 and 2030.** However, there is room for efficiency improvement by increasing the currently low STR. At the primary level, with a current STR of 33:1, 7,878 additional teachers are needed, which would represent an 84 percent increase in the number of teachers between 2015 and 2030. However, if the STR increases to the recommended STR level for primary (40:1), 4,862 additional teachers would be needed by 2030, which is only a 52 percent increase in the number of teachers between 2015 and 2030. Similarly, at the ECD and post primary levels, a near threefold increase of teachers would be required because the access rate is currently low. The additional number of teachers needed was estimated based on the current average STR of 28:1 at ECD, 33:1 at primary, 28:1 at lower secondary, and 27:1 at the senior secondary level. (Figure 70).

110. **The growth in student enrollment has serious financial implications on the public resources and the household contributions.** On one hand, the projection of the public spending reveals that an
additional 125 percent of the current public resources is needed by 2030 to achieve the PCR target by 2025 and maintain the momentum at all levels of education. This requires commitment of public resources to increase from US$31 million to US$70 million by 2030. On the other hand, the contribution from households are also expected to increase from US$50 million to US$117 million. The additional resource needed at the ECD and post primary level is very high both in terms of the public and household spending. Due to the limited fiscal space, increasing the budget to the required level might not be feasible; thus, carefully exploring avenues toward greater resource utilization efficiency, including the optimal deployment of teachers, is critical.

**Figure 70: Projection of enrollment, teachers, and public and household spending on education by level of education, 2015–2030 (in thousands for spending)**

Source: Authors’ estimations based on IHS 2015, MoFEA budget data, EMIS, Payroll data, and the UIS.

### Implication of primary completion on the labor market input

111. The human capital projection shows that achieving universal primary education (MDG#2) by 2025 will reduce the risk of youth entering the labor market without having completed the primary cycle by 30 percent. To illustrate the effect of primary completion by 2025 on the educational attainment of labor force, the size of the labor force by education level is simulated using two
scenarios: (a) the trend of dropout and retention remains the same until 2030 and (b) the MDG on universal primary education is achieved by 2025. The first scenario assumes that no major investment or reform takes place to change the trend of the current retention rates at all levels of the education cycle. The second scenario is more ambitious and assumes that the MDG is met by 2025 with major investments and reforms in education, as outlined in the current education sector strategy. The simulations show that if the current trend persists, by 2030, about 30 percent of youth, ages 15–24, will enter the labor market without completing primary education (Figure 71), whereas the second scenario (MDG scenario) would mean completion of primary education for all. This illustrates the required evolution of the labor supply by 2030. Critical alignment of supply-side human capital policy and demand-side labor would be required to ensure sustainability of the system.

Figure 71: Projection of educational attainment of youth under constant trend (left) and MDG scenario (right)

Source: Authors’ estimations based on IHS 2015, EMIS, UIS, UNDP, and UNPD.

112. If the MDG target was achieved by 2025 and sustained over time, the educational profile of the working-age population would significantly change by 2045 (Figure 72). However, The Gambia needs to invest more in post-basic education to stimulate economic growth and global competitiveness because higher levels of education are associated with higher economic returns. Specifically, The Gambia should increase investment in post-basic education to improve the educational attainment of the workforce and the skills required in the labor market because the economy largely relies on the services sector which necessitates a higher level of skills set.
Figure 72: Projection of educational attainment of working-age population (ages 15–64) in 2015 and by 2045 under MDG scenario

Source: Authors’ estimations based on IHS 2015, EMIS, UIS, UNDP, and UNPD.
X. Conclusions and Policy Recommendations

Conclusions

Sector performance

113. **LBS (grades 1–6).** Access rates to primary education stagnated between 2010 and 2015, with the GER marginally decreasing from 90 percent to 87 percent, although the actual number of enrollments increased from 228,495 to 308,729 (a 35 percent increase) during the same time. Access tends to be lower in rural areas (79 percent) and among the poorest households (73 percent). It is also lower than the SSA average which stands at 102 percent. The Gambia’s progress in achieving the MDG objectives by 2015 is mixed. While the country was not able to achieve MDG#2 of reaching universal primary access by 2015, with a PCR of just 74 percent, it was able to achieve MDG#3 and reached gender parity in access at the primary level. In terms of internal efficiency, the primary level of education is also characterized by low repetition rates except at grade 1 where the average repetition rate is about 10 percent (13 percent in government schools). In addition, the rate of primary-age out-of-school children (of ages 7–12) has increased over time from 27 percent to 30 percent. This represents about 100,000 children, 95 percent of whom have never been to school. The remaining 5 percent have dropped out of the system.

114. **UBS (grades 7–9) and SSS (grades 10–12).** Access rates in secondary education are low, with GERs of 62 percent and 44 percent in UBS and SSS, respectively—both lower than the SSA average of 71 percent and 47 percent, respectively. As in LBS education, access rates at the secondary level (combined) have also stagnated between 2010 and 2015, with the GER going from 53 percent to 54 percent although actual enrollment increased—from 77,408 to 90,838 (17 percent) at UBS and from 37,790 to 56,001 (48 percent) in SSS. However, importantly, gender parity has been achieved at this level of education, just as in the case of primary. On the other hand, completion rates remain low, with 48 percent of students completing at the lower secondary level and 38 percent completing at the upper secondary level. Similar to primary education, the repetition rates are not an important source of inefficiency in the sector because they are also quite low at both lower and upper secondary levels, ranging between 2 percent and 5 percent across the six grades. However, the out-of-school rates for lower secondary age children (13–15 years) is high at 30 percent, with 80 percent of them having never attended. The out-of-school rate among upper secondary age children (16–18 years) is even higher at 43 percent, which represents a slight decrease over time. The decrease is mostly due to the reduction in the dropout incidence among this age group and hides an increase between 2010 and 2015 in the incidence of those having never attended.

115. **Postsecondary education.** Access to higher education remains limited in The Gambia and is lower than the SSA average of 10 percent. Although there was a slight increase of 1.5 percent between 2010 and 2015, it currently stands at 6.5 percent. This level of education, unsurprisingly, registers the largest disparities across equity dimensions. For example, the access rate in urban areas stands at 9 percent versus only 3 percent in rural areas, with the largest disparity being between the richest households (13 percent) and the poorest (3 percent).
Learning outcomes seemed to be increasing although appropriate instruments are missing to evaluate progress over time. A standardized learning assessment system is key to ensuring a consistent and reliable evaluation of learning outcomes. Household survey-based information shows that learning outcome has been improving, but the existing instruments such as the NAT, GABECE, and WASSCE are not adequate to assess learning outcomes over time, although they can compare learning outcomes between regions and districts. Overall, although pieces of available information indicate that the learning level of Gambian children is increasing, The Gambia is missing reliable and consistent learning outcome assessment tools for both national comparison and international comparison.

The combined effects of the high out-of-school incidence and the increasing share of the dropout rate have affected the educational attainment of the labor force, lowering the human capital base for the country. On average, the working-age population has not completed primary education and more than half of the population has no formal education. This poses a threat to the country’s economic growth and global competitiveness.

Sector financing

The PEFA assessment indicates weaknesses within The Gambia’s overall financial management and accountability environment. In spite of these general weaknesses, the education sector PFM is expected to rate better on key PEFA indicators than the national average due to its strong management. However, there is limited information to carry out a thorough evaluation of the system. Nonetheless, there are some key financial management and accountability aspects such as accounting, recording, and reporting that require further strengthening within the sector. The education budget planning is a layered process involving discussions and negotiations with the PMO on the allocation of staff positions. The PMO accounts for the largest share of the education budget and is dependent on the allocation by the MoFEA. In addition, the education sector financial management is semi-fragmented, with some schools, known as grant-aided schools, and select Madrassah schools receiving direct subventions. The transfers are managed entirely by the school board and the Secretariat of the Arab-Islamic Education in The Gambia (AMANA) for Madrassah schools, with limited accountability channels in place to record and report on the use of these public funds. Given that most of these funds are most likely used for paying teachers, the lack of a clear accountability mechanism makes tracking of teacher salaries difficult at the ministry level.

The education sector is funded in large part by private households which contributed about 58 percent of total spending in education in 2015, followed by the public sector which accounted for 34 percent. The sector also relies heavily on donor contributions which were equivalent to more than 20 percent of non-household spending in 2015. The breakdown by level of education reveals that the public sector contributes close to 39.6 percent of total spending at the basic education level, while households contribute 47.4 percent. At the SSS level, households account for 53 percent of total spending, while the public contributes 37.4 percent. Lastly, donors contributed the most within the basic education level: 13 percent of total spending at that level compared. Although budget shows high share of commitment at the higher education level is mostly linked to the capital spending tied to the expansion of the University of The Gambia, execution rate is very low.
120. **Public spending is increasing over time both in real and nominal terms, reflecting the government’s commitment to funding the education sector.** As shown in Figure E.2, total education spending as a share of GDP has steadily increased from 2.6 percent in 2010 to 3.2 percent in 2015, although this allocation remains below the best practice benchmark of allocating 4–6 percent of GDP. The share allocated to the MoBSE has increased from 2.3 percent to 2.8 percent of GDP while the MoHERST’s share has remained around 0.3 percent throughout the 2010–2015 period. It should also be noted that the government uses cash method budgeting, leading to high execution rates across the board, with execution rates of 97 percent for the MoBSE and 89 percent for the MoHERST.

121. **Total public spending in The Gambia is biased toward basic education; however, the disproportionately low spending in postsecondary education might be a prohibitive factor affecting students from poor households.** The Gambia allocates 75 percent of the total sector budget to basic education, 12 percent to senior secondary, and 13 percent to postsecondary. When using UIS breakdown of spending by level of education, it shows that The Gambia spent 51.1 percent on primary education, which is close to the GPE-recommended 50 percent. However, the Government spent a high share on secondary education (36.5 percent), leaving the remaining minimal—12.5 percent to the postsecondary level. This level of spending in postsecondary education tends to be very low, even when compared with the SSA average, which is 44 percent in primary (grades 1–6), 28 percent in secondary (grades 7 to 12/13), and 19 percent to postsecondary. Although most of the public funding is allocated to basic education levels where the poor participate the most, the lower spending in postsecondary leads to an increase in the unit cost of postsecondary education, making it extremely difficult for the poor to afford.

122. **The functional allocation reveals that the budget does not adequately provide for non-personnel costs which are essential for public schools to offer effective teaching and run well-managed establishments.** Non-personnel costs include spending on school materials, library books, and blackboards, among other day-to-day running costs incurred in the management of the school. While The Gambia allocates enough in terms of the share on non-salary spending (about 23 percent of recurrent budget), at school level, on average between 2010 and 2015, 95 percent of the spending went to teacher salaries, leaving little room for non-salary spending. Of the non-salary spending that does reach the school, school grants take the highest share at 66 percent. The vast majority of non-salary spending at the central level is transferred to other public institutions which are not directly connected to learning enhancement at the school level. Contributions to other general government units, subventions to nonfinancial public corporations/institutions, and contributions to international organizations accounted for about 51 percent of non-salary recurrent spending at the central level.

123. **The budget nomenclature is not aligned to the government’s education priorities and goals and does not allow effective monitoring and evaluation (M&E) of the policy outcomes.** For example, the budget code for some preprimary, primary, and lower secondary items are combined, despite each level of education having a specific target to be achieved, as outlined in the sector strategy. Furthermore, the lack of a budget linked to the sector targets also makes it difficult to raise local and

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25 There are two general methods of budget recording cash and accrual. The cash method focuses on the inflows and outflows of cash, that is, records when budget allocations are received and expenses are paid. Under the budget ceiling, the ministries request for funding based on spending plan once the actual amount identified.
international resources to achieve global targets such as the MDGs and SDGs or even allow timely M&E of the effectiveness the programs. Therefore, it is important to have a budget that allows a breakdown for all levels of education separately.

**Adequacy and sustainability of public spending**

124. **Despite the government’s commitment to the education sector, total spending on all levels of education represented only 3.2 percent of GDP, compared with the recommended level of 4–6 percent** and the 4.6 SSA average. However, education spending as a share of total public spending stands at 20.4 percent which is in the recommended range of 17–25 percent depending on the country’s situation. Education receives the highest share of the budget in the country but because the total public spending as share of GDP is low (15 percent), education spending as share of spending is also low. This is also one of the key reasons why the post-basic level relies heavily on household and development partner contributions.

125. **The cost of educating a child in The Gambia is high compared to many SSA countries and has been on an increasing trend.** This is unlikely to be sustainable given that many children are still out of school and the increasingly constrained fiscal space. Public unit cost per capita spending in The Gambia is above the SSA average at the primary and secondary levels while it is below the SSA average at the postsecondary level. Increasing the unit cost might not be sustainable given the fiscal constraints facing the country and the large number of out-of-school children who still need to be accommodated into the system.

126. **The number of teachers is the key driver of the cost of schooling although teacher salaries are generally low**—1.9 times the GDP per capita compared with the benchmark of 3.5 times GDP per capita at the LBS level. The growth in the number of teachers during the last five years is more than double that of enrollment growth (the number of teachers grew annually by 11 percent compared with student growth of 5 percent between 2010 and 2015). The result has been that the STR has been declining and stands below the recommended level of 40:1 at LBS—for example, reduced from 41:1 in 2010 to 33:1 in 2015. The institutional arrangement between The Gambia College (the teacher-training institution) and the ministry is such that the ministry takes in the graduates of the education college without ensuring that the intake into (and eventual graduates of) The Gambia College are strategically aligned with the planned teacher needs. Given the limited fiscal space and needs, the pattern is not affordable nor sustainable.

127. **The disparities in the availability of adequate school infrastructure, including location of schools, are adversely linked to learning outcomes in The Gambia and affect the various school levels differently.** School inputs and factors such as appropriate class size and availability of other school facilities are uneven across regions. For example, in most of the remote regions, particularly region 5, there are overcrowded classrooms, poor classroom conditions, and limited separate toilet and water facilities. These regions also tend to have low learning outcomes. The low access to critical school inputs is in large part due to lack of financing for operating costs. Although the provision of some school level inputs is adequate, and the government is on the right path to achieving the goal of

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26 The actual recommended level is based on the country’s situation.
providing a school within 3 km of communities, there is also a significant shortage of some of the critical school inputs, for example, electricity, libraries, and textbooks, although this also varies by region.

Efficiency of the education system

128. **The efficiency analysis results indicate that the same services can be provided with 18 percent fewer resources through optimal resource utilization—in other words—inefficiencies are potentially equivalent to 18 percent of the budget.** At the national level, efficiency scores\(^\text{27}\) stand at 82 percent with large variations by region, implying that some regions and districts have even more potential to optimize resources for greater efficiency. In particular, given the constrained fiscal situation in The Gambia, the government needs to explore any areas of efficiency gain to cope with the challenges and be able to provide consistent service delivery.

129. **The large variation in unit cost, which is jointly driven by the high share of personnel cost in the total budget and the unequal distribution of teachers by region, contributed to low efficiency of resources utilization.** There is a large variation of unit cost across regions, school levels, and school management (ownership). The key driver of unit cost is teacher salaries, which account for more than 90 percent of the school-level education budget. Given that teacher compensation in The Gambia is low, onboarding large numbers of teachers (leading to the low STR) and disparities in deployment of teachers contributed to unit cost variations. Generally, grant-aided public schools are associated with lower unit costs, implying better efficiency, but data are not available to carry out in-depth analysis as to why they are more efficient. Variation of non-financial school inputs (infrastructure, learning materials, and so on) by school also contributed to efficiency differences observed.

130. **The government has made tremendous efforts to reduce internal inefficiencies related to repetition but other dimensions of internal efficiency related to delayed entry, survival, and completion remain key bottlenecks.** Given the financial resource constraints under which the public sector is operating, there is a strong rationale to explore potential efficiency savings. Repetition (which is a concern in early grades) and dropout rates remain a source of internal inefficiencies. To address these issues, it is essential to ensure that the automatic promotion policy is effectively applied. For example, about 38 percent of children do not start school at the official school starting age (age 7), and the share of over-age children in the last grade of primary reaches 72 percent. From those who started grade 1, only 56 percent survive to the last grade of primary, 43 percent to the last grade of lower secondary, and 24 percent to the last grade of upper secondary.

131. **Although the government encourages ECD through different initiatives such as ‘annexing’ preschools to preexisting primary schools, given that ECD provision is one solution to the problem of inefficiency, more can be done at this level.** The current enrollment in ECD shows that take up at this level of education is mostly by children from wealthier households; however, there are clear benefits that could accrue to children from lower-income households, such as greater on-time

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\(^{27}\) The efficiency score is calculated based on DEA and it measures how different schools use resources to produce outcome. It measures a relative efficiency and ranges from 0 to 1, where 0 is the most inefficient school and 1 is the most efficient school. The higher the efficiency score, the better is the resources utilization efficiency.
enrollment. Given the three tenets of education investment—invest early, invest smartly, and invest for all—the weaker focus on ECD programs and the inequality at this stage could hamper future efforts for inclusive growth and equal opportunities.

132. **Although the EMIS database is well developed in the MoBSE, it does not capture adequate staff information to assess other dimensions of efficiency such as share of non-teaching staff at both the MoBSE and the MoHERST.** The availability of adequate and systematically collected data on all facets of education, including of non-teaching staff, is key to ensure M&E of these efficiency aspects. In particular, the EMIS is not well developed in the MoHERST, which is a key limitation to carryout detailed analysis on the subsector.

133. **Returns to education reveal that there is clear value for investment on education both in terms of public and private returns.** The private returns to education are positive for all levels of education and more educated people tend to work for the public sector. However, the working-age population, on average, has not completed primary education (having an average of 3.7 years of schooling) and about 58 percent of them have no formal education. This has significant implications on The Gambia’s economic growth and global competitiveness. Given that the country depends heavily on the services sector which requires skills, the country should increase investment on human capital for economic growth to better compete in the global economy.

**Equity, role of government, and affordability**

134. **Inequality in access to education is pervasive in The Gambia across geographical zones, income status, and areas of residence.** The Gambia’s overall low education performance is clearly driven by the poor performance in the remote regions. Although The Gambia achieved gender parity in access at all levels of education except higher education, completion of specific levels of education still tends to favor boys: the PCR for boys stands at 82 percent compared with 66 percent for girls in 2015. While girls have a slight advantage in the lower secondary level—7 percentage points higher—boys have a 13 percentage point advantage in completion of senior secondary.

135. **The incidence of out-of-school children is high in rural areas, among children from the poorest quintile and in regions 4–6.** The highest incidence rate is in region 5, where out-of-school rates reach as high as 80 percent in one of the districts. Overall, household head education level, sector of activity, and household wealth status are key determinants of out-of-school incidence in The Gambia. In particular, children from households where the household head has no education, is working in agriculture, and is from the lowest quintile have the highest out-of-school incidence.

136. **While households contribute significantly to the education sector, the cost of education is not affordable for the poor.** The commitment of households to education has been increasing faster than public spending. On average, household spending on education as share of their income increased from 1.5 percent in 2010 to 5.9 percent in 2015, while public spending as share of GDP increased from 2.6 percent to 3.2 percent during the same time. Cost of schooling remains a significant burden for the poor—for example, households from the poorest quintile spend about 98 percent of their income per capita on education, compared with 46 percent for the richest quintile, which implies
that a child from the poorest quintile would go to school at the expense of his or her sibling and other family members.

137. **Resources available for children from the poorest quintile are less across all levels of education, and when children face multiple socioeconomic barriers, they tend to leave the system early.** While the government has made tremendous efforts to reduce school fees for all students, indirect costs such as uniforms, lunch, pocket money, and school meals costs are not affordable for the poor. A holistic approach to the subsidy (giving the same for all) may not help the poor to overcome key socioeconomic challenges. In addition, one of the key reasons for families keeping children out of school in The Gambia is associated with religious beliefs, which could also be linked with parents’ education and other sociocultural factors. Those children that do start school are more likely to drop out, given the limited funds and multiple socioeconomic barriers. This, in turn, contributes to the intergenerational poverty trap.

138. **The high unit cost, especially in postsecondary education, is prohibitive to poor households despite their strong commitment to educating their children.** Unit costs in postsecondary education are a particularly heavy burden for the poorest households—the unit costs represent 100 percent of their per capita income for preschool, 87 percent for LBS, 122 percent for UBS, 132 percent for SSS, and 169 percent at the post-education level. Given that the inequality gap between the rich and the poor is high, poorer households may face greater difficulties in sustaining their investment in education.

139. **Public spending in education tends to be pro-rich at all levels of education or benefits the rich more.** Although the government has implemented several interventions to reduce regional and gender disparities, the non-targeted approach of interventions had not helped reduce inequalities in access by household income quintile. It should also be noted that education spending in basic education and senior secondary are more equitable than the general income disparity in society, while postsecondary spending is less equable.

Human capital development

140. **If there are no changes to current trends, the human capital projection suggests that by 2030, 30 percent of young people will enter the labor market without primary education.** However, by achieving its MDGs in education, the same projection shows that, by 2030, there will not be any new entrants in the labor market without primary education. This increase in the human capital stock of the country would enable The Gambia to better meet the needs of the growth sectors and better align the education sector with the evolving labor demand needs. However, it requires a significant financial commitment to fund the expected increase of enrollment at the primary level by 67 percent and teachers by 70 percent. This would require a public sector budget increase to education by 67 percent, assuming the private provision stays the same and plays the same role; otherwise, it may require a more significant increase.
Policy recommendations

(a) Improve the allocative efficiency to ensure that all levels of education and spending categories are adequately funded

141. Develop an appropriate distribution of the budget based on preset criteria and sector priorities to provide consistent and productive service delivery at all levels of education. This requires strategic planning of skills needed and effective allocation to the correct levels of education to develop such skills. Given that the existing education spending (as a percentage of GDP) is low, this analysis does not recommend reallocation between sectors but rather suggests that increases in the total education budget be focused more on the postsecondary education level.

142. Increase the share of the budget on non-salary school level spending to at least 20 percent to provide enough school inputs and learning materials for better learning outcomes. In particular, the LBSs are most affected by the shortage of school inputs and infrastructure. Given that spending on this level of education benefits the poor the most, increasing the share of non-salary funding at the school level will have a positive effect on equality of education and the added benefit of improving the inequitable distribution of resources as well.

143. Improve the budget elaboration and preparation process to clearly reflect each level of education and the sectoral priorities of the government, especially with respect to the attainment of the MDGs. The budget preparation and elaboration process needs to reflect the sectoral priorities both at the allocation and execution stages. The budget nomenclature should also be revised to ensure adequate M&E of activities by level of education.

144. While key PFM indicators require a detailed assessment by the MoBSE and the MoHERST, the two ministries should ensure the following three elements: (i) establish guidelines regarding the percentage of GDP to be allocated to the ministries so that they can develop their long-term plans, (ii) establish transparent accounting and reporting systems on all non-salary expenditures, and (iii) build clearer coordination between the donor coordination unit and each Project Coordination Unit (PCU).

(b) Ensure the adequacy and sustainability of public spending

145. Increase spending on education while targeting the most challenged regions (regions 4–6) and levels of education (post-basic). As it currently stands, public investment in education in The Gambia is at 3.2 percent of GDP, far below the levels recommended to effectuate any real change to the sector.

146. Use the unit cost as an instrument in the preparation of policies and associated budgets for effective utilization of funding. To ensure sustainability of the education budget, the unit cost should be a key tool used in the planning process.

147. The teacher staffing process should be based on a predetermined set of criteria including STR, classrooms, school size, subjects taught, and facilities available at the school level. In particular, the
current preservice teacher training program and hiring practice should be immediately reconsidered for hiring decisions based on number and type of teachers needed.

148. The availability of adequate school inputs and favorable learning environments are key for ensuring good learning outcomes, and as such, it is crucial that appropriate funds (operating costs and capital expenditure) be earmarked to make the learning environment conducive to educational achievement.

(c) **Ensure resources distributions are equitable and protects the poor**

149. Institute pro-poor education policy intervention programs focusing on marginalized communities by providing financial support or vouchers for children from poor families to afford schooling and overcome other socioeconomic-related barriers. This may include conditional cash transfers (CCTs) to encourage parents to send their children to school or school-feeding programs targeting children from poor families, rural areas, and remote regions, as poverty is one of the key factors that hinder school participation.

150. Strengthen school development plan committees and other types of community-level grassroots mobilization to create awareness on education, including developing sensitization campaigns for communities where participation in conventional public schools are low. This could be combined with exploring opportunities to meet community demand while at the same time focusing on clear learning outcomes and equity measures. This may include provision of inputs (school feeding) and/or incorporation of religious instruction in exchange for commitments to provide the official curriculum and continued engagement with the community.

151. Enhance PPPs focusing on marginalized populations in addition to the current partnership in Madrassah schools. Given that local private schools are more culture and community oriented, there are clear benefits from extending conventional private participation where the out-of-school issue is critical and providing additional support to integrate more Madrassah schools under the AMANA system. This can be done, for example, by providing grants to private schools to enroll children from poor households and to communities where out-of-school levels are high.

(d) **Adopt measures to utilize resources efficiently and improve the internal efficiency, for better educational outcomes**

152. Encourage ECD programs to increase children’s readiness for primary school; promote learning; help reduce factors that affect internal efficiency (dropout, repetition, and delayed entry); and increase the probability of having longer productive lives in the labor market. ECD programs have the potential to strengthen the foundation of the education system, enabling children to transition more easily into primary school. This in turn increases the likelihood of joining LBS on time and therefore, reduces the likelihood of dropping out and delayed entry, which are an important source of inefficiency in The Gambia. It also increases the likelihood of joining the labor market earlier, which could have a significant cumulative impact on the lifetime income stream of the individual.

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28 Private schools in the Gambia are classified under two—conventional private schools and Madrassah private schools.
153. For better assessment and evaluation of learning outcomes, The Gambia should establish a standardized assessment at all levels of education to allow for comparability of results across time following elaboration of assessments based on the international standard.

154. Strengthen the EMIS capacity by providing adequate technical and financial resources to produce reliable and consistent data for policy making and to ensure all necessary indicators such as non-teaching staff are being captured in the data collected. In particular, the postsecondary-level EMIS requires further advancement.

155. To improve the efficiency and effectiveness of resource utilization and eliminate inefficiencies in the education sector, it is crucial for regions and the central management to make decisions based on clear guidelines. For example, the teacher staffing process should be based on a predetermined set of criteria including the STR, classrooms, school size, subjects taught, and facilities available at the school level and hardship status of the school location or district.

156. Given the financial resource constraints under which the public sector is operating, there is a strong rationale to explore potential efficiency savings, that is, savings arising from more efficient use of resources. Repetition and dropout rates as well as delayed entry are an important source of internal inefficiency, and to address these issues, there should be a mandatory enrollment age and automatic promotion at least within the primary education level.

(e) Improve the human capital development of the labor force through adequate provision of second chance education programs

157. In addition to increasing investment in regular schooling, the government should consider the expansion of alternative learning programs to provide second chance education for parents and youth, giving them the opportunity to overcome educational gaps. Adequate provision of basic education opportunities for parents could have positive effects, not only in raising their own education level but also in motivating them to send their own children to school, and could gradually narrow the inequality gap and cultural barriers. For example, given that the out-of-school issue is most pressing in the remote regions, where poverty rates are higher, parents are less educated, religious factors are high, and resources are sparser, funds could be dedicated to increasing the public provision of schooling.
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Annexes

Annex A. Methodological notes

Note 1: Benefit Incidence Analysis

1. A BIA illustrates how public expenditure on services is distributed among population subgroups, utilizing both the service provision costs and participation or usage rates of a specific service (Heltberg, Simler, and Tarp 2003). Benefit incidence studies are particularly useful in determining the extent to which public spending on social sectors—for the present chapter, education—benefits the poorest strata and therefore, creates a well-targeted instrument for poverty reduction. A BIA can likewise analyze expenditure by different groups or regional locations though this analysis requires greater disaggregation in spending data which was not available for this analysis. This chapter has been therefore limited to the income group (denoted by expenditure quintile).

2. A BIA requires three elements: household-level survey data which gather (a) information from which to construct a proper welfare indicator (that is, per capita household consumption expenditures, appropriately adjusted) and (b) utilization of or participation in the public service of interest (enrollment in school) and administrative or budget data that provide (c) unit costs to the government for the provision of those same services (for example, the cost of one year of schooling per student).

3. In the case of The Gambia, the IHS 2015 is an adequate instrument to conduct a BIA with as it gathers appropriate information on both enrollment figures as well as consumption measures for constructing accurate welfare indicators. Welfare, in this case, is measured by the aggregate household consumption over the last 12 months, after incorporating food consumption, non-food consumption, housing, and benefits derived from durable goods. The unit costs of education are derived from figures for public spending on education reported by the Ministry of Finance for Public Spending on Education. By utilizing government expenditure sources in addition to household expenditure on education, a more accurate unit cost can be calculated.

4. Individuals (or households) must first be ranked by their measure of welfare according to the household survey and then aggregated into population groups to compare how the subsidy itself is distributed across these groups. These groups are typically quintiles or deciles. This analysis utilizes expenditure quintiles, in which the first quintile holds the poorest 20 percent of the population and so on.

5. Next, using the data provided in the household survey, the total number of individuals who participated in or used the publicly provided service in question (those who were enrolled in school) must be identified. Each user (or household) is then multiplied by the unit cost of service provision and finally, these beneficiaries are aggregated into their appropriate population groups (consumption

29 The concept of BIA was originally pioneered by studies by Gillespie on Canada 1965 and extended to developing countries context by Meerman (1979) on Columbia and Seloswski (1979) on Malaysia and in its modern stage, by Selden and Wasylenko (1992), Sahn and Yonger (1999) on Africa, and Demery (2000).
quintiles). It is the distribution of this in-kind transfer of the population that constitutes a BIA. The BIA model for The Gambia can be expressed as

\[ X_j = \sum_{i=1}^{4} E_{ij} S_i = \sum_{i=1}^{4} E_{ij} S_i, \]

where \( X_j \) is the value of the total education subsidy imputed to consumption quintile \( j \). \( E_{ij} \) represents the number of school enrollments of consumption quintile \( j \) at education level \( i \) and \( E_i \) the total number of enrollments (across all consumption quintile) at that level. \( S_i \) is government spending on education level \( i \) and \( i (=1,...,4) \) denotes the level of education (primary, lower secondary, upper secondary, and tertiary). Note that \( SI/Ei \) is the unit subsidy of providing a school place at level \( i \) (Demery 2000).

6. The resulting profile illustrates the distribution of public spending on education that is allocated to each welfare group (expenditure quintile) or the ‘benefit incidence’. Concentration curves can then be plotted that show the cumulative distribution of these benefits across households and can be compared to the cumulative distribution of total consumption (what is typically referred to as the Lorenz curve). The Lorenz curve is a graphical interpretation of the cumulative distribution of income on the vertical axis against the cumulative distribution of population on the horizontal axis. The progressivity of spending is pro-poor if the poor receive more of the services’ benefits than the non-poor as well as a share greater than their share of the population; graphically this line appears above the diagonal line as this is the line indicating that each quintile in the distribution is receiving the same share, in this case, 20 percent of spending. Pro-poor spending is an indication of the successful targeting of public service benefits toward poorer households (Heltberg, Simler, and Tarp 2003). ‘Not-pro-poor but progressive’ refers to a scenario where the non-poor receive more than the poor, but the poor still receive a share larger than their share of consumption; graphically this line appears below the diagonal but above the Lorenz. ‘Not-pro-poor and regressive’ occurs if the non-poor receive more than the poor and the share of the poor is less than their share of consumption; graphically this line appears below the diagonal and below the Lorenz.

7. When determining enrollment as an element of BIA, its distribution can be interpreted in one of two ways: (a) net enrollment (the share of children of school-age groups attending the corresponding school level) or (b) gross enrollment (the share of all children regardless of their age who are attending a specific school level). The differences in these two can add depth to further interpretations of the benefit incidence analysis. In The Gambia, given the overages, older children still enrolled in primary school contribute to differing enrollment rates and the GER is used.

Note 2: The determinants of transition through the school system

8. To investigate the determinants of transition through the education system, a sequential logit model is estimated.\(^\text{30}\) At each level of education, the probability of completion depends on whether individuals have completed the previous education level or not. For instance, completing primary

\[^{30}\text{This regression model is also known under a variety of names, such as Sequential Response Model (Maddala 1983), Continuation Ratio logit (Agresti 2002), Model for Nested Dichotomies (Fox 1997), and Mare model (Mare 1981; Shavit and Blossfeld 1993). For an extended discussion, see also Buis (2010).}\]
education matters for individuals who are engaged in the education system and only people who have already completed primary education are concerned by secondary education completion. Sequential logit model allows modeling the probability of completing each level of education and that of moving to the next level of education taking into account the completion of the previous level of education. The purpose is to model the influence of the explanatory variables on the probability of passing a set of transitions.

9. The model that is estimated for The Gambia includes five transitions: first, the decision to continue/finish primary school (versus never enrolling or dropping out of primary school); second, given that the youth continued/finished primary school, whether to get into lower secondary education or not; third, given that the youth enrolled in lower secondary education, whether the youth eventually dropped out or not; fourth, given that the youth enrolled in upper secondary education, whether the youth eventually dropped out or not; and fifth, given that the youth continued with upper secondary education, whether the youth completed upper secondary education by the age of 24, are still participating in upper secondary education or not. We focus on youth (ages 15 to 24) because they seem to be more concerned by transition issues in the education system.

10. A schematic of the model is shown in Figure A1. According to this chart, one is required to have passed all lower transitions to make a decision to continue or to leave the school system. Given the assumption that decisions are independent, one can estimate the model by running a series of logit regressions for each transition on the appropriate subsample.

![Figure A1: Illustration of the transition through The Gambia’s education system](image)

11. After assigning a value to each level of education (pseudo-years) one can study the effect of the explanatory variables on the expected final outcome. The probability that person $i$ passes transition $k$, $p_k$, is given by

\[
p_k(i) = \frac{\exp(a_k + b_kx_i)}{1 + \exp(a_k + b_kx_i)},
\]

\[
p_2(i) = \frac{\exp(a_2 + b_2x_i)}{1 + \exp(a_2 + b_2x_i)}, \text{ if } p_1 = 1,
\]
where the constant for transition \( k \) is \( a_k \) and the effect of the explanatory variable \( x_i \) is \( b_k \). Buis (2010) shows that the effect of the explanatory variables on the highest achieved level of education is a weighted sum of the effects of passing each transition and that the contribution of each transition can be visualized by the area of a rectangle with width equal to the weight and height equal to the effect on the probability of passing the transition (the log-odds ratio or the marginal effect).\(^{31}\) One can thus see how the effect differs by characteristic (such as gender) or cohort.

**Note 3: DEA Methodology**

12. A DEA is based on the construction of an empirical non-parametric production frontier and the measurement of efficiency through the distance between the observed data and the optimal value of these data given by the estimated frontier. In the current analysis, the production frontier approximates the maximum quality or access to education (the output) that could be achieved given different levels of educational resources (the inputs) as compared to the best-performing schools in the country. Figure A2 illustrates the efficiency measurement with the DEA in a hypothetical case of one input—unit cost that is used to produce one output—average grade 12 test result.

13. The frontier gives maximum levels of the output that could be achieved given the different quantities of input used. Decision-Making Units (DMUs) are schools—that is, the input and output are measured and determined at the school level. The DMUs that are on the frontier are relatively efficient—from the 12 schools taken for the purpose of demonstration, schools A to K, 6 schools are on the frontier line and they are relatively efficient compared to the other 5 schools below the frontier line. While the model considered both input- and output-oriented approaches, the demonstration is only for an output-oriented model. For an input-oriented model, the DMU needs to reduce input to be efficient while in an output-oriented model, the DMU needs to increase the output to be efficient (for further explanation about the model, please see Charles, Cooper, and Rhodes [1981]). The focus of the demonstration below is to show the potential for schools in The Gambia to improve learning outcomes given the existing resources. The key summarized points from the graph include the following: (a) all schools on the frontier line (A to F) are equally efficient in resource utilization (efficiency score 100 percent); (b) all schools below the PPF are inefficient with different levels of efficiency score; (c) schools E and F have the same output but school E uses fewer resources to produce the same output as school F; (d) school A uses fewer resources and produces less output relative to all points on the graph but is equally efficient as school E; (e) school E and F have high results (100 percent) and no room for improvement but school F can use fewer resources to achieve the same output as school E by doing the same thing that school E did; (f) for example, schools B and I have the same result (80 percent) but the unit cost in I is higher (2,400 versus 800); hence, if school I adopts similar resource utilization patterns to school C, it can produce the same output while reducing its resource use by 1,600; and (i) because the result for I is low compared to the other school

\(^{31}\) For this, one can use the Stata command Seqlogitde comp.
which has the same unit cost but produces 95 percent, if school I can increase the efficiency of resource use like school D, it will produce results similar to those of school D (that is, increase in test results from 80 percent to 95 percent).

**Figure A2: Concept behind the efficiency measurement and interpretation, hypothetical school**

Note 4: Human Capital Projections: Assumptions and methodologies

14. The projection closely follows the methods of the International Institute for Applied Systems Analysis (IIASA) of population projections in terms of required variables, as determined by the PDE software. This analysis was limited to two scenarios: (a) the constant scenario, in which the trend of dropout and retention rates remain the same until 2045, under the assumption that no investments or reforms have taken place to alter the trends, and (b) the MDG attainment, in which the MDG of universal primary education is met by 2025— the Government of The Gambia-targeted MDG by 2025.

15. To conduct a projection of the educational attainment, a baseline population distribution must first be generated by five-year age groups, sex, and level of educational attainment. The projection in this chapter used the IHS 2010 and 2015 as the base year. The model likewise requires that (a) for each five-year increment, cohorts move to the next highest five-year age group; (b) mortality rates specific to age, sex, and education group are applied to each period; (c) age- and sex-specific educational transition rates are applied; (d) age, sex, and education-specific net migrants are added or removed from the population; and (e) fertility rates specific to age, sex, and education groups are used.
to determine the size of the newest 0–5 age group. The projection in The Gambia was constructed based on the following assumptions.

16. **Migration**: The impact of migration was not considered in the projection of education of the labor force as The Gambia had a small net migration rate of \(-1.47\) migrants per 1,000\(^{32}\) as of 2015, and the gross migration rate is less than 2 percent.\(^{33}\) The demographic background of emigrants and immigrants are likewise similar as they typically come from neighboring countries and do not significantly affect the education profile of the labor force.

17. **Mortality**: As complete death registration data are often unavailable in developing countries, this chapter adopts the census survival approach to overcome the limitation (United Nations 2002). Data from ENEV 2008 and 2015 were used as an input into the UN’s life table model to estimate age-specific mortality rates. For life expectancy, differences estimated by Samir et al. (2010) were adopted for each education level, and the model suggested that education was positively associated with longer life expectancy. A similar methodology applied to the education system in The Gambia led to the assumption that life expectancy increases with education by one year for each level of education, that is, none, incomplete primary, completed primary, completed lower secondary, and completed upper secondary.

18. **Fertility**: For this projection, fertility is considered as a demographic determinant of the projected educational profile. ASFRs were calculated by identifying live births that occurred in the three years preceding the survey and classifying them by the age of the mother (in five-year age groups) at the time of birth, using data from the 2012 Demographic and Health Survey (DHS 2013) in The Gambia. Total fertility rates (TFRs) refer to the number of live births a woman would have if she were subject to the current ASFRs for the duration of her reproductive years (15 to 49 years) and was likewise estimated using DHS 2013.

19. **Transition**: Transition rates were calculated based on the assumption that transitions take place between educational levels with the possibility of repetition but with no reverse transition. This rate was based on UNESCO’s formula which used age-grade enrollment patterns. To account for age distortions that arose from late entry, a remedial method suggested by IIASA was adopted, which states that the transition rate from one level of education to another is distributed by the proportion of age groups relevant to that same education level. Detailed procedures can be referenced from Lutz, Cuaresma, and Abbasi-Shavazi (2010) and Lutz et al. (2007).

20. **Age**: Five-year age increments groups were used as an input to IIASA’s population projection model for The Gambia. Given the gap between entry in primary school and labor market entry (approximately 7–10 years), the projection in this chapter begins in 2015 so that the current stock of human capita is reflected, while the full impact of policy scenarios can be observed in 2030.

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\(^{33}\) https://www.iom.int/countries/gambia.
Table B1: Average share of school facilities by categories, public schools only, 2015

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<th>Science Lab (%)</th>
<th>Clean Water (%)</th>
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Source: Authors’ estimations based on EMIS.
### Table B2: Enrollment projection under three scenarios (in thousands), 2015-2030

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<th>2020</th>
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<th>2030</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
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### Table B3: Projection of key achievement indicators under three scenarios, 2015-2030

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<td>77%</td>
<td>101%</td>
<td>103%</td>
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<td>Grade 9 completion rate</td>
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<td>Grade 9 completion rate</td>
<td>60%</td>
<td>53%</td>
<td>61%</td>
<td>63%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Higher education enrollment in 100,000 habitants</td>
<td>742.2</td>
<td>755.5</td>
<td>774.4</td>
<td>799.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>
Table B4: Projection of education budget needed and expected from the Gov't (US$, thousands), 2015-2030

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Indicator</th>
<th>Education budget needed</th>
<th>Funds expected from the Gov't</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>ECD</td>
<td>1,725</td>
<td>2,511</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>18,099</td>
<td>25,224</td>
</tr>
<tr>
<td></td>
<td>Lower Secondary</td>
<td>9,566</td>
<td>11,941</td>
</tr>
<tr>
<td></td>
<td>Senior secondary</td>
<td>4,547</td>
<td>5,452</td>
</tr>
<tr>
<td></td>
<td>Higher Education</td>
<td>4,779</td>
<td>6,183</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>38,716</td>
<td>51,310</td>
</tr>
<tr>
<td>Medium</td>
<td>ECD</td>
<td>1,725</td>
<td>2,088</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>18,099</td>
<td>24,089</td>
</tr>
<tr>
<td></td>
<td>Lower Secondary</td>
<td>9,566</td>
<td>10,649</td>
</tr>
<tr>
<td></td>
<td>Senior secondary</td>
<td>4,547</td>
<td>4,708</td>
</tr>
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<td></td>
<td>Higher Education</td>
<td>4,779</td>
<td>5,682</td>
</tr>
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<td></td>
<td>Total</td>
<td>38,716</td>
<td>47,217</td>
</tr>
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<td>Low</td>
<td>ECD</td>
<td>1,725</td>
<td>1,961</td>
</tr>
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<td></td>
<td>Primary</td>
<td>18,099</td>
<td>23,551</td>
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<td>10,198</td>
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<td>4,547</td>
<td>4,587</td>
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<td>Higher Education</td>
<td>4,779</td>
<td>5,682</td>
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<td>Total</td>
<td>38,716</td>
<td>45,979</td>
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Table B5: Projection of education funds expected from development partners and financing gap (US$, thousands), 2015-2030

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Indicator</th>
<th>Funds expected from development partners</th>
<th>Financing gap by level</th>
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</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECD</td>
<td>420</td>
<td>546</td>
<td>687</td>
</tr>
<tr>
<td>Primary</td>
<td>4,402</td>
<td>5,483</td>
<td>5,674</td>
</tr>
<tr>
<td>Lower Secondary</td>
<td>2,327</td>
<td>2,596</td>
<td>3,748</td>
</tr>
<tr>
<td>Senior secondary</td>
<td>103</td>
<td>110</td>
<td>148</td>
</tr>
<tr>
<td>Higher Education</td>
<td>223</td>
<td>257</td>
<td>288</td>
</tr>
<tr>
<td>Total</td>
<td>7,474</td>
<td>8,991</td>
<td>10,544</td>
</tr>
<tr>
<td>Medium</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ECD</td>
<td>420</td>
<td>493</td>
<td>563</td>
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<tr>
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<td>5,690</td>
<td>6,326</td>
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<tr>
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<td>2,327</td>
<td>2,515</td>
<td>3,477</td>
</tr>
<tr>
<td>Senior secondary</td>
<td>103</td>
<td>103</td>
<td>124</td>
</tr>
<tr>
<td>Higher Education</td>
<td>223</td>
<td>257</td>
<td>288</td>
</tr>
<tr>
<td>Total</td>
<td>7,474</td>
<td>9,059</td>
<td>10,778</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECD</td>
<td>420</td>
<td>476</td>
<td>525</td>
</tr>
<tr>
<td>Primary</td>
<td>4,402</td>
<td>5,713</td>
<td>6,502</td>
</tr>
<tr>
<td>Lower Secondary</td>
<td>2,327</td>
<td>2,474</td>
<td>3,312</td>
</tr>
<tr>
<td>Senior secondary</td>
<td>103</td>
<td>103</td>
<td>119</td>
</tr>
<tr>
<td>Higher Education</td>
<td>223</td>
<td>264</td>
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</tr>
<tr>
<td>Total</td>
<td>7,474</td>
<td>9,029</td>
<td>10,762</td>
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Table B6: Projection of share of financing gap and education level allocation by level, 2015-2030

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<tr>
<th>Scenario</th>
<th>Indicator</th>
<th>Share of financing gap by level</th>
<th>Allocation of budget by level</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>ECD</td>
<td>3%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>3%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Lower Secondary</td>
<td>3%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Senior secondary</td>
<td>25%</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>Higher Education</td>
<td>22%</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8%</td>
<td>17%</td>
</tr>
<tr>
<td>Medium</td>
<td>ECD</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Lower Secondary</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Senior secondary</td>
<td>25%</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>Higher Education</td>
<td>22%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Low</td>
<td>ECD</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Lower Secondary</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Senior secondary</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Higher Education</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8%</td>
<td>8%</td>
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### Table B7: Projection of key fiscal space implication under three scenarios, 2015-2030

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Indicator</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High</strong></td>
<td>Nominal GDP (US$, millions)</td>
<td>893</td>
<td>1,058</td>
<td>1,252</td>
<td>1,483</td>
</tr>
<tr>
<td></td>
<td>GDP per capita</td>
<td>449</td>
<td>455</td>
<td>464</td>
<td>478</td>
</tr>
<tr>
<td></td>
<td>Revenue and grant share of GDP</td>
<td>21.6</td>
<td>23.6</td>
<td>27.9</td>
<td>33.1</td>
</tr>
<tr>
<td></td>
<td>Expenditure share of GDP (%)</td>
<td>29.7</td>
<td>25.4</td>
<td>30.1</td>
<td>35.6</td>
</tr>
<tr>
<td></td>
<td>Debt as share of GDP (%)</td>
<td>8.1</td>
<td>1.8</td>
<td>2.1</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Education spending as share of GDP (%)</td>
<td>3.2</td>
<td>3.5</td>
<td>4.1</td>
<td>4.3</td>
</tr>
<tr>
<td></td>
<td>Education financing gap as share of GDP (%)</td>
<td>0.3</td>
<td>0.8</td>
<td>1.6</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>Education Financing gap contribution to Debt (%)</td>
<td>0.0</td>
<td>0.5</td>
<td>0.8</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Medium</strong></td>
<td>Nominal GDP (US$, millions)</td>
<td>893</td>
<td>1,058</td>
<td>1,252</td>
<td>1,483</td>
</tr>
<tr>
<td></td>
<td>GDP per capita</td>
<td>449</td>
<td>455</td>
<td>464</td>
<td>478</td>
</tr>
<tr>
<td></td>
<td>Revenue and grant share of GDP</td>
<td>21.6</td>
<td>23.6</td>
<td>27.9</td>
<td>33.1</td>
</tr>
<tr>
<td></td>
<td>Expenditure share of GDP (%)</td>
<td>29.7</td>
<td>25.4</td>
<td>30.1</td>
<td>35.6</td>
</tr>
<tr>
<td></td>
<td>Debt as share of GDP (%)</td>
<td>8.1</td>
<td>1.8</td>
<td>2.1</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Education spending as share of GDP (%)</td>
<td>3.2</td>
<td>3.2</td>
<td>3.4</td>
<td>3.4</td>
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<tr>
<td></td>
<td>Education financing gap as share of GDP (%)</td>
<td>0.3</td>
<td>0.4</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>Education Financing gap contribution to Debt (%)</td>
<td>0.0</td>
<td>0.2</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>Nominal GDP (US$, millions)</td>
<td>893</td>
<td>1,058</td>
<td>1,252</td>
<td>1,483</td>
</tr>
<tr>
<td></td>
<td>GDP per capita</td>
<td>449</td>
<td>455</td>
<td>464</td>
<td>478</td>
</tr>
<tr>
<td></td>
<td>Revenue and grant share of GDP</td>
<td>21.6</td>
<td>23.6</td>
<td>27.9</td>
<td>33.1</td>
</tr>
<tr>
<td></td>
<td>Expenditure share of GDP (%)</td>
<td>29.7</td>
<td>25.4</td>
<td>30.1</td>
<td>35.6</td>
</tr>
<tr>
<td></td>
<td>Debt as share of GDP (%)</td>
<td>8.1</td>
<td>1.8</td>
<td>2.1</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Education spending as share of GDP (%)</td>
<td>3.2</td>
<td>3.2</td>
<td>3.2</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>Education financing gap as share of GDP (%)</td>
<td>0.3</td>
<td>0.3</td>
<td>0.5</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Education Financing gap contribution to Debt (%)</td>
<td>0.0</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
</tr>
</tbody>
</table>
Annex C. Figures

Figure C1: Average monthly earning by years of teaching experience (left, in GMD) and distribution of teachers, by years of teaching experience, by region, public LBS only (right), 2015

Source: Authors’ estimations based on payroll data and EMIS.

Figure C2: Percentage of classrooms with permanent structures, public schools, 2016

Source: EMIS 2016
**Figure C3: Pupil class size ratio in public schools, taking into account of morning and afternoon shifts, 2016**

![Bar chart showing pupil class size ratio in public schools across different regions and subjects.]

*Source:* Authors’ estimations based on administrative data, EMIS.

**Figure C4: Pupil textbook ratio, LBS, BCS, UBS, public schools only, 2016 (no SSS textbook data available in EMIS)**

![Bar chart showing pupil textbook ratio in public schools across different subjects and regions.]

Figure C5: Resource index in public LBS and performance on NAT 5 (left) and average monthly total earnings (GMD) in public LBS teachers with PTC and years of experience, 2010–16 (right)

Source: Authors’ estimations based on administrative data, EMIS.
**Figure C6: Equity in GER at district level, UBS and SSS**

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<thead>
<tr>
<th>Region 1</th>
<th>UBS</th>
<th>SSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Jeshwang</td>
<td>62.5</td>
<td>46.9</td>
</tr>
<tr>
<td>Sere Kunda West</td>
<td>63.1</td>
<td>50.4</td>
</tr>
<tr>
<td>Banjul city council</td>
<td>68.2</td>
<td>53.0</td>
</tr>
<tr>
<td>Sere Kunda East</td>
<td>69.9</td>
<td>73.4</td>
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<tr>
<td>Banjul city council</td>
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<td>Sere Kunda Central</td>
<td>86.9</td>
<td>66.7</td>
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<tr>
<td>Banjul city council</td>
<td>106.9</td>
<td>53.8</td>
</tr>
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<td>Bakau</td>
<td>166.6</td>
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</tr>
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<td>47.4</td>
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<td>Kombo North</td>
<td>76.5</td>
<td>51.5</td>
</tr>
<tr>
<td>Foni Bondali</td>
<td>76.6</td>
<td>50.5</td>
</tr>
<tr>
<td>Kombo East</td>
<td>77.9</td>
<td>38.9</td>
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<td>Kombo Central</td>
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<td>63.8</td>
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<tr>
<td>Foni Brefet</td>
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<td>16.4</td>
</tr>
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<td>Foni Jarrol</td>
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<td>64.3</td>
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<td>Sabach Sanjar</td>
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<td>Illusa</td>
<td>38.7</td>
<td>32.7</td>
</tr>
<tr>
<td>Central Badibu</td>
<td>41.2</td>
<td>23.7</td>
</tr>
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<td>Upper Niumi</td>
<td>51.4</td>
<td>26.0</td>
</tr>
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<td>Jokadu</td>
<td>61.9</td>
<td>31.0</td>
</tr>
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<td>Lower Badiu</td>
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</tr>
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<td>Lower Niumi</td>
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<td></td>
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<th>Region 4</th>
<th>UBS</th>
<th>SSS</th>
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<tr>
<td>Jarra Central</td>
<td>46.7</td>
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<tr>
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<td>56.9</td>
<td>22.8</td>
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<td>Jarra East</td>
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<td>18.0</td>
</tr>
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<td>Kiang Central</td>
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<td>Jarra West</td>
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<tr>
<td>Kiang West</td>
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<td>10.3</td>
<td>12.3</td>
</tr>
<tr>
<td>Nianja</td>
<td>18.3</td>
<td>13.7</td>
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<tr>
<td>Sami</td>
<td>22.8</td>
<td>13.0</td>
</tr>
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<td>Niamina East</td>
<td>24.8</td>
<td>16.9</td>
</tr>
<tr>
<td>Lower Saloum</td>
<td>28.1</td>
<td>32.5</td>
</tr>
<tr>
<td>Niani</td>
<td>28.7</td>
<td>15.9</td>
</tr>
<tr>
<td>Lower Fuladu West</td>
<td>31.9</td>
<td>29.8</td>
</tr>
<tr>
<td>Niamina Dankunku</td>
<td>39.0</td>
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</tr>
<tr>
<td>Niamina West</td>
<td>47.3</td>
<td>24.8</td>
</tr>
<tr>
<td>Upper Fuladu West</td>
<td>47.3</td>
<td>39.1</td>
</tr>
<tr>
<td>Janjanbureh</td>
<td>99.3</td>
<td>73.4</td>
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</tbody>
</table>

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<thead>
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<th>Region 6</th>
<th>UBS</th>
<th>SSS</th>
</tr>
</thead>
<tbody>
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<td>16.3</td>
<td>5.3</td>
</tr>
<tr>
<td>Sandu</td>
<td>19.8</td>
<td>7.6</td>
</tr>
<tr>
<td>Wuli East</td>
<td>20.8</td>
<td>6.7</td>
</tr>
<tr>
<td>Wuli West</td>
<td>22.1</td>
<td>9.3</td>
</tr>
<tr>
<td>Tumana</td>
<td>23.6</td>
<td>10.4</td>
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<td>Jimara</td>
<td>32.5</td>
<td>8.2</td>
</tr>
<tr>
<td>Basse</td>
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<td>37.0</td>
</tr>
</tbody>
</table>

**Source:** Estimations based on IHS 2015.
Figure C7: Breakdown of household education payment by level of education and quintile

Source: Authors’ estimations based on IHS 2015.
Figure C8: Reason for being out of school, by district

Source: Estimations based on IHS 2015.
Figure C9: Out-of-school rate by household head education level, employment status and sector of employment by level of education

Source: Estimations based on IHS 2015.
Annex D. Examples of evaluated interventions or programs and lessons learned

1. Each intervention/program presented includes a topic or section identified as having potential interest for policy makers. The note is summarized under the following eight interventions/programs: CCT programs, school meals program, PPP, community participation, school-based management, incentives for quality improvement, and learning assessment and M&E system.

CCT programs

2. Mexico Conditional Cash Transfers: School Subsidies for the Poor: Evaluating the Mexican Progresa Poverty Program. The Progresa program provides poor mothers in rural Mexico with education grants to boost enrollment. Poor children who reside in communities randomly selected to participate in the initial phase of the Progresa are compared to those who reside in other (control) communities. Pre-program comparisons check the randomized design, and double difference estimators of the program’s effect on the treated are calculated by grade and sex. Probit models are also estimated for the probability a child is enrolled, controlling for additional characteristics of the child, their parents, local schools, and community, and for sample attrition, to evaluate the sensitivity of the program estimates. These estimates of program short-run effects on enrollment are extrapolated to the lifetime schooling and the earnings of adults to approximate the internal rate of return on the public schooling subsidies as they increase expected private wages (Schultz 2004).

3. Indonesia Student Scholarships and Incentives: Protecting Education for the Poor in Times of Crisis: An Evaluation of a Scholarship Program in Indonesia. This paper analyzes the impact of an Indonesian scholarship program, which was implemented in 1998 to preserve access to education for the poor during the economic crisis. Scholarships were pro-poor targeted and the allocation process followed a decentralized design, involving both geographic and individual targeting. The identification strategy exploits this decentralized structure, relying on instrumental variables constructed from regional mistargeting at the initial phase of allocation. The program has increased enrollment, especially for primary school-age children from poor rural households. Moreover, the scholarships seem to have assisted households in smoothing consumption during the crisis, relieving pressure on households’ investments in education and utilization of child labor (Sparrow 2007).

4. Brazil Conditional Cash Transfers: The Impact of the Bolsa Escola/Familia Conditional Cash Transfer Program on Enrollment, Drop Out Rates and Grade Promotion in Brazil. The Bolsa program provides monthly cash payments to poor households with children between the ages of 6 and 15 who are enrolled in school. Using eight years of school census data (from 1998 to 2005), the study compares changes in enrollment and in dropout and grade advancement rates across schools that adopted the Bolsa program at different times. After accounting for cumulative effects, the Bolsa program has increased enrollment in Brazil by about 5.5 percent in grades 1–4 and by about 6.5 percent in grades 5–8. The program has also lowered dropout rates by about 0.5 percentage points and raised grade promotion rates by about 0.9 percentage points for children in grades 1–4 and reduced dropout rates by about 0.4 percentage points and increased grade promotion rates by about 0.3 percentage points for children in grades 5–8 (Glewwe and Kassouf 2012).
5. **India School Meals Program: The Impact of School Meals on School Participation: Evidence from Rural India.** This paper assesses the effect of transition from monthly distribution of free food grains to the daily provision of free cooked meals to school children on enrollments and attendance in a rural area of India. School panel data allow a difference-in-differences estimation strategy to address possible endogeneity of program placement. The results suggest that program transition had a significant impact on improving the daily participation rates of children in lower grades. The average monthly attendance rate of girls in grade 1 was more than 12 percentage points higher while there was a positive but insignificant effect on grade 1 boys’ attendance rate. The impact on enrollment levels was insignificant (Afridi 2007).

6. **Kenya School Meals: School Meals, Educational Achievement and School Competition: Evidence from a Randomized Evaluation.** The program was implemented in Western Kenya in 25 randomly chosen preschools from a pool of 50. It provided a fully subsidized in-school breakfast on every school day to all students attending preschool. School participation was 30 percent higher in the treatment group than in the comparison group. The breakfast program led to higher curriculum test scores but only in schools where the teacher was relatively experienced before the program. The school meals displaced teaching time and led to larger class sizes. Despite improved incentives, teacher absenteeism remained at a high level of 30 percent (Vermeersch and Kremer 2005).

Child friendly schools

7. **Ethiopia CFS:** With assistance from UNICEF, Ethiopia began implementing the child friendly school (CFS) program in 2007 in 51 selected primary schools with an estimated reach of more than 80,000 students. The program sought to improve education quality, outcomes, and childhood development by addressing perceived school-based barriers that limit access to education and participation in school. Interventions include renovation or construction of classrooms, teaching and ECD centers, libraries, and water and sanitation facilities and provision of furniture, education materials, equipment, and uniforms. The CFS program had a positive and significant effect on enrollment, especially in favor of girls, and community participation. However, the CFS program did not reduce dropout and repetition rates over the program period (UNICEF 2010).

Community participation

8. **Indonesia Community Participation: Improving Educational Quality through Enhancing Community Participation: Results from a Randomized Field Experiment in Indonesia.** Education ministries worldwide have promoted community engagement through school committees. This paper presents results from a large field experiment testing alternative approaches to strengthen school committees in public schools in Indonesia. Two novel treatments focus on institutional reforms. First, some schools were randomly assigned to implement elections of school committee members. Another treatment facilitated joint-planning meetings between the school committee and the village council. Two more common treatments, grants and training, provided resources to existing school committees. We find that institutional reforms, particularly links and elections combined with links, are the most cost-effective at improving learning (Pradhan et al. 2013).
School-based management

9. **Mexico School-Based Management: Empowering Parents to Improve Education: Evidence from Rural Mexico.** The authors examine a program that involves parents directly in the management of schools located in highly disadvantaged rural communities. The program, known as AGE, finances parent associations and motivates parental participation by involving them in the management of the school grants. Using a combination of quantitative and qualitative methods, we show that the AGE greatly increased the participation of parents in monitoring school performance and decision making. Further, the authors find that the AGE improved intermediate school quality indicators, namely grade failure and grade repetition, controlling for the presence of a CCT program and other educational interventions (Gertler, Rubio-Codina, and Patrinos 2006).

10. **Latin America Countries School-Based Management: Does School Decentralization Raise Student Outcomes? Theory and Evidence on the Roles of School Autonomy and Community Participation.** Using data on primary schools in 10 Latin American countries, the study evaluates the impact of decentralized school decision making on student performance. The model developed shows that local autonomous effort will be jointly determined with student academic performance. The model predicts that least-squares estimates are biased toward finding a positive impact of school autonomy on student performance. Empirical tests confirm these predictions. Least-squares estimates show a strong positive effect of decentralized decision making on test scores, but these results are reversed after correcting for the endogeneity of school autonomy. However, results support the role of parental participation in the schools as a positive influence on student achievement (Gunnarsson et al. 2004).

11. **Kenya School Resource Provision: Many Children Left Behind? Textbooks and Test Scores in Kenya.** A randomized evaluation in rural Kenya finds, contrary to the previous literature, that providing textbooks did not raise average test scores. Textbooks did increase the scores of the best students (ones with high pretest scores) but had little effect on other students. Textbooks are written in English, most students’ third language, and many students could not use them effectively. More generally, the curriculum in Kenya and in many other developing countries, tends to be oriented toward academically strong students, leaving many students behind in societies that combine a centralized educational system; the heterogeneity in student preparation associated with rapid educational expansion; and disproportionate elite power (Glewwe, Kremer, and Moulin 2009).