Basic Education Certification Exam (BECE) exam performance across subjects is low, but it is particularly poor in English. The national average is below 50 per cent in both English and mathematics and has consistently remained at this level over the past four years. Students underperform in English, scoring a low average of 37 per cent. The national averages also mask significant regional variations.

Historical exam performance has varied by gender in certain subjects, but these gaps have vanished over time. In 2020/21, there were no significant gender gaps in BECE exam performance at the national level. Despite national-level parity, regional differences proliferate.

Urban schools outperform rural schools, with private urban schools performing best across subjects. This trend has remained consistent over time. All things equal, rural public schools (the worst performers) are 11–14 points behind urban private schools (the best performers).
Ghana has made tremendous progress in increasing access to education for all children. Gross enrolment rates (GER) are over 100 per cent at the primary level and over 85 per cent for junior high school (JHS). Access to senior secondary education has also increased, notably since the Ghana Ministry of Education launched free senior high school access for all. Nevertheless, significant challenges remain and learning levels in Ghana are low. For instance, a 2018 representative national assessment of grade 4 students showed that only 19 per cent were proficient in mathematics, and nearly half had below minimum competency levels. That said, some Ghanaian schools beat the odds, outperforming their peers with similar resources even in disadvantaged areas. By identifying these positive deviant schools and good practices related to their success, important lessons can be learned to improve the quality of education in Ghana, in line with the Education Sector Plan 2018–2030.

Context

Junior high schools in Ghana

This analysis focused on JHS schools in Ghana. Most JHS schools are public (69 per cent) and located in rural areas (53 per cent). JHS size varies by enrolment. The average JHS school has 107 students, with urban areas having larger schools (122 students) than rural areas (93 students). Nationally, there is no gender gap in student enrolment. However, regional inequities exist.

Basic Education Certification Exam over time and regions

Nationally, BECE exam performance is poor, particularly in English. In 2020/21, the average JHS student scored 49 per cent in mathematics, with a quarter of the students scoring below 34 per cent. Students did better in Ghanaian languages exams, where the average score was 59 per cent. However, student performance in English was also poor – average scores were 37 per cent, with three-quarters of students scoring below 44 per cent.

Exam performance varies over time and across regions. Mathematics and English scores vary over the years, whereas performance in Ghanaian languages is relatively stable. Figure 1 shows national BECE trends across academic years 2017/18 to 2020/21.

Positive deviance research

In this context, the Data Must Speak Positive Deviance research investigates local solutions for improving education quality in Ghana. The first stage employs statistical analysis using existing education data sets such as the BECE scores and the annual Education Management Information System (EMIS) school census across four academic years – 2017/18 to 2020/21 – to identify factors driving school performance in Ghana. This brief discusses key findings from this first stage, focusing on BECE exam performance by region, gender and school type.

Research findings

Significant regional variation in exam scores highlights inequities across the country. For instance, in 2020/21, the highest-scoring regions scored almost twice the lowest-scoring ones in mathematics – 63 per cent in Brong-Ahafo and Ashanti versus 31 per cent in Upper West. In addition, Upper West, Upper East and Volta perform poorly across subjects, indicating a need for additional attention and support.

Source: BECE scores from 2017/18–2020/21. Calculations made by authors, representing an average of averages (average computed from school-level average exam scores). All point estimates weighted by the size of JHS (number of students enrolled in JHS).
The Basic Education Certification Exam and gender

Boys outperformed girls in mathematics in the past; however, this performance gap has vanished over time. Boys’ and girls’ exam performance is comparable in English and Ghanaian languages. Boys previously performed better than girls in mathematics, but by 2020/21, there were no significant differences in their exam scores. For instance, in 2017/18, the average score for boys was 2 percentage points higher than for girls (46 versus 44), whereas in 2020/21, the difference was negligible (49.4 versus 49.2). In English and Ghanaian languages, exam performance for boys and girls has remained similar over the years. These are encouraging results, underscoring Ghana’s commitment to gender equality across education outcomes.

While, nationally, there were limited gender differences in exam performance across subjects, there were some regional variations. For instance, in Upper West, which is notably the lowest performing region, boys significantly outperform girls across subjects.

Figure 3: Basic Education Certification Exam performance over time by student gender

Source: BECE scores from 2017/18–2020/21. Calculations made by authors, representing an average of averages (average computed from school-level average exam scores). All point estimates weighted by the size of JHS (number of students enrolled in JHS).
The Basic Education Certification Exam and school location

Urban schools outperform rural schools, with private urban schools performing best across subjects. This trend has remained consistent over time.

Throughout the four years included in this analysis, there is a significant performance gap between the best performers – **private schools located in urban areas** – and the worst performers – **public schools located in rural areas**. This gap has remained consistent across years and subjects. Figure 4 details BECE performance across time and subjects for different types of schools.

Rural public schools are consistently the poorest performers in English and Ghanaian Language. For example, in 2020/21, all things equal, they were 14 and 11 raw points (1.1 standard deviations [SD] and 0.8 SD) behind the best performers (urban private schools). In mathematics, rural and urban public schools have closely tracked each other in terms of exam performance.

More generally, private schools consistently outperform public schools in BECE examinations. Private schools are consistently 10–13 raw BECE points ahead of public schools. In Ghana, 31 per cent of schools are private and most of these (70 per cent) are located in urban areas.

**Figure 4: Basic Education Certification Exam performance over time by school type and location**

![Graph showing BECE performance over time by school type and location.](image)

*Source: BECE scores from 2017/18–2020/21. Calculations made by authors, representing an average of averages (average computed from school-level average exam scores). All point estimates weighted by the size of JHS (number of students enrolled in JHS).*
**Education policy areas for further exploration**

While BECE performance could stand to improve generally, **performance in English is particularly poor. Investigate the factors contributing to this trend** (for example, teacher training and comfort with the language, students’ exposure to English, and access to reading resources for language development) to identify targeted strategies for improvement.

**There are regional inequities in exam performance, often intersecting with poverty levels.** For instance, Upper West, Upper East and the Volta – some of the poorest regions in Ghana – also perform the worst across subjects. Consider additional attention and support for these regions, either in the form of material resources or pedagogical and technical support.

**Private schools outperform public schools in BECE exams across subjects.** Most private schools in Ghana are low-fee schools catering to lower-income households. As Ghana works to improve learning for all, these private schools can play an essential role in the Government’s strategy. Consider learning from both private and public schools of excellence to improve learning in Ghana.

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**About the Data Must Speak research on positive deviant schools**

The DMS research on positive deviant schools in Ghana was developed jointly by the Ghana Ministry of Education, the Ghana Education Service, local partners, the United Nations Children’s Fund (UNICEF) Ghana country office, and **UNICEF Innocenti – Global Office of Research and Foresight**. This global research is being implemented in 14 countries in Africa, Asia and Latin America. It is co-funded by the Jacobs Foundation, the Knowledge and Innovation Exchange (KIX) programme of the Global Partnership for Education/International Development Research Centre, the Hewlett Foundation, the Norwegian Agency for Development Cooperation, the Schools2030 programme (led by the Aga Khan Foundation) and UNICEF internal resources.

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**Series of policy briefs**

This brief is the first in a series of documents produced as part of the DMS research in Ghana. It aims to inform policy dialogue on education in Ghana and other countries. The complete research collection, including a report analysing the factors influencing Ghanaian school performance and detailed technical tables from which the results presented herein are derived, can be accessed [here](#).

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