



DATA MUST SPEAK

The effects of female head teachers and female teachers on boys' and girls' education

Unpacking factors influencing school performance in Côte d'Ivoire

Key findings



The proportion of female teachers (35.8 per cent) compared with female head teachers (12.3 per cent) reveals potential barriers to career progression for female teachers in Côte d'Ivoire.



Girls tend to have better promotion rates and pass rates in the end of primary school exam (CEPE) when female teachers are present, while boys perform better when they are taught by a male teacher.



Female-led public schools have better promotion rates than male-led schools for all students, both girls and boys.



The presence of a mothers of female pupils club (CMEF) helps retain girls in school.

Context

In recent years, the Ivorian Government has implemented several ambitious educational reforms, including the compulsory education policy and the school feeding policy. Despite these efforts, **challenges in access, equity, quality and governance remain**. However, some schools perform better than others, even in disadvantaged areas. By identifying these schools, called positive deviant schools, and the good practices that make them successful, important lessons can be learned to improve learning in Côte d'Ivoire and inform the development of the Education and Training Sector Plan 2016–2025.

Research on positive deviant schools

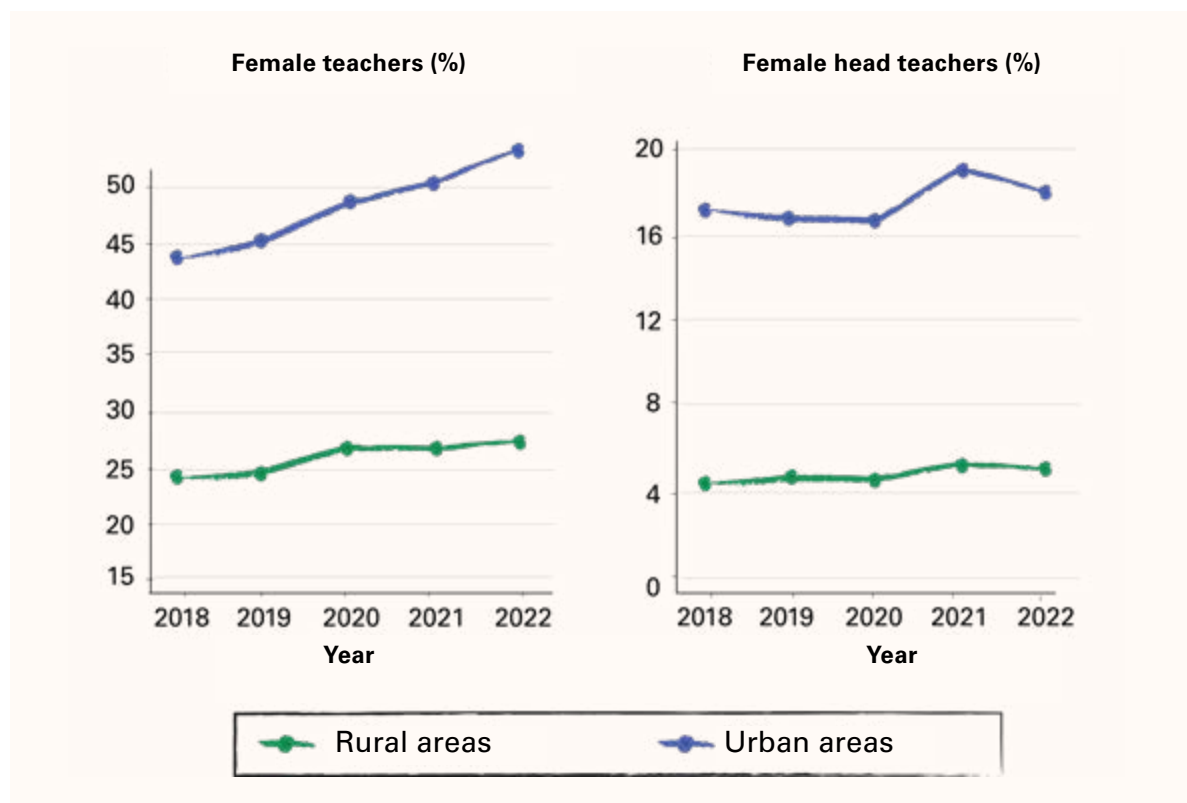
Against this background, the **Data Must Speak (DMS) research on positive deviant schools** explores local solutions for improving the quality of education in Côte d'Ivoire. The first and second stages of the research involved conducting an **econometric analysis using Education Management Information System (EMIS) data to identify factors influencing school performance and to quantify their effects**. The analysis presented in this brief summarizes the key findings of these early stages of the research.¹

Research findings

In Côte d'Ivoire, women make up 38.8 per cent of teaching staff. Urban schools attract twice as many female teachers as rural schools (53 per cent versus 27 per cent in 2022, see **Figure 1**). The number of female teachers has steadily increased in urban schools, exceeding 50 per cent in 2022, but has stagnated in rural schools. In this context, it is therefore unsurprising that more urban schools than rural schools have a female head teacher (almost four times more, see **Figure 1**). The proportion of female teachers (35.8 per cent) compared with the proportion of female head teachers (12.3 per cent) reveals potential barriers to career progression for female teachers in Côte d'Ivoire, where they are four times less likely to be promoted to head teacher than their male counterparts.

The teacher's gender affects boys' and girls' learning differently. **Girls tend to perform better in the CEPE when they are taught by female teachers, while effects are not significant for boys. For example, the girls' examination pass rate increases by around half a percentage point if 50 per cent of a school's teachers are women, in comparison to the national average of 38.8 per cent female staff.**

Figure 1: Proportion of female teachers and female head teachers in public schools in rural and urban areas

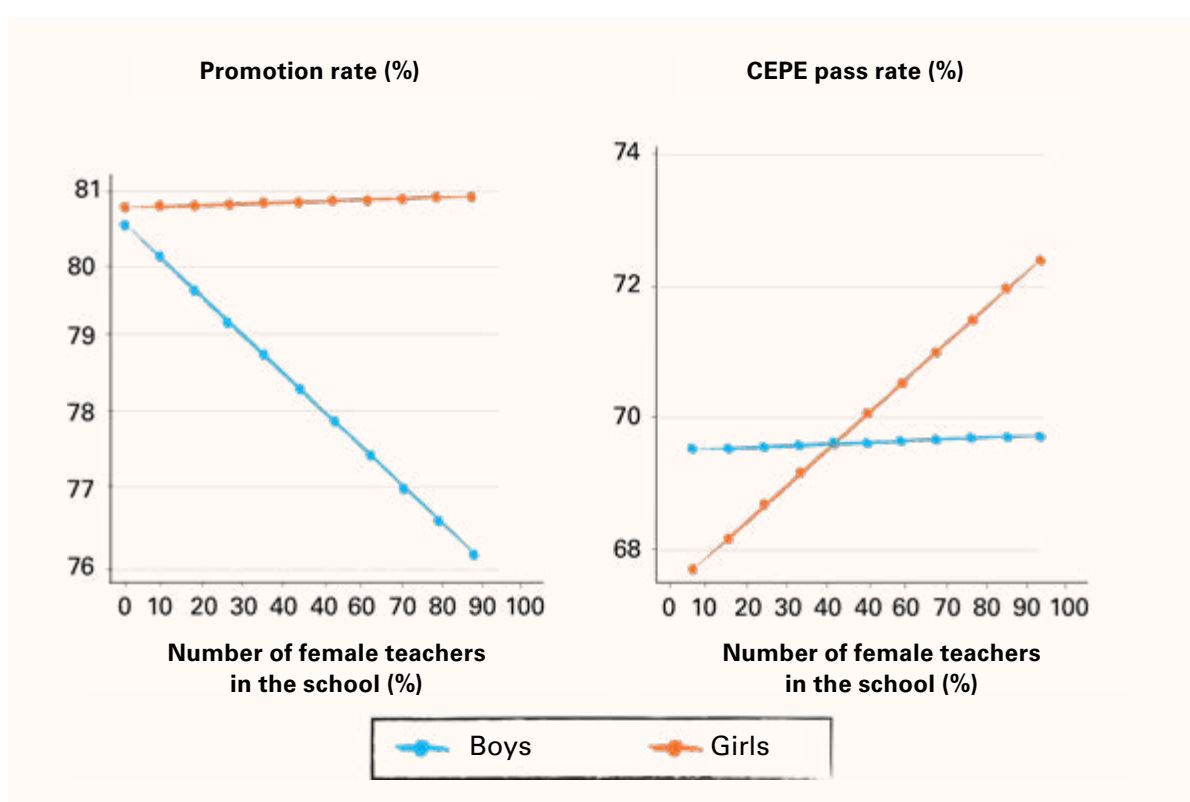


¹ Although rigorous, this analysis has its limitations because it is based on observational data. The econometric models used include school fixed effects and numerous control variables to reduce the likelihood that the relationships identified are due to systematic differences between schools.

However, there is a negative correlation between the percentage of female teachers in a school and the promotion rate for boys. This association is not observed for girls. **Figure 2** shows the projected effects of the change in the proportion of female teachers on promotion rates and CEPE pass rates for girls and boys, according to our model. In both cases, further research is needed to better understand how gender dynamics influence teacher-student relationships in Côte d'Ivoire.

The presence of a female head teacher is associated with better promotion rates for both girls and boys. This translates into slightly lower dropout rates in female-led schools. These findings are consistent with recent research² indicating better management skills among female head teachers in countries where women face discrimination in hiring or career advancement (where they must perform better than men to reach the same level). The findings are also in line with other studies showing that women are under-represented among head teachers, despite seemingly higher student outcomes in female-led schools.³

Figure 2: Simulated effects of the presence of female teachers on students (girls and boys)



Finally, some schools have created a **mothers of female pupils club (CMEF)**⁴ with the support of school officials and district advisors from the preschool and primary education inspectorates and regional directorates. The number of schools with a CMEF has increased over the past five years, more so in urban schools than in rural schools (see **Figure 3**).

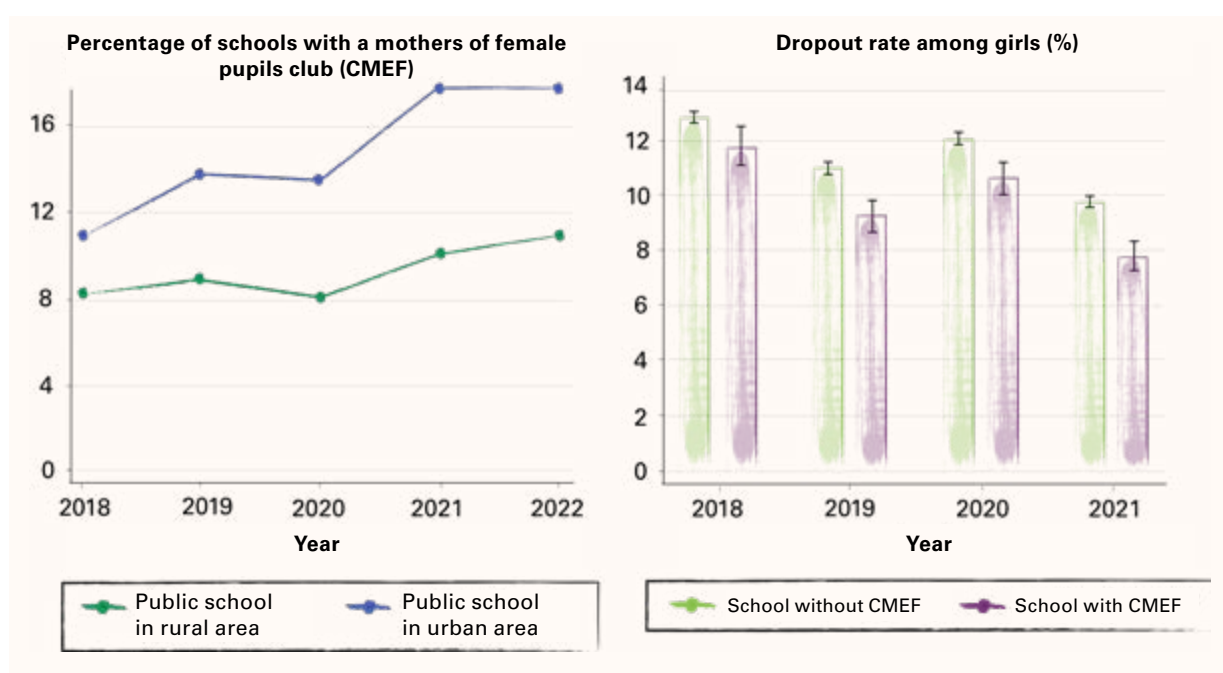
² Martínez Martínez, Miryam, Manuel M Molina-López and Ruth Mateos de Cabo, 'Explaining the Gender Gap in School Principalship: A tale of two sides', *Educational Management Administration & Leadership*, vol. 49, no. 6, November 2021, pp. 863–882. <https://journals.sagepub.com/doi/pdf/10.1177/1741143220918258>.

³ Bergmann, Jessica, Maria C. Alban Conto and Mathieu Brossard, [Increasing Women's Representation in School Leadership: A promising path towards improving learning](#), UNICEF Innocenti – Global Office of Research and Foresight, 2022.

⁴ Mothers of female pupils club (CMEF) are women's associations, mainly composed of mothers whose daughters are enrolled in the school in question. These clubs aim to promote equitable access to education for girls, increase their retention in school and boost their success in the school system, while protecting them from any gender-based discrimination.

The presence of a CMEF is associated with improved retention of girls in school. These clubs are positively associated with promotion rates and negatively associated with dropout rates. Girls in schools with a CMEF are 1.2 percentage points more likely to move up to the next grade than those attending schools without a club. Models explaining CEPE outcomes did not identify any significant effects; this is explained by the fact that the aim of the clubs is to promote girls' enrolment, not to improve learning. Only 12.7 per cent of school groups currently have a CMEF, meaning that 1.7 million girls are enrolled in primary schools that do not yet have a club. Findings suggest that the dropout rate is 0.5 percentage points lower in schools with a CMEF. As such, establishing clubs in the remaining 87.3 per cent of schools could keep approximately 9,000 girls in school each year.

Figure 3: Percentage of schools with a mothers of female pupils club (CMEF), and dropout rate for girls in schools with and without a CMEF



Suggested areas for further exploration



Understand gender dynamics in teacher-student relationships in Côte d'Ivoire. What specific practices and behaviours might explain the differences observed in boys' and girls' learning with a female teacher?



Analyse existing policies to promote the recruitment of qualified female head teachers, particularly in rural areas. Better understand the characteristics or behaviours of female head teachers that lead to this success, as well as the barriers preventing women from moving into leadership positions.⁵



Increase the number of public schools with a CMEF (especially in rural areas) and study the effects of these clubs on other aspects, such as early marriage of girls, school pregnancies, child labour (girls and boys) and mothers' literacy rate.

⁵ See this report for a more in-depth examination of potential barriers to women's access to leadership positions: <https://www.unicef-irc.org/publications/pdf/Increasing-Womens-Representation-in-School-Leadership-a-promising-path-towards-improving-learning.pdf>.

About the Data Must Speak research on positive deviant schools

The DMS research on positive deviant schools in Côte d'Ivoire was developed jointly by the Ministry of Education and Literacy, local research partners, the United Nations Children's Fund (UNICEF) Côte d'Ivoire country office, and the 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 Knowledge and Innovation Exchange (KIX) programme of the Global Partnership for Education/ International Development Research Centre, the Hewlett Foundation, the Jacobs Foundation, the Norwegian Agency for Development Cooperation, the Schools2030 programme (led by the Aga Khan Foundation) and UNICEF's Thematic Fund for Education.



Series of policy briefs

This brief is the first in a series of documents produced as part of the DMS research in Côte d'Ivoire. It focuses on gender issues in the Ivorian education system and aims to inform policy dialogue in Côte d'Ivoire and other relevant countries. To access the full research documents, including the report analysing the factors influencing school performance in Côte d'Ivoire and the tables illustrating the results described above, please see [here](#).

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