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RESEARCH ARTICLE

ANALYSIS OF THE TREND IN PASS RATES OF GIRLS IN NATIONAL EXAMINATIONS IN THE REPUBLIC OF GUINEA

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Abstract

This present study examines trends in girls' baccalaureate success rates in Guinea over a ten-year period. Using data collected from the national archives of examination results published by the National Institute of Statistics, we analyzed the success rates in the different sectors (Maths, Experimental and Social Sciences), explored the influential factors, and constructed prediction models to understand trends and identify persistent challenges in girls' education. Our results show a general increase in success rates, but also reveal persistent disparities between sectors. This study highlights the importance of supporting girls' education in Guinea and offers recommendations to improve their academic success.

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Introduction:-

Gender equality in education is a crucial issue for socio-economic development and social justice in the Republic of Guinea. Public education policies are struggling to keep their commitments to mass schooling in the general and technical system. The primary school completion rate remains very low (54.1%) and gender disparities are strong: 45.7% for girls and 62.7% for boys (PASEC, 2020). Overall, a deterministic logic is at work, especially for girls, depending on their family (socio-economic), cultural (early marriage, participation in household chores) and educational context (very low possibility of social and professional projection in the education system). [4]

Despite progress in access to education for girls, disparities persist in their academic performance, particularly in national exams. But national exams play a crucial role in assessing the skills and knowledge of students at different educational levels. Understanding trends in pass rates in these exams is important for assessing the effectiveness of the education system, identifying areas where improvements are needed, and informing education policies for decision-making. In Guinea, very few researchers have been interested in the success of girls in the baccalaureate over the years. This study aims to analyze the different disparities by examining historical and recent trends in girls' success rates in national exams, as well as the socio-economic and cultural factors that influence their academic performance. By better understanding the challenges that girls face in

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their educational journey and by identifying levers of action to promote gender equality in education, this study aims to contribute to the development of more inclusive and equitable educational policies in Guinea.

Unlike the success of girls in the baccalaureate, the factors influencing the academic success of girls in general have interested several researchers:

1. Ba, Mariama Djelo (2020), in her research work on "Early Marriage in the Republic of Guinea". Revealed certain causes which influence the academic success of girls which are: Distance from secondary schools, Forced dropping out of married girls, Lack of schooling or late schooling, Influence of relatives and demands on the eldest daughter.
2. Annie Feyfant (2011, p. 2) reported, in a very rich article, the effects of family education on the child's academic success, based on several works.
3. Pierre-Yves Bernard, Christophe Michaut (2018) report that Hunt, (2008); Cemalcilar and Göksen (2012) state that work focusing specifically on school dropouts in developing countries shows the effect of a combination of economic and cultural factors on early school leaving of girls – assignment to domestic tasks, cost high levels of education, lower expectations of success, early marriage – these are all factors in girls dropping out of school, or even no schooling [Hunt, 2008; Cemalcilar and Göksen, 2012]
4. According to Véronique Attias-Delattre (2023) dropping out and then dropping out of school are the subject of numerous analyzes. In Western countries, boys are more exposed to these risks than girls. Conversely, in sub-Saharan African countries, girls drop out of the school system more than boys. With regard to Guinea, citing Sidibé et al., (2020), the author informs that the differences between risk factors according to gender are very little studied. However, for girls, the school environment does not seem to be a protective factor. For example, the frequency of pregnancies in schools (8.2% of girls in middle and high school) is an indicator of the sexual violence they suffer from other students (30.2%) (Sidibé et al 2020).

Historical study of national examination results for girls in Guinea:

The data used in this study were collected from the national archives of examination results, contained in the Secondary Education Statistical Yearbooks and published by the National Institute of Statistics. To understand the trend in the success rate of girls, we were interested in the success rate of girls in the three sectors for a period of 10 years (from 2010 -2015 and 2017-2020), taking into account the absence of statistics from 2016 in these archives, we excluded the year 2016 from our study. Descriptive statistical analyzes were used to examine temporal trends and profile variations in success rates.

Identification of recent trends and possible gender disparities:

To analyze recent trends in national exam results, we looked at the success rates of girls at the baccalaureate by profile from 2010 to 2015 and from 2017 to 2020.

Baccalaureate success rate for girls by profile

Overall, the success rate of girls at the baccalaureate is fluctuating. The lowest rates were recorded in 2011 (in the experimental science and math science profiles) and the highest rate in 2013 (for social science) and in 2015 (math science) see figure 1.

When analyzing the figure, the experimental science profile is the sector which recorded the lowest success rate during these ten years. On average we observe that girls perform better in social sciences than in other fields. This state of affairs raises the issue of girls' accessibility to technical fields. With a social science baccalaureate it is impossible to access technical sectors in Guinea. Table 1 summarizes the success rate of girls at the baccalaureate from 2010 to 2015 then from 2017 to 2020.

Table 1:- Number of girls and boys admitted to the baccalaureate from 2010 to 2015 and from 2017 to 2020.

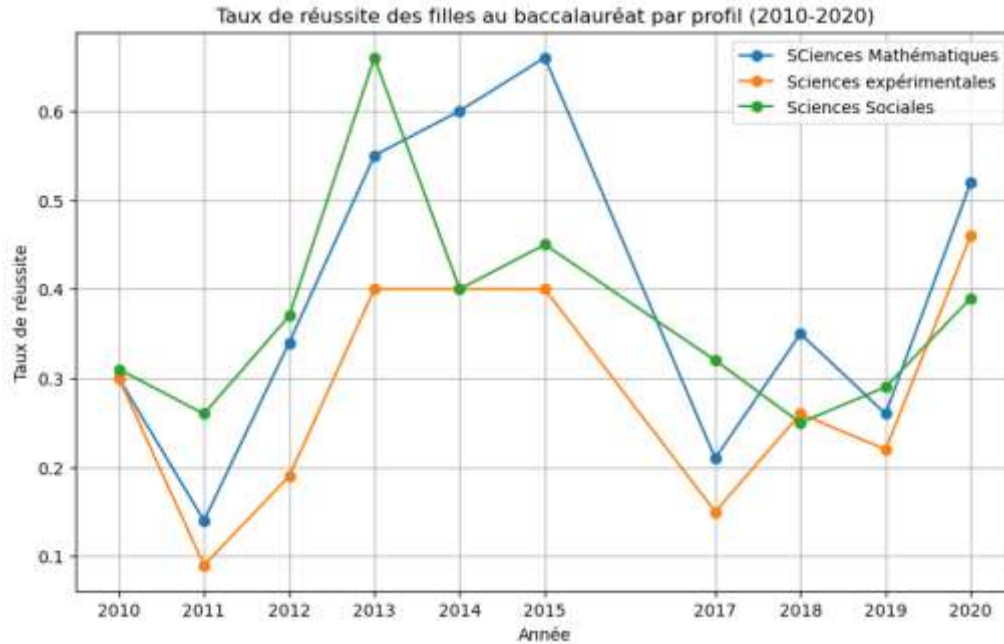
years	2020	2019	2018	2017	2015	2014	2013	2012	2011	2010
Boys	13842	14621	13184	6356	7629	8520	11766	13057	12427	9877
Girl	11402	5131	5206	1890	7210	6102	8300	6405	3007	4364

The Trend in the success rate of girls at the baccalaureate by profile from 2010 to 2015 and from 2017 to 2020 is shown in Figure 1.

Tables 2:- Baccalearatesuccess rate of girls by profile from 2010 to 2015 and from 2017 to 2020.

Years	2010	2011	2012	2013	2014	2015	2017	2018	2019	2020
SS	31%	26%	37%	66%	40%	45%	32%	25%	29%	39%
SE	30%	9%	19%	40%	40%	40%	15%	26%	22%	46%
SM	30%	14%	34%	55%	60%	66%	21%	35%	26%	52%

Figure 1:- Baccalearatesuccess rate of girls by profile from 2010 to 2015 and from 2017 to 2020.

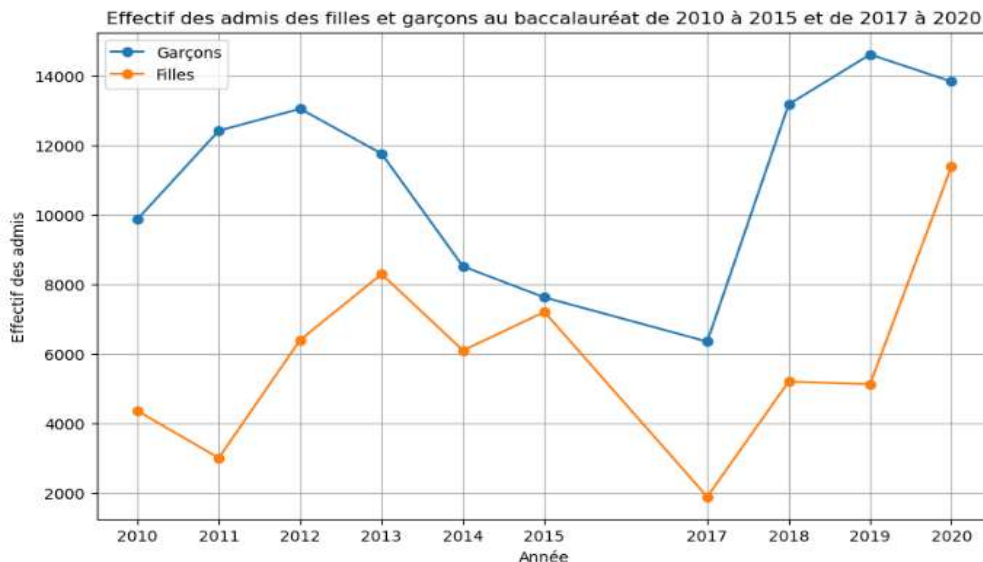


Disparity between girls and boys

Although progress has been made at this level, the disparity between girls and boys persists. To see this, Table 2 presents the number of girls and boys admitted to the baccalauréat in Guinea for the period from 2010 to 2015 and from 2017 to 2020.

The variation in the numbers admitted to the baccalauréat by gender from 2010 to 2015 and from 2017 to 2020 is shown in Figure 2.

Figure 2:- Number of girls and boys admitted to the baccalauréat from 2010 to 2015 and from 2017 to 2020.



Disparity between public and private in terms of baccalaureate success rate

To understand the influence of the socio-economic situation of parents on the success of girls, we analyzed the gap between the success rates of girls in the public and private sector from 2017 to 2020. The gap between these two rates shows that the Girls whose parents can afford the tuition fees of private establishments are more likely to succeed in the baccalaureate than others.

Table 3 represents the baccalaureate success rate in public and private schools from 2017 to 2020 by gender..

Table 3:- The baccalaureate success rate in public and private schools from 2017 to 2020 by gender.

	2017		2018		2019		2020	
	Girl	Boys	Girl	Boys	Girl	Boys	Girl	Boys
Total	22,90%	35,20%	28,30%	33,80%	26,00%	31,40%	45,20%	51,30%
Audience	16,10%	32,20%	18,00%	25,50%	17,40%	24,40%	37,20%	46,80%
Private	33,21%	43,57%	36,16%	45,12%	32,36%	40,90%	50,99%	57,41%

We note that the success rates of girls in private schools are higher than those of public schools and that the gap between the two is narrowing over the years. Figure 3 illustrates this situation.

Taux de réussite des filles au baccalauréat de 2017 à 2020 dans les établissements public et privé

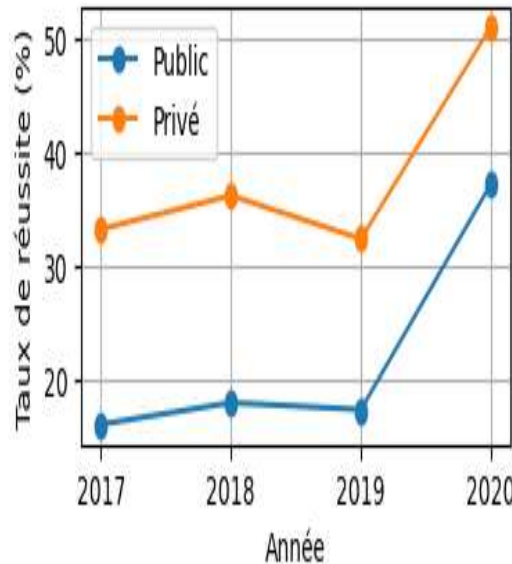


Figure 3:- Baccalaureate success rate for girls from 2017 to 2020 for public and private schools.

We note that the success rates of girls in private schools are higher than those of public schools and that the gap between the two is narrowing over the years.

Analysis of socio-economic and cultural factors influencing girls’ performances:

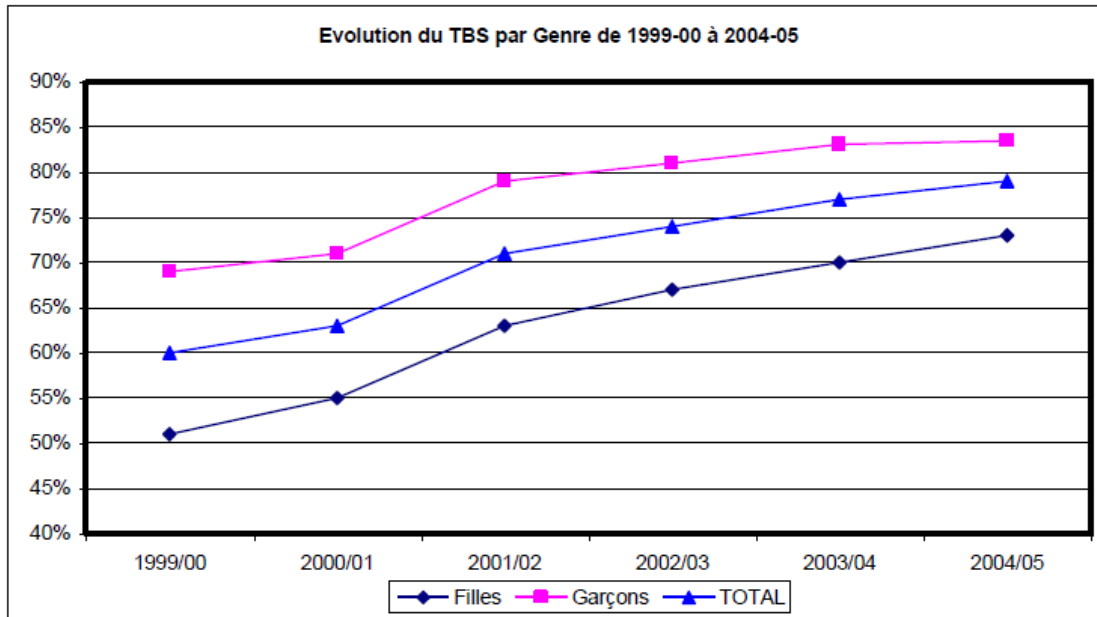
A thorough understanding of the socio-economic and cultural factors that influence girls' performance in national examinations in Guinea is essential for developing effective strategies to improve their academic success.

To improve girls' baccalaureate success rates, it is essential to address these different factors and promote gender equality in education.

Accessibility to education:

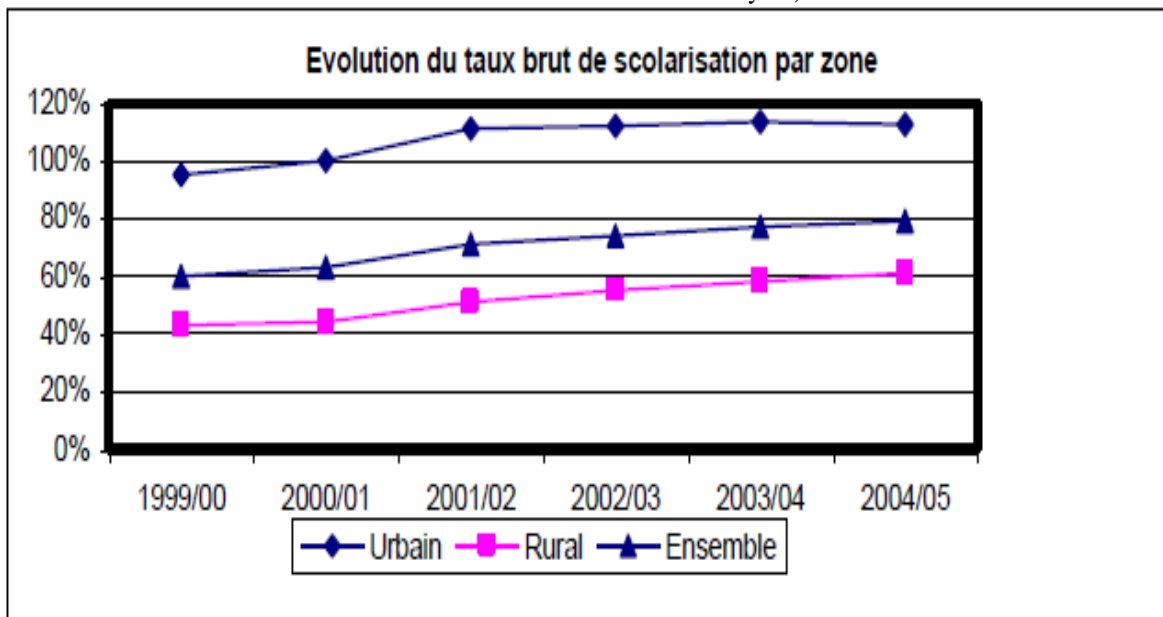
The Gross Enrollment Rate (GER) gives us an idea of the accessibility to education in Guinea. The statistical yearbook of elementary education for the 2004-2005 school year informs us that the gap between the gross enrollment rate (GER) of girls and that of boys was 26 points in 1999-00; it gradually decreased to 10 points in 2004-05. This indicates a great effort to educate the young girl during the period considered. Figure 4 shows us the evolution of TBS from 1999-2000 to 2004-2005.

Figure 4:- The evolution of TBS by gender from 1999-2000 to 2004-2005 (source Statistical Yearbook of Elementary Education for the 2004-2005 school year).



Barriers such as lack of educational infrastructure, high costs of education and restrictive cultural norms can limit girls' access to education. This is remarkable through the gap between the two rates in rural areas and urban areas: 61 compared to 112% in 2004-05. Figure 5 shows us the evolution of GER by zone from 1999-2000 to 2004-2005.

Figure 5:- Evolution of GER by zone from 1999-2000 to 2004-2005 (source Statistical Yearbook of Elementary Education for the 2004-2005 school year).



The statistical yearbook of primary education for 2019-2020 also informs us that according to the RGPH4 of 2014, the Gross Enrollment Rate (GER) amounts to 104.8% for the whole country compared to 95.5% among girls and 83.5% in rural areas. Which clearly shows that efforts at all levels are being made.

School retention of girls

The gross college completion rate is an interesting indicator for understanding student retention in schools.

The Secondary Education Statistical Yearbook for 2013-2014 and 2020-2021 gives us an idea of the college completion rates during the periods of 2013-2014 and 2020-2021.

In 2013-2014, this completion rate was 15.70% compared to 29.90% for boys. In 2020-2021 it rose to 32.60% for girls compared to 45.70% for boys. These results show us that many girls who pass the Brevet do not make it to the Baccalaureate. The main causes of this would be early marriage and unwanted pregnancy. This is why this rate is much lower in rural areas: 8% for girls compared to 20.80% (in 2013-2014) and 11.10% for girls compared to 20.80% for boys (in 2020-2021). In these rural areas, the problems of low quality of education, lack of family and social support, poor perception of education and lack of additional learning opportunities which hinder girls' academic success are more accentuated.

Quality of teaching and educational infrastructure:

Socio-economic factors also impact the quality of teaching and educational infrastructure available to girls in Guinea. Schools in rural areas are often less well-served with qualified teachers, adequate teaching materials, and adequate sanitation facilities compared to schools in urban areas. This state of affairs is appreciable through the gap between the two rates (figure 5) the table below presenting the high school completion rate for seven school years.

Table 4:- Completion rate for seven school years.

	2013-2014	2014-2015	2015-2016	2017-2018	2018-2019	2019-2020	2020-2021
Rural	1.80	2.90	4.50	2.80	3.50	3.90	3.30
Urban	12.30	29.80	42.60	9.60	9.70	41.10	42.20

Taux d'achèvement du lycée dans les écoles rurales et urbaines (2013 à 2020)

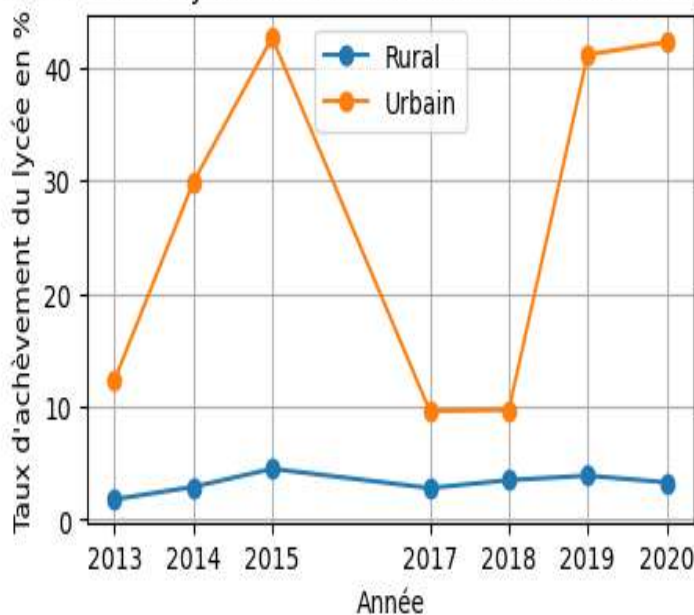


Figure 5:- High school completion rate in rural and urban schools (2013 to 2020).

Gender stereotypes and social expectations:

Gender stereotypes and social expectations exert a significant influence on the academic performance of girls in Guinea. Preconceived attitudes that girls are less capable than boys in specific subjects limit their aspirations for mathematics-based majors (see Figure 2).

Family and community support:

Family and community support plays a crucial role in the academic success of girls in Guinea. Families and communities that actively encourage girls' education, providing a supportive environment for learning, are rewarded with high success rates. This explains the gap between public and private (see figure 3).

Conclusion and Outlook:-

This study showed a general trend of saw-tooth developments in success rates in most fields of study over the ten targeted years. However, significant variations were observed between the social sciences stream and the others. A disparity was also noted between the success rate of girls and that of boys. To understand this disparity, we observed the schooling and completion rates of primary, middle and high school. It turned out that the schooling rate is lower in rural areas than in urban areas and that the gap between the two genders follows the same trend in favor of boys. The gap between the success rates in public and private were also analyzed to understand the influence of the socio-economic situation of the parents on the rates.

Additional research is needed to deepen our understanding of the factors underlying variations in achievement rates and to inform educational policies aimed at improving student performance in different areas of study.

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