Working Paper

Private Schools and Student Performance : Insights from PASEC Assessments

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Abstract : *Private school enrolment is growing across Sub-Saharan Africa, but its impact on system-wide learning remains uncertain. Drawing on harmonised Grade 6 data from the 2014 and 2019 PASEC assessments in 14 Francophone countries, this study examines whether regions with higher private school prevalence exhibit better student performance in mathematics and reading. Ordinary least squares estimates, controlling for rich sets of student, household, and school characteristics, indicate strong positive associations between private school attendance and test scores. At the regional level, greater private enrolment is also linked to higher average achievement, suggesting potential systemic gains. To address endogeneity, future analysis will employ a two-stage least squares approach using historical Catholic population shares interacted with official religion status to instrument for private school prevalence.*

Note : This paper is a preliminary draft and part of an ongoing research project. Comments are welcome.

Why do we study ? Why do we spend a significant portion of our lives in school ?
Three dominant theories offer insights into the role of education : *(i)* human capital accumulation, *(ii)* consumption value, and *(iii)* signaling. [1] These classic economic perspectives emphasize that education enhances skills and productivity , provides personal enrichment, and serves as a signal of ability in the labor market (Spence, 1978).These private and social returns position education as a key instrument for enhancing individual well-being and promoting broader economic development (Duflo, 2001), (Psacharopoulos and Patrinos, 2018), (Moretti, 2004),(Barro, 1996; Hanushek, 2016), (Lucas Jr, 1988) and (Hanushek, 2016).

Access to learning is important ; nevertheless, student achievement is also a concern. It is not enough to place students in classrooms to reap the positive returns of education. Students must actually learn during schooling, and testing remains the most effective tool to assess this learning and overall performance. Student performance varies significantly both between and within countries, particularly between students attending public and private schools in Sub-Saharan African countries.

These disparities in student performance can exacerbate educational inequality, as students who perform poorly are more likely to disengage and eventually drop out of the education system. Over time, this can contribute to a widening gap in human capital accumulation, with long-run implications for both individual life trajectories and aggregate economic development. Such disparities in student performance may lead to unequal returns to education within and across countries. These patterns underscore the need to examine the key factors influencing student Performance on test scores .

To contribute to the literature on the determinants of student performance, I focus this study on the role of private schools within national education systems. Specifically, I seek to answer the following question : To what extent does the prevalence of private schools influence student performance in Sub-Saharan African countries ? [2].

In SSA countries, private schools—often operated by religious or community organizations consistently outperform public schools in standardized assessments. Descriptive evidence from the PASEC 2019 assessments indicates that students enrolled in private schools achieve higher scores in both reading and mathematics across nearly all participating countries (see Figures 1 and 2). These differences raise important concerns about educational inequality. If private schools primarily serve more advantaged students, their superior performance may reinforce existing socioeconomic disparities and alter the distributional returns to education.

At the same time, a high prevalence of private schooling may generate positive system-level effects. For instance, competition from private schools might incentivize improvements in public schools or expand the overall supply of quality education. This study therefore asks whether countries with a greater share of privately operated schools tend to exhibit higher average levels of student achievement—not only among those attending private schools, but across the entire system. Addressing this question may offer deeper insights into whether the expansion of private schooling promotes not only individual opportunity but also broader educational development Woessmann (2016).

Identifying the causal impact of private school prevalence presents several empirical challenges. Countries with a larger share of private schools may differ systematically in their historical, institutional, or socioeconomic characteristics. For example, countries with stronger educational traditions might

1. Education can simultaneously function as a form of human capital investment(Pyatt, 1966), a consumption good, and a signal of ability.
2. In the rest of this document, I will refer to Sub-Saharan African countries using the abbreviation SSA.

have both more private schools and better student performance. If we don't control for these factors, we might wrongly attribute the higher performance to private school prevalence , when it is actually due to these other characteristics.

To overcome these challenges, I propose an instrumental variable approach that leverages historical variation in religious structures and education provision across countries, as well as a fixed effects regression model using a panel dataset that covers two periods : 2014 and 2019.

I combine contemporary student assessment data from the 2014 and 2019 rounds of the Programme d'Analyse des Systèmes Éducatifs de la CONFEMEN (PASEC) with historical data from the World Religion Project and the McCleary Private Voluntary Organizations (PVO) dataset. These historical sources provide information on Catholic population shares, the institutional presence of religious organizations, and faith-based educational activities dating back to the early twentieth century.

Building on the methodology of (West and Woessmann, 2010) , I will construct an instrumental variable that leverages the historical share of Catholics in each country to capture exogenous variation in the propensity to develop private education systems. In countries where Catholicism was not the official state religion, Catholic communities were often excluded from public education governance, creating stronger incentives to develop independent, faith-based school systems. It provides a source of exogenous variation for identifying the causal effect of private school prevalence on learning outcomes (West and Woessmann, 2010) .

Instead of using the share of Catholics in 1900 as in (West and Woessmann, 2010), I will use the Catholic population share in 1960 as my main historical instrument. This year aligns closely with the period of independence for most Francophone Sub-Saharan African countries. While some gained independence slightly before or after 1960, this variation is unlikely to pose a major threat to identification. The 1960 data still reflect the religious and institutional structures shaped during the colonial and missionary period, before national governments fully assumed control of education systems. In many countries, private schools—particularly those founded by religious organizations—continued to operate after independence, building on pre-existing infrastructure, personnel, and networks. I therefore expect the Catholic share in 1960 to provide a credible source of exogenous variation in the historical development of private school sectors across countries.

A broad literature in the economics of education has sought to understand the determinants of student achievement through the lens of education production functions. These models conceptualize academic performance as a function of inputs at the student, school, and system levels, including household background, teacher quality, school resources, and institutional arrangements (Hanushek and Woessmann, 2000) (Hanushek and Woessmann, 2017). Micro-level studies have provided causal estimates of specific inputs—such as class size (Angrist and Lavy, 1999), teacher effectiveness (Rivkin et al., 2005), and school construction programs (Duflo, 2001).

Cross-country studies using large-scale international assessments such as PISA [3], TIMSS [4], and PIRLS [5] have explored how institutional structures shape not just average achievement but also educational equity. One consistent finding is the positive association between curriculum-based external exit exams (CBEEE) and student performance. These exams, which align incentives for teachers and students by creating clear performance benchmarks, are associated with higher test scores, es-

3. Programme for International Student Assessment
4. Trends in International Mathematics and Science Study
5. Progress in International Reading Literacy Study

pecially in countries with centralized assessment systems (Bishop, 1997)(Hanushek and Wößmann, 2007) (Wößmann et al., 2003)(Fuchs and Wößmann, 2008). Another line of research has examined the consequences of school governance and accountability structures. Systems that allow for greater school autonomy—especially in staffing and budgeting—tend to perform better when paired with strong accountability mechanisms (Fuchs and Wößmann, 2008).

A growing body of literature has addressed the role of private provision in basic education. Cross-country (West and Woessmann, 2010) find that countries with a larger share of privately operated but publicly funded schools tend to have better student achievement. While prior research has documented the positive effects of private school prevalence in OECD countries (West and Woessmann, 2010), there remains a lack of causal evidence on its system-level impact in Sub-Saharan Africa.

This study contributes to the literature in Two key ways. First, it provides new empirical evidence from Francophone Sub-Saharan Africa, a region underexplored in the economics of education, using data from the 2014 and recently released 2019 rounds of PASEC . Second, it adapts a well-established identification strategy based on historical religious composition and institutional structures to the African context, thereby extending the external validity of previous findings.

The remainder of this document is organized as follows. Section 2 presents the conceptual framework. Section 3 describes the data and outlines the empirical strategy. Section 4 presents descriptive correlations on the effect of private school attendance on individual student performance, as well as the relationship between the prevalence of private schools and average performance at the regional level (strata within countries). Section 5 concludes.

Conceptual Framework

This study draws on the education production function framework, which models student achievement as the outcome of multiple inputs at the individual, school, and system levels (Hanushek and Woessmann, 2000) (Hanushek and Woessmann, 2017) . In this context, the prevalence of private schools can be viewed as a system-level institutional input that potentially influences both the quality and equity of learning. To account for the broader educational environment, the analysis also draws inspiration from Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1979), which emphasizes the interaction between learners and the institutional structures surrounding them. Together, these frameworks justify investigating how the presence of private schools within national education systems may affect learning outcomes—not only for individual students, but across regions and countries. This dual perspective provides a theoretical basis for the study's research question : whether private school prevalence shapes overall student achievement in Francophone Sub-Saharan Africa.

Data and Methodology

Data

This research will combine contemporary and historical datasets to examine the relationship between private school prevalence and student achievement in Francophone Sub-Saharan Africa. The main source of outcome data will be the *Programme d'Analyse des Systèmes Éducatifs de la CONFEMEN* (PASEC) (, PASEC), specifically the 2014 and 2019 assessments. These provide harmonized standardized test scores in mathematics and reading for Grade 6 students across 14 countries, along with rich contextual information gathered from students, teachers, and school principals [6]. The PASEC surveys allow for extensive control of observable variables at the individual, school, and system levels .

6. (See (CONFEMEN, 2020) for more details and table 6 for an overview)

To address the potential endogeneity of private school prevalence, the study will incorporate two historical datasets . The first is the World Religion Project – Regional Religion Dataset, which reports regional-level estimates of religious adherence by denomination over the 20th century. For each country, I will extract the share of Catholics in the earliest available year as a proxy for the historical presence of religious institutions. The instrumental variable will be constructed by interacting the historical Catholic population share with an indicator variable denoting whether Catholicism was not the official state religion in 1900. This interaction term is intended to capture historical incentives for religious communities to establish independent education systems in contexts where they were institutionally excluded from state-sponsored schooling. Information on official religion status will be derived from the World Christian Encyclopedia. These historical indicators will be merged with PASEC outcomes and control variables at the country level, producing a dataset suitable for estimating system-level effects of private school prevalence.

Methodology

The proposed empirical strategy proceeds in two main stages. First, I will estimate a fixed effects model to control for unobserved heterogeneity across countries that may simultaneously influence both private school prevalence and student achievement. This approach leverages within-country variation—primarily across regions or strata over time—to account for time-invariant national characteristics such as historical governance, colonial legacies, or cultural norms. The fixed effects specification serves as a baseline to examine whether, conditional on country-specific characteristics, regional variation in the share of students enrolled in private schools is associated with differences in average test scores.

The first step involves estimating the following fixed effects panel model :

$$A_{rt} = \alpha + \beta P_{rt} + \mathbf{X}'_{rt}\gamma + \delta_r + \lambda_t + \varepsilon_{rt} \tag{1}$$

where A_{rt} denotes the average test score (in mathematics or reading) in region r at time t ; P_{rt} is the share of students enrolled in private schools ; $\mathbf{X}_{rt}$ is a vector of time-varying regional control variables (such as infrastructure, socioeconomic status, and urbanization) ; δ_r and λ_t represent region and year fixed effects, respectively ; and ε_{rt} is the error term.

To further address endogeneity concerns—such as omitted institutional factors that may influence both private school expansion and student achievement—I will implement a two-stage least squares (2SLS) strategy. The first stage predicts P_{rt} using historical variation in religious institutions as instruments :

$$P_{rt} = \pi_0 + \pi_1(C_r \times T_t) + \mathbf{Z}'_r\pi + \delta_r + \lambda_t + u_{rt} \tag{2}$$

where C_r is the share of Catholics in region r in 1960 ; T_t is a time dummy variable equal to 0 for 2014 and 1 for 2019 ; $\mathbf{Z}_r$ includes historical region-level controls such as colonial origin and missionary presence ; and u_{rt} is the first-stage error term.

The second stage then estimates the causal impact of private school prevalence on student achievement :

$$A_{rt} = \alpha + \beta \widehat{P}_{rt} + \mathbf{X}'_{rt}\gamma + \delta_r + \lambda_t + \varepsilon_{rt} \tag{3}$$

The coefficient β captures the causal effect of private school prevalence, identified through variation explained by the historical religious instrument. Robustness checks will include clustering standard errors at the region level, falsification tests using placebo outcomes, and alternative instrument specifications.

Results

We begin our empirical analysis by documenting the correlation between school status and student performance. Table 3 and Table 4 present a series of OLS regressions estimating the association between private school attendance and test scores in mathematics and reading, respectively. Across all model specifications, attending a private school is associated with significantly higher test scores. The estimated coefficients remain positive and statistically significant even after progressively controlling for student characteristics, household background, and school-level inputs. This pattern suggests that private schooling is consistently correlated with higher achievement across both subjects, although the magnitude of the association declines as additional controls are introduced.

In Table 5, we shift to a regional-level analysis by examining the relationship between the prevalence of private schooling—measured as the share of students enrolled in private schools within each stratum—and average performance in mathematics and reading. The results reveal a positive and statistically significant correlation at the stratum level : regions with a higher concentration of private school enrollment tend to exhibit better average test scores. This finding may reflect system-level effects, including potential competitive pressures or spillover benefits associated with private school presence.

While these results are informative, they remain descriptive in nature and cannot be interpreted as causal. The next stage of the analysis will aim to address this limitation by implementing an instrumental variable strategy. Specifically, we plan to leverage historical variation in religious composition—using the 1960 Catholic population share and colonial-era religious structures—as instruments for private school prevalence. This approach will allow us to isolate exogenous variation in private school provision and better identify its causal impact on student achievement. Further analyses will also investigate potential heterogeneity in effects across countries, subgroups such as gender or rural-urban strata, and explore the extent to which private school prevalence may influence outcomes in public schools. Robustness checks using alternative operationalizations of private schooling and additional empirical specifications will complement the main results.

Conclusion

This study explores the relationship between private school prevalence and student achievement in Francophone Sub-Saharan Africa, a region where education systems face persistent challenges in both access and quality. Motivated by theoretical insights from education production functions and institutional economics, and grounded in Bronfenbrenner's ecological systems theory, the analysis investigates how school type and system-level structures shape learning outcomes in mathematics and reading.

Preliminary results from the 2019 round of PASEC data reveal a strong and robust positive association between private school attendance and individual academic achievement, even after controlling for a comprehensive set of student-, household-, and school-level characteristics. Furthermore, regions with a higher share of private school enrollment exhibit better average performance, suggesting potential system-wide effects such as competition-induced improvements or spillover benefits. These findings contribute new empirical insights to the literature on school governance and accountability in low-income countries and support the hypothesis that private schooling may serve not only individual but

also broader educational functions.

However, the observed correlations may be subject to endogeneity bias, as unobserved characteristics of students, families, or education systems may confound the relationship between private schooling and achievement. To address these concerns, the next phase of the research will implement an instrumental variable strategy that exploits historical variation in religious composition and colonial-era education systems. This approach, inspired by prior work in other contexts, will aim to isolate exogenous variation in private school prevalence and provide a credible estimate of its causal impact on student outcomes. In doing so, the study seeks to inform ongoing policy debates on the role of private provision in national education systems and contribute to evidence-based strategies for improving learning across Sub-Saharan Africa.

Appendix

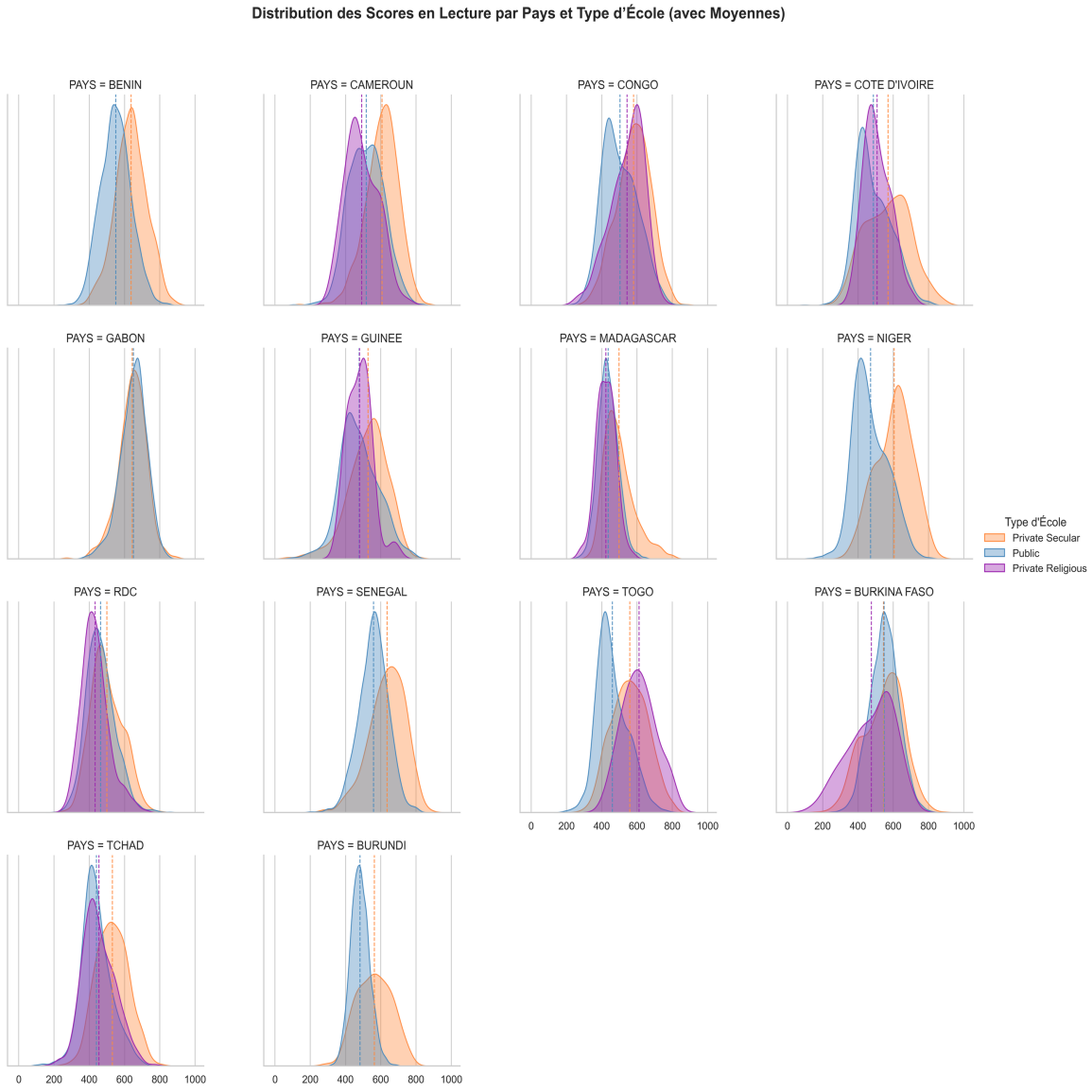

FIGURE 1 – Average reading scores by school type across countries (PASEC 2019)

FIGURE 2 – Average math scores by school type across countries (PASEC 2019)

TABLE 1 – Detailed Mathematics Scores Summary by Country

	Mean	Std. Dev.	Min	Q1	Median	Q3	Max	Obs
BENIN	525.29	81.24	256.12	467.40	517.37	576.58	817.36	3823
BURKINA FASO	542.69	89.16	208.46	484.24	544.75	602.37	868.58	6499
BURUNDI	544.63	64.28	364.11	498.84	539.34	584.51	816.56	4908
CAMEROUN	500.12	86.57	194.61	437.77	491.15	553.45	794.99	4723
CONGO	487.17	75.56	275.65	431.61	481.03	538.06	747.29	3925
COTE D'IVOIRE	452.93	66.40	219.27	404.84	444.50	494.93	718.03	3811
GABON	559.32	66.14	347.73	513.56	558.69	604.92	799.32	2930
GUINEE	478.31	80.99	175.12	421.13	473.71	535.05	753.00	2825
MADAGASCAR	461.45	73.92	219.41	411.90	452.32	499.85	868.67	4758
NIGER	464.33	86.40	100.86	403.48	447.60	512.78	803.94	5579
RDC	458.73	67.97	272.82	411.57	449.40	495.12	828.95	4380
SENEGAL	553.00	86.30	240.96	493.68	552.41	609.04	836.83	3832
TCHAD	439.77	68.70	194.42	394.71	430.27	477.61	726.09	4824
TOGO	489.26	99.73	202.41	413.47	471.77	554.10	842.67	6117
Total	496.19	88.91	100.86	429.12	488.05	555.58	868.67	62934
Observations	62934							

TABLE 2 – Detailed Reading Scores Summary by Country

	Mean	Std. Dev.	Min	Q1	Median	Q3	Max	Obs
BENIN	573.56	91.50	278.98	511.20	572.46	634.23	854.66	3823
BURKINA FASO	546.32	90.38	165.74	488.65	553.01	607.35	810.80	6499
BURUNDI	487.52	53.25	320.58	450.70	484.55	518.82	787.90	4908
CAMEROUN	547.62	102.50	151.54	470.70	551.96	624.16	854.45	4723
CONGO	538.51	102.29	232.74	453.07	542.13	615.33	815.75	3925
COTE D'IVOIRE	498.45	105.36	156.55	416.44	478.65	574.85	872.99	3811
GABON	650.04	71.20	316.87	609.65	657.95	698.55	837.69	2930
GUINEE	494.82	110.60	104.69	417.67	490.06	576.46	817.95	2825
MADAGASCAR	452.58	68.35	259.41	406.57	443.09	486.83	802.84	4758
NIGER	476.52	101.03	85.35	401.86	456.85	548.85	806.75	5579
RDC	466.67	80.83	241.95	407.17	457.22	515.27	825.52	4380
SENEGAL	566.57	84.25	195.84	512.75	568.07	622.17	825.10	3832
TCHAD	454.29	88.86	104.96	394.66	439.50	508.04	759.94	4824
TOGO	488.86	101.13	166.84	410.76	470.16	561.26	813.32	6117
Total	512.39	103.31	85.35	432.20	502.57	586.97	872.99	62934
Observations	62934							

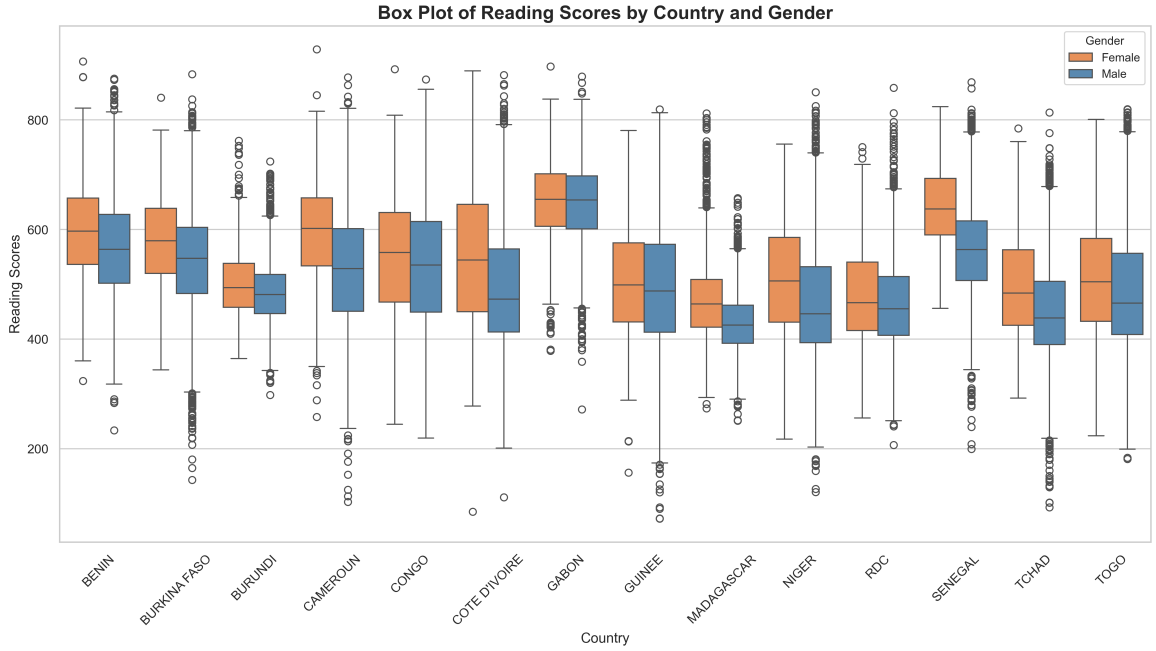

FIGURE 3 – Box Plot of Reading Scores by Country and Gender

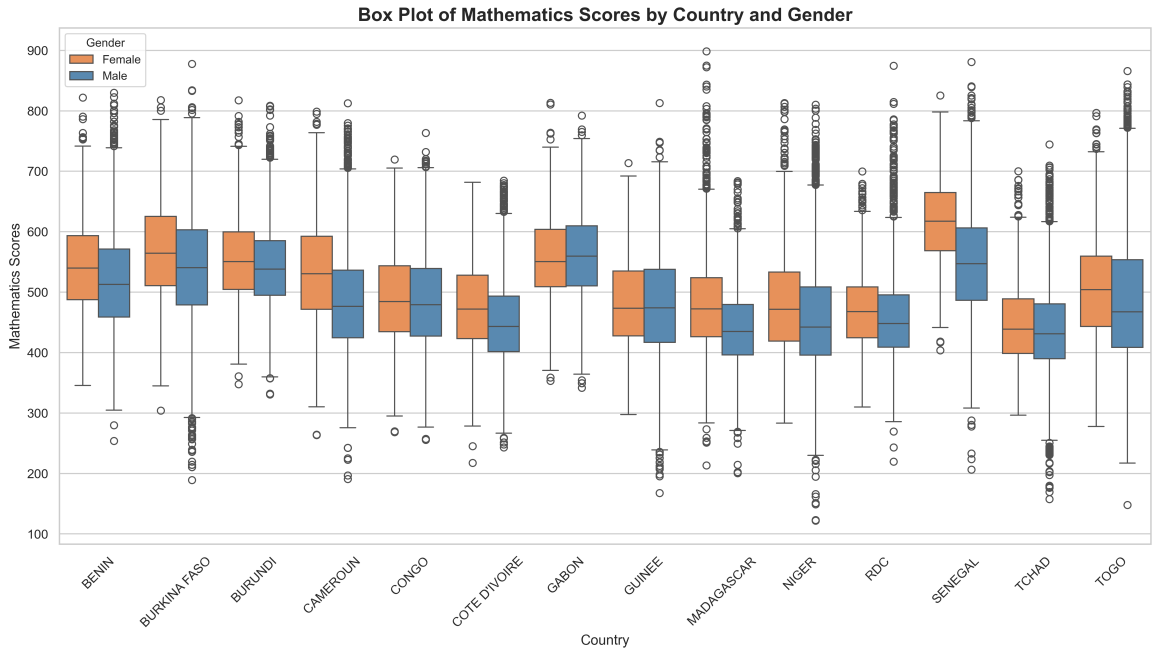

FIGURE 4 – Box Plot of Mathematics Scores by Country and Gender

FIGURE 5 – Distribution of Reading Scores by Country and Gender

FIGURE 6 – Distribution of Mathematics Scores by Country and Gender

TABLE 3 – Effect of Private School Attendance on Math Scores (Part 1)

	(1)	(2)	(3)	(4)	(5)
ecole_privee	45.694***	36.923***	28.763***	27.567***	9.959***
	(3.389)	(3.299)	(3.170)	(3.131)	(3.441)
age		-0.809***	-0.205*	-0.240**	-0.809***
		(0.112)	(0.114)	(0.114)	(0.245)
female		-1.283	-2.822***	-3.055***	-5.581***
		(0.885)	(0.844)	(0.840)	(0.851)
preprimary		23.432***	10.797***	11.140***	6.355***
		(1.734)	(1.563)	(1.542)	(1.591)
repeated_primary		-14.685***	-13.405***	-14.700***	-13.853***
		(2.233)	(2.133)	(2.116)	(2.154)
repeated_CM1		0.046	0.842***	0.685**	0.413
		(0.321)	(0.316)	(0.311)	(0.317)
repeated_CM2		-1.445***	-0.968***	-1.135***	-1.294***
		(0.308)	(0.295)	(0.293)	(0.298)
books_11_25			28.161***	27.698***	23.906***
			(2.154)	(2.139)	(2.306)
books_26_100			22.679***	21.747***	16.679***
			(2.406)	(2.387)	(2.560)
books_101_500			-26.987***	-28.577***	-23.997***
			(4.388)	(4.434)	(4.593)
books_500p			13.091***	13.307***	16.489***
			(1.796)	(1.795)	(1.931)
speaks_french_home			2.860	2.485	-1.689
			(2.001)	(1.977)	(2.060)
helped_homework			5.864**	2.169	0.913
			(2.570)	(2.521)	(2.542)
homework_freq			-1.286***	-1.880***	-1.268***
			(0.484)	(0.473)	(0.486)
reads_home			20.641***	21.021***	18.728***
			(1.662)	(1.643)	(1.740)
electricity_home			21.232***	20.822***	6.660***
			(1.742)	(1.714)	(1.823)
eats_before_school				-15.548***	-13.000***
				(1.619)	(1.716)
hungry_in_class				-11.367***	-6.464***
				(1.916)	(1.929)
eats_lunch_school				8.177***	1.811
				(2.003)	(2.088)
ses_index					-0.037
					(0.145)
teacher_conditions					0.072
					(0.149)
classroom_equip					1.014***
					(0.133)
school_infra					1.913***
					(0.179)
community_engage					0.130
					(0.132)
territorial_access					0.637***
					(0.154)
school_inspected					5.509
					(3.496)
has_library					-4.351
					(4.771)
has_canteen					12.635***
					(3.183)
school_budget					0.000**
					(0.000)
num_teachers					0.160
					(0.119)
teacher_training_dur					-0.196***
					(0.060)
teacher_instr_time					0.004
					(0.004)
Constant	486.742***	506.928***	456.671***	469.795***	296.797***
	(1.400)	(3.800)	(5.369)	(5.400)	(14.003)
Observations	62934	62934	62934	62934	52419
R-squared	0.043	0.064	0.124	0.135	0.210

Notes : Each column corresponds to an OLS regression where the dependent variable is the student's math score. The main independent variable is a binary indicator for private school attendance. Control variables are progressively added across columns. Standard errors are clustered at the school level (ID_ECOLE).
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 4 – Effect of Private School Attendance on Reading Scores

	(1)	(2)	(3)	(4)	(5)
	Dependent variable : Reading score				
ecole_privee	70.208***	53.768***	38.056***	36.257***	13.828***
	(3.803)	(3.632)	(3.248)	(3.173)	(3.351)
age		-1.357***	-0.463***	-0.508***	-1.917***
		(0.133)	(0.125)	(0.124)	(0.367)
female		3.882***	1.765**	1.464*	-1.076
		(0.948)	(0.868)	(0.854)	(0.870)
preprimary		42.943***	18.909***	19.322***	10.297***
		(2.070)	(1.646)	(1.611)	(1.594)
repeated_primary		-11.419***	-11.385***	-12.995***	-12.773***
		(2.652)	(2.345)	(2.296)	(2.306)
repeated_CM1		0.159	1.116***	0.896***	0.454
		(0.349)	(0.326)	(0.315)	(0.322)
repeated_CM2		0.564	0.838**	0.623*	0.089
		(0.376)	(0.329)	(0.322)	(0.317)
books_11_25			42.045***	41.309***	35.959***
			(2.373)	(2.315)	(2.505)
books_26_100			34.909***	33.490***	22.884***
			(2.603)	(2.538)	(2.764)
books_101_500			-35.630***	-37.735***	-36.949***
			(5.698)	(5.725)	(5.973)
books_500p			11.399***	11.821***	20.887***
			(2.004)	(1.970)	(2.114)
speaks_french_home			30.925***	30.588***	21.399***
			(2.468)	(2.425)	(2.355)
helped_homework			11.189***	6.013**	0.387
			(2.910)	(2.803)	(2.714)
homework_freq			-0.447	-1.280**	-1.125**
			(0.558)	(0.534)	(0.520)
reads_home			26.811***	27.197***	25.460***
			(1.668)	(1.635)	(1.686)
electricity_home			36.786***	35.961***	10.630***
			(1.786)	(1.740)	(1.846)
eats_before_school				-20.008***	-17.228***
				(1.573)	(1.670)
hungry_in_class				-20.376***	-14.336***
				(1.754)	(1.811)
eats_lunch_school				12.096***	5.259***
				(1.986)	(2.029)
ses_index					0.976***
					(0.151)
teacher_conditions					-0.202
					(0.143)
classroom_equip					0.788***
					(0.132)
school_infra					2.074***
					(0.171)
community_engage					0.072
					(0.120)
territorial_access					1.140***
					(0.146)
school_inspected					8.202**
					(3.301)
has_library					-4.999
					(4.410)
has_canteen					10.333***
					(2.846)
school_budget					0.000***
					(0.000)
num_teachers					-0.014
					(0.108)
teacher_training_dur					-0.255***
					(0.056)
teacher_instr_time					0.010**
					(0.004)
Constant	497.876***	505.740***	429.140***	447.321***	244.521***
	(1.631)	(4.344)	(6.012)	(5.885)	(14.231)
Observations	62934	62934	62934	62934	52419
R-squared	0.076	0.124	0.243	0.261	0.342

Notes : Each column corresponds to an OLS regression where the dependent variable is the student's reading score. The main independent variable is a binary indicator for private school attendance. Control variables are progressively added across columns. Standard errors are clustered at the school level (ID_ECOLE).

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 5 – Effect of Private School Prevalence on Test Scores (Strata Level)

	(1) Average Math Score	(2) Average Reading Score
Private school share	54.344**	147.326***
	(21.410)	(25.063)
Constant	481.750***	479.186***
	(5.658)	(6.623)
Strata (regions)	152	152
R-squared	0.041	0.187

Notes : Each observation is a PASEC stratum (typically a region within a country). The private school share is the proportion of students enrolled in private schools within each stratum. The dependent variables are average test scores in mathematics and reading, respectively. Standard errors are in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 6 – Overview of the Primary Databases

Database	Coverage	Key Features / Variables
PASEC 2014	10 countries in Sub-Saharan Africa	— Grade 2 and Grade 6 tests — Reading and math scores — Contextual questionnaires (students, teachers, school directors)
PASEC 2019	14 countries in Sub-Saharan Africa	— Standard sample : 180 schools (Grade 6), 90 schools (Grade 2) per country — Plausible values for reading and math — Teacher- and school-level contextual data — Extended coverage : new items for community support, school management
Enriched Database	Linked at regional or district level	— Demographic indicators (e.g., population density) — Socioeconomic data (household income, infrastructure indices) — Potential linkage with national statistics offices or international development databases

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