



PASEC2024

DATA COLLECTED IN 2025

EXECUTIVE SUMMARY

PRIMARY EDUCATION LEARNING OUTCOMES

Sub-Saharan Africa

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BP 3220, Dakar, Senegal.

pasec@confemen.org • <https://pasec.confemen.org>

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Graphic coordination: Suzanne Grossmann

Art direction: Magaly Madelain

Editorial coordination, proofreading and language editing: NormaBene

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Any error or omission identified after publication of this report will be corrected in its online version.

BACKGROUND AND OBJECTIVES OF PASEC2024

The PASEC2024 assessment provides a diagnosis of the quality of the education systems of the participating countries. The data collected make it possible to analyse their effectiveness, equity and efficiency, and to track their dynamics from one cycle to the next and from one country to another. These three concepts, and the way they are analysed within PASEC, are defined in the assessment methodology.

The assessment offers comparisons between and within countries, as well as comparisons with the PASEC2014 and PASEC2019 cycles, which make it possible to place trends in a longer-term perspective.

The PASEC2024 is thus a source of data for education research as well as for public decision-making and education reforms: it establishes the state of student learning at a given point in time and makes it possible to measure changes since previous cycles.

Sixteen countries took part in the assessment of the quality of primary education systems: Benin, Burundi, Cameroon, Congo, Côte d'Ivoire, Djibouti, Gabon, Guinea, Guinea-Bissau,

Madagascar, Mali, Nigeria, Sao Tome and Principe, Senegal, Chad and Togo. Eleven had taken part in the PASEC2019; Djibouti, Guinea-Bissau, Mali, Nigeria and Sao Tome and Principe took part in PASEC2024 for the first time. In total, more than 110,000 students were assessed in the 5,838 schools of the primary school sample between April and June 2025.

This document is the executive summary of the PASEC2024 International Report on primary school learning outcomes. It presents the report's main findings in condensed form for ministers, their teams and technical and financial partners. It does not replace the report, which contains the full analyses and detailed results by country.

Readers will find ten key messages summarising all the findings; mean scores and their dispersion within each country; a description of proficiency levels in language and mathematics at the start and end of primary school; the disparities observed within systems according to certain characteristics; and what these results imply for public policy.



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KEY MESSAGES

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The majority of students complete primary school without mastering fundamental learning.

- At the end of primary education, 38.5% of students are above the baseline level of proficiency in reading and **61.5% remain below**.
- In mathematics, 34.1% of students are below level 1 and 41.1% at level 1: these two groups alone account for 75.2% of students. In other words, **over 3 out of 4 students are below** the expected baseline level of proficiency.
- At the start of primary education, the situation is more favourable: 59.5% of students are above the baseline level of proficiency in the language of instruction and 73.6% in mathematics. **The difficulty therefore worsens over the course of education.**

2

The level improves at the start of primary school and declines at the end.

- Between 2019 and 2025, **at the start of primary education in reading**, 5 out of 11 countries recorded a significant increase and none a decrease; over the 2014-2025 period, **6 out of 8 countries improved**.
- **At the end of education, the trend is reversed:** in reading, no country improved between 2019 and 2025 and seven fell significantly.
- At the end of education, two countries improved **in mathematics** and seven declined between 2019 and 2025.

3

The gaps between countries are sometimes considerable.

- **At the start of primary education**, average scores in **language** range from 481.8 points in Togo to 662.0 points in Guinea-Bissau, around an international mean of 577.7 points, *i.e.* a difference of more than 180 points.
- **The proportion of students achieving the baseline level of proficiency in language** varies from **21% in Togo** to **90% in Guinea-Bissau**, and from **46% in Togo** to **96% in Burundi in mathematics**.
- **At the end of education**, the proportion of students achieving the baseline level of proficiency in mathematics ranges from **1.3% in Guinea-Bissau** to **59.6% in Senegal**.

4

Within each country, there is a high dispersion of results.

- At the start of primary education, **the average interdecile gap reaches 314.3 points in language and 246.3 points in mathematics**; in language, it ranges from 201.6 points in Côte d'Ivoire to 392.1 points in Nigeria.
- At the end of primary education, in reading, the average first decile stands at 381.7 points and the ninth decile at 624.7.
- The average level and the scale of inequality do not go together. Nigeria, Gabon and Congo associate a high average level with some of the widest internal gaps because some of their students do very well, while



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others lag far behind. Cameroon, Chad, Guinea, Mali and Togo, on the other hand, have a low average level and significant gaps.

5 Difficulties appear very early on for the most basic content.

- At the start of education, 23% of students can read fewer than six letters in a minute.
- **One in four students cannot read any familiar words.**
- 42% cannot reach the number 61 by counting aloud.

6 One in two students cannot work with a textbook at home.

- At the start of education, **seven out of ten students have a reading textbook in class** and **six out of ten a mathematics textbook**, but only 51.1% can take the former home and 46.7% the latter.
- At the end of education, **54% of students have a reading textbook that they can take with them** and 46% have a mathematics textbook. The associated score difference reaches 56 points in reading at the start of education, of which 44 remain after control.

7 The urban advantage is first and foremost a social advantage and that of the private sector is confirmed.

- At the start of education, urban students obtained 521.0 points in reading compared to 463.7 for rural students, **i.e. 57.3 points, a significant gap in all 16 countries without exception.**

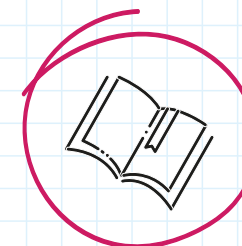
- At the end of education, in mathematics, the urban-rural gap of 19.2 points disappears almost entirely after control.
- **The advantage of the private sector**, on the other hand, remains, as 14 out of 16 countries maintain a significant gap in reading at the end of education, from 30 to 97 points after control. Gabon is the only country where attending a private school is not associated with any advantage.

8 The language spoken at home weighs heavily, but for different reasons depending on the country.

- **Students who never speak the language of instruction at home score 56.4 points lower in reading and 28.7 lower in mathematics**; after control, the difference is 32.7 and 17.3 points.
- In Cameroon, 54.5% of the gross difference of 85.1 points in reading is absorbed by context variables: language functions primarily as a marker of social position.
- In Côte d'Ivoire, with a comparable environment and standard of living, only 18.4% of the gross difference of 57.3 points is absorbed, and a student who never speaks the language of instruction at home still loses nearly 50 points.

9 The weight of social origin varies greatly from one country to another.

- The gap between extreme socioeconomic quintiles exceeds 120 points in Cameroon, Togo and Madagascar; it is only 41 points in Gabon, the country with the highest social index.



23%
OF STUDENTS CAN READ LESS THAN SIX LETTERS IN A MINUTE
at the start of education

- The differences are smaller in mathematics than in reading: 109 points compared to 128 in Cameroon, 86 compared to 120 in Togo, 36 compared to 77 in Nigeria.
- **Equity is not an automatic consequence of students' average standard of living**: Gabon, the country with the highest social index, has one of the smallest gaps (41 points).
- 10 **Funding is insufficient, but it does not explain the differences in results on its own.**
 - Five out of sixteen countries spend at least 4% of their gross domestic product on education and eight at least 15% of their public spending; Senegal reaches 6.2% and 22.5%.
 - **Six out of fifteen countries are located on the efficiency threshold**: Benin, Burundi, Gabon, Guinea, Guinea-Bissau and Senegal.
 - With funding unchanged, reading and mathematics scores would need to rise simultaneously by about 14.2% in Congo, 18.0% in Mali, and 19.7% in Djibouti to reach that threshold.



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SECTION 1

Mean scores and dispersions



At the start of primary school, a majority of students reach the minimum threshold, but a significant proportion remain in difficulty.

In language, 59.5% of students reach at least level 3 (baseline level of proficiency) and 37.1% are at the highest level; conversely, 40.5% remain below the threshold, of which 17.7% are at level 1 or below. In mathematics, 73.6% of students reach at least level 2, while 26.4% remain below the threshold.

Considerable differences between countries.

The proportion of students reaching the threshold varies from 21% (Togo) to 90% (Guinea-Bissau) in language, and from 46% (Togo) to 96% (Burundi) in mathematics. The mean scores confirm these contrasts: in language, around an international mean of 577.7 points, they range from 481.8 points in Togo to 662.0 points in Guinea-Bissau; in mathematics, around 548.3 points, from 486.4 points in Togo to 610.8 points in Congo. Guinea-Bissau, Gabon, Congo and Burundi are among the best performing countries in both disciplines, while Togo, Mali, Benin and Cameroon are significantly below average.

Marked inequalities within countries.

The average interdecile gap reached 314.3 points in language (from 201.6 in Côte d'Ivoire to 392.1 in Nigeria) and 246.3 points in mathematics (from 151.9 in Burundi to 279.6 in Nigeria). In language, the majority

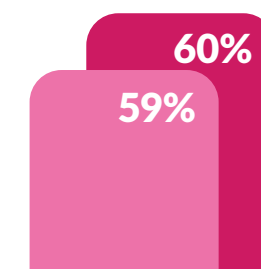
of students is concentrated in the lower part of the distribution in all countries. Nigeria, Gabon and Congo associate a high average level with some of the widest internal gaps because some of their students do very well, while others lag far behind. Cameroon, Chad, Guinea, Mali and Togo, on the other hand, have a low average level and significant gaps.

Limited gaps between girls and boys.

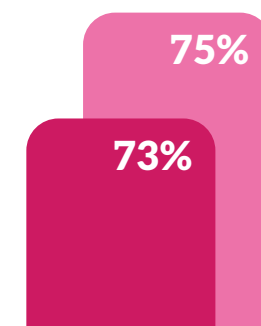
On average, girls are slightly ahead of boys in language (60% versus 59% above the threshold) and boys are slightly ahead of girls in mathematics (75% versus 73%). These gaps are small compared to the gaps between countries, with a few exceptions, notably in Djibouti where the advantage of boys reaches 10 points in language and 15 points in mathematics.

Differentiated skills profiles and vulnerabilities very early on.

The same overall score may cover distinct profiles between listening comprehension, decoding and reading comprehension, or between “numbers and operations” and “geometry, space and measurement”. Key exercises reveal difficulties in the most basic skills: 23% of students read fewer than six letters in a minute, one in four students cannot read any familiar words, and 42% cannot reach the number 61 when counting aloud.



STUDENTS ABOVE THE PROFICIENCY THRESHOLD IN LANGUAGE



STUDENTS ABOVE THE PROFICIENCY THRESHOLD IN MATHEMATICS

● Boys ● Girls



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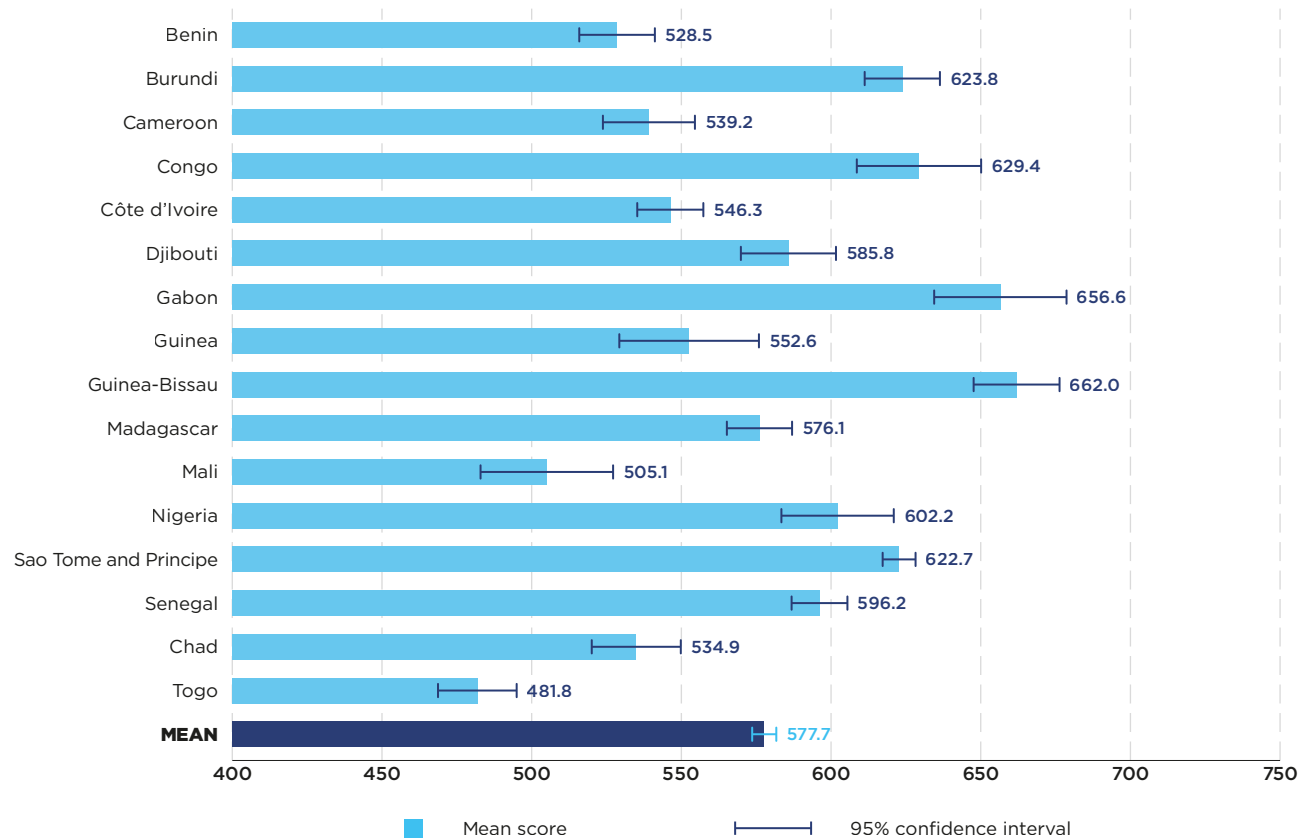
START OF EDUCATION

OVERALL PERFORMANCE OF STUDENTS IN THE LANGUAGE OF INSTRUCTION

There are significant differences in performance in the language of instruction between the participating countries. The international mean is 577.7 points. The gap between the extremes thus exceeds 180 points. The highest levels are observed in Guinea-Bissau (662.0 points) and Gabon (656.6 points), while Togo (481.8 points) and Mali (505.1 points) record the lowest scores.

Figure 2.13 of the International Report

Performance of students in language at the start of education



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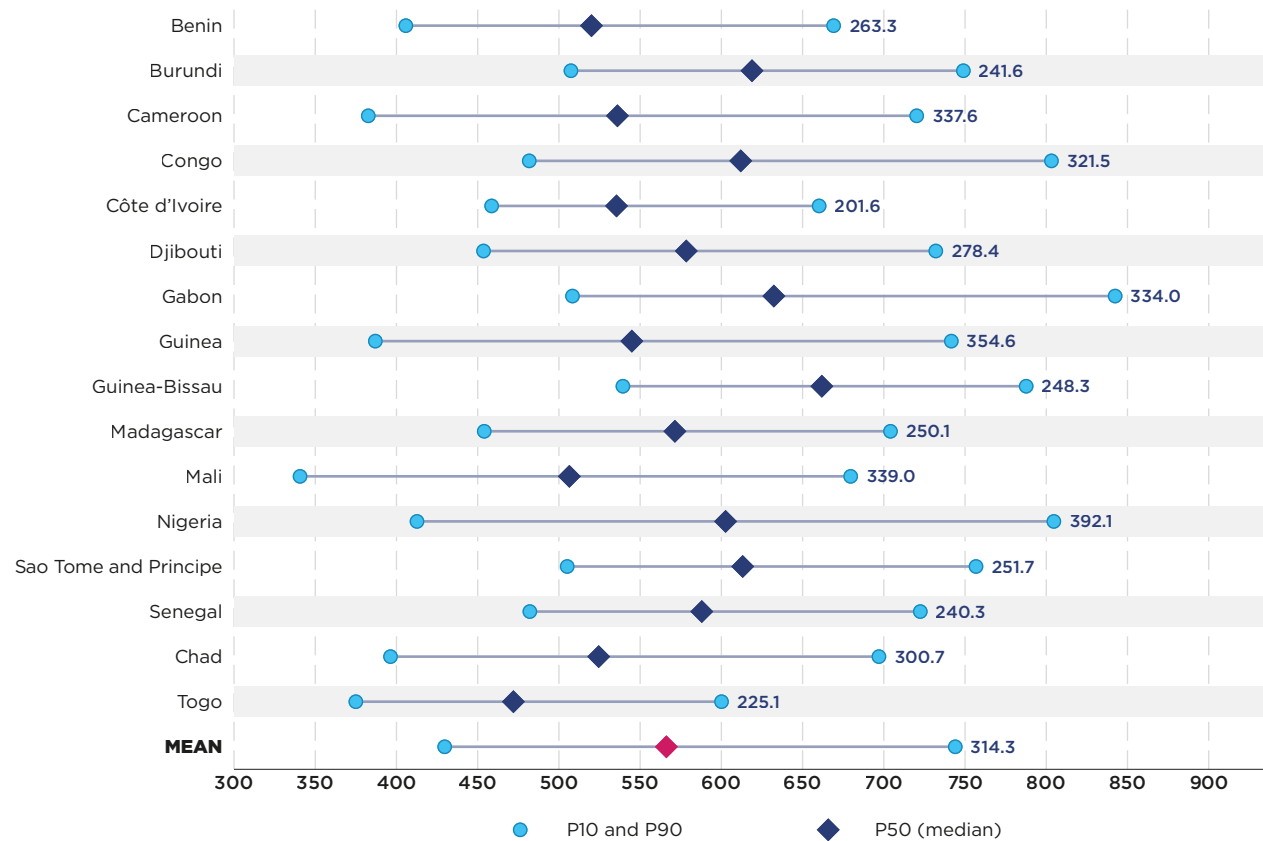
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All figures and tables are taken from the International Report "PASEC2024 - Primary Education Learning Outcomes in Sub-Saharan Africa", available online: <https://pasec.confemen.org/en/results/pasec-24-report>

Figure 2.14

Percentile distribution of students' performance in language by country at the start of education



314.3

**POINTS
AVERAGE GAP**
between P10 and P90



392.1

**POINTS
GAP IN NIGERIA**

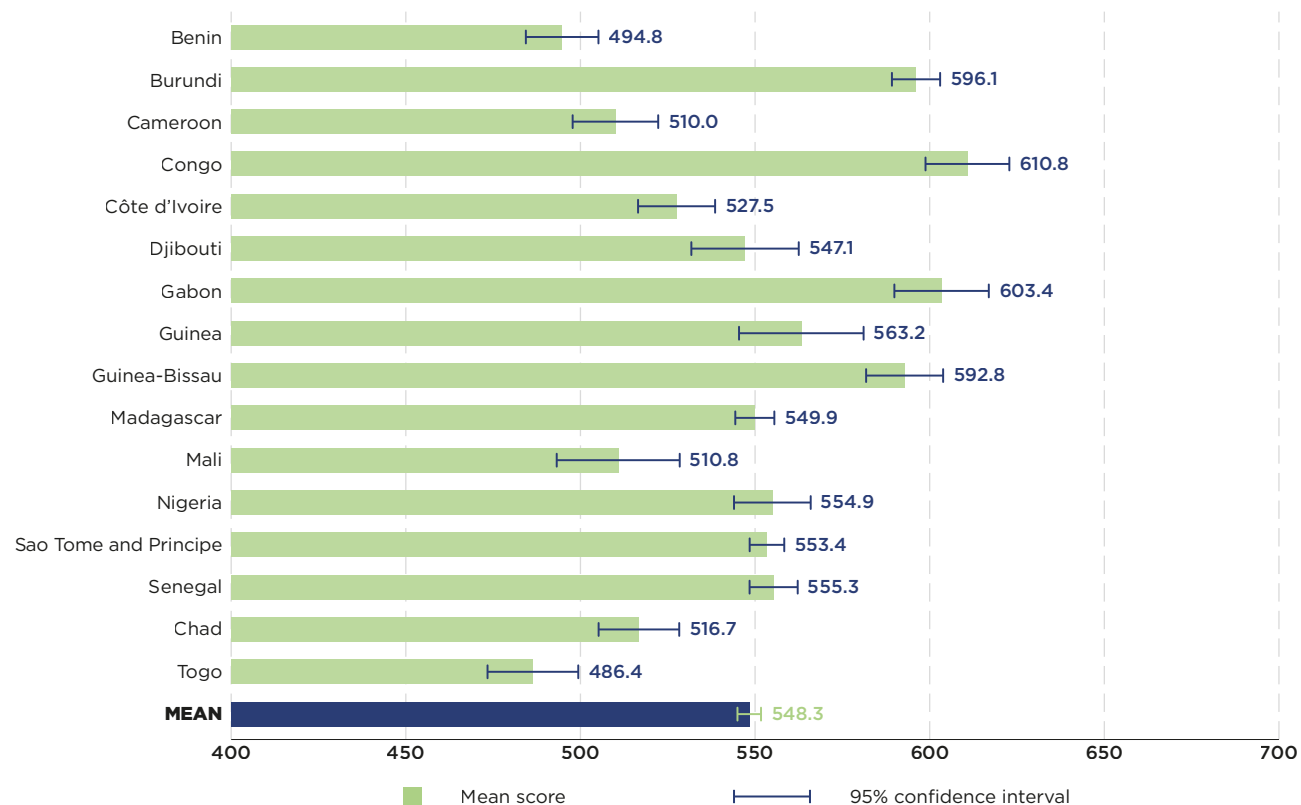
OVERALL STUDENT PERFORMANCE IN MATHEMATICS

Around a PASEC2024 international mean of 548.3 points, national scores range from 486.4 points in Togo to 610.8 points in Congo, marking a gap of more than 124 points between the two extremes. The highest performances are recorded in Congo (610.8 points), Gabon (603.4 points), Burundi (596.1 points) and Guinea-Bissau (592.8 points). Conversely, the lowest average scores are observed in Togo (486.4 points), Benin (494.8 points), Cameroon (510.0 points) and Mali (510.8 points).

Between these two groupings, an intermediate group composed of Senegal (555.3), Nigeria (554.9 points), Sao Tome and Principe (553.4 points), Madagascar (549.9) and Djibouti (547.1) is around the international mean (see figure opposite).

Figure 2.15

Students' performance in mathematics at the start of education



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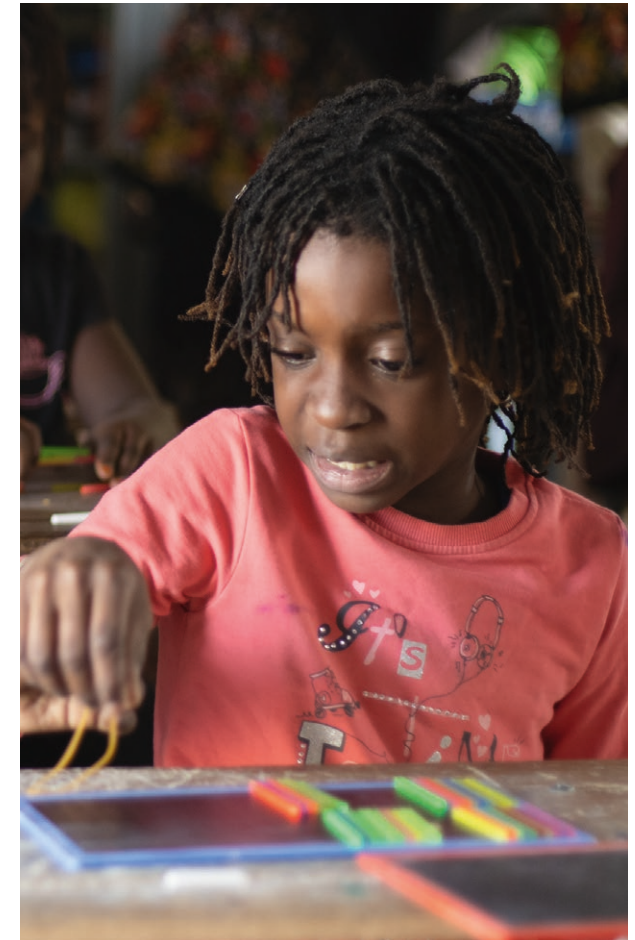
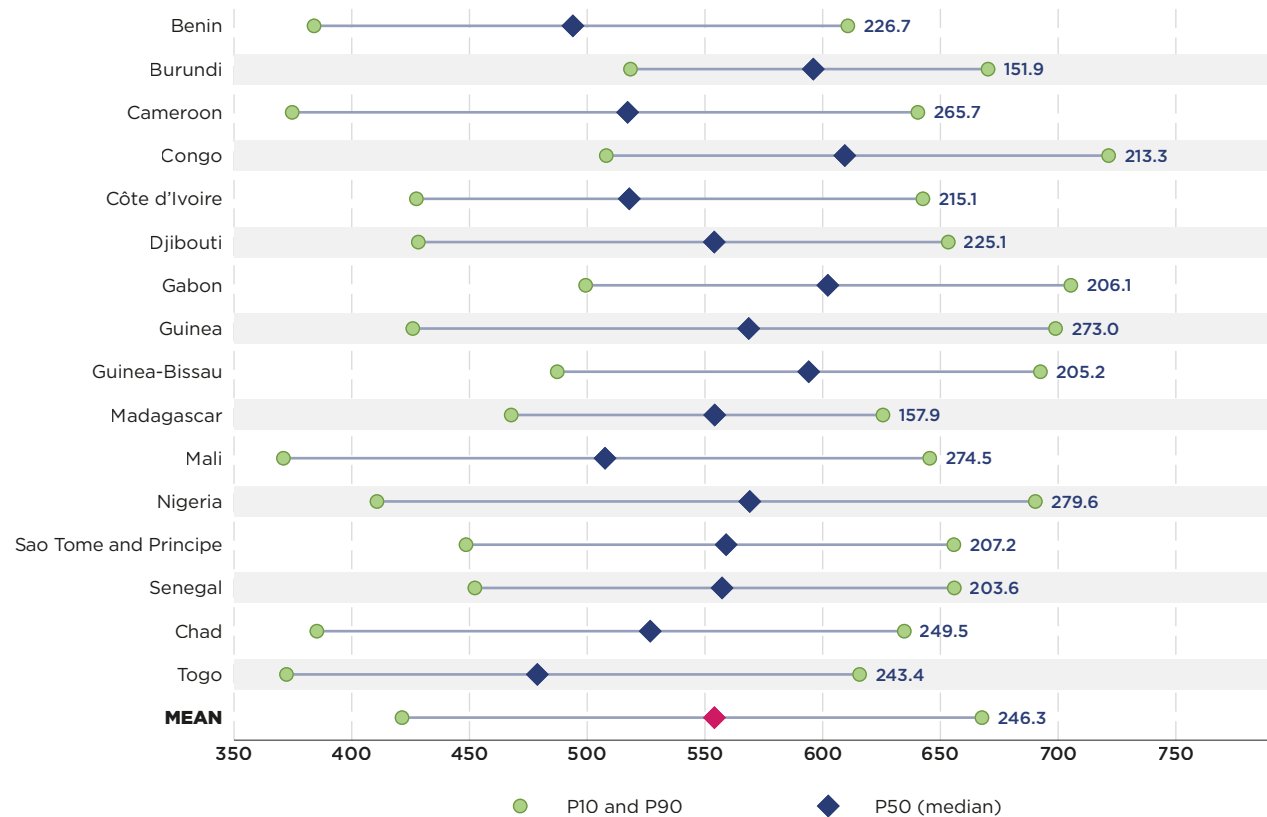
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Figure 2.16

Percentile distribution of students' performance in mathematics by country at the start of education



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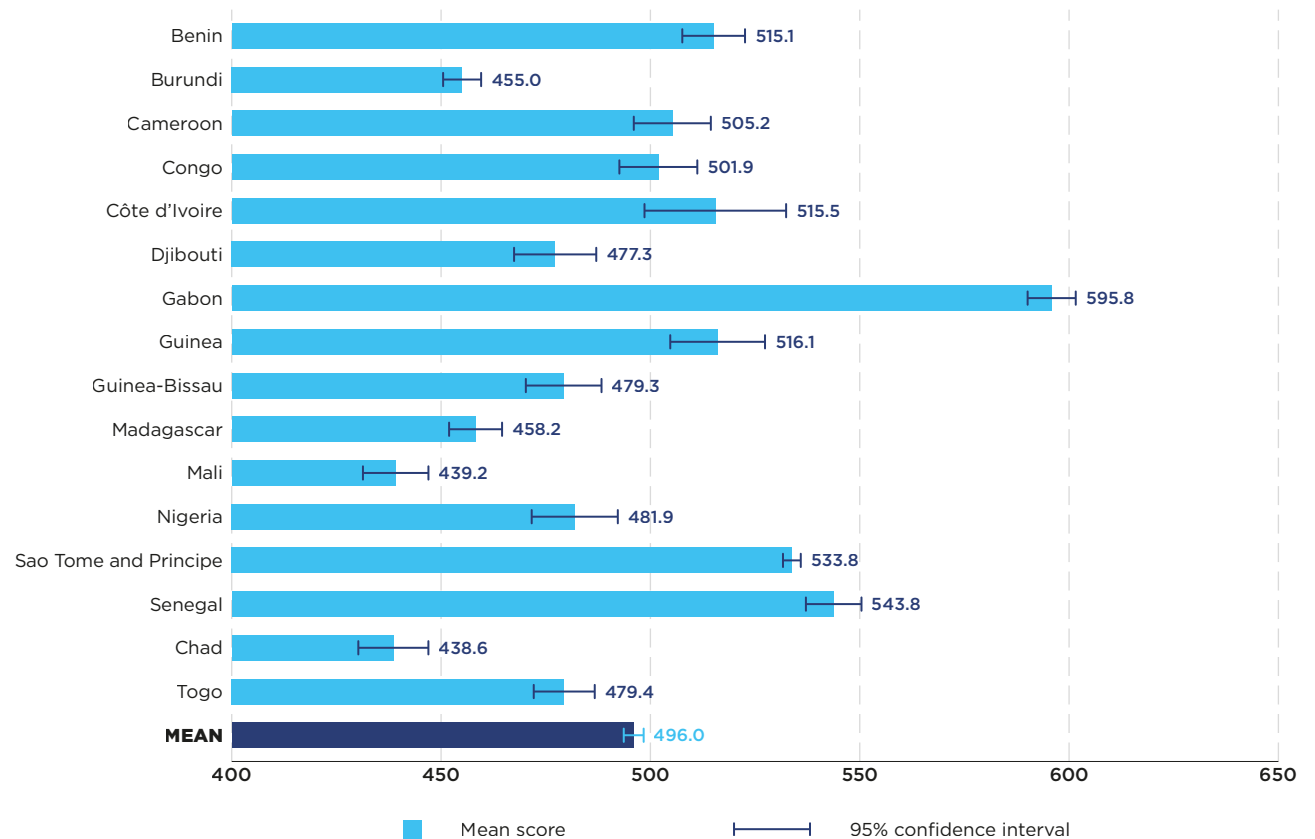
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END OF EDUCATION

MEAN READING PERFORMANCE

Figure 3.3

Mean reading scores, end of primary school



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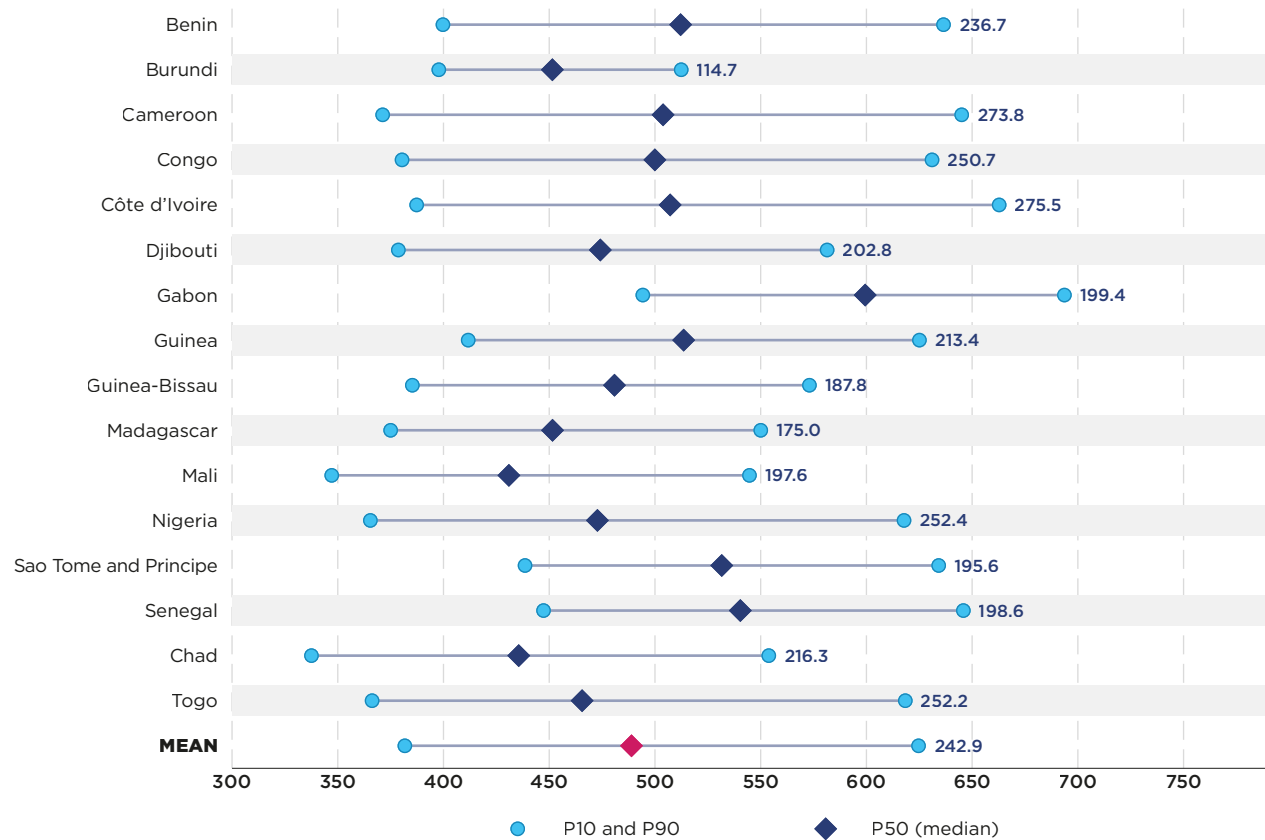
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Figure 3.5

Reading deciles, end of primary school



On average, the P10 stands at 381.7 points, the median at 488.9 points and the P90 at 624.7 points. The interdecile gap thus reaches 243.0 points. These values show that, beyond the international mean, reading performance is distributed over a large part of the scale.

In the lower part of the distribution, the lowest levels are observed in Chad and Mali, where the P10 stands at 337.6 and 347.1 points, respectively. Nigeria, Togo, Cameroon, Madagascar, Djibouti and Congo also have a P10 below the regional benchmark. Conversely, Gabon stands out with a P10 of 494.3 points, higher than the regional median. The lower part of its distribution is thus located at a level close to the centre of the distribution of all countries.



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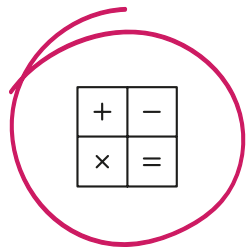
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END OF EDUCATION

PERFORMANCE IN MATHEMATICS



197.6

POINTS
AVERAGE GAP
between P10 and P90

Figure 3.4

Mathematics deciles, end of primary school

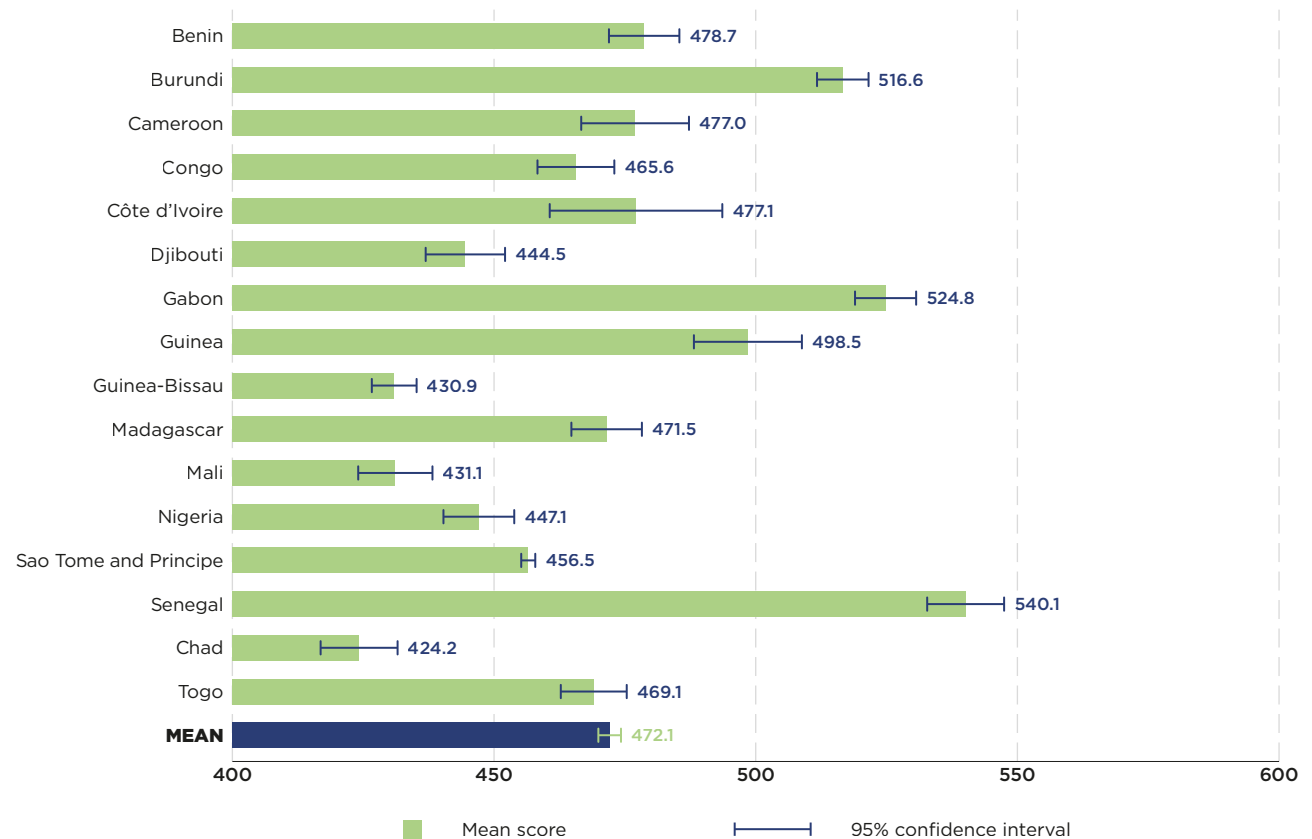
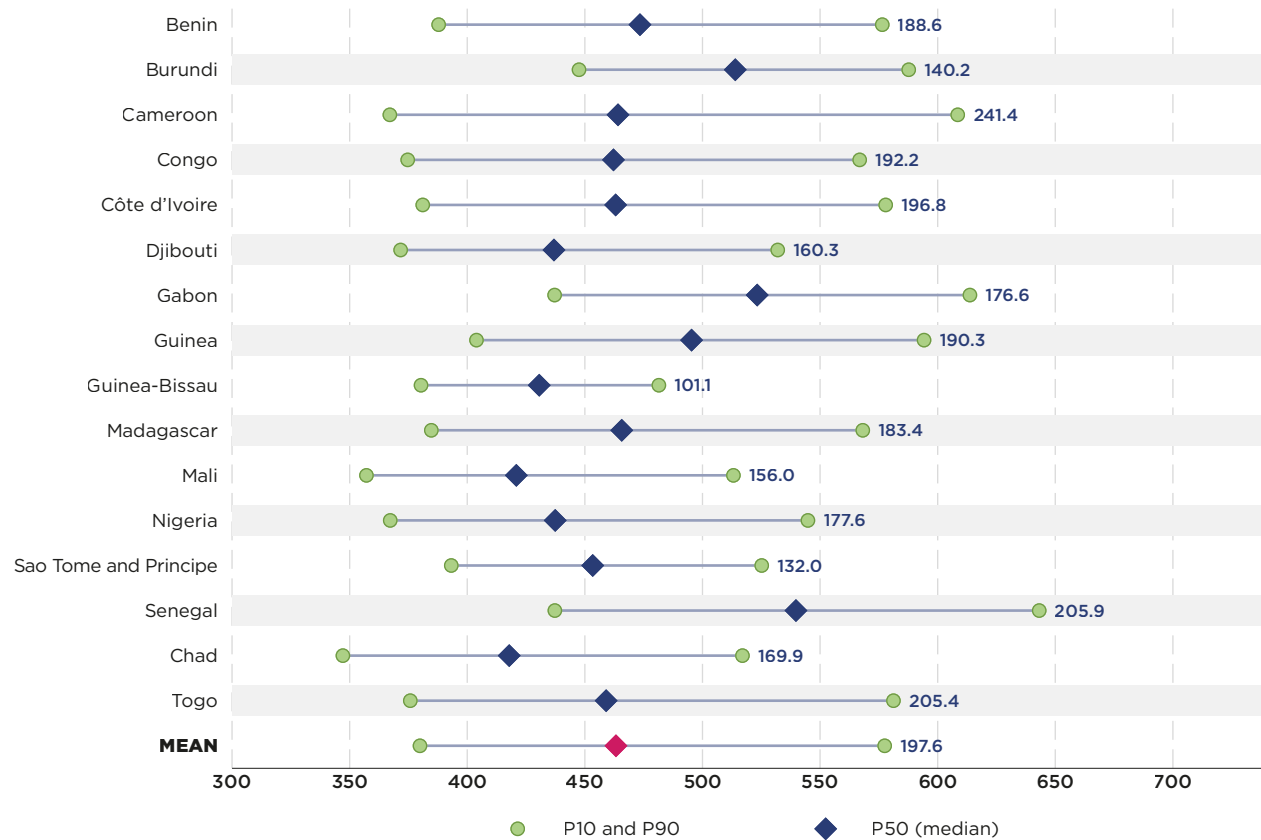


Figure 3.6

Mathematics deciles, end of primary school



On average, the P10 stands at 379.9 points, the median at 463.2 points and the P90 at 577.5 points. The interdecile gap thus reaches 197.6 points. These values show that performance in mathematics remains widely dispersed.

In the lower part of the distributions, Burundi has the highest P10, with 447.5 points, followed by Senegal, with 437.2 points. Conversely, seven countries are below the regional P10 of 379.9 points. The lowest values are observed in Chad and Mali, with 347.1 and 357.1 points respectively. Nigeria, Cameroon, Djibouti, Congo and Togo also have a P10 below the regional benchmark, between 367.1 and 375.8 points.



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SECTION 2

Description of the levels of the proficiency scales and typology of countries



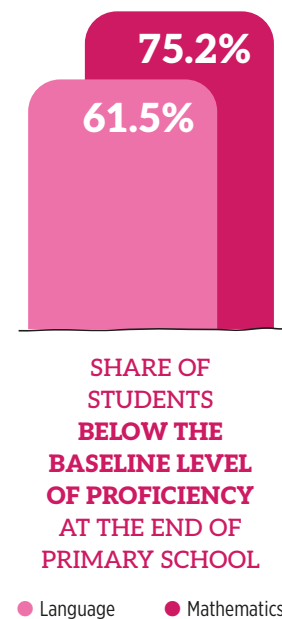
**The majority of students complete primary school without mastering foundational learning.**

At the end of primary school, 38.5% of students are above the baseline level of proficiency in reading and 61.5% remain below. In mathematics, 34.1% of students are below level 1 and 41.1% at level 1: these two groups alone account for 75.2% of students. In other words, more than 3 out of 4 students are below the expected baseline level of proficiency.

At the start of primary school, the situation is more favourable: 59.5% of students are above the baseline level of proficiency in the language of instruction and 73.6% in mathematics. The difficulty therefore worsens over the course of the cycle.

The proportion of students reaching the baseline level of proficiency ranges from 21% in Togo to 90% in Guinea-Bissau in language, and from 46% in Togo to 96% in Burundi in mathematics.

At the end of primary school, the proportion of students reaching the baseline level of proficiency in mathematics ranges from 1.3% in Guinea-Bissau to 59.6% in Senegal.



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START OF EDUCATION

DESCRIPTION OF LANGUAGE PROFICIENCY LEVELS



NEARLY
**SIX OUT
OF TEN**
STUDENTS

reach the minimum
expected level in language

Table 2.1

PASEC2024 Language Proficiency Scale – Start of education

Level	Percentage of students	What the student knows how to do
Level 4	37.1%	Intermediate reader: towards independent reading to understand sentences and texts Students have reached a level of decoding and listening comprehension that allows them to understand explicit information in short sentences and texts. They are able to combine their decoding skills and their mastery of oral language to reproduce the literal meaning of a short text.
Level 3	22.4%	Apprentice reader: towards improving the decoding of written texts, listening comprehension and understanding of written words Students have perfected their listening and decoding skills to focus on word comprehension. In listening comprehension, they are able to understand explicit information in a short text with a familiar vocabulary. They are gradually developing links between oral language and written language to improve decoding skills and expand vocabulary. In reading comprehension, students are able to identify the meaning of isolated words.
Proficiency threshold – expected baseline level of proficiency		
Level 2	22.8%	Emerging reader: towards developing decoding skills and strengthening listening comprehension skills The students have improved their level of listening comprehension and are able to identify a lexical field. They are developing the first rudimentary links between oral language and written language, and are able to perform basic tasks of decoding, recognition and graphophonological identification (letters, syllables, graphemes, phonemes).
Level 1	11.6%	Awakening reader: the first contacts with oral language and written language Students are able to understand very short (isolated words) and familiar oral messages to recognise familiar objects. They have great difficulty in decoding written words and graphophonological identification (letters, syllables, graphemes and phonemes).
Level <1	6.1%	Students who are at this level do not sufficiently demonstrate the skills measured by this test in the language of instruction. These students are struggling with level 1 knowledge and skills.



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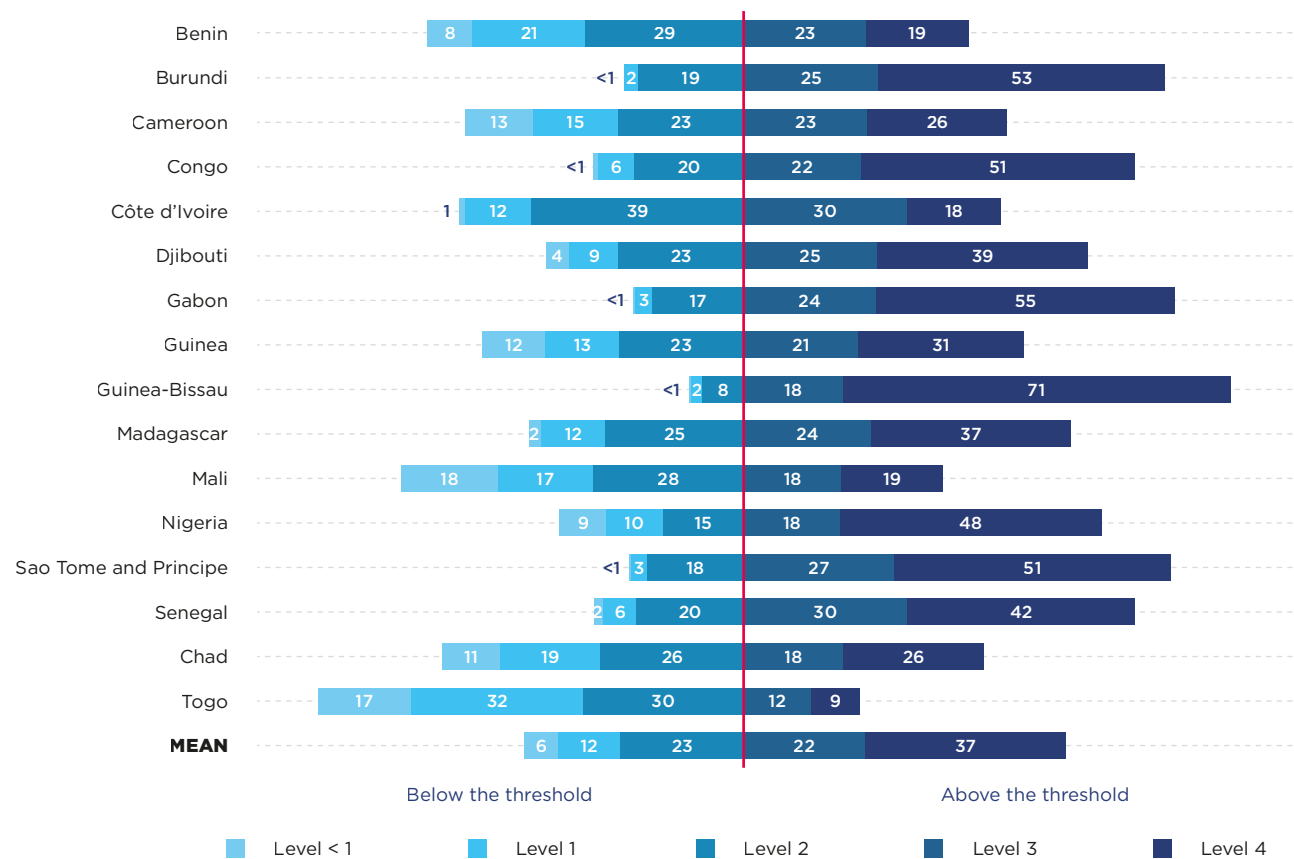
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Figure 2.1

Percentage of students by level of proficiency in language attained at the start of education



Note: The bars are aligned with the red line, which represents the proficiency threshold. On the left are students who do not reach the expected baseline level of proficiency, i.e. those at levels below level 1, level 1 and level 2. On the right are those that reach it or exceed it, i.e. at levels 3 and 4.

START OF EDUCATION

DESCRIPTION OF MATHEMATICS PROFICIENCY LEVELS

Table 2.2

PASEC2024 Mathematics Proficiency Scale – Start of education

Level	Proportion of students	What the student knows how to do
Level 3	40.0%	Students are able to read numbers, compare numbers, complete sequences of numbers and perform operations (addition and subtraction) on numbers greater than 50. They can reason out basic problems with numbers less than 20. They can identify most simple geometric shapes and are able to spot them in more complex shapes.
Level 2	33.6%	Students have mastered the verbal number sequence (counting to 60 in two minutes). They are able to read numbers, compare numbers, complete logical series, and perform operations (addition and subtraction) on numbers smaller than 50. They can manipulate concepts of location in space (e.g. in front, above, etc.). They are beginning to develop reasoning skills on basic problems with numbers less than 20. They can identify a few simple geometric shapes.
Proficiency threshold – expected baseline level of proficiency		
Level 1	19.4%	Students are gradually developing their knowledge of the mathematical language: they are beginning to read the first numbers (less than 10) and master the first ideas of quantity (counting, comparison) with numbers less than 20. They can appreciate the relative size of objects and are beginning to identify the first simple geometric shapes.
Level <1	7.0%	Students at this level do not sufficiently demonstrate the skills measured by this mathematics test. These students are struggling with level 1 knowledge and skills.



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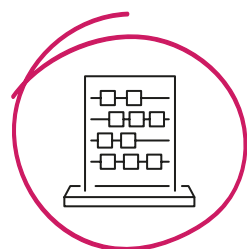
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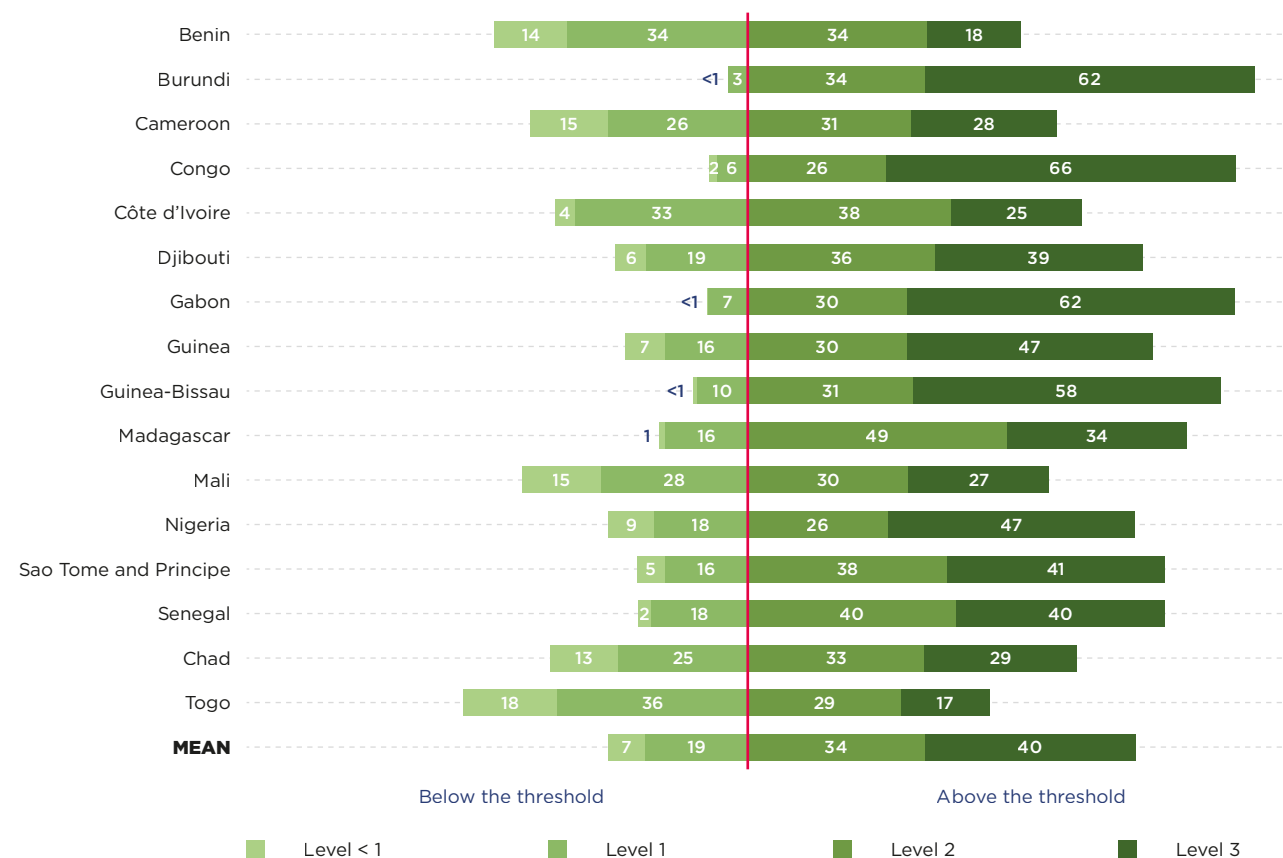
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**NEARLY
THREE
OUT OF
FOUR
STUDENTS**
reach the baseline
level of proficiency
in mathematics

Figure 2.3

Percentage of students by level of proficiency in mathematics attained at the start of education



Note: The bars are aligned with the red line, which represents the proficiency threshold. On the left are students who do not reach the expected baseline level of proficiency, i.e. those at levels below level 1 and at level 1. On the right are those that reach it or exceed it, i.e. at levels 2 and 3.

END OF EDUCATION

DESCRIPTION OF READING PROFICIENCY LEVELS

Table 3.1

Reading Proficiency Scale – End of primary education

Level	Minimum student scores	Proportion of students	Expected skills
Level 4	595.05	15.7%	Students can perform comprehensive text analysis to build on narrative and informative texts, and documents. For these materials, they are able to associate and interpret several implicit ideas based on their experience and knowledge. By reading literary texts, students are able to identify the author's intention and determine the implicit meaning of a story. By reading informative texts and documents, they can link information and compare data to use it.
Level 3	518.37	22.8%	Students are able to combine two explicit pieces of information in a document passage or make simple inferences in a narrative or informative text. They can extract implicit information from written materials by making sense of implicit connectors, anaphora, or references. Students can locate explicit information in long texts and documents with discontinuous texts. They can locate specific information in text-image documents.
Baseline level of proficiency			
Level 2	441.69	31.4%	Students are improving their decoding skills to understand isolated words from their daily lives and isolated sentences. They are also able to locate explicit information in short and medium texts by taking cues from the text and the questions. Students are able to paraphrase explicit information in a text.
Level 1	365.01	23.4%	Students have developed decoding skills and are able to use them to understand isolated words from their daily lives or very short isolated sentences, but have difficulty understanding the meaning of short, simple texts.
Level <1	72.1	6.7%	Students at this level do not sufficiently demonstrate the skills measured by this test in the language of instruction. These students are struggling with level 1 knowledge and skills.



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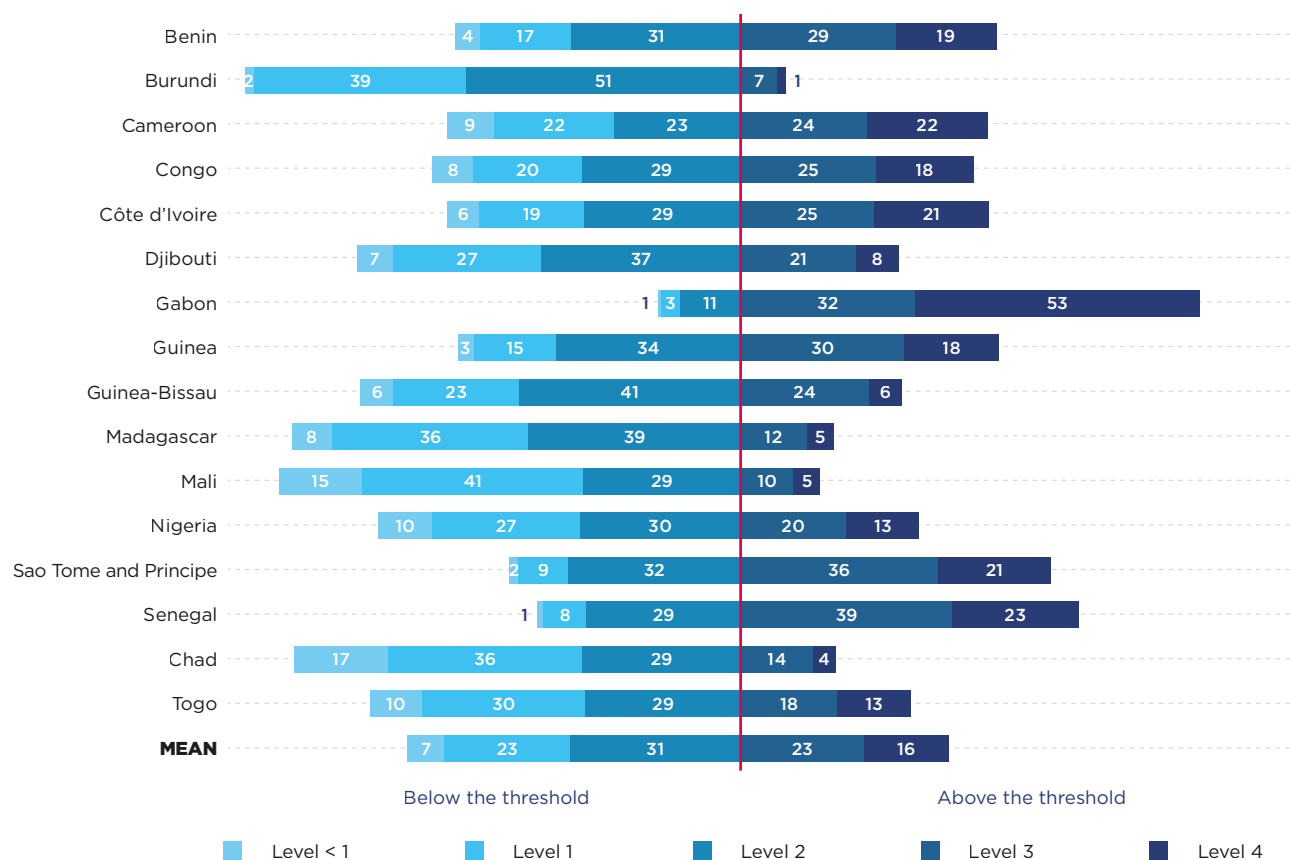
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Figure 3.1**Distribution of students by proficiency level in reading comprehension at the end of primary education (%)**

In all the countries assessed, 6.7% of students are classified below level 1, 23.4% at level 1 and 31.4% at level 2. Levels 3 and 4 account for 22.8% and 15.7% of students, respectively. Thus, 38.5% reach at least level 3, the threshold adopted by PASEC for monitoring SDG 4.1.1 b, while 61.5% remain below it. The regional median is also 29.5 points below the technical cut-off point of 518.37 points.

END OF EDUCATION

DESCRIPTION OF MATHEMATICS PROFICIENCY LEVELS

A high concentration of students below the baseline level of proficiency.

Table 3.2

Mathematics Proficiency Scale – End of primary education

Level	Minimum student scores	Proportion of students	Expected overall skills
Level 3	609.6	5.5%	Students are able to solve tasks that require analysing situations, generally presented in the form of a short text of two to three lines, to identify the procedure(s) to be used. In the area of numbers and operations, they can solve problems of direct proportionality and problems involving fractions or decimal numbers. Their understanding of fractions continues to grow (they are beginning to compare fractions or link fractions and decimals). In the area of quantities and measurements, they can solve a variety of problems involving area or perimeter calculations, presented without visual support and sometimes requiring two reasoning steps (e.g. finding the area of a square when its perimeter is known or performing conversions involving data provided in ares or in hectares). They can also perform calculations and conversions involving hours, minutes, or even seconds.
Level 2	521.5	19.3%	Students are able to answer short questions using the three processes assessed: knowing, applying, and solving problems. While most of the questions involve factual knowledge or a specific procedure, others require analysis of the situation to determine the appropriate approach. In the area of numbers and operations, students can perform operations with decimal numbers; their understanding of fractions is being deepened (they can identify them in less conventional situations or begin to be able to use them to perform simple operations) and they understand the notion of percentages. They are also beginning to solve simple problems, usually involving a single operation. In the area of quantities and measurements, students are able to read the time and can convert units of measure with or without a conversion table. They are also able to solve simple initial problems involving perimeter and area calculations, usually accompanied by a visual support. In the area of solids and shapes, they can use their basic knowledge to solve tasks that require an analysis of the situation (e.g. locating x triangles among a set of shapes or identifying parallel lines in a group of lines).
Baseline level of proficiency (SDG threshold)			
Level 1	433.3	41.1%	Students can answer very short questions using factual knowledge or a specific procedure. In the area of numbers and operations, they are able to perform the four basic operations with whole numbers, possibly requiring a written calculation with regrouping. They are also beginning to develop initial notions of fractions and can identify them when they are presented in a conventional way (e.g. a pie divided into x slices). In the area of quantities and measurements, they can identify the usual conventional units (e.g. m, m², m³ and kg). In the area of solids and shapes, they have some basic knowledge of various geometric objects (e.g. identifying a disk or a cylinder, locating a right angle or parallel lines).
Level <1	68.1	34.1%	Students at this level do not sufficiently demonstrate the skills measured by this test in the language of instruction. These students are struggling with level 1 knowledge and skills.



1

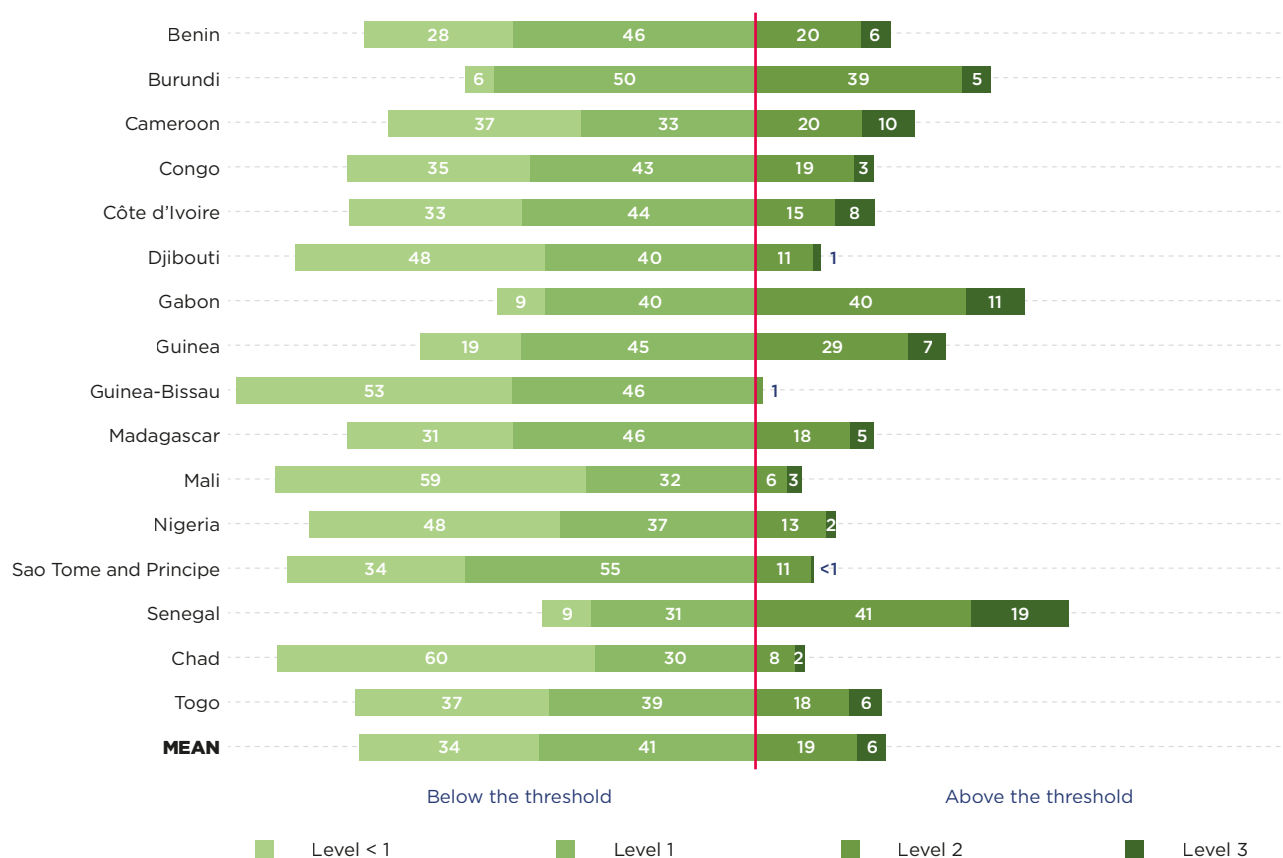
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Figure 3.2**Distribution of students by proficiency level in mathematics at the end of primary education (%)**

Internationally, the breakdown by level shows a significant concentration at the lower end of the scale. More than one-third of students, or 34.1%, are below level 1, while 41.1% are at level 1. Together, these two groups account for 75.2% of the students assessed.

An analysis of proficiency levels reveals marked differences between countries. The proportion of students reaching the baseline, defined here as access to level 2 or level 3, ranges from 1.3% in Guinea-Bissau to 59.6% in Senegal. Beyond this gap, the national distributions also differ in the place occupied by level 1 and the level below level 1.

SECTION 3

Disparities within education systems



Within each country, the dispersion of results is high.

At the start of primary school, the average interdecile gap reaches 314.3 points in language and 246.3 points in mathematics; in language, it ranges from 201.6 points in Côte d'Ivoire to 392.1 points in Nigeria.

At the end of primary school, in reading, the average first decile stands at 381.7 points and the ninth decile at 624.7.

One in two students cannot work with a textbook at home.

At the start of primary school, seven out of ten students have a reading textbook in class and six out of ten a mathematics textbook, but only 51.1% can take the former home and 46.7% the latter.

At the end of primary school, 54% of students have a reading textbook they can take home and 46% a mathematics textbook. The associated score gap reaches 56 points in reading at the start of primary school, 44 of which remain after control.

The urban advantage is first and foremost a social advantage, and the private-school advantage is confirmed.

At the start of primary school, urban students score 521.0 points in reading compared with 463.7 for rural students, a gap of 57.3 points, significant in all 16 countries without exception.

At the end of primary school, in mathematics, the urban-rural gap of 19.2 points almost entirely disappears after control.

The private-school advantage, however, persists: 14 out of 16 countries retain a significant gap in reading at the end of primary school, from 30 to 97 points after control. Gabon is the only country where attending a private school is not associated with any advantage.

The language spoken at home weighs heavily, but for different reasons depending on the country.

Students who never speak the language of instruction at home score 56.4 points lower in reading and 28.7 points lower

in mathematics; after control, the gap remains 32.7 and 17.3 points.

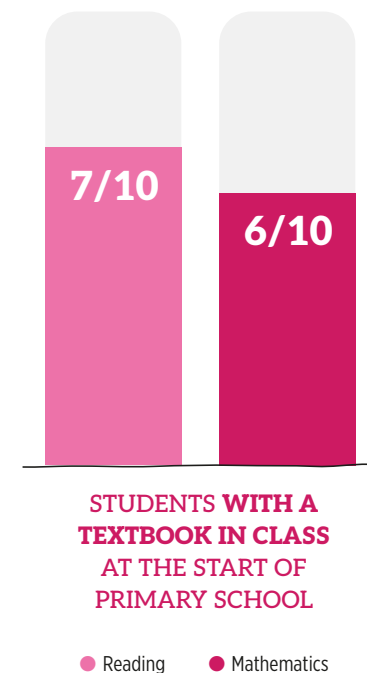
In Cameroon, 54.5% of the gross gap of 85.1 points in reading is absorbed by context variables: language functions there primarily as a marker of social position.

In Côte d'Ivoire, only 18.4% of the gross gap of 57.3 points is absorbed; with comparable location and standard of living, a student who never speaks the language of instruction at home still loses nearly 50 points.

The weight of social origin varies greatly from one country to another.

The gap between the extreme socio-economic quintiles exceeds 120 points in reading in Cameroon, Togo and Madagascar; it is only 41 points in Gabon, the country with the highest social index.

The differences are smaller in mathematics than in reading: 109 points compared with 128 in Cameroon, 86 compared with 120 in Togo, 36 compared with 77 in Nigeria.



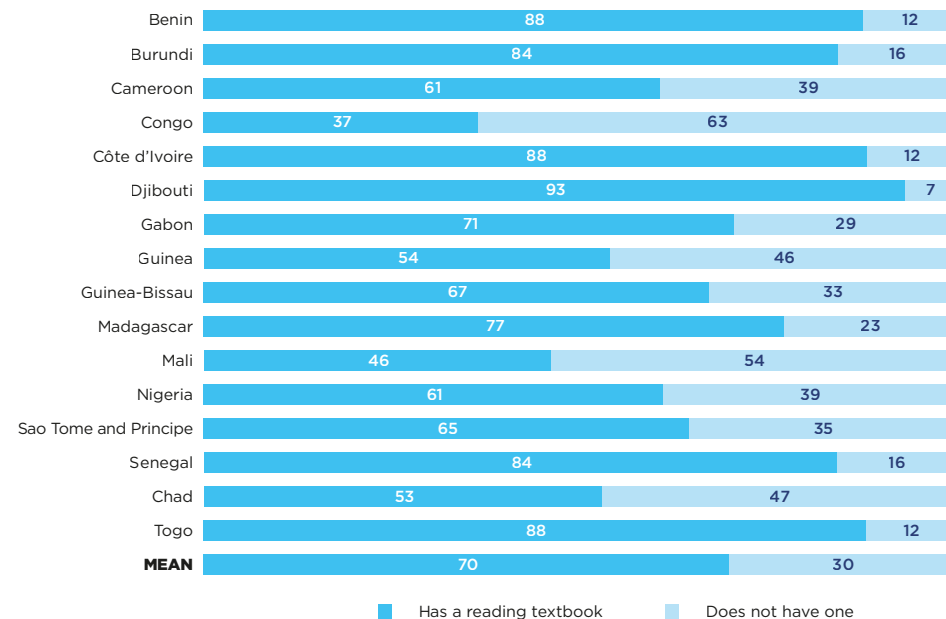
ACCESS TO EDUCATIONAL RESOURCES AND SCHOOLING CONDITIONS

Access to textbooks

Having a textbook in the classroom and being able to take it home are two different things. The first relates to the allocation, and therefore to the resources committed by the education system; the second is a decision by the school, often motivated by the fear of losing the books that will have to be replaced or the fear of having students destroy them. This section examines the two, as well as their combination, *i.e.* the proportion of students who are actually able to work with textbooks at home.

Figure 4.5

Reading textbook in class



START OF EDUCATION

Seven out of ten students have a reading textbook in class, six out of ten have a mathematics textbook. In 15 out of 16 countries, the rate is lower than that of reading, and the gap exceeds 15 points in Senegal, Sao Tome and Principe and Congo. Of the students with a textbook, just over half (51.1%) say they can take their reading textbook home, and 46.7% their mathematics textbook. The allocation varies from one to two and a half, between Congo and Djibouti, and the fact of taking it home varies from one to fifteen, between Benin (6.0%) and Djibouti (91.4%).

Figure 4.6

Mathematics textbook in class

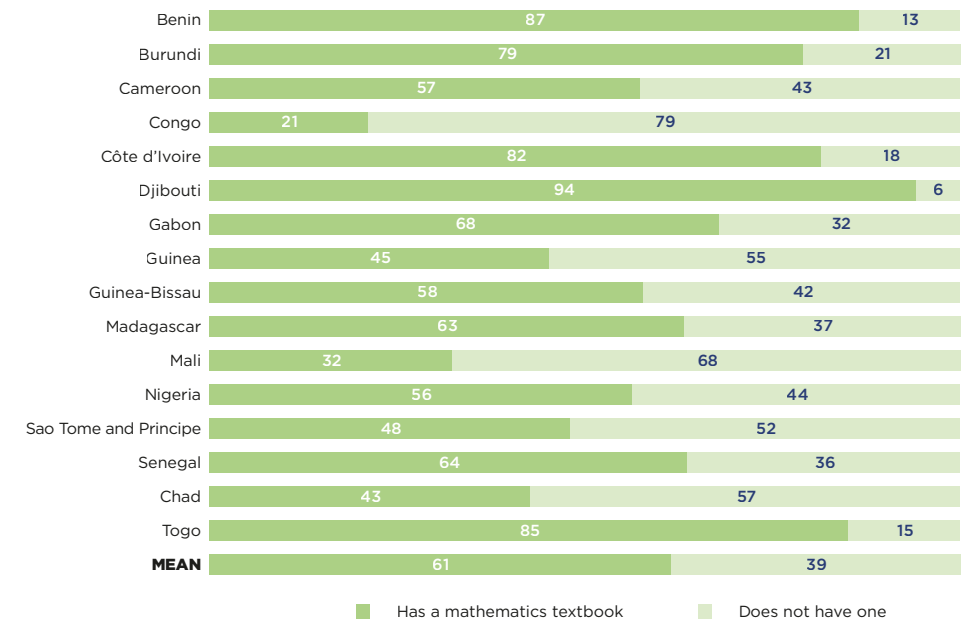


Figure 4.7

Can take the reading textbook home

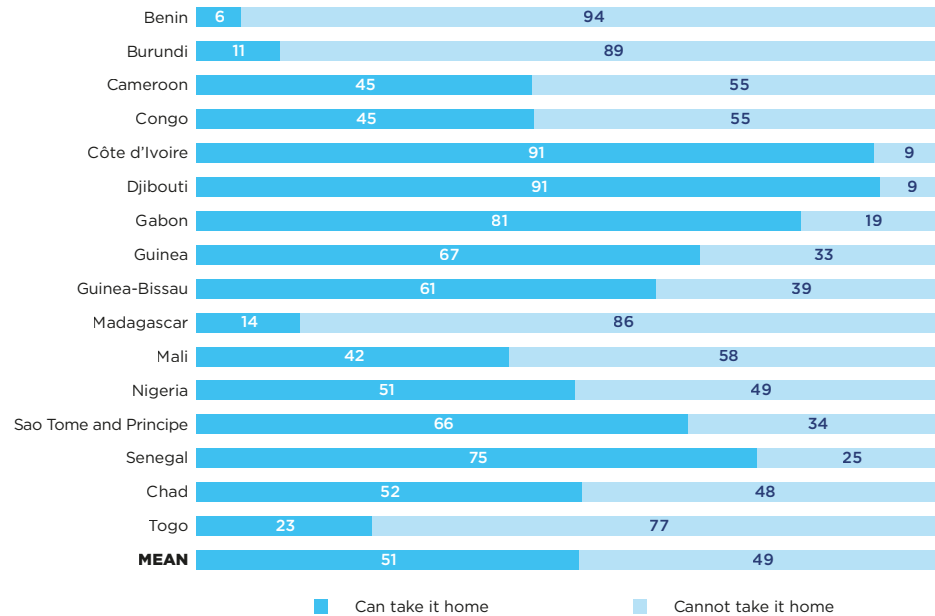
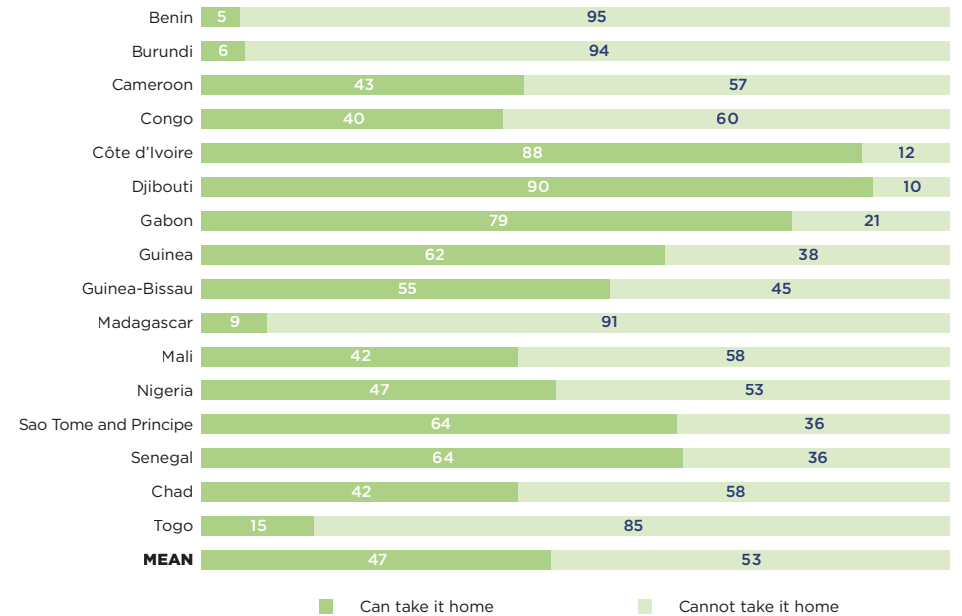


Figure 4.8

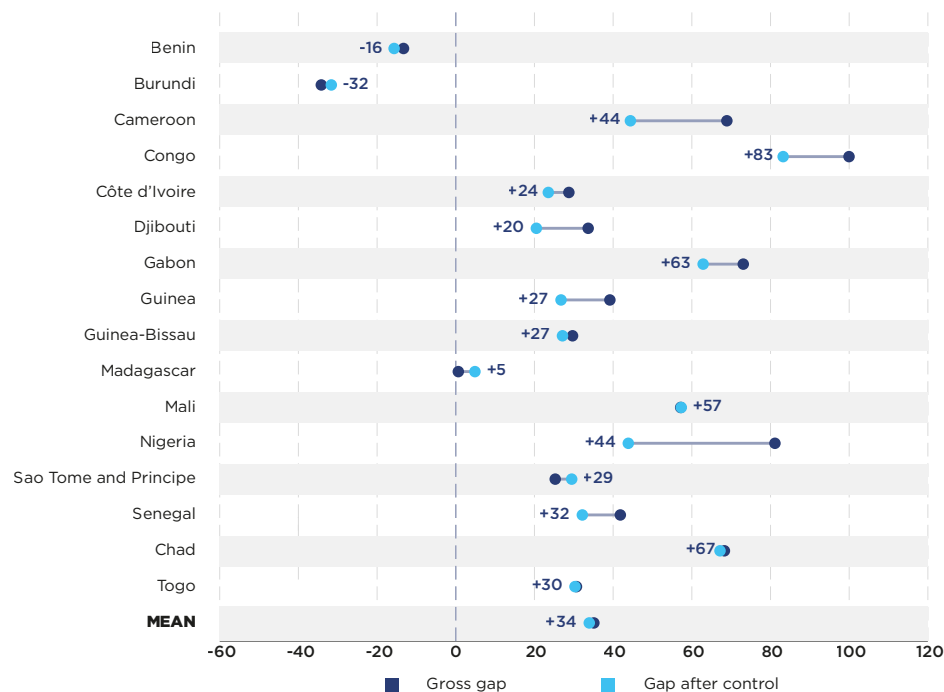
Can take the mathematics textbook home



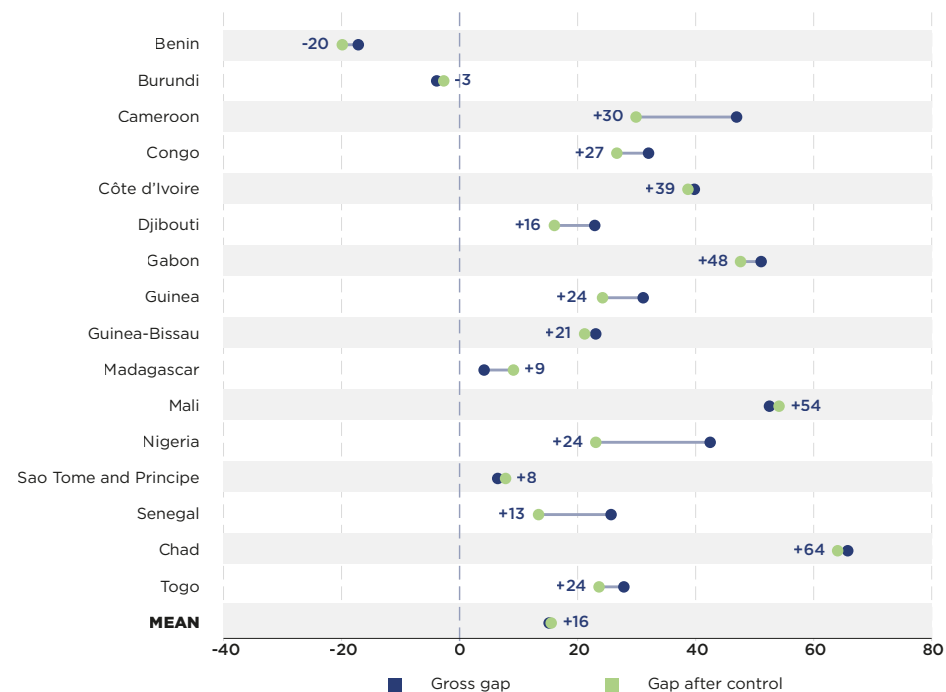
The four countries where taking the textbook home is the most restricted are among the countries where students have the most access to the textbook, particularly in Benin, where 87.8% of students have a textbook in class but only 6.0% can take it home, Togo (88.2% and 23.5%), Burundi (84.5% and 11.2%), Madagascar (77.3% and 13.9%). Conversely, in Congo, where 36.6% have a textbook in class, those who can take it home represent 45.1%. Thus, not being able to take the textbook home is not a consequence of its non-availability but could result from a policy of retaining the stock, applied with rigour even if the stock exists.

51%
OF STUDENTS CAN
TAKE THEIR **READING**
TEXTBOOK HOME

47%
OF STUDENTS CAN TAKE
THEIR **MATHEMATICS**
TEXTBOOK HOME

Figure 4.13**Gap in reading between having a reading textbook in class and not having one**

Among students who have a textbook in class, those who can take it home obtain 53 points more in reading, but the gap drops to 33 points after control, i.e. 38% absorption.

Figure 4.14**Gap in mathematics between having a mathematics textbook in class and not having one**

16 points

SEPARATE STUDENTS
WHO HAVE A
TEXTBOOK FROM
THOSE WHO DO NOT

Figure 4.15

Gap in reading between taking the textbook home and not taking it home

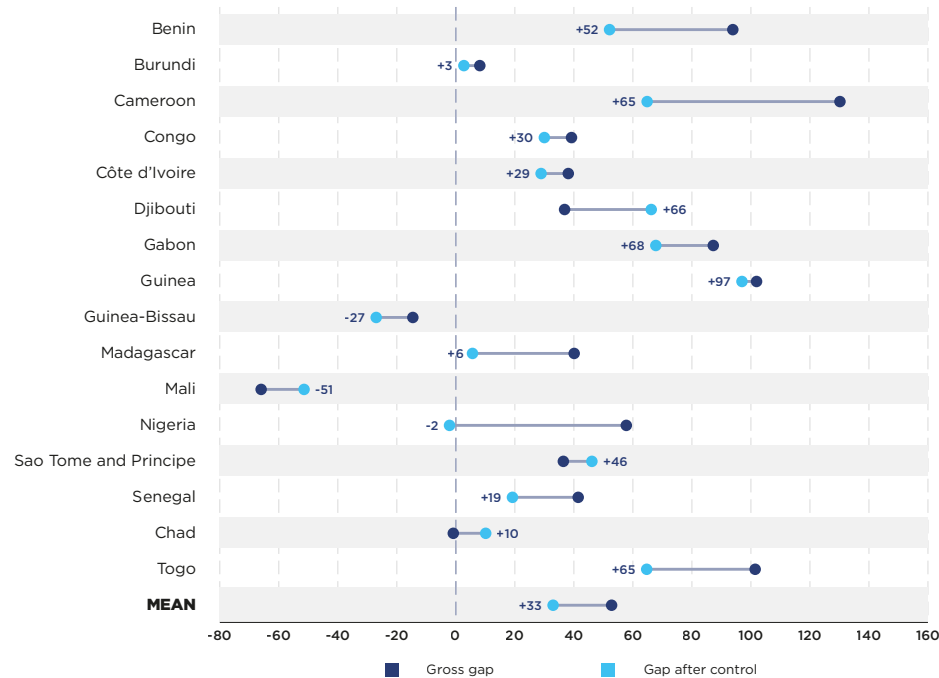
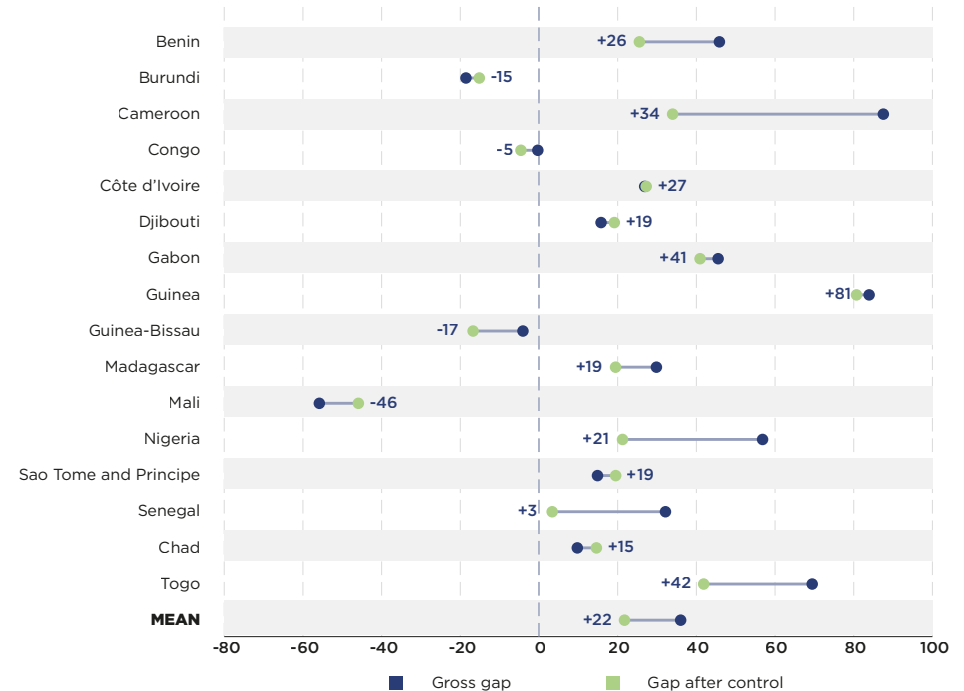


Figure 4.16

Gap in mathematics between taking the textbook home and not taking it home



The combined indicator, which opposes those who can actually work at home against all the others, produces the widest gap: 56 points in reading and 34 in mathematics, of which 44 and 25 remain after control. It exceeds each of its components, which is coherent since the comparison group includes both students without a textbook and those whose textbook remains in the classroom.

END OF EDUCATION

About three out of four students (75.4%) say they have a reading textbook in class, and two out of three (65.2%) say they have a mathematics textbook. A quarter of students therefore follow reading lessons without materials, and more than a third follow mathematics lessons without materials. In 15 out of 16 countries, the percentage of students who say they have a textbook in mathematics is lower than that of reading.

Figure 4.9

Reading textbook in class

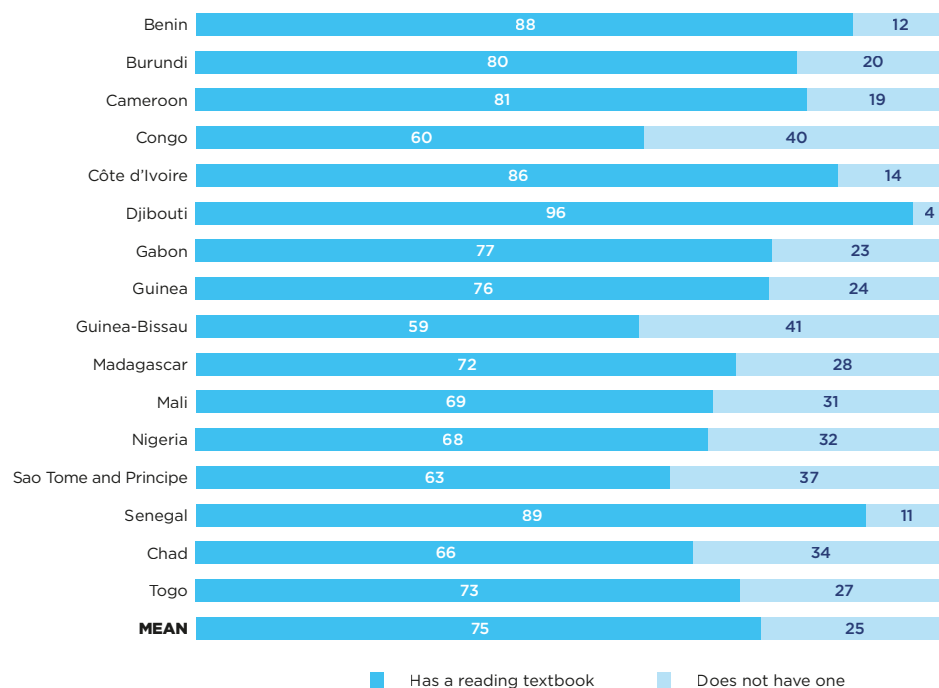


Figure 4.10

Mathematics textbook in class

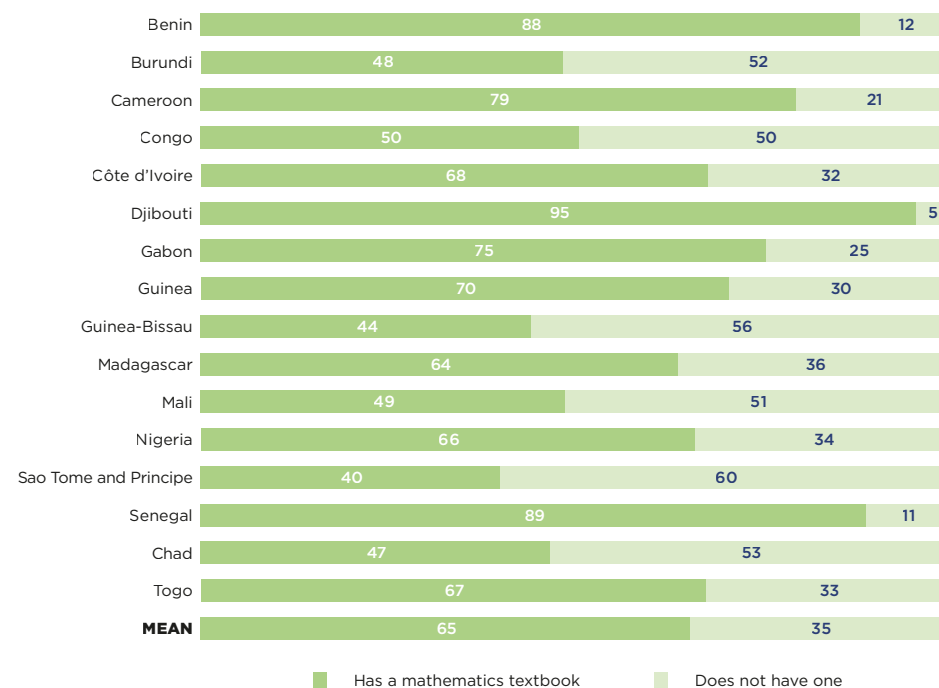
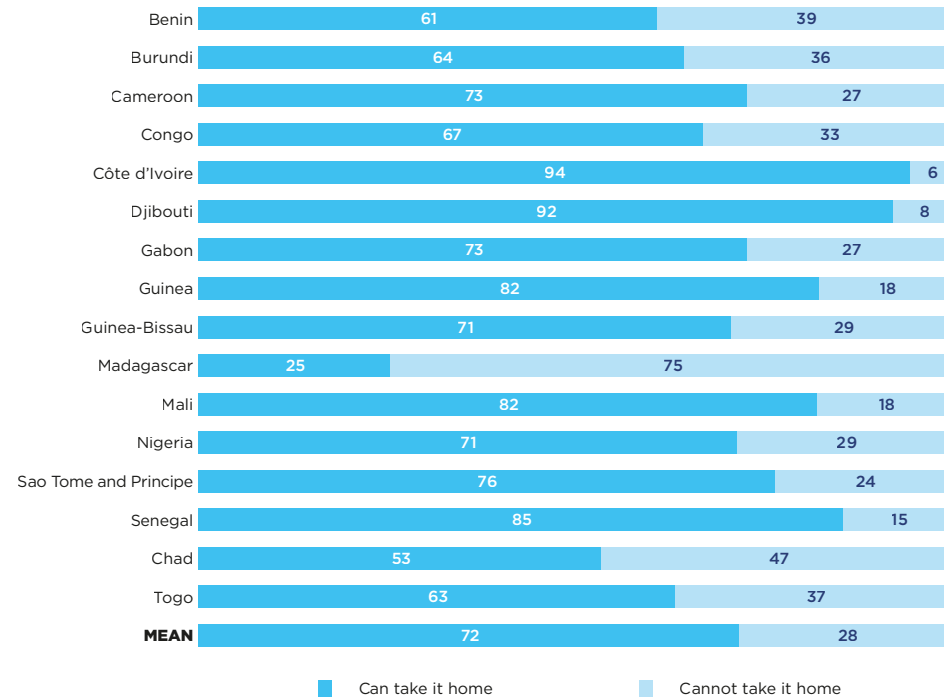


Figure 4.11

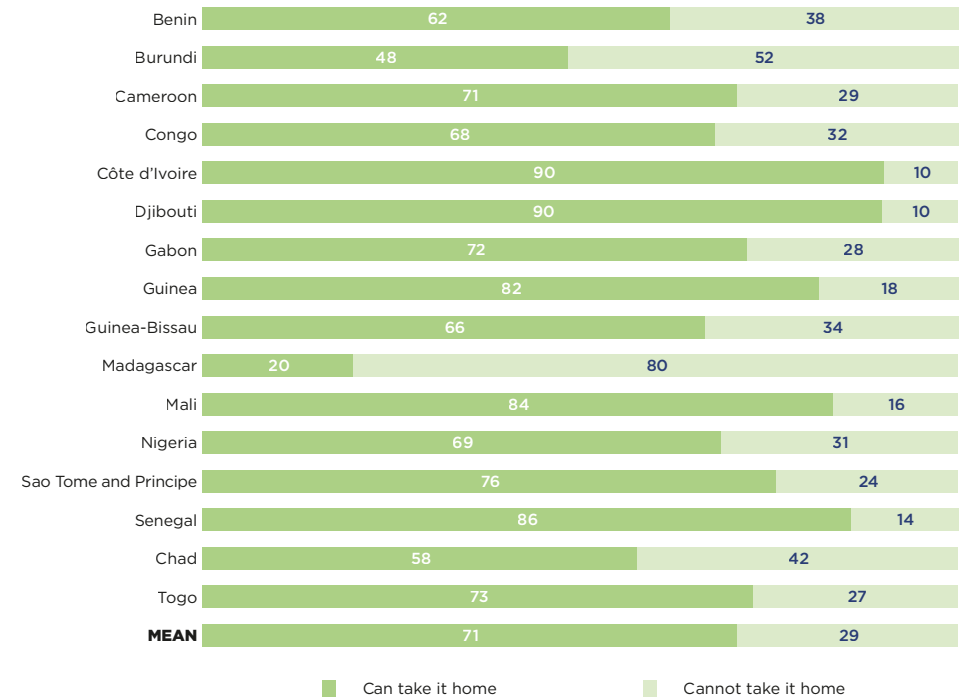
Can take the reading textbook home



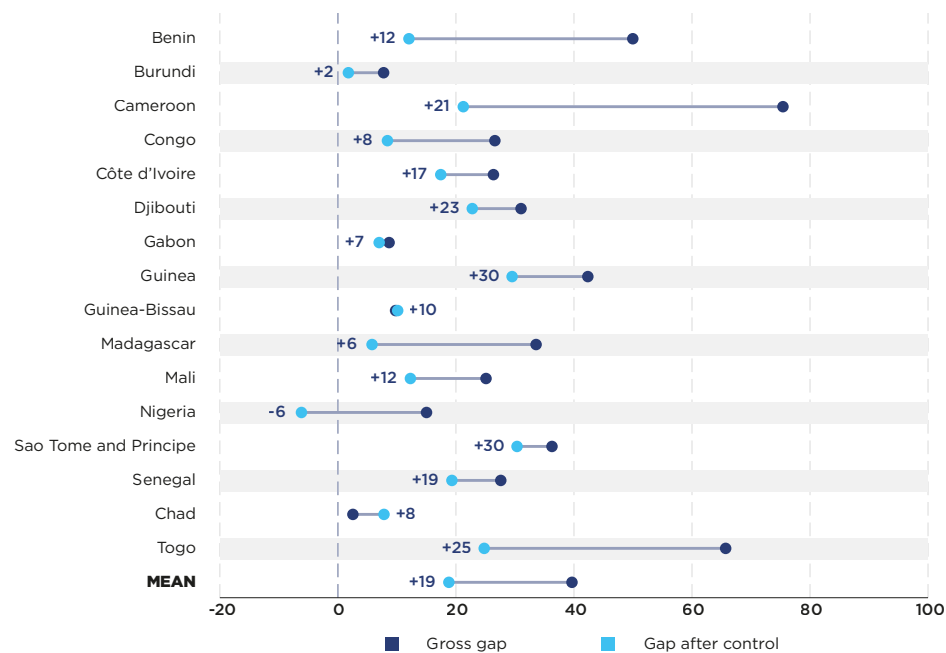
Seven students out of ten say they can take their textbook home with them (71.6% for reading, 70.8% for mathematics). In Madagascar, 72.1% of students have a reading textbook in class but only 25.4% can take it home. In contrast, in Côte d'Ivoire (94.2%) and Djibouti (91.9%), the majority of students say they can take their textbook home. Chad (53.4%), Benin (60.7%) and Togo (63.2%) occupy a low intermediate position.

Figure 4.12

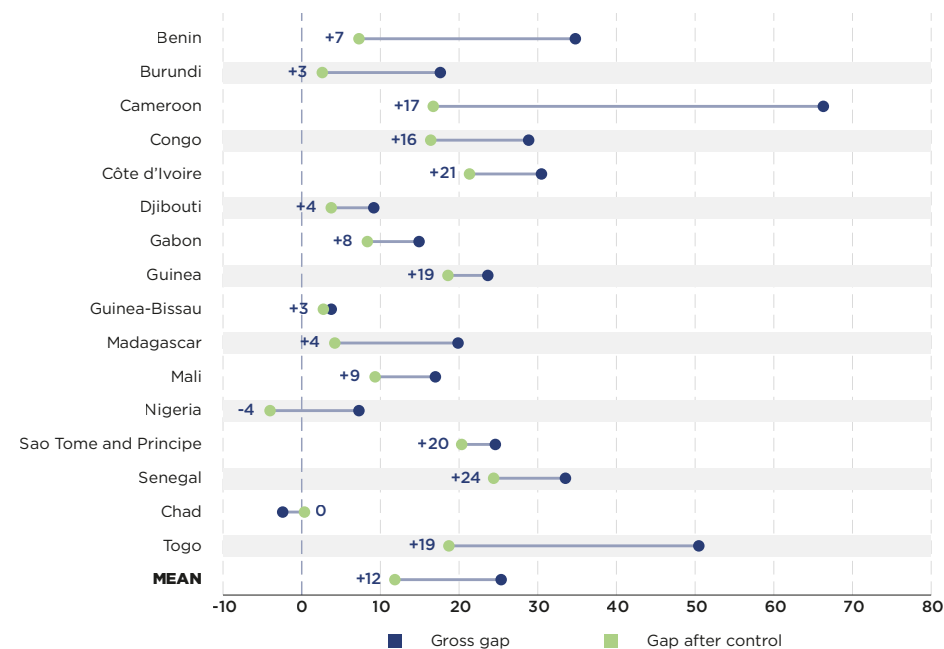
Can take the mathematics textbook home



Having a reading textbook in class is associated with 21 more points in reading, but the gap drops to 6 points after control, three-quarters of which is due to social origin and type of school. Among students who have a textbook, being able to take it home is associated with 40 gross points and 19 points after control, i.e. about three times the residual difference in the allocation.

Figure 4.17**Gap in reading between taking the textbook home and not taking it home**

The gross difference associated with the availability of textbooks is significant in 11 out of 16 countries, and only seven remain after control. Cameroon has the highest gap between taking the textbook home and not taking it home in reading, with 75 gross points and 21 after control.

Figure 4.18**Gap in mathematics between taking the textbook home and not taking it home****12 points**

**ON AVERAGE SEPARATE
STUDENTS WHO CAN
TAKE THEIR TEXTBOOK
HOME FROM THOSE
WHO CANNOT**

School location (urban, rural) and student performance

START OF EDUCATION

In mathematics, urban students obtained 566.4 points compared to 529.5, *i.e.* 36.9 gross points and 27.7 points after control, both of which are significant. Eight countries maintain a significant gap after adjustment, with Gabon (+61.0), Côte d'Ivoire (+53.5), Chad (+43.7) and Togo (+35.8) leading. No country has a significant rural advantage.

In reading, urban students obtained 521.0 points against 463.7, *i.e.* a significant gross gap of 57.3 points, representing 0.59 standard deviations. The gross gap remains significant and positive in all 16 countries without exception. The control of school status and socio-economic level halves it, to 26.3 points, and 12 countries maintain a significant gap. Cameroon (+50.8), Benin (+45.4), Togo (+43.3), Côte d'Ivoire (+40.9) and Gabon (+39.8) remain the most marked. In four countries, the gap loses its significance: Guinea, Mali, Nigeria and Djibouti, where the gross difference, although 35 points, falls to 8 points once social origin is taken into account.

Figure 4.22

Urban-rural gap in reading at the start of education (in points)

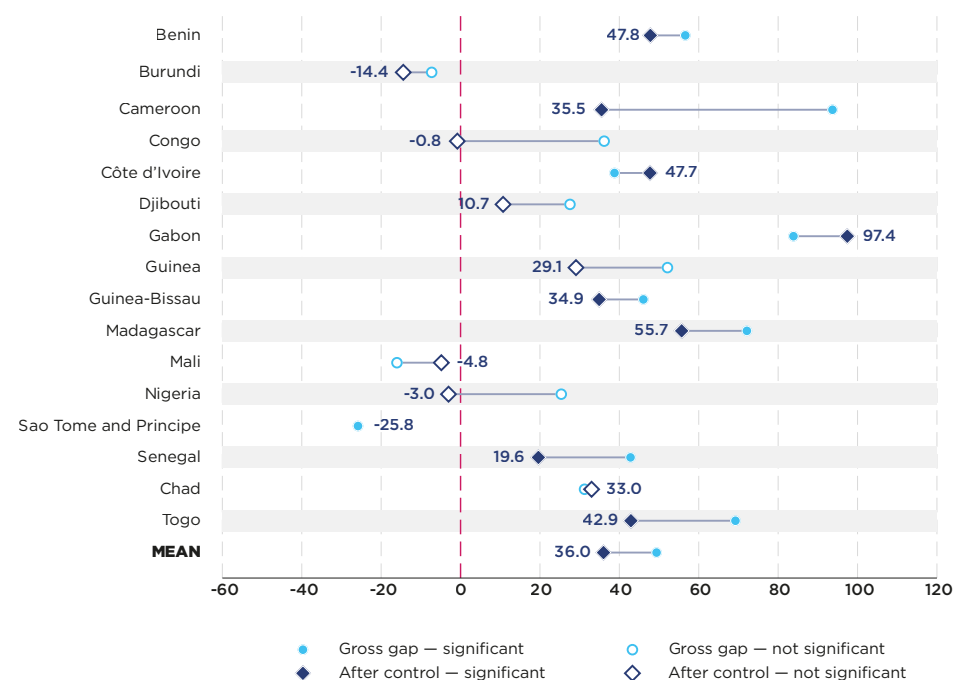
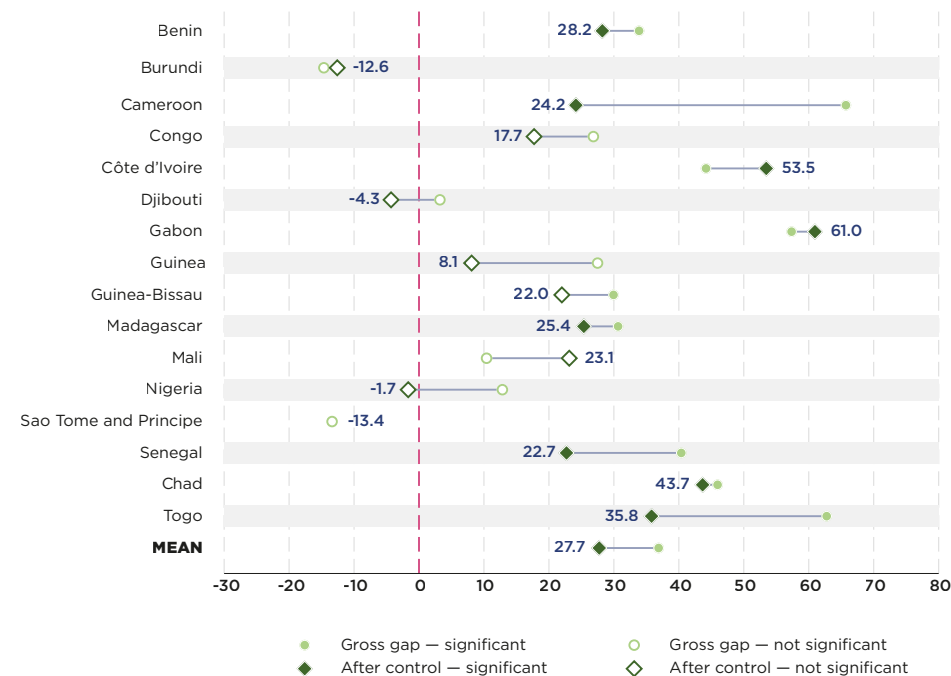


Figure 4.23

Urban-rural gap in mathematics at the start of education (in points)



END OF EDUCATION

In mathematics, in gross terms, urban students are ahead of rural students by 19.2 points, a gap which is significant, and 12 countries have a significant positive difference. After controlling for the status of the school and the socio-economic level, the overall gap went to -0.7 points, which is not significant, and only four countries keep a significant gap: Madagascar (+27.5), Benin (+24.9), Togo (+22.6) and Sao Tome and Principe (+5.3). Thus, in mathematics and at the end of primary school, what appears to be a territorial gap is almost entirely a social gap: with comparable school status and social origin, attending school in an urban area no longer brings a measurable advantage.



Figure 4.25

Urban-rural gap in reading at the end of education (in points)

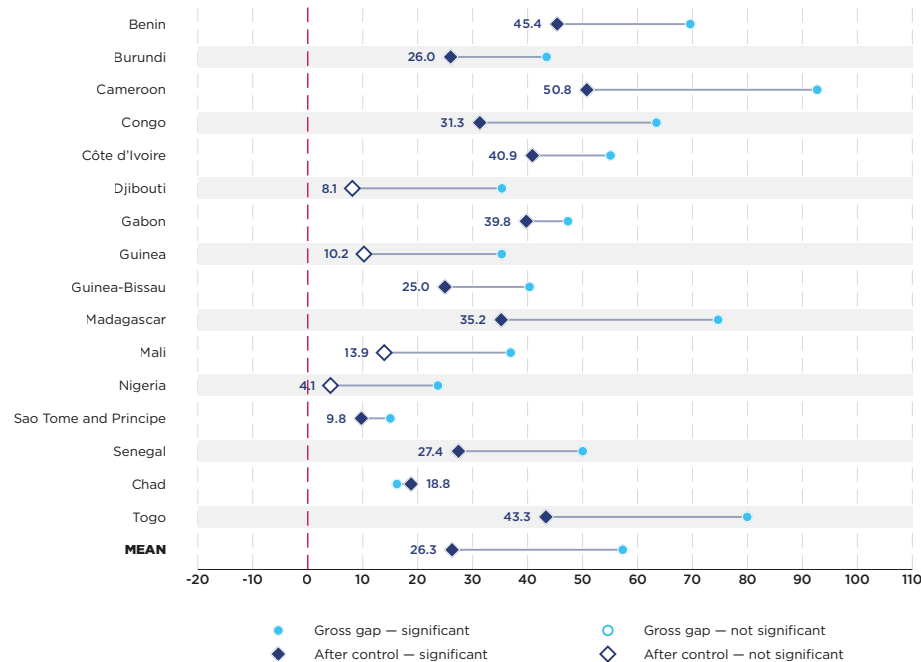
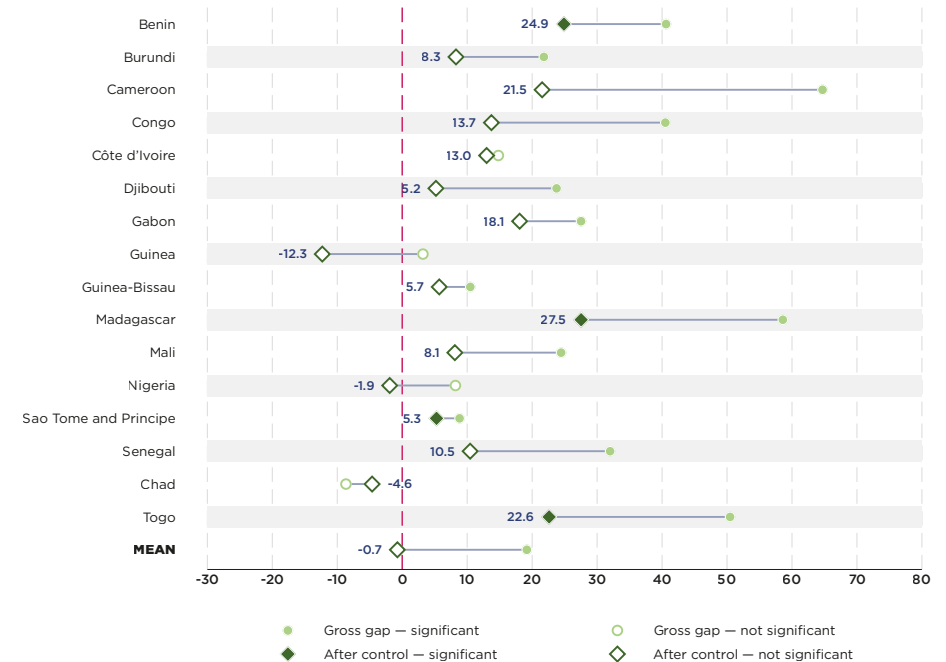


Figure 4.26

Urban-rural gap in mathematics at the end of education (in points)



Status (private, public) of schools and student performance

START OF EDUCATION

Twelve out of fifteen countries show a significant advantage of the private sector in reading after control for the environment, and the magnitude ranges from 50 to 173 points. Djibouti (+173.0), Nigeria (+168.7) and Cameroon (+140.7) form a group of extreme gaps, greater than one standard deviation. These are followed by Benin (+83.4), Congo (+82.6), Senegal (+80.5), Guinea-Bissau (+71.4) and Togo (+64.5). No country has a significant public advantage. Three countries do not fit this pattern, without reversing it: Côte d'Ivoire, Mali and Chad, where the gap is zero or slightly negative, but never significant.

In mathematics, nine countries maintain a significant gap after control, from 16 to 102 points. The gap is systematically smaller than in reading: in Congo it falls from 83 to 20 points and loses its significance, in Gabon from 60 to 16 points. The advantage of the private sector concerns the mastery of language more than mathematics.

Figure 4.28

Private-public gap in reading at the start of education (in points)

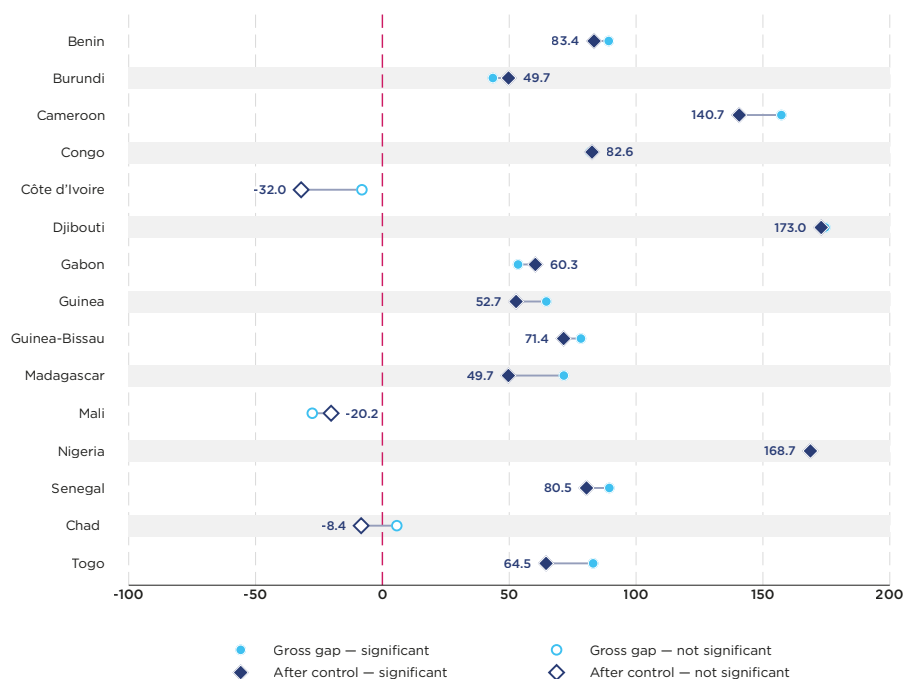
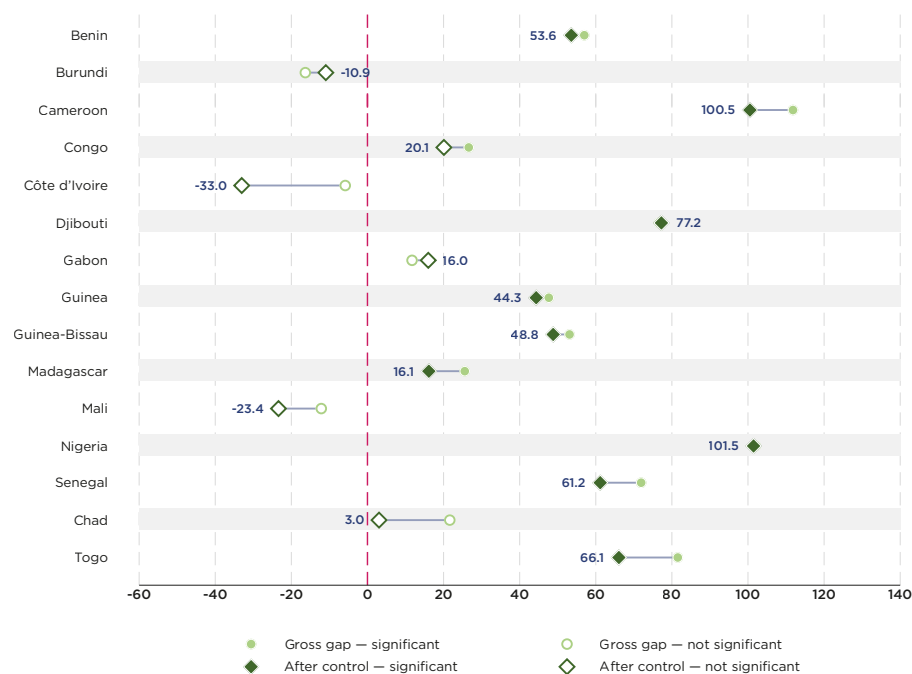


Figure 4.29

Private-public gap in mathematics at the start of education (in points)



END OF EDUCATION

Fourteen out of sixteen countries show a significant gap in reading, after controlling for the environment and socio-economic level, of 30 to 97 points. Burundi (+97.1), Cameroon (+90.6), Nigeria (+86.9), Djibouti (+85.5) and Benin (+82.8) stand out the most; the smallest gap is in Chad (+30.4 points). Gabon is an exception because the gap is zero, and even very slightly negative after control, while the private sector educates nearly one in two students. It is the only country where attending a private school is not associated with any advantage, at both levels and in both disciplines.

Mathematics gives a very similar picture: 14 countries with a significant gap after control, from 13 to 98 points. Cameroon (+97.8) and Burundi (+94.7) exceed the gap observed in reading, which distinguishes them from the general pattern.

As regards the comparison with community schools, the picture differs from the start of primary school. In Guinea-Bissau, the advantage of the community schools over the public schools is significant; it is 29 gross points in reading and 22 points after control, and 12 points in mathematics and 10 points after control. In Chad, the relationship is reversed, from -12 points at the start of education to +23 gross points, and +25 adjusted points in reading, but not significant, and to +20 points in mathematics.

Figure 4.31

Private-public gap in reading at the end of education (in points)

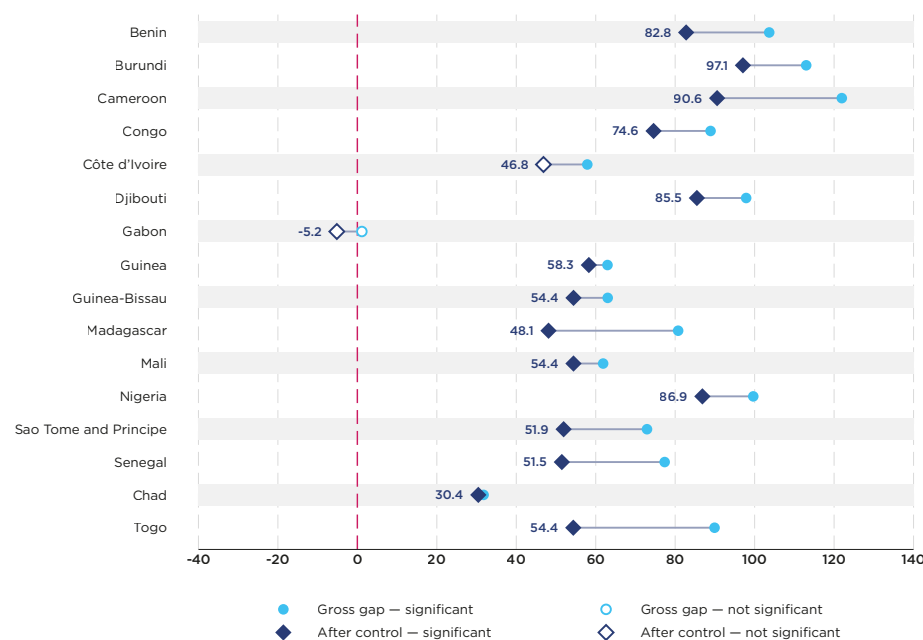
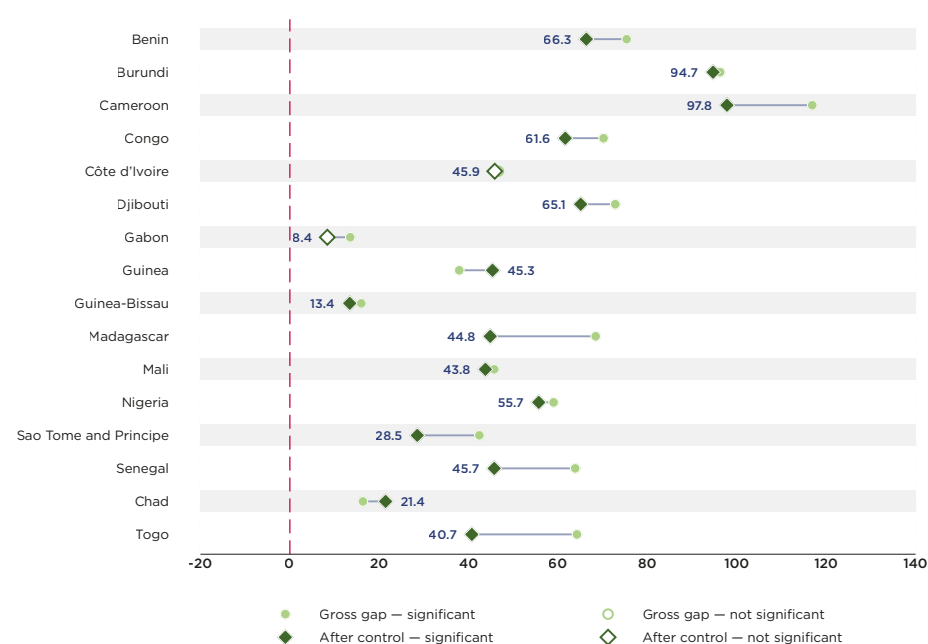


Figure 4.32

Private-public gap in mathematics at the end of education (in points)



QUALITY OF TEACHERS AND LINK TO LEARNING

Teacher's educational level and students' performance

START OF EDUCATION

Just over half of students have a secondary school-level teacher (53%), 41% have a university-level teacher and 6% have a teacher who stopped at primary school level. Sao Tome and Principe (83%), Djibouti (81%), Guinea-Bissau (78%) and Guinea (74%) have teachers who are overwhelmingly university-level; Togo (7%), Benin (11%), Chad (14%) and Madagascar (4%) are the opposite. The primary school-level is concentrated in Madagascar, where it concerns 45% of students, then in Nigeria (10%) and Togo (9%).

Figure 4.37

Distribution of students based on the educational level of their teacher

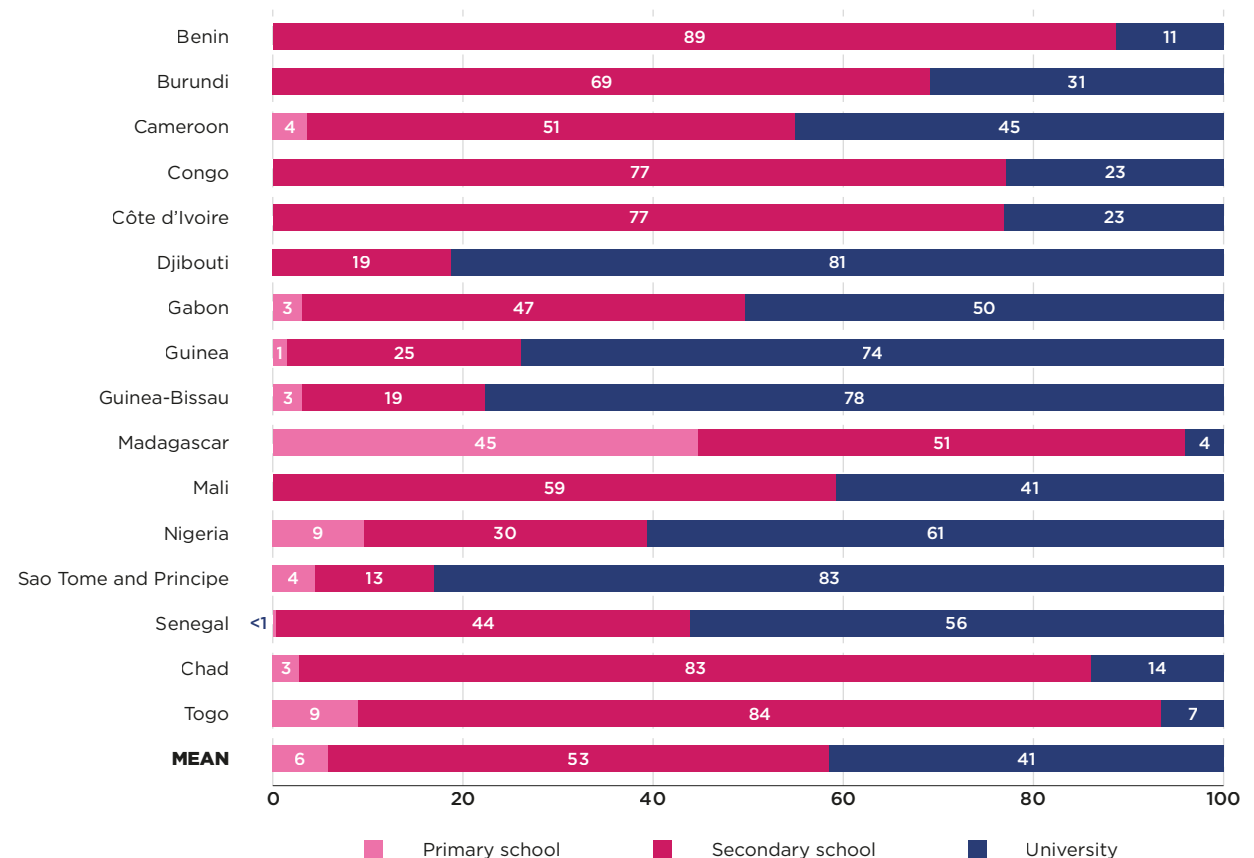
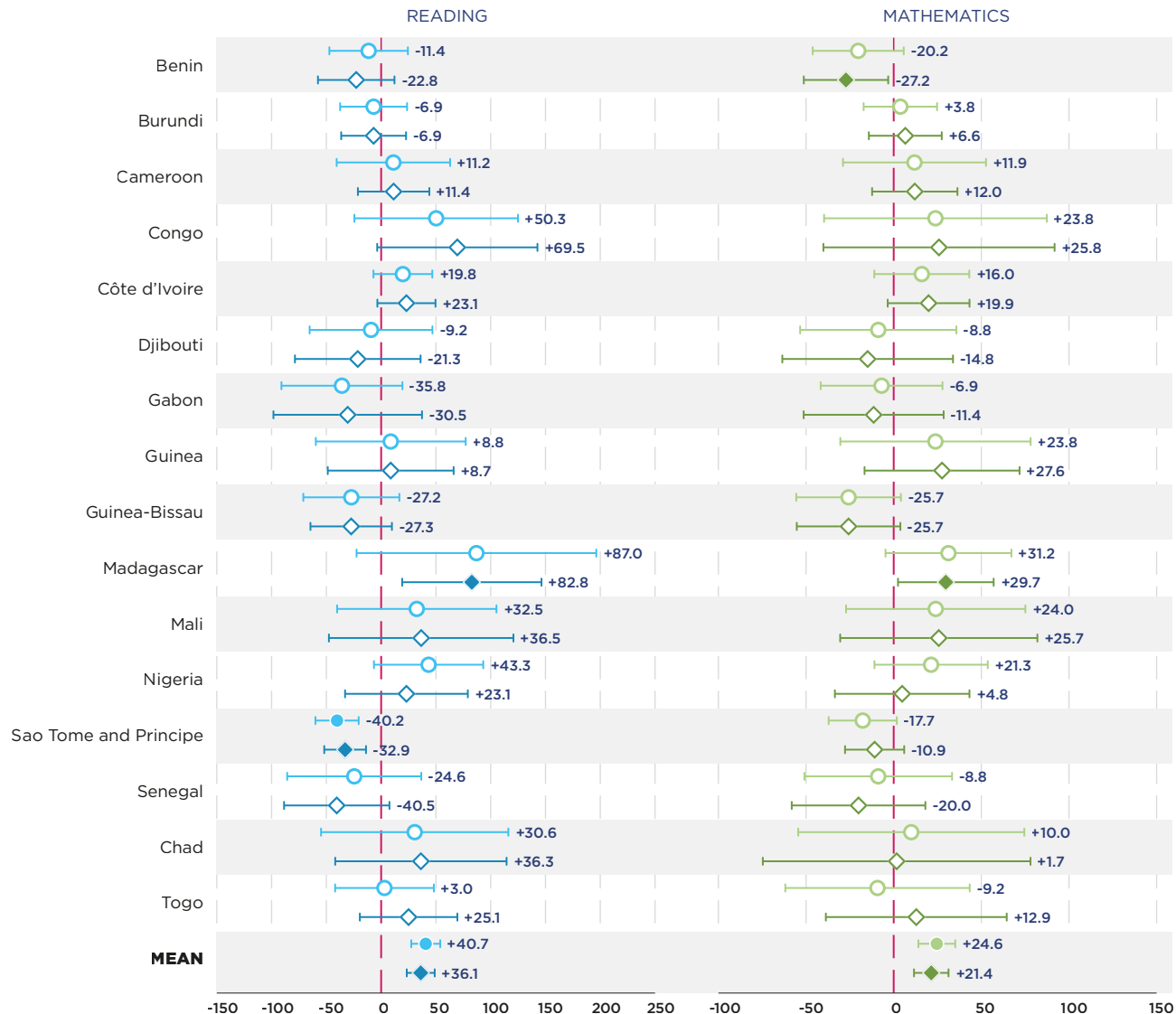


Figure 4.38

Student score difference between university-level and secondary school-level teachers



The score differences calculated between students with a university-level teacher and those with a secondary school-level show that the average difference is 40.7 gross points and 36.1 adjusted points in reading, 24.6 and 21.4 points in mathematics. Madagascar has a positive adjusted gap of 83 points, compared to 70 points in Congo and 23 points in Côte d'Ivoire. Conversely, negative differences are observed in Sao Tome and Principe (-33 points), Senegal (-41 points) and Benin (-27 points) in mathematics.



1

2

3

4

5

6

- Gross gap — significant
 - Gross gap — not significant
 - ◆ Adjusted gap — significant
 - ◇ Adjusted gap — not significant
-
- Gross gap — significant
 - Gross gap — not significant
 - ◆ Adjusted gap — significant
 - ◇ Adjusted gap — not significant

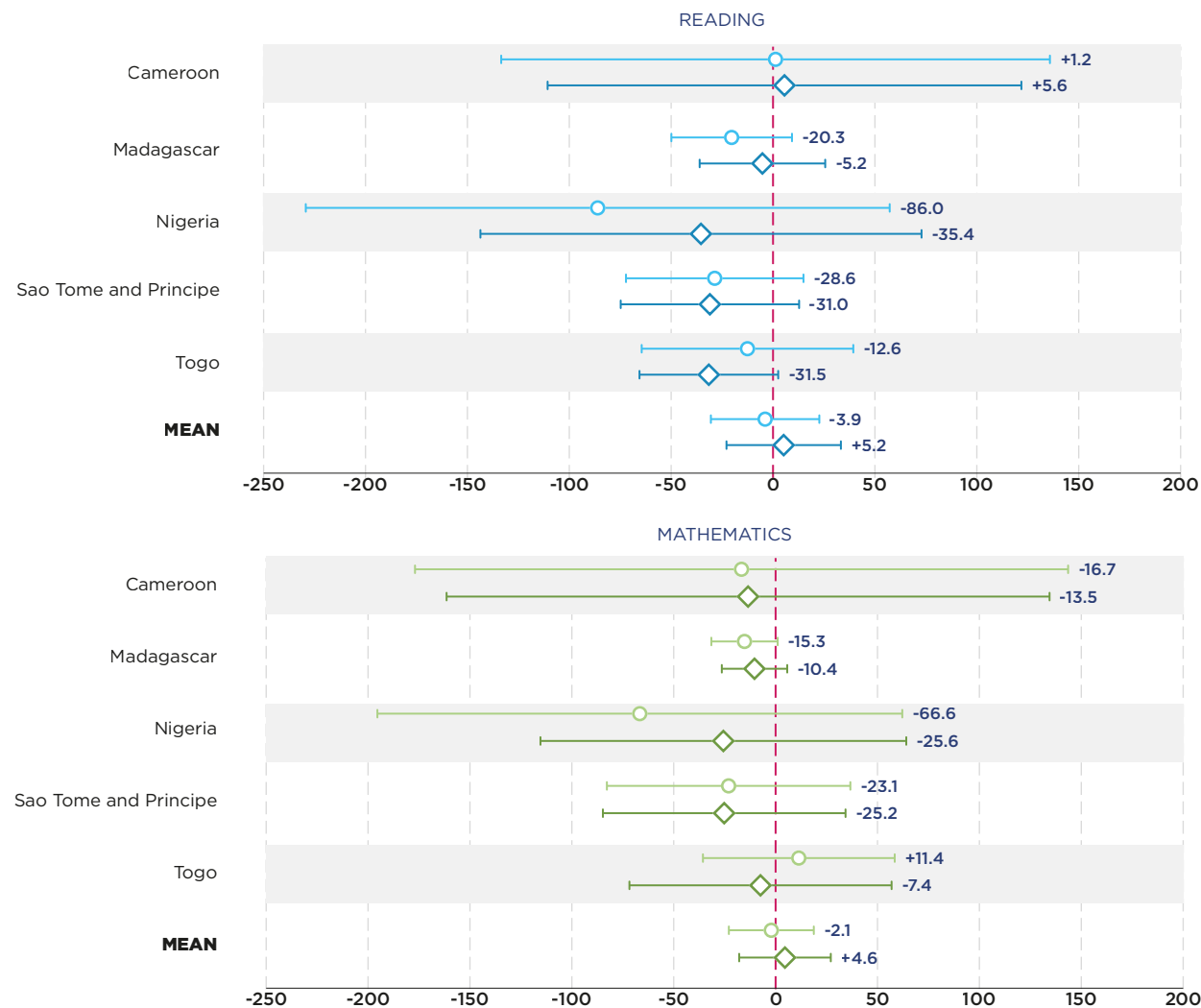
Figure 4.39

Difference in scores between students with primary school-level and secondary school-level teachers

Comparing students' scores based on whether their teacher has a primary or secondary level of education does not reveal a statistically significant gap on average. Indeed, there is a non-significant gap of 5.2 points in reading and 4.6 in mathematics, and the comparison is only possible in five countries because of the very low proportion of primary school-level teachers in the other countries, as illustrated by the two figures opposite.

○ Gross gap — not significant
◇ Adjusted gap — not significant

○ Gross gap — not significant
◇ Adjusted gap — not significant



END OF EDUCATION

Almost half of students have a teacher with a secondary school education (49.9%) and 45.9% have a teacher with a university education, compared to only 4.2% whose teacher has a primary education. This distribution varies greatly from country to country. In Guinea (88%), Guinea-Bissau (87%), Sao Tome and Principe (81%) and Nigeria (71%), a large majority of students have a teacher with a university education, while this proportion is 9% in Togo and Madagascar. Madagascar is also distinguished by a proportion of 35% of students whose teacher has a primary level of education.

On average, 45.9% of students at the end of primary school have a teacher with a university education.

Figure 4.40

Distribution of students based on the educational level of their teacher

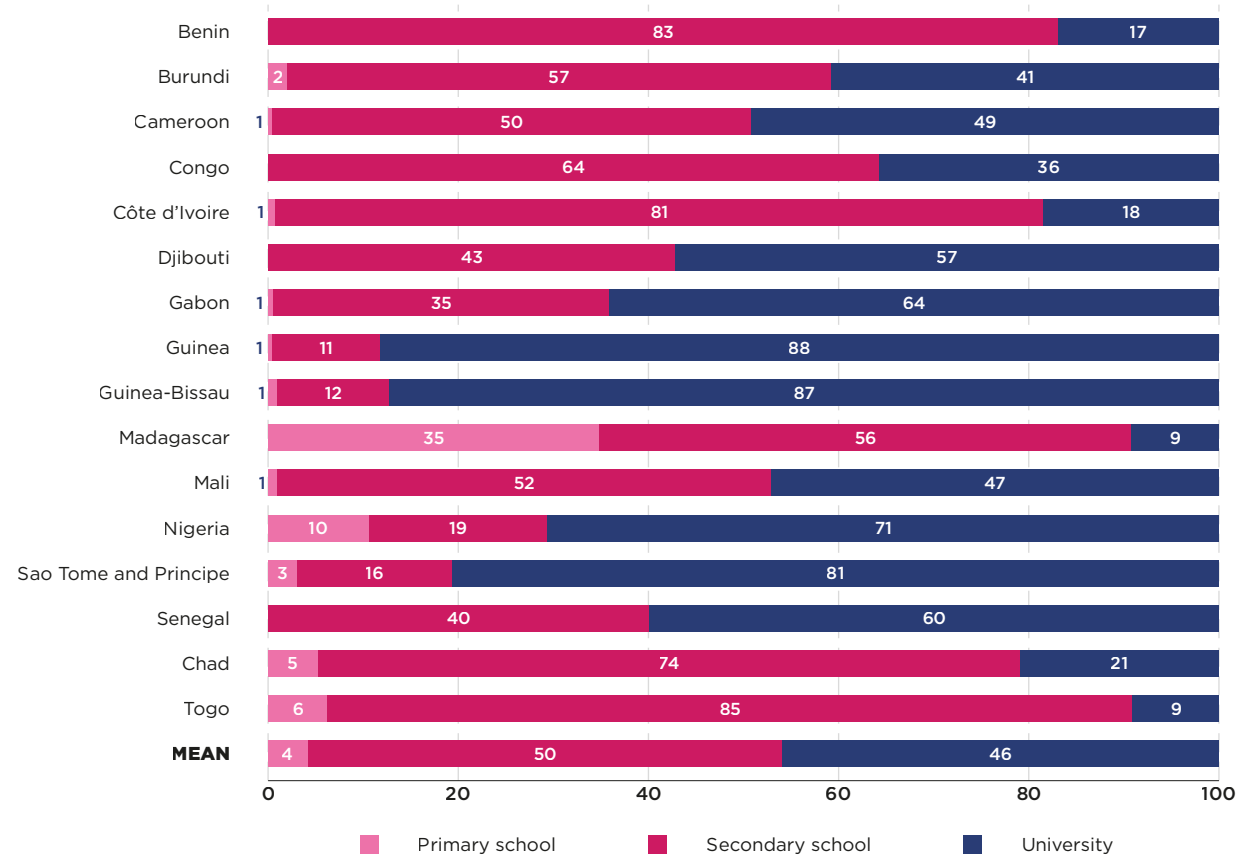
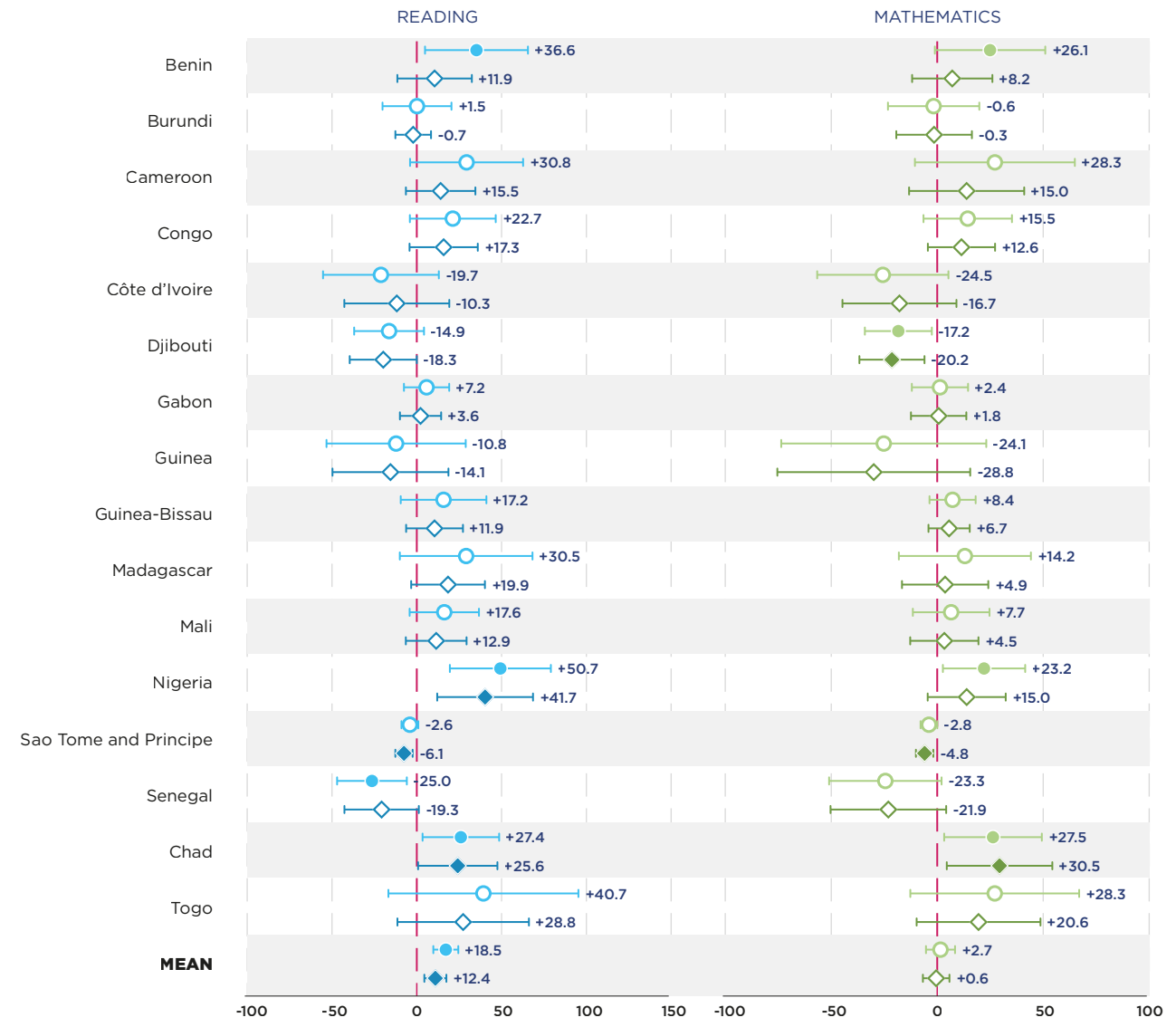


Figure 4.41

Student score gap between university-level and secondary school-level teachers



The results show that the mean score of students whose teacher has a university degree is 509.2 points in reading, with a secondary school level at 490.6 and a primary school level at 453.4. The gap between the university and secondary school levels is 18.5 gross points and 12.4 adjusted points in reading, all significant. In mathematics, the gaps are 2.7 gross points and 0.6 adjusted points, which are not significant. Only two countries have a significant adjusted gap in reading (Nigeria with +42, Chad +26) and one country with a negative gap (Sao Tome and Principe).

- Gross gap — significant
 - Gross gap — not significant
 - ◆ Adjusted gap — significant
 - ◇ Adjusted gap — not significant
-
- Gross gap — significant
 - Gross gap — not significant
 - ◆ Adjusted gap — significant
 - ◇ Adjusted gap — not significant

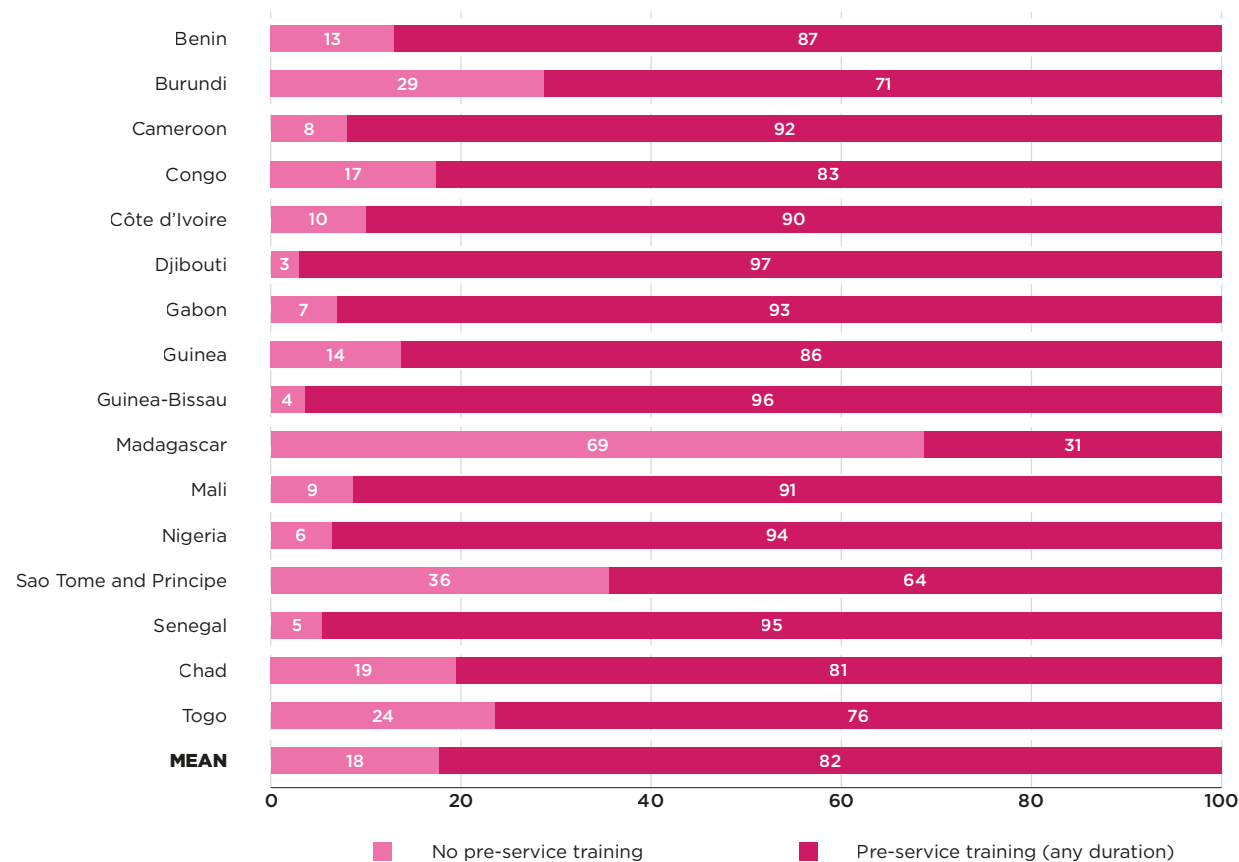
Pre-service teacher training and student performance

START OF EDUCATION

Around eight out of ten students (82%) have a teacher who has received pre-service training education, regardless of the duration. Madagascar is an exception, with 69% of students whose teacher has not received any pre-service training, followed by Sao Tome and Principe (36%), Burundi (29%), Togo (24%) and Chad (19%). Conversely, the proportion falls to 3% in Djibouti, 4% in Guinea-Bissau and 5% in Senegal.

Figure 4.42

Distribution of students based on the pre-service training of their teacher



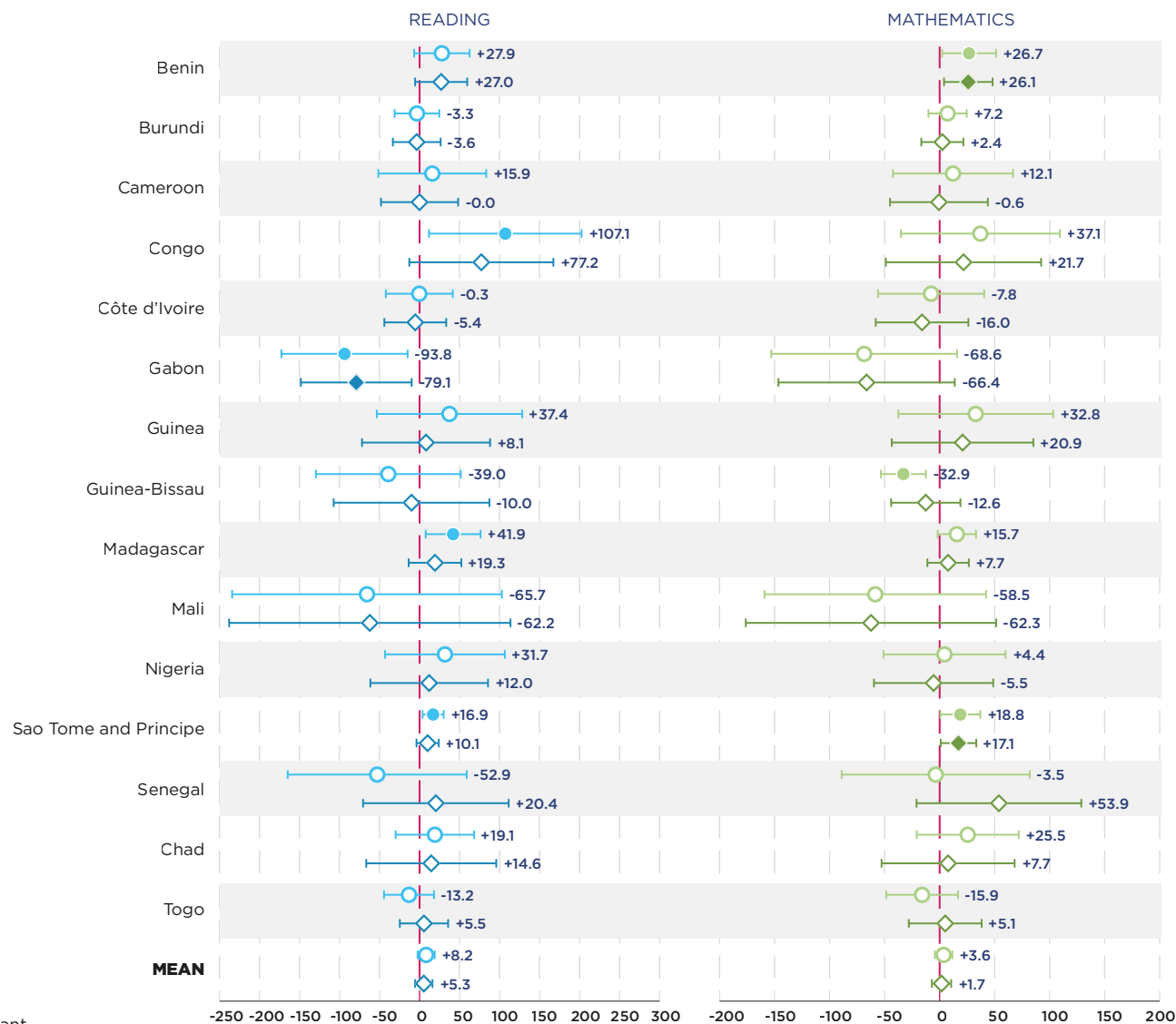


On average, the comparison of scores between students in the two categories of teachers shows non-significant gaps of 8.2 gross points and 5.3 adjusted points in reading; 3.6 and 1.7 points in mathematics. Congo has 107 gross points and 77 adjusted points in reading, Sao Tome and Principe has 17 in reading and 19 in mathematics, Benin has 27 in mathematics. Gabon has the opposite difference, namely -94 gross points and -79 adjusted points.

- Gross gap — significant
- Gross gap — not significant
- ◆ Adjusted gap — significant
- ◇ Adjusted gap — not significant
- Gross gap — significant
- Gross gap — not significant
- ◆ Adjusted gap — significant
- ◇ Adjusted gap — not significant

Figure 4.43

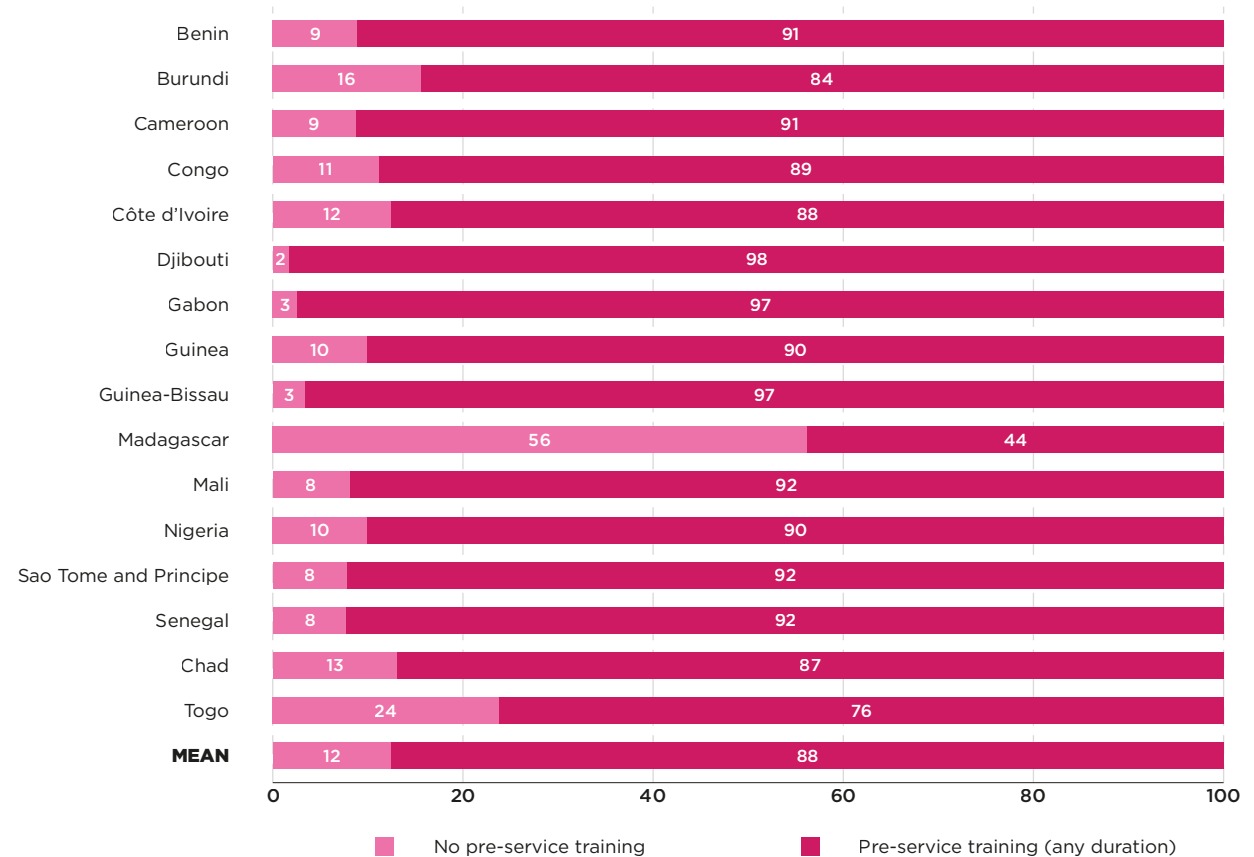
Score gap associated with the teacher's pre-service professional education



END OF EDUCATION

Figure 4.44

Distribution of students based on the pre-service training of their teacher

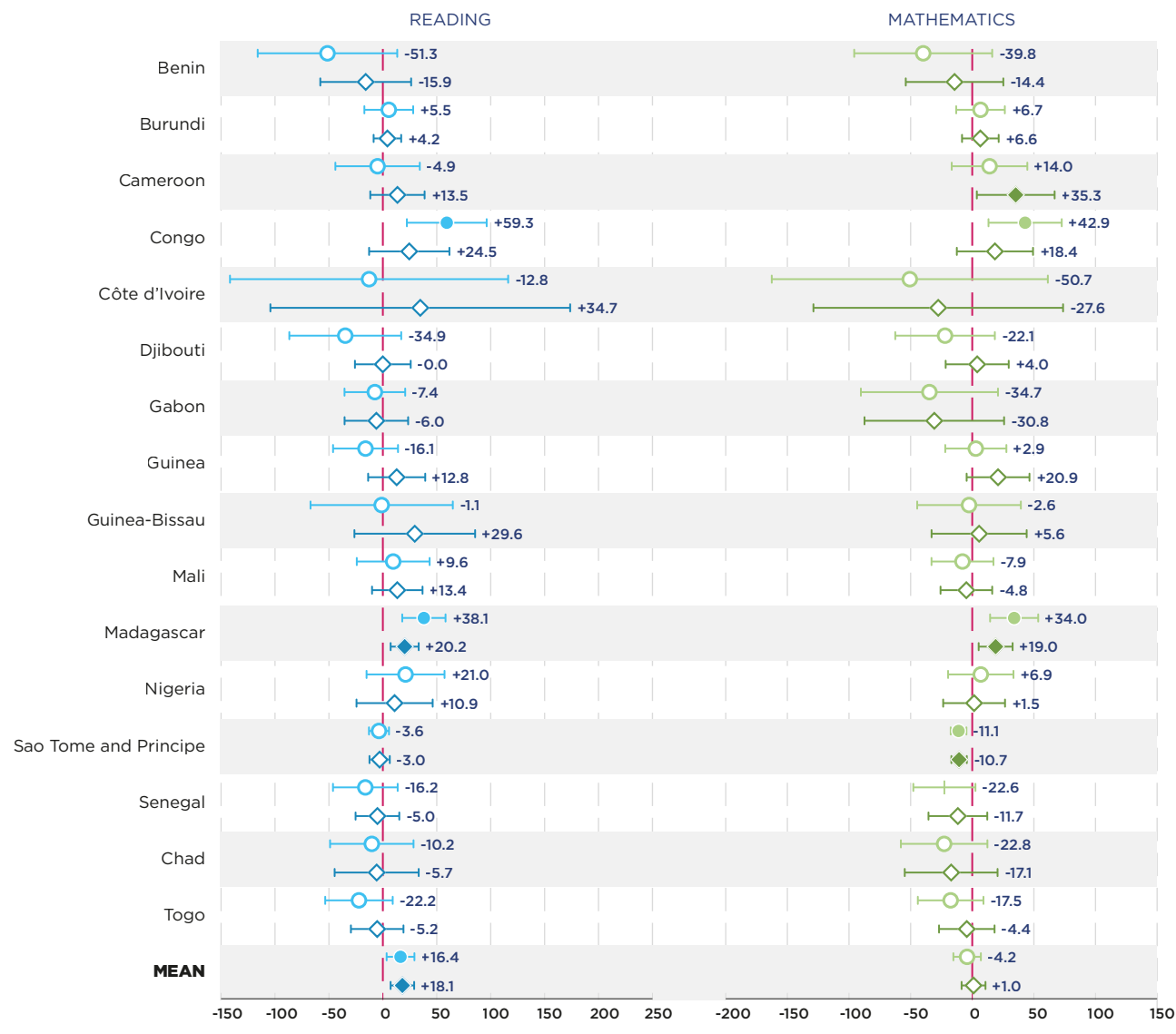


Around nine out of ten students (87.5%) have a teacher who has received pre-service professional education, regardless of the duration. In Madagascar, 56% of students have a teacher who has not received any pre-service training. This is followed by Togo (24%), Burundi (16%) and Chad (13%). In nine countries, the proportion falls below 10%, and in Djibouti and Gabon it is close to 2%.

Figure 4.45

Score gap associated with the teacher's pre-service professional education

Across all countries, pre-service training was significantly associated with 16.4 gross points and 18.1 adjusted points in reading and significant, which is not the case in mathematics. Madagascar has +38 gross points and +20 adjusted in reading, +34 and +19 in mathematics, all significant. Congo has +59 gross points in reading.



- Gross gap — significant
 - Gross gap — not significant
 - ◆ Adjusted gap — significant
 - ◇ Adjusted gap — not significant
-
- Gross gap — significant
 - Gross gap — not significant
 - ◆ Adjusted gap — significant
 - ◇ Adjusted gap — not significant

LEARNING OPPORTUNITIES

Attendance at pre-primary school

START OF EDUCATION

The advantage is systematically greater in reading than in mathematics, in 15 out of 16 countries. Pre-schooled students are more likely to live in cities and more often attend private schools. Part of their lead is therefore due to these characteristics, and not only to the pre-primary school itself. The average gap was reduced from 58 to 45 points in reading and from 36 to 27 points in mathematics. The controls therefore absorb only 23% of the gap in reading and 26% in mathematics, so three-quarters remain.

The gross difference is significant in 11 out of 16 countries in reading and in 10 in mathematics, and it remains so in 11 countries and 8 countries after control. It ranges from 26 points in Sao Tome and Principe to 116 points in Cameroon in reading, and from 23 to 96 points in mathematics, with Cameroon clearly standing out in both disciplines.

Figure 4.61

Difference in reading score between students who attended pre-primary school and others

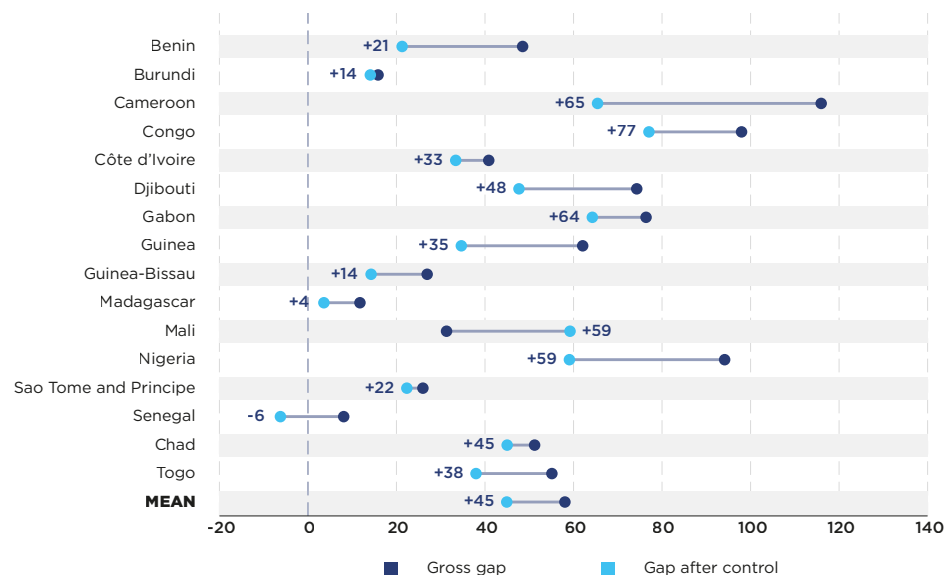
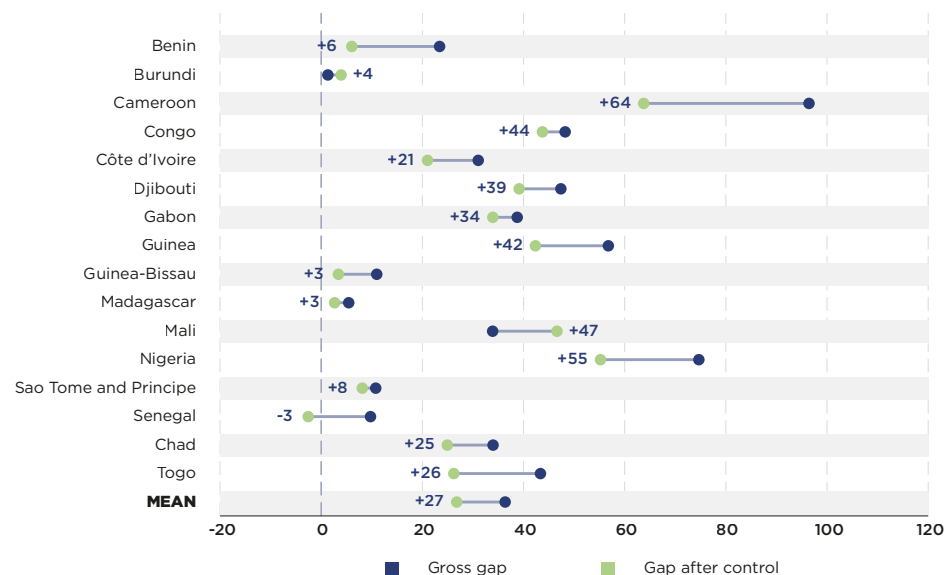


Figure 4.62

Difference in mathematics score between students who attended pre-primary school and others



END OF EDUCATION

In reading, the gross gap is significant in all 16 countries, without exception, from the lowest, Guinea-Bissau, with 9.5 points, to the highest, Cameroon, with 75.6 points. After control, only nine remain: Benin, Cameroon, Congo, Côte d'Ivoire, Djibouti, Gabon, Madagascar, Sao Tome and Principe and Togo. In the other seven, Burundi, Guinea, Guinea-Bissau, Mali, Nigeria, Senegal and Chad, the advantage disappears entirely once social origin is taken into account.

In mathematics, 12 countries have a significant gross gap, only six maintain a significant adjusted gap.



Figure 4.66

Difference in reading score between students at the end of education who attended pre-primary school and others

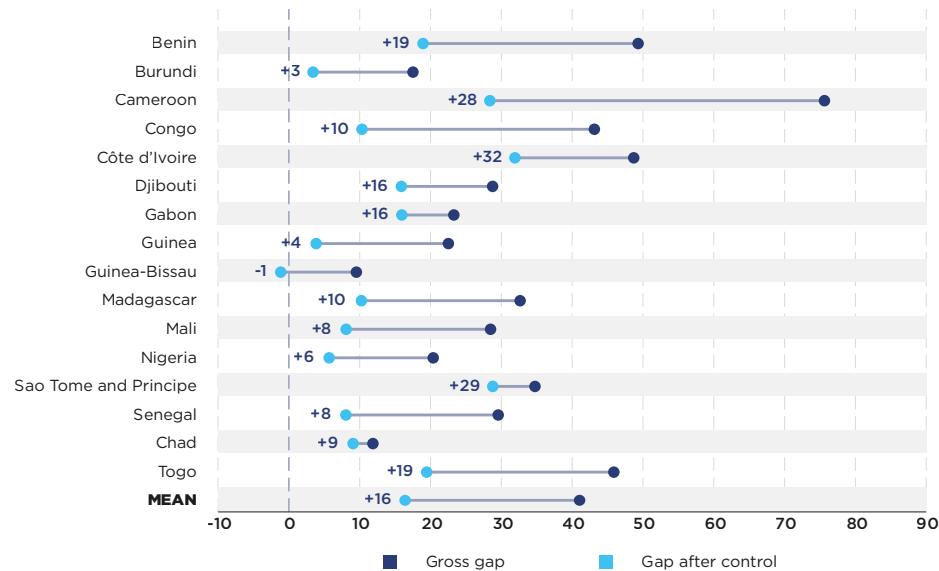
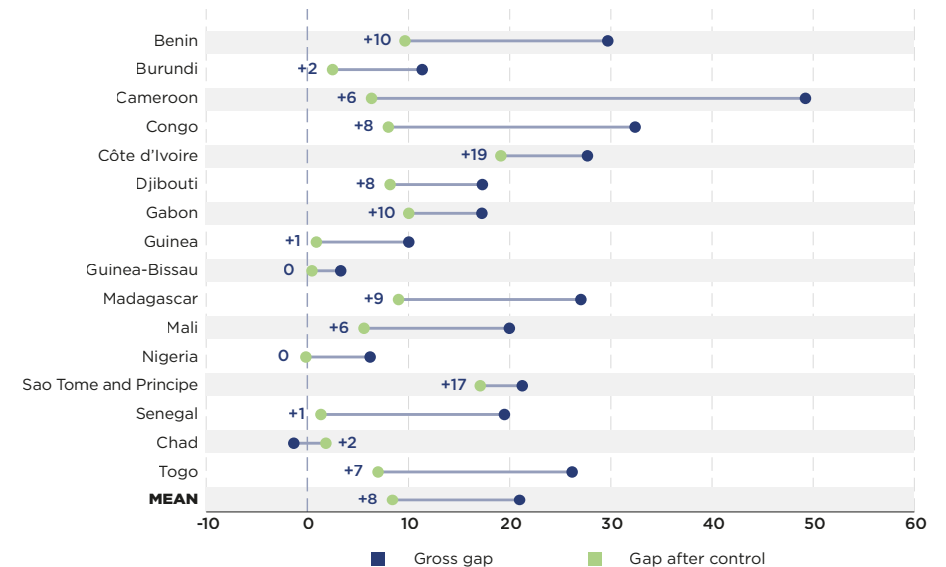


Figure 4.67

Difference in mathematics score between students who attended pre-primary school and others



Student's relationship to the language of instruction at home

On average, the gross difference is 56.4 points in reading and 28.7 points in mathematics. Once the environment, the status of the school and the socio-economic level are taken into account, it falls to 32.7 and 17.3 points. The share absorbed is therefore 42.1% in reading and 39.7% in mathematics.

Cameroon has the largest gross gap in reading, 85.1 points, but it is also one of the countries where the control variables absorb the most: 54.5%, with the adjusted gap coming to 38.7 points. Congo (60.5 then 23.7 points, *i.e.* 60.9% absorbed) and Madagascar (61.8 then 27.0, *i.e.* 56.4%) follow the same logic. In these countries, speaking or not speaking the language of instruction at home is above all a marker of social position, because language separates urban students from students in rural areas, and a large part of the disadvantage passes through this channel rather than through the language itself.

Côte d'Ivoire presents the opposite configuration, because its gross difference in reading, 57.3 points, only narrows to 46.8 points once controls are introduced: only 18.4% are absorbed. With an equivalent school environment and standard of living, an Ivorian student who never speaks French at home still loses nearly 50 points in reading. Guinea has a similar result on a smaller scale (35.5 and then 28.5 points, *i.e.* 19.9% absorbed).

Figure 4.83

Difference in reading score between students who never speak the language of instruction at home and others

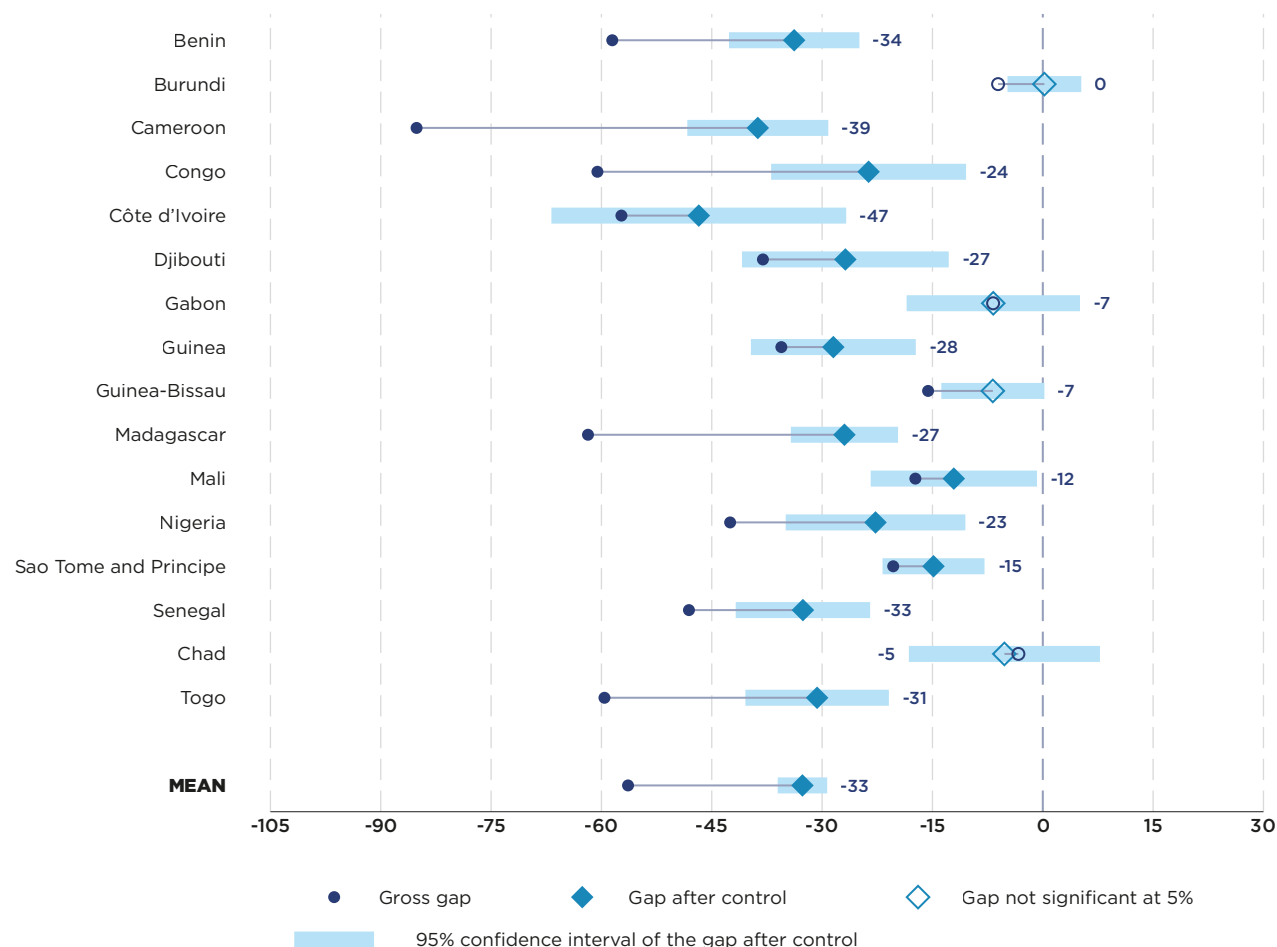
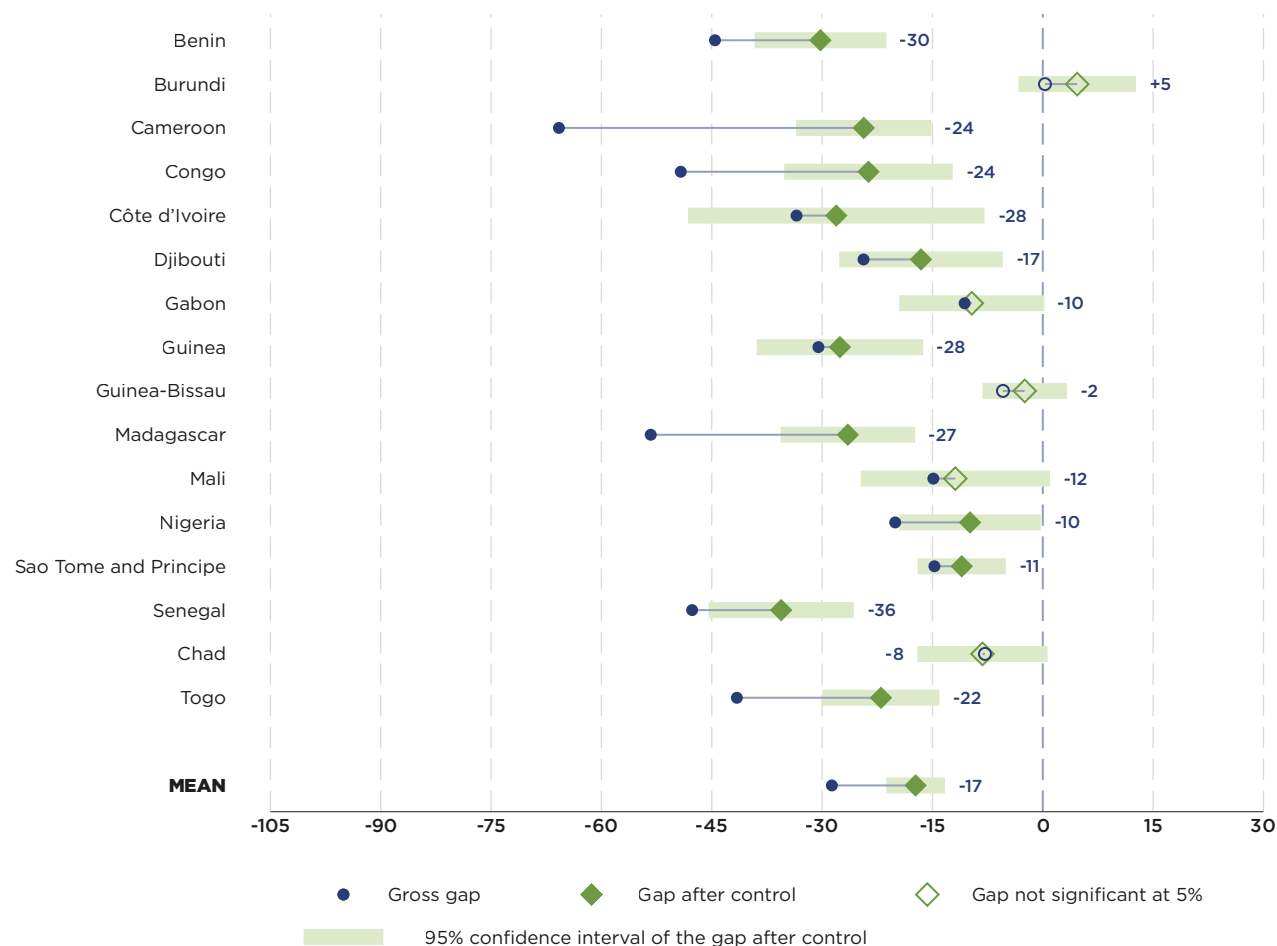


Figure 4.84

Difference in mathematics score between students who never speak the language of instruction at home and others



The hierarchy of countries is reproduced from one discipline to another. Countries where language functions as a social marker absorb a lot in both subjects: Cameroon 54.5% in reading and 63.0% in mathematics, Congo 60.9% and 51.9%, Madagascar 56.4% and 50.3%. Those whose handicap is strictly linguistic absorb little in both: Côte d'Ivoire 18.4% and 16.1%, Guinea 19.9% and 9.6%.

In mathematics, Senegal joins the group of persistent disadvantages, because its gap only goes from 47.7 to 35.6 points, *i.e.* a quarter of absorption. Four countries show a non-significant adjusted gap in reading, namely Burundi, Gabon, Guinea-Bissau and Chad. In mathematics, Mali joins them, as well as Gabon, whose gross difference of 10.6 points was significant.

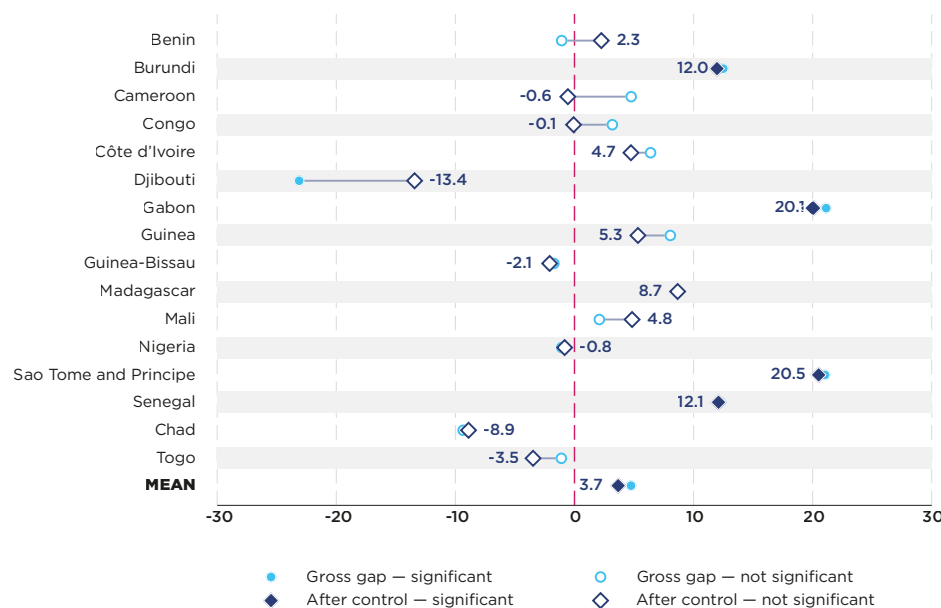
Gender and educational performance

START OF EDUCATION

In reading, across all countries, girls obtained 580.7 points compared to 575.9 for boys, *i.e.* a significant gross gap of 4.8 points. The control for the environment in which the school is located and the school status brings it down to 3.7 points, which is still significant. Compared to a standard deviation of 124.8 points, this represents about three hundredths of a standard deviation, *i.e.* a very small difference. This average masks much larger differences at national levels. Four countries have a net advantage for girls: Sao Tome and Principe (+20.5), Gabon (+20.1), Senegal (+12.1) and Burundi (+12.0). In contrast, Djibouti has a gross gap of -23.1 points to the disadvantage of girls, the only significant negative gap. It loses its significance once the environment in which it is located and the school status are taken into account, which suggests that the disadvantage is largely due to the status of the school attended.

Figure 4.86

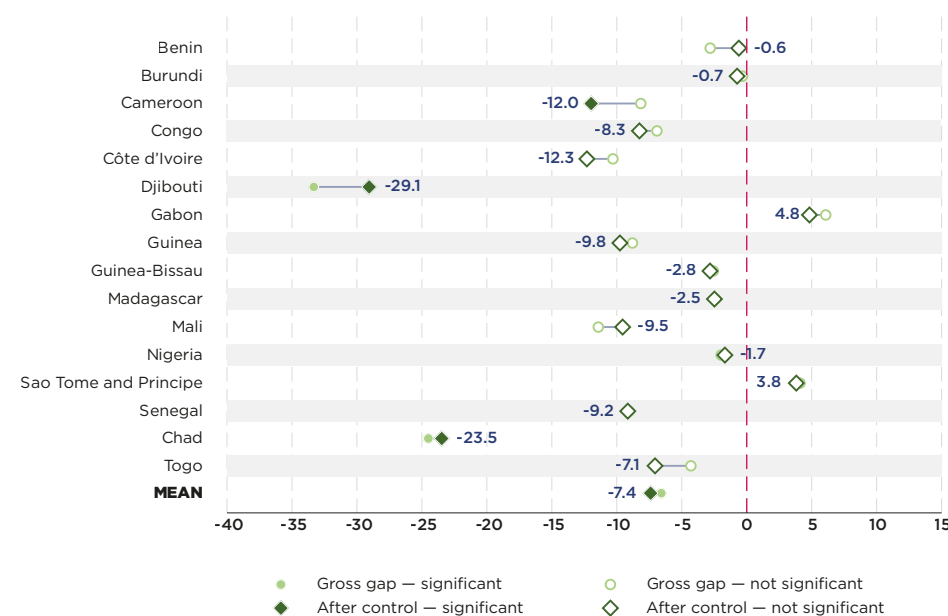
Gap between girls and boys in reading at the start of education (in points)



In mathematics, the direction is reversed. Girls obtained 544.8 points against 551.4, *i.e.* -6.6 gross points and -7.4 points after control, both significant. No country has a significant advantage in mathematics for girls, while three have a clear disadvantage: Djibouti (-29.1 after control), Chad (-23.5) and Cameroon (-12.0). Three others follow: Côte d'Ivoire (-12.3), Guinea (-9.8) and Senegal (-9.2).

Figure 4.87

Gap between girls and boys in mathematics at the start of education (in points)



END OF EDUCATION

At the end of education, the advantage of girls in reading is confirmed. Girls obtained 498.1 points against 493.8, *i.e.* 4.3 gross points and 3.8 points, both significant, once the environment, the status of the school and the socio-economic level of the student are taken into account. Four countries confirm this advantage after control: Nigeria (+14.8), Sao Tome and Principe (+12.6), Senegal (+6.9) and Gabon (+6.9). Two countries move in the other direction, Benin (-10.4) and Burundi (-6.9), in both of which this gap is significant.

In this analysis, the control of the socio-economic level proves to be the most instructive. In Senegal, the gap increased from +2.5 points (not significant) to +6.9 points (significant). Thus, with comparable social origins, the advantage of girls is much starker

than the raw comparison suggested. Benin follows the opposite path, from -6.5 to -10.4 points. In Guinea, the 10-point gross advantage fades after adjustment. These shifts indicate that the social composition of girls who reach the end of education differs from that of boys, and not in the same way depending on the country.

In mathematics, there is no gap on average but opposite situations. For all countries, the difference is zero (0.7 gross points and 0.6 adjusted points, not significant). However, this average covers clearly contrasting situations. Nigeria has a significant advantage for girls of 6.7 points, while four countries have a disadvantage: Benin (-11.9), Cameroon (-10.0), Burundi (-9.4) and Togo (-6.4), as well as Djibouti (-5.7) and Guinea-Bissau (-3.7).

Figure 4.89

Gap between girls and boys in reading at the end of education (in points)

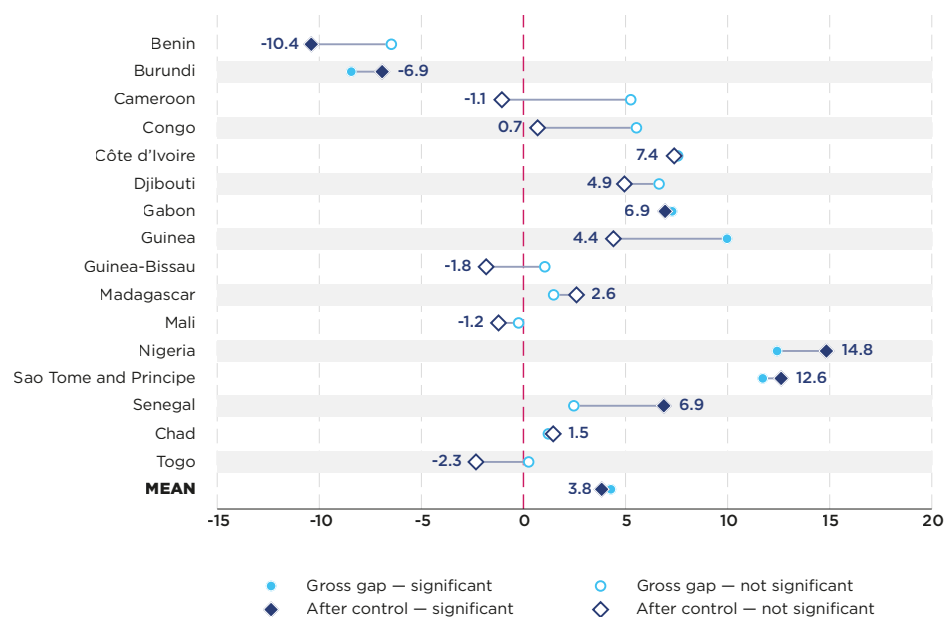
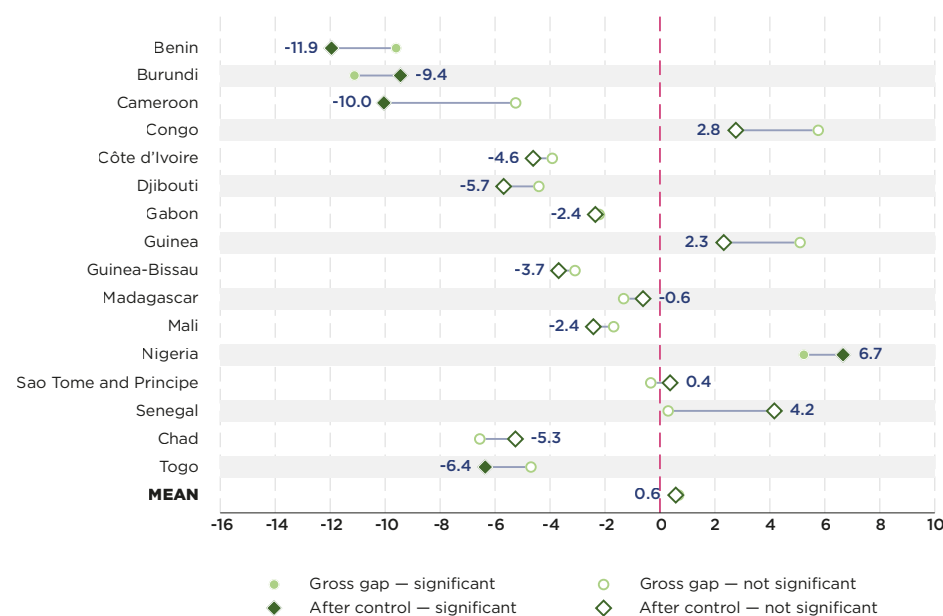


Figure 4.90

Gap between girls and boys in mathematics at the end of education (in points)



The level of socio-economic status of students

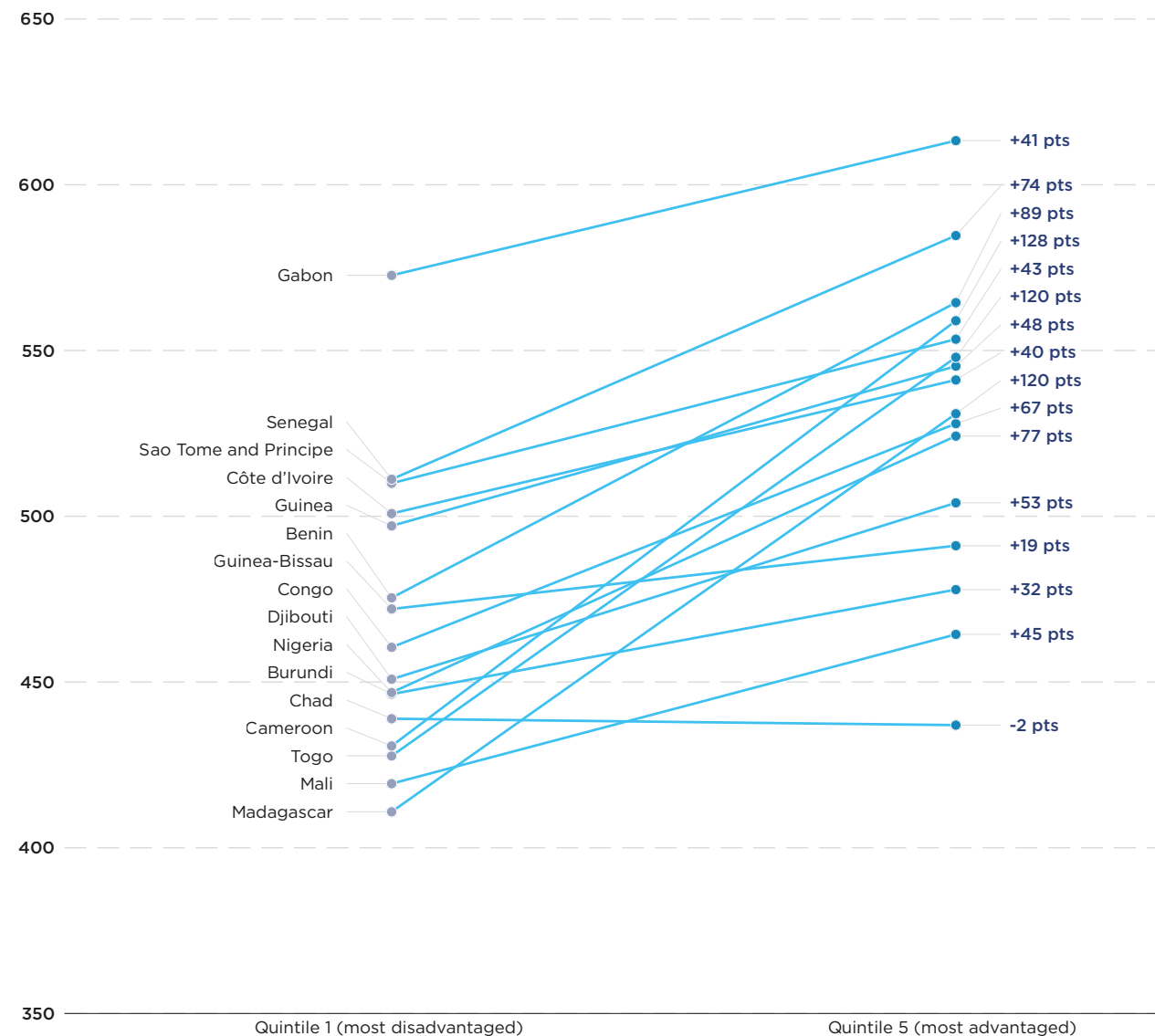
The gap between the most disadvantaged and the most advantaged students

In reading, the gap between the top and bottom quintiles ranges from -2 points in Chad to 128 points in Cameroon. Eleven out of sixteen countries have a significant gap. Three countries stand out clearly with gaps of more than 120 points, *i.e.* more than one standard deviation: Cameroon (128), Togo (120) and Madagascar (120). In these systems, social origin separates students by a distance equivalent to to several years of education. In contrast, Guinea-Bissau (19 points), Burundi (32) and Côte d'Ivoire (40) have moderate differences, while Chad has no differences.

Gabon, the country with the highest social index and the best score in reading, has one of the smallest gaps (41 points). Cameroon, whose average index is perfectly median, has the highest gap. Senegal combines a high average score and an intermediate gap. Equity thus appears as a feature specific to each education system, and not as an automatic consequence of socio-economic level.

Figure 4.102

Reading score for extreme socio-economic index quintiles, by country



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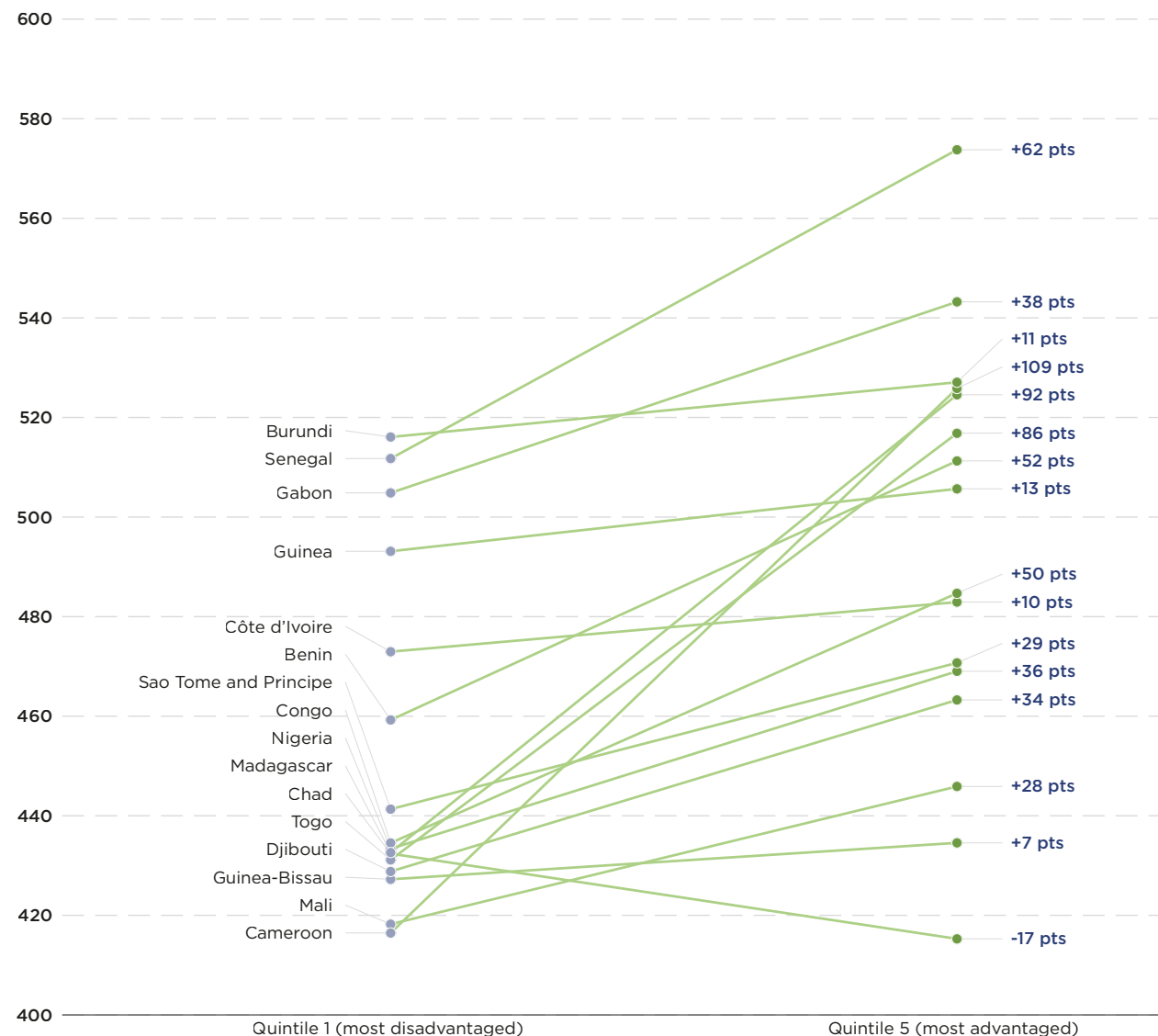
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Figure 4.103

Mathematics score for extreme socio-economic index quintiles, by country



In mathematics, there are much smaller inequalities. Cameroon went from 128 to 109 points, Togo from 120 to 86, Madagascar from 120 to 92, Benin from 89 to 52, Nigeria from 77 to 36. Four countries (Guinea, Côte d'Ivoire, Burundi and Guinea-Bissau) that had a significant gap in reading no longer have any difference in mathematics. This difference between disciplines is consistent with the role of the family environment where mastery of the written language is largely built outside school, in a context that the family shapes, whereas mathematics is acquired more in the classroom. It also suggests that schools carry relatively more weight in mathematical outcomes and should guide educational policy actions.

Link between parents' education level and student performance

Table 4.22

Difference in reading score between students whose parent attended higher education and those whose parent had no schooling, end of primary school

Country	Gross difference	Adjusted difference	Share absorbed by the context
Madagascar	+129.8*	+45.6*	65%
Togo	+118.4*	+60.6*	49%
Cameroon	+92.1*	+34.9*	62%
Congo	+78.8*	+36.8*	53%
Djibouti	+73.6*	+43.3*	41%
Benin	+66.3*	+31.4*	53%
Sao Tome and Principe	+60.7*	+42.2*	30%
Nigeria	+56.4*	+32.8*	42%
Côte d'Ivoire	+50.3*	+22.9	54%
Senegal	+49.0*	+24.8*	49%
Mali	+43.7*	+16.2*	63%
Guinea-Bissau	+42.9*	+21.3*	50%
Guinea	+29.2*	+12.8*	56%
Chad	+28.5*	+21.8*	24%
Gabon	+27.7*	+16.9*	39%
Burundi	+19.5*	+5.3	73%
All countries	+59.0*	+26.4*	55%

* Significant difference.

Burundi confirms its profile at the start of education with a gross difference of 19.5 points and only 5.3 points after adjustment (not significant); it is the country where family origin weighs the least on learning. Its position as an exception is therefore true at both levels of education. In contrast, Togo and Madagascar show the most marked gradients, with 118.4 and 129.8 gross differences, respectively, of which 60.6 and 45.6 remain after adjustment. Sao Tome and Principe and Chad have the opposite configuration, as fewer than a third of their gap is absorbed by the context (30% and 24%).



SUMMARY OF EQUITY ANALYSES

 **Table 4.23**

Map of significant gaps across six dimensions

Country	Reading – Start of education						Mathematics – Start of education						Reading – End of education						Mathematics – End of education					
	Characteristics				Resources		Characteristics				Resources		Characteristics				Resources		Characteristics				Resources	
	G	M	P	S	L	D	G	M	P	S	L	D	G	M	P	S	L	D	G	M	P	S	L	D
Benin		•	•	•		•		•	•	•		•		•	•	•	•	•	•	•	•	•	•	•
Burundi	•			•									•	•	•	•	•		•	•	•	•	•	•
Cameroon		•	•	•	•	•		•	•	•	•	•		•	•	•	•	•		•	•	•	•	•
Congo			•	•	•				•	•	•			•	•	•	•	•		•	•	•	•	•
Côte d'Ivoire		•	•		•	•		•	•		•	•		•	•	•	•				•		•	
Djibouti	•		•	•			•		•	•				•	•	•	•	•	•	•	•	•		•
Gabon	•	•	•	•	•	•		•	•		•	•	•	•	•			•		•	•	•	•	•
Guinea			•	•	•	•			•	•	•	•	•	•	•	•	•	•				•	•	•
Guinea-Bissau		•		•	•			•		•	•			•	•	•	•			•		•		
Madagascar		•		•				•		•				•	•	•	•	•		•	•	•		•
Mali					•						•			•	•	•	•	•		•	•	•	•	•
Nigeria			•	•	•	•			•	•	•	•	•	•	•	•	•	•	•			•	•	
Sao Tome and Principe	•	•	•		•	•					•	•	•	•	•	•	•	•		•	•	•	•	•
Senegal	•	•		•	•	•		•		•	•	•		•	•	•	•	•		•	•	•		•
Chad			•		•		•	•	•	•	•			•	•	•	•				•			
Togo		•	•	•		•		•	•	•		•		•	•	•	•	•		•	•	•	•	•

Note: **Characteristics of the student and their school:** G: girls – boys. M: urban – rural. P: pre-primary – without pre-primary. S: private – public.

Learning resources: L: has a textbook – does not have one. D: can take the textbook home – cannot do so.

Each solid point indicates a significant deviation in the dimension in the country.



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SECTION 4

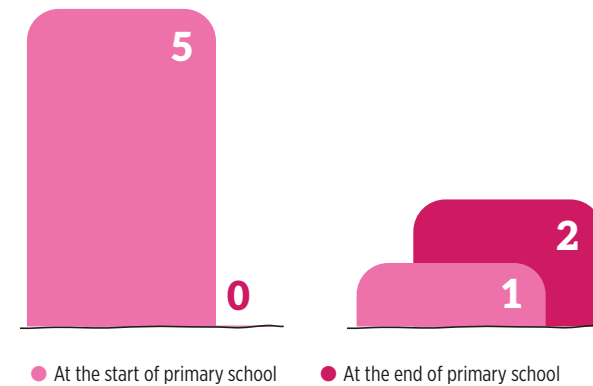
Trends in performance



| Trends in proficiency levels.

The share of students above the threshold and the mean score move in the same direction and, most often, for the same countries: progress at the start of primary school, especially in reading, and decline at the end of primary school after 2019. Proficiency levels clearly show where the changes occur. At the start of primary school, progress comes mainly from the top of the distribution: the share of students at the highest level rises sharply, while the share of students below level 1 falls in only some countries. At the end of primary school, the decline in reading affects the best students first, while in mathematics it pushes more students below level 1. Proficiency levels also reveal what the mean score conceals. In Burundi, in reading at the end of primary school, a mean score close to that of other countries coexists with the lowest share of students above the threshold, because students are concentrated just below it. Conversely, at the start of primary school, a rising mean score may leave untouched a core of students in great difficulty, as in Chad and Cameroon.

NUMBER OF COUNTRIES WHOSE SCORE IMPROVES



As regards the scope of comparisons, a trend is only calculated for countries assessed in both cycles considered.

Comparisons therefore cover 11 countries between 2019 and 2025 and eight countries between 2014 and 2025: Benin, Burundi, Cameroon, Congo, Côte d'Ivoire, Senegal, Chad and Togo took part in all three cycles. Gabon, Guinea and Madagascar, which joined the survey in 2019, are only tracked over the recent period (2019-2025).



TRENDS IN OVERALL PERFORMANCE

Table 5.1

Number of countries with significant increases (▲) and decreases (▼) by period

Level and discipline	2019-2025 (11 countries)	2014-2025 (8 countries)
Start of education – reading	5 ▲ 6 = 0 ▼	6 ▲ 2 = 0 ▼
Start of education – mathematics	1 ▲ 8 = 2 ▼	4 ▲ 4 = 0 ▼
End of education – reading	0 ▲ 4 = 7 ▼	0 ▲ 6 = 2 ▼
End of education – mathematics	2 ▲ 2 = 7 ▼	0 ▲ 3 = 5 ▼

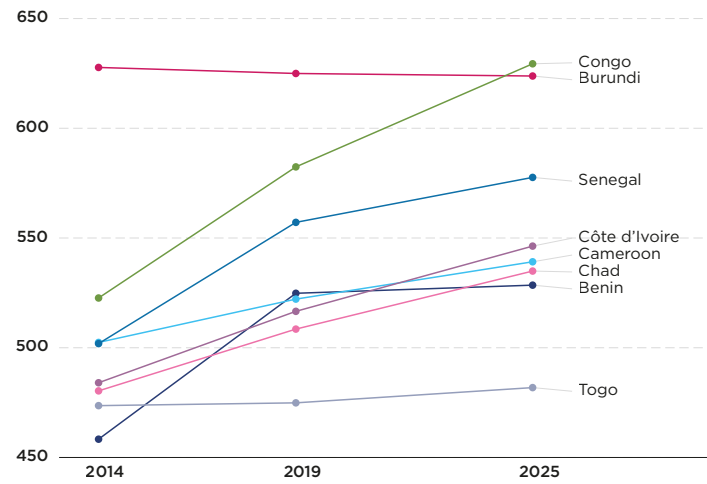
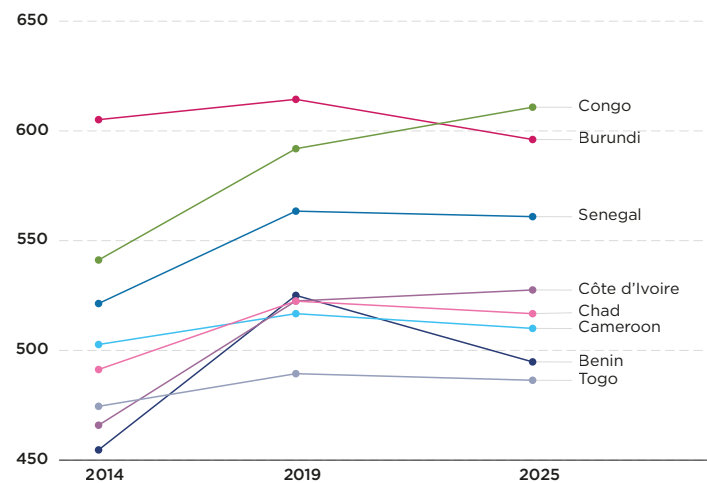
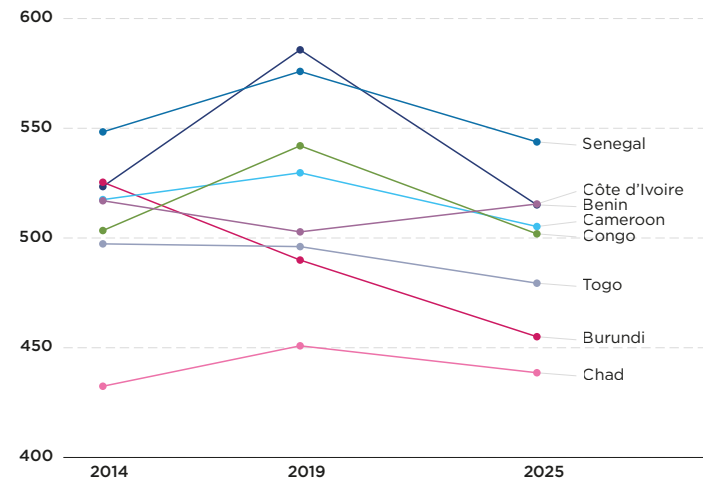
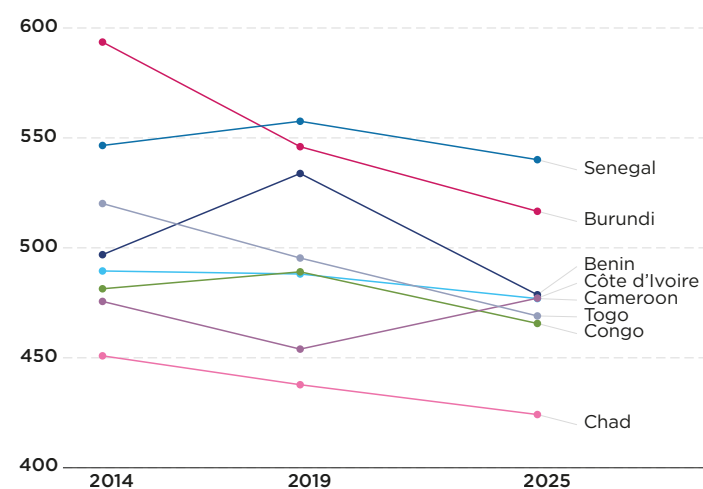
Note: number of countries whose change is a significant increase (▲), a significant decrease (▼) or a non-significant change (=). The three numbers in the same cell total the countries assessed in the two comparative cycles.

At the start of education, five countries make significant progress in reading: Guinea (+84), Congo (+47), Gabon (+46), Côte d'Ivoire (+30) and Chad (+26). Senegal gains 20 points only on students assessed in French, and this change is not significant. No country goes backwards and Benin, Burundi, Cameroon, Madagascar and Togo have remained statistically stable. In mathematics, only Guinea made significant progress (+44). Two countries have lost ground: Benin (-30) and Burundi (-18). The other eight are stable.

At the end of education, no country made progress in reading and seven went backwards: Benin (-71), Gabon (-49), Congo (-40), Burundi (-35), Senegal (-32), Cameroon (-24) and Togo (-17). Chad (-12), Côte d'Ivoire (+13), Guinea (+13) and Madagascar (-1) are stable. In mathematics, seven countries also fell behind: Benin (-55), Gabon (-30), Burundi (-29), Togo

(-26), Congo (-24), Senegal (-18) and Chad (-12). Two countries made progress, Côte d'Ivoire (+23) and Guinea (+16); Cameroon (-11) and Madagascar (+3) remained stable.

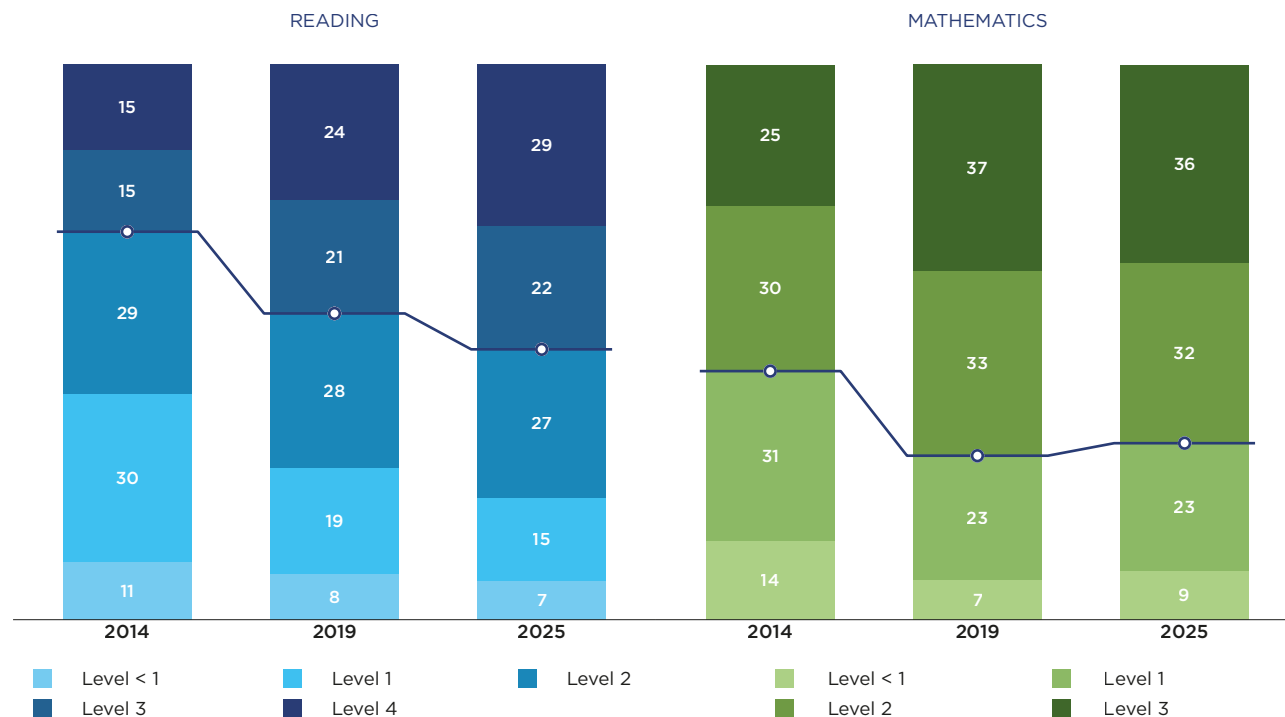
When comparing the two disciplines, we notice that six countries (Benin, Burundi, Congo, Gabon, Senegal, Togo) decline in both disciplines at the same time, and two in only one: Cameroon in reading, Chad in mathematics. This trend suggests a phenomenon common to the majority of countries at the end of education, rather than difficulties specific to a discipline. The contrast with the start of education is visible. It should be recalled that students assessed at the end of primary education in 2025, for most countries, entered primary school around the year 2020, and their very first year of education coincided with the COVID-19 crisis and school closures.

Figure 5.1**Trend in reading between 2014 and 2025 at the start of education****Figure 5.2****Trend in mathematics between 2014 and 2025 at the start of education****Figure 5.3****Trend in reading between 2014 and 2025 at the end of education****Figure 5.4****Trend in mathematics between 2014 and 2025 at the end of education**

CHANGE IN THE DISTRIBUTION OF STUDENTS BY PROFICIENCY LEVEL OVER THE PERIOD 2014-2025

Figure 5.5

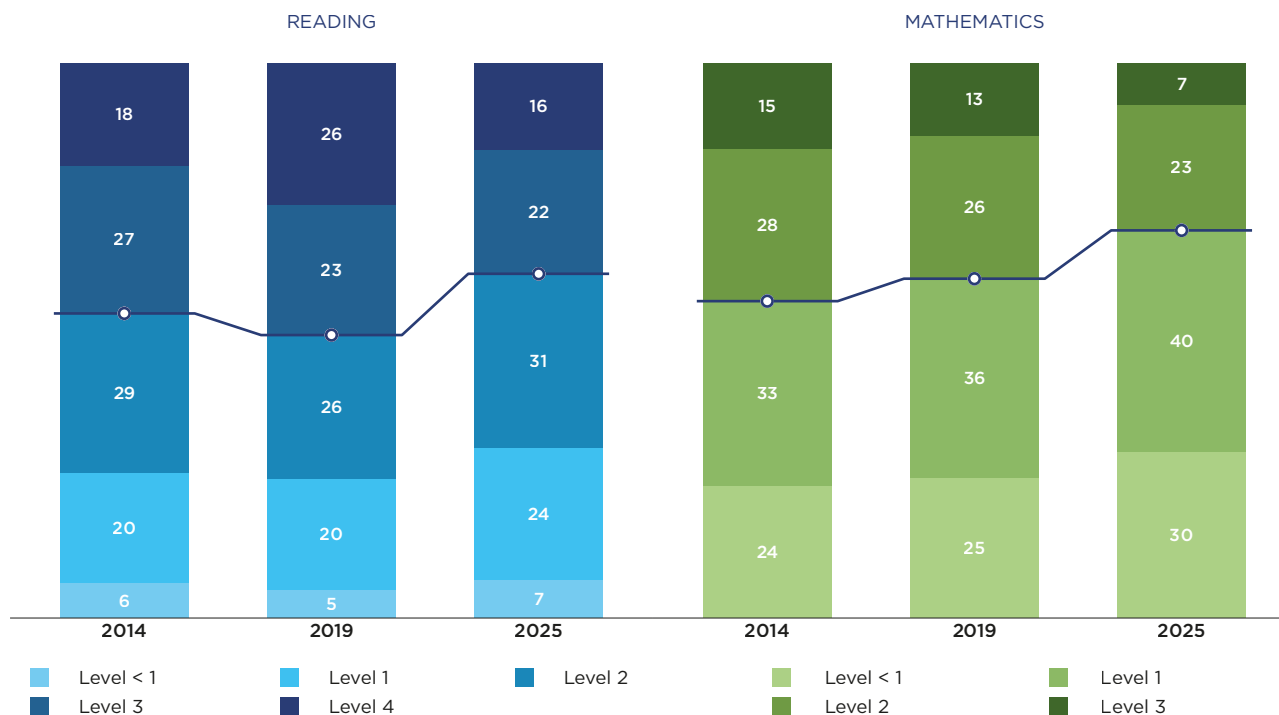
Change in skills at the start of education between 2014 and 2025



Across the eight countries, at the start of education and in reading, the proportion of students reaching the baseline level of proficiency rose from 30% in 2014 to 51% in 2025. Therefore, one in two students crossed the threshold in 2025, compared to fewer than one in three at the start. The detail of the levels shows where this gain lies. The proportion of students at level 4, the highest, almost doubled, from 15% to 29%, while the share of students with the most difficulties, below level 1, only fell from 10% to 7%. In other words, the

increase is due more to the enlargement of the group of advanced students than to the reduction of the core of students in great difficulty.

In mathematics, the proportion of students above the minimum threshold rose from 55% to 70% between 2014 and 2019, then stabilised, or even fell slightly, to 68% in 2025. The proportion of students under level 1 follows the same trajectory: halved between 2014 and 2019, from 14% to 7%, and rising to 9% in 2025.

Figure 5.6**Change in skills at the end of education between 2014 and 2025**

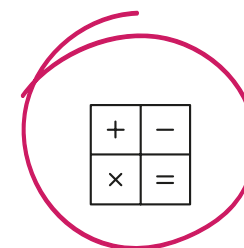
At the end of education, in reading, the proportion of students above the threshold initially increased modestly, from 45% to 49% between 2014 and 2019, then fell sharply, to 38% in 2025. The ten-year balance is negative by 7 points, but it covers two movements in opposite directions, the second of which is the largest.

The proportion of students at level 4 drops from 26% in 2019 to 15% in 2025, returning below its 2014 level. At the same time, the proportion of students at level 1 or below rose from 25% to 31%. The distribution has therefore not only moved downwards: it has emptied from the top, which signals an erosion of the most solid gains.

In mathematics, the deterioration is continuous. The proportion of students reaching the threshold declines at each cycle, from 43% in 2014 to 39% in 2019 and 30% in 2025. The highest level concerns only 7% of students in 2025, compared to 15% in 2014, *i.e.* divided by two. At the other end of the spectrum, nearly one in three students is below level 1, compared to one in four ten years earlier. In conclusion, seven out of ten students leave primary school without mastering the expected mathematical skills.

**62%**

OF STUDENTS
ARE BELOW THE
BASELINE LEVEL
IN READING
IN 2025

**70%**

OF STUDENTS
ARE BELOW THE
BASELINE LEVEL
IN MATHEMATICS
IN 2025



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SECTION 5

Resources committed and results achieved



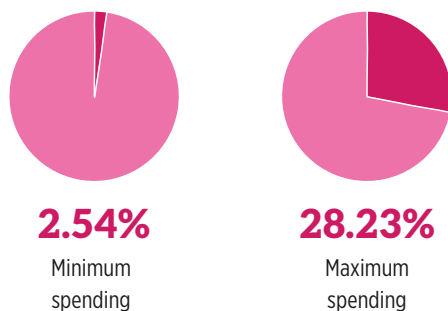
| Funding remains a major challenge.

Five out of sixteen countries devote at least 4% of their gross domestic product to education and eight at least 15% of their public expenditure; Senegal reaches 6.2% and 22.5%.

Six out of fifteen countries are on the efficiency frontier: Benin, Burundi, Gabon, Guinea, Guinea-Bissau and Senegal.

With unchanged funding, reading and mathematics scores would need to rise simultaneously by about 14.2% in Congo, 18.0% in Mali and 19.7% in Djibouti to reach this frontier.

**SPENDING PER
PRIMARY STUDENT
AS % OF GDP PER CAPITA**



Improving learning requires sufficient resources, equitable distribution and efficient use of these resources. Chapter 6 of the International Report shows that countries with similar levels of funding can achieve very different scores in reading and mathematics at the end of primary school. An increase in the budget is still necessary when the means are insufficient, but its effect depends on the conditions in which it supports teaching and learning.

For the countries participating in the PASEC2024, the challenge is therefore to link budgetary trade-offs to the needs of students and the desired results. The analysis invites us to examine the chain that goes from public resources to the resources actually available in schools, and then to the mastery of fundamental skills. This analysis provides a comparative diagnosis and avenues of investigation, without claiming to establish the causes of the differences observed.

CONTRASTING BUDGETARY EFFORTS AND LEARNING

The international benchmarks recalled in the chapter, including the Sustainable Development Goals, call for 4 to 6% of GDP and 15 to 20% of public expenditure to be devoted to education. These benchmarks concern the entire education sector and do not constitute thresholds specific to primary education. They shed light on national trade-offs, without guaranteeing on their own that each student has sufficient resources.

According to recent data available at the time of the analyses, 5 out of 16 countries reach at least 4% of GDP: Burundi, Mali, Sao Tome and Principe, Senegal and Togo. Eight reach at least 15% of public expenditure on education: Benin, Chad, Côte d'Ivoire, Guinea-Bissau, Madagascar, Mali, Sao Tome and Principe, and Senegal. Senegal stands out, with 6.2% of GDP and 22.5% of public spending.

SIGNIFICANT NEEDS IN BOTH AREAS

The proportions of students reaching the minimum threshold vary greatly. In reading, they range from 8.4% in Burundi to 84.7% in Gabon. In mathematics, they range from 1.3% in Guinea-Bissau to 59.6% in Senegal. In all countries, a proportion of students end primary school without reaching the expected baseline level of proficiency in at least one of the two areas.



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ADAPTING PRIORITIES TO THE DIFFICULTIES OBSERVED

Senegal has relatively favourable results in both areas. Gabon particularly stands out in reading. Burundi and Sao Tome and Principe show that the profile of a country can change greatly depending on the area: an overall diagnosis risks masking specific needs in reading or mathematics.

The concentration of students below level 1 in mathematics deserves special attention: it reaches 60.3% in Chad, 59.1% in Mali and 52.5% in Guinea-Bissau. These results invite us to examine learning during the first years and the support systems before the end of primary school. The interventions to be retained will have to be specified by the national diagnostics.

The analysis shows that 6 of the 15 countries have an efficiency coefficient of 1: Benin, Burundi, Gabon, Guinea, Guinea-Bissau and Senegal. These countries are benchmarks in the comparison between the resources available and the learning obtained. With their level of funding per student, the model does not identify, among the countries compared, a combination that would simultaneously improve their results in reading and mathematics in the same proportion. This does not mean that all of their students are learning enough or that their funding covers their needs. A country can take relatively good advantage of limited resources while still needing additional investment. These results therefore invite us to examine the practices of the benchmark countries while continuing efforts to improve learning.

AN EFFICIENT POSITION CAN COEXIST WITH POOR LEARNING

Guinea-Bissau illustrates this distinction: it is on the efficiency threshold, with the lowest funding per student, and only 1.3% of students meet the minimum threshold in mathematics. Its relative position therefore does not exempt it from investing in improving learning. Conversely, Senegal and Gabon combine a position on the threshold with relatively high results.

For countries below the efficiency threshold, the chapter presents theoretical proportional gaps towards a reference combination. These differences indicate the theoretical margin for improvement in learning outcomes at the same level of funding, compared with the model's benchmark countries (the six countries). Thus, to reach the estimated efficiency threshold, average scores in reading and mathematics would need to increase simultaneously by about 14.2% in Congo, 18.0% in Mali, and 19.7% in Djibouti. These results invite us to examine how the available resources could better support learning. However, they do not predict the gains that a reform would make and do not correspond to the percentages of additional students reaching the baseline level of proficiency.

Position in relation to the efficiency frontier	Countries and coefficients
Coefficient equal to 1	Benin, Burundi, Gabon, Guinea, Guinea-Bissau, Senegal
Coefficients from 0.95 to fewer than 1	Madagascar (0.994) Cameroon (0.979) Togo (0.961)
Coefficients from 0.90 to fewer than 0.95	Sao Tome and Principe (0.933) Côte d'Ivoire (0.915) Chad (0.902)
Coefficients fewer than 0.90	Congo (0.876) Mali (0.847) Djibouti (0.835)



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GUIDELINES FOR EDUCATION POLICIES

The following guidelines translate the chapter's findings into decision-making paths. They must be adapted to the constraints and diagnoses of each country. International comparisons make it possible to identify priority issues, but they do not, on their own, represent interventions that will produce the expected results.

1. Linking budgets to learning objectives

Budgetary trade-offs would benefit from specifying the needs that each investment meets: mastery of reading, mathematical skills, support for students in difficulty or improvement of teaching conditions. Monitoring should link the financial resources planned and implemented with the resources actually received by the schools, and then with the results observed. Particular attention must be paid to primary school expenses and the resources available per student.

2. Examining the mechanisms that turn resources into results

The differences between countries justify an analysis of the deployment and support of teachers, the availability of teaching materials, the actual teaching time, school conditions and the management of schools. PASEC2024 contextual questionnaires can enrich this diagnosis. The associations observed will then have to be deepened to guide the choice of intervention or educational projects to be implemented and their evaluation.

3. Making equity an allocation criterion

A national mean can mask strong differences between territories, schools and groups of students. Ministries of education in the participating countries of the PASEC2024 can cross-reference learning outcomes with school resources and the characteristics of the target audiences (students, teachers, school principals, etc.) to identify the most important needs. The search for efficiency must accompany an allocation that takes into account vulnerabilities, rather than only favouring schools where results are already high.

4. Organising context-based cross-country learning

The six countries on the efficiency threshold are useful points of comparison. Targeted discussions can examine their financing, pedagogical support and management practices. However, it is necessary to check their relevance and transferability: a practice that is effective in one context cannot be mechanically replicated in another system.

5. Designing a joint funding and learning monitoring system

A ministerial dashboard could integrate public spending on education, primary school spending, per-student funding, available school resources, and reading and mathematics outcomes. The rates of completion, grade repetition and dropping out would complete the analysis of the pathways. Each indicator should have its source, year and scope and responsibilities for the process of monitoring the performance indicators.

6. Decisions to be prepared

Three decisions can be considered: 1) consolidate the consistency of the financial data and results of the chapter, 2) conduct a national diagnosis of the main obstacles to the transformation of resources into learning and 3) prepare a quantified improvement plan, with responsibilities, realistic targets and evaluation methods. Additional resources and management improvements need to be considered jointly.



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SECTION 6

What these results imply for action



| **Steering.**

Strengthen the governance of systems, reforms and schools. Use PASEC results to set national improvement targets, organise sector reviews and direct funding to the areas facing the greatest difficulties. Encourage regional cooperation and support the transition from the mother tongue to the official language.

| **Teaching.**

- Place teacher mobilisation at the heart of education policies, from recruitment to training.
- Strengthen support for foundational learning from the early years:
 - in reading, make pre-service teacher training an absolute priority;
 - in mathematics, increase instructional time and remove the obstacles faced by girls.
- Expand access to pre-primary education and involve parents.

| **Resource allocation.**

Guarantee every student a seat, a suitable classroom and textbooks, as a priority in rural and public schools. Distribute teachers equitably. Link the budget to measurable objectives. More than 80% of education budgets are devoted to teachers' salaries.

RELATED TO STEERING

GOVERNANCE OF SYSTEMS AND REFORMS

- Strengthen the governance of education systems and increase financial resources for primary education.
- More rigorous planning, better management of resources and targeted investments in infrastructure, learning equipment and learning conditions are essential prerequisites for improving school performance.
- Better governance of educational and educational and curriculum reforms is also needed.
- Educational and curriculum reforms must define fundamental learning and the means to evaluate it throughout the school career of students.

LOCAL GOVERNANCE OF SCHOOLS

- Strengthen the local governance of schools through a stronger involvement of inspectors, pedagogical advisors and principals in the performance of their schools.

USE OF RESULTS AND CULTURE OF ASSESSMENT

- Set national targets for improving learning, integrated into sector plans and budget performance frameworks; these targets can usefully be broken down according to the areas of skills and cognitive processes in order to better target the learning to be strengthened.
- Organise sector reviews based on PASEC results.
- Integrate PASEC indicators into the framework of sector reviews and sectoral plans.
- Conduct additional assessments.
- Monitor the reforms implemented in light of the established findings.
- Prioritise additional funding, assignments of qualified teachers or targeted support programmes to areas where PASEC results reveal the greatest learning gaps.



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TERRITORIAL STEERING

- Identify the best-performing schools to learn from their practices.
- Identify the lowest-performing institutions to help them more.
- Identify areas requiring additional support.
- Monitor the effect of recent reforms over time.

REGIONAL COOPERATION

- Encourage regional cooperation between French, Portuguese and English-speaking countries to share good practices and solutions to common challenges.
- Carefully support the transition from education in the mother tongue to that provided in an international or official language in order to avoid a break in learning and to preserve the achievements built during the first years of education in the mother tongue.
- Examine in more detail the education policies, pedagogical approaches and teacher training mechanisms implemented in Portuguese-speaking countries.

RELATED TO TEACHING

TEACHERS

- Put the continuous mobilisation of teachers at the heart of future educational policies: recruitment and retention of qualified teachers, development of pre-service and in-service training systems, improvement of working conditions, enhancement of the teaching profession in order to strengthen its social value, attractiveness and effectiveness.

FUNDAMENTAL LEARNING AND PEDAGOGICAL SUPPORT

- Strengthen the support systems for fundamental learning starting from the first years of education in order to guarantee all students the foundations necessary for the success of their future learning.
- Ensure continuous and progressively reinforced pedagogical support throughout the primary school pathway, with particular attention to the first years of education, where fundamental skills in reading, writing and mathematics are built.
- Maintain and scale up this support until the end of primary education to prevent learning delays, reduce inequalities and ensure the acquisition of expected skills.
- Differentiate between pedagogical support in mathematics and reading.

READING

- Strengthening the pre-service teacher training in the area of reading is a top priority.
- A thorough review of the methods of learning to read and write is necessary in some countries.
- Implement targeted measures to strengthen boys' reading skills; the development of reading practices and the broadening of access to documentary resources are essential levers.
- Revitalise school libraries, which do not exist in many schools in PASEC countries or, where they exist, are insufficiently used.
- Promote access to digital reading resources.
- Offer students access to a greater diversity of texts and stimulating activities: creation of reading clubs, supervised opening of school infrastructures outside school hours to facilitate access to digital technology, integration of magazines and newspapers among the materials offered.



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MATHEMATICS

- Halt the steady decline in the average level of all students through reforms improving the instructional time in mathematics and better pre-service and in-service training for teachers in mathematics.
- Promote mathematics education that favours the participation, confidence and learning of all students, with particular attention to the obstacles faced by girls in contexts where they are disadvantaged; such development presupposes an improvement in the pre-service and in-service training of teachers as well as a renewal of didactic approaches.

GAPS BETWEEN GIRLS AND BOYS

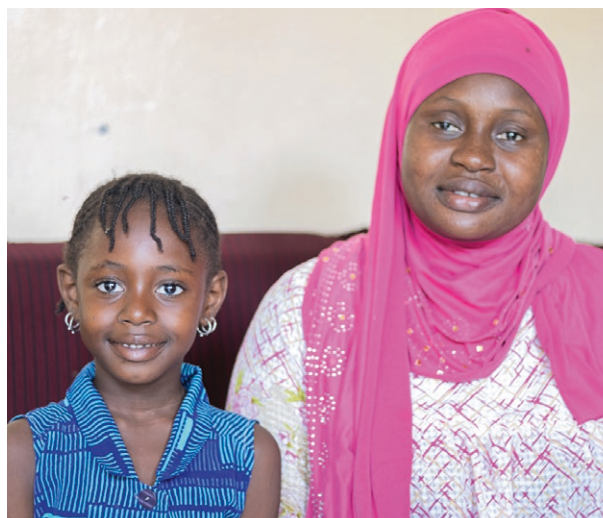
- Encourage more girls in mathematics learning and support the development of boys' reading skills throughout compulsory education.
- Increase the presence of women in the teaching force, especially in the later years of education, in order to provide girls with more female role models.
- Encourage young women to pursue careers in mathematics education.
- Fully integrate the role of mathematics anxiety in girls and the persistent influence of gender stereotypes and beliefs associated with mathematical skills into the development of education policies.

PRE-PRIMARY EDUCATION

- Expand access to and quality of pre-primary education in all PASEC participating countries.
- Consolidate the public provision at the pre-primary level, especially in rural and peripheral regions: pre-primary education should no longer remain the poor relation of public investment in education.

PARENTS AND COMMUNITIES

- Support the active involvement of parents, families and local communities in students' learning.



EDUCATIONAL AND DIGITAL RESOURCES

- Provide teachers with concrete training allowing them to learn about digital tools and explore their pedagogical possibilities.
- Organise in-service training activities, experience-sharing workshops, practice communities or mentoring schemes, the most effective training being those that are long-term and directly related to the realities of the classroom.
- Give teachers the time and space to test digital tools in their own teaching context and adapt resources to the needs of their students.
- Provide schools with timely and effective assistance to resolve difficulties related to learning equipment, software or platforms.
- Recognise and value the efforts of teachers who innovate through technology.
- Pay particular attention to the development of teachers' digital skills.



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RELATED TO THE ALLOCATION OF RESOURCES

MATERIAL LEARNING CONDITIONS

- Improving the operating conditions of rural and peripheral public schools is a priority.
- Ensuring that each student has a seat, an adapted classroom and reading and mathematics textbooks appears to be an essential minimum to promote learning.
- Class size deserves special attention: when the number of students regularly exceeds 45 to 50 per class, teaching conditions generally become less conducive to learning.
- Provide more resources to rural, public and socially disadvantaged schools.

DISTRIBUTION AND SUPERVISION OF TEACHERS

- Ensure an equitable distribution of teachers between urban and rural areas.
- Ensure that rural schools have access to qualified teachers with high-quality professional education.
- Provide school principals, inspectors and pedagogical advisers with sufficient logistical resources, including transportation, fuel and communications equipment.

BUDGETARY STEERING BY RESULTS

- Simultaneously seek adequacy, equity and efficiency of funding in order to improve students' achievements in the long term.
- Articulate the education budget to explicit strategic objectives, with monitoring indicators and targets adapted to national contexts: improvement of learning outcomes, reduction of early school leaving, increase in completion rates of the various cycles of education, reduction of territorial and social inequalities.
- Develop performance indicators to simultaneously assess the effectiveness, efficiency and equity of the education system.
- Assess expenditure on in-service teacher training not only through the number of sessions held or the amount of funds consumed, but also through its effects on teaching practices and student performance.

- Support management autonomy with accountability mechanisms: objectives contracts, performance dashboards, periodic reviews involving central administrations, decentralised authorities and schools.
- Develop high-performance information systems to analyse the relationships between expenditures incurred, resources mobilised and results obtained.
- Institutionalise the evaluation of public policies: expenditure reviews, impact assessments and cost-effectiveness analyses help to identify the most effective programmes and improve resource allocation.
- Develop efficiency monitoring tools adapted to African realities.

PRIORITISING EXPENDITURE AND COST PER PROFICIENT STUDENT

- Prioritise effective educational spending: teacher training, textbooks, pedagogical support.
- Gradually reallocate resources to interventions that have been shown to be effective, such as improving teaching quality, targeted support for struggling students with special education or early childhood development programmes.

Gradually reallocate resources towards interventions of proven effectiveness.



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- Integrate into sectoral plans targets for gradually reducing the cost per student above the baseline level of proficiency, increasing the number of students mastering basic skills, improving the cost-result ratio between regions of the country and comparing the effectiveness of the different educational programmes into sectoral plans.

A major difficulty must be noted: the large proportion of education budgets devoted to teachers' salaries, generally more than 80%. Redirecting spending towards areas other than teachers' salaries is politically and socially difficult.

HORIZON FOR MOBILISING LEVERS

LEVERS WHICH COULD BE MOBILISED IN THE SHORT TERM

Local governance of schools; territorial dashboards; sector reviews based on PASEC results; regional cooperation

In-service training of teachers; pedagogical support from the first years; libraries, book clubs and documentary resources; parent and community involvement; practical digital training and local assistance

Seats, suitable classrooms and textbooks; class size; logistical resources for management; prioritising effective learning spending

LEVERS REQUIRING LONGER-TERM REFORM

Governance of curricula reforms; definition of fundamental learning and its assessment; national targets integrated into sectoral plans

Recruitment, retention and promotion of the profession; pre-service training in reading; revision of methods for learning to read; instructional time and training in mathematics; including more women in teaching staff; expansion of pre-primary education

Equitable distribution of qualified teachers; budget management by results; cost per student above the threshold; integrated information systems; reallocation of resources

Box

Scope and limitations of results

What the measure allows us to affirm, and what it does not

The differences shown are associations, not effects. The assessment observes students and teachers at a given time, without an experimental design and without following the same children over time. When this report indicates that one group performs better than another, it describes an observed difference; it does not establish that the characteristic distinguishing these groups is the cause.

What the assessment does not observe

Only students who are in school and present on the day of the test are assessed. Children who do not go to school, have left school or are absent are not represented. In systems where access to and retention in school are the lowest, the population tested is therefore the most highly selected.

The assessment focuses on two disciplines, at a specific moment in the pathway. It does not say anything about any other learning.

Context data is self-reported. Students, parents, teachers and school principals answer for themselves.

What limits comparisons

The levels assessed are not on a common scale. A score at the start of education, a score at the end of education and a score at the end of basic education are not comparable with each other, nor are the levels of teachers and students, who belong to different populations and tests.

Comparisons over time only concern countries that have participated in several cycles and whose data has been validated. The others are excluded from the trend analyses and indicated as such.



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Assessment methodology





WHAT PASEC MEASURES AND WHAT IT DOESN'T MEASURE

Tests for students are constructed from three main sources: scientific knowledge on learning to read and mathematics, common areas of the participating countries' curricula, and international standards for measuring learning outcomes. They are not intended to directly assess the degree of mastery of the national curricula, but to measure a common base of knowledge and skills essential to the continuation of learning. The PASEC assessment is thus an external, international and complementary measurement to national assessments: it provides countries with comparable benchmarks to assess students' achievements, monitor their evolution over time and inform educational policies.

The PASEC2024 survey aims to assess the effectiveness, the equity and, indirectly, the efficiency of the education systems of the participating countries. It measures students' achievements in the language of instruction and mathematics at three stages of the school career: the beginning of primary school, the end of primary school and the end of basic education. It also includes, for the second time after PASEC2019, a survey of primary school teachers, as well as four context questionnaires sent to students, parents, teachers and school principals.

The PASEC methodology is based on the collection of standardised data from representative samples of schools and students. Tests measure students' achievement, while contextual questionnaires document the characteristics of

students, families, teachers, classes, schools, and learning environments. Cross-referencing this information with test results makes it possible to identify the academic and extracurricular features associated with learning.

The three concepts that structure how the results are read need to be understood through the prism of the characteristics and objectives of the survey. An education system is considered effective when it enables the greatest number of students to acquire the knowledge, skills and attitudes expected at the different stages of their school career; equitable when it tends to reduce the gaps in education, progress and achievement between students, regardless of their gender, social origin, language, place of residence, region or type of school attended; and efficient when it is able to transform in an optimal way the financial, human, material and organisational resources at its disposal into quality learning outcomes. In this report, effectiveness is assessed on the basis of tests, equity on the basis of cross-referencing performance with the characteristics of students and schools, and efficiency indirectly, by comparing the results with data on education funding.

THE SCOPE OF THE ASSESSMENT AND THE CONTENT OF THE TESTS

In addition to students, the assessment questions primary school teachers, school principals and, for the first time, students' parents, in order to shed light on the conditions in which teaching and learning take place. At the beginning



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of primary school, the tests are individual and oral, about 30 minutes per subject; at the end of primary school and secondary school, they are collective and written, mainly multiple-choice, and last a maximum of two hours per subject. As the volume of questions exceeds what a student can process, four booklets are randomly distributed in each class.

The tests for primary school teachers are based on an explicit principle: a primary school teacher must master the content corresponding to the expected exit profile of students at the end of the cycle, regardless of the class in which he or she works. They assess two distinct aspects: mastery of the content itself, and the didactics (extracting the objectives

targeted by a learning situation, choosing an exercise consistent with an objective, identifying and interpreting the error in a student's production). It is the comparison of these two aspects that makes the teachers' survey unique.

Assessed population	Reading/language of instruction	Mathematics
Students – beginning of primary school	Oral comprehension, reading-decoding, reading comprehension	Arithmetic; geometry, space and measurement
Students – end of primary school	Comprehension of narrative texts, informative texts and documents	Arithmetic, quantities and measures, geometry
Students – end of lower secondary school	Comprehension of narrative, descriptive and argumentative texts, from identifying explicit information to inference and interpretation	Arithmetic and algebra, measurement, geometry, statistics
Primary school teachers	Mastery of the language, access to the meaning of the text, structures of the language; didactics of reading comprehension	Arithmetic, quantities and measurements, geometry and space; didactics of mathematics
Lower secondary school teachers	Socio-demographic characteristics and teaching conditions, no subject testing	
School principals	Primary and secondary school: socio-demographic characteristics, teaching conditions and school characteristics	
Students' parents	Family context	

NUMBER OF COUNTRIES, SCHOOLS AND STUDENTS

Level assessed	Country	Schools/ institutions	Students assessed	Attendance rate (min.-max.)
Start of primary school	16	1,946	27,004	85.8%-98.4%
End of primary school	16	3,892	86,352	82.4%-99.7%
End of lower secondary school	14	2,383	57,164	74.6%-92.9%
TOTAL	16	6,275	170,520	–

Tests are conducted in English, French, Portuguese, Arabic and nine national languages. Language versions follow four steps: double independent translation, conciliation, verification by a specialised agency and national validation.



HOW THE RESULTS WERE PRODUCED

The instruments were tested in April-May 2024 and the final collection took place between April and June 2025. The cycle retains the name “PASEC2024”, which refers to its five-year programme, but the trend analyses are based on the actual years of collection: 2014, 2019 and 2025.

The results produced are not the result of an improvised operation. They result from a rigorous scientific approach, in accordance with international standards and controlled at each of their stages. From the design of the tests to the production of the scores, each link in the chain is subject to successive verifications, shared by all the participating countries and controlled by the PASEC scientific committee.

1. Tests anchored in the school curricula

The questions asked of the students are not developed at random: they are based on assessment frameworks built on the basis of the school curricula common to the participating countries and international expectations. Each question is written by educational experts and then reviewed collectively to ensure clarity, relevance and equity. Before the final assessment, all questions are tested with a sample of the targets considered during a cognitive laboratory and then a field trial, which makes it possible to discard ambiguous or poorly calibrated questions and to retain only those whose quality is proven.

2. A representative sample from each country

It is not necessary to assess all students in a country. PASEC selects a scientifically constructed sample, according to precise statistical rules that ensure that the schools and students selected accurately reflect the diversity of the national education system: urban and rural, public, private or community schools, all regions of the country. The sample is based on the exhaustive list of schools under the authority of the Ministry, which is subject to a meticulous upstream control intended to rule out duplicates, erroneous identifiers and suspicious enrolments. This rigour ensures that the results are valid for the whole country, and not just for a few schools.

3. Supervised collection and verified data

The assessment follows standardised procedures that are identical in all countries, so that the assessment conditions are comparable; the administrators are trained in them. In addition to the oversight exercised by the national teams, independent observers are deployed in the field to ensure compliance with procedures, observe the work of the administrators and report any shortcomings without delay. The answers collected are then entered and checked by PASEC: any missing or dubious data is identified at this stage.

4. Data cleaning validated with the national teams

The data are subject to in-depth consistency checks within each database and between the student, teacher and principal databases. Inconsistencies are examined and corrected in close consultation with the national teams, on the basis of the documents actually returned from the field: no data is modified without justification or verification.

5. An analysis that ensures fair and comparable measurement

Finally, a psychometric analysis takes place to verify the quality of the measurement. It ensures that each question effectively measures the targeted skill and that it behaves fairly for all groups of students, regardless of their gender, background or language of instruction. This makes it possible to transform the answers into accurate, valid and comparable scores from one country to another as well as from one edition to another. The comparison between editions is based on anchor items, which are questions common to two editions that serve as shared reference points.

A final operation conditions the reading of the figures. Each student is given a weighting, equal to the number of students in the population he or she represents, that takes into account the probabilities of being drawn at each stage and corrects for non-responses. All the results are calculated on the basis of these weighted data: they describe the entire population enrolled at the level in question, and not just the students surveyed.



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From scores to proficiency levels, and the mastery threshold

Measuring is not enough. It is still necessary to indicate what the students really know how to do. This is the role of the proficiency scales, which divide the performance continuum into successive levels, each with a descriptor stating the tasks that students at this level can perform. An intermediate-level student will be able to identify explicit information in a short text; a higher-level student will be able to infer implicit information or link several passages of the same text. The score indicates where the student stands, the descriptor indicates what he or she can do. This

correspondence makes the results usable: it allows decision-makers to discuss skills rather than ranks, and indicates to the teacher what still must be consolidated.

On each scale, a baseline level of proficiency distinguishes students who have mastered fundamental learning from those who have not yet mastered it. This is the central measure of the report: the share of students above this threshold tells a decision-maker more than the mean score, because it relates to students and not to a scale. This threshold is also compared with the minimum global level used to monitor Sustainable Development Goal 4, target 4.1.1, which makes it possible to situate the results of PASEC in the context of international learning monitoring.

What is comparable and what is not

The standardisation of instruments and procedures makes comparisons possible. The table below sets out the limits within which the results can be compared with each other.

What can be compared	What cannot be compared
Countries among themselves, at the same level and in the same discipline.	The three levels amongst themselves: the tests and scales differ; a score at the end of primary school and a score at the end of basic education are not on the same scale.
The evolution of the same country between 2014, 2019 and 2025, thanks to anchor questions.	Countries that did not participate in all three cycles or that do not have data on two cycles are excluded from the trend analyses.
Groups of students from the same country: girls and boys, urban and rural, public and private, social conditions.	The level of teachers and students: two distinct populations and two distinct tests, with no common scale.
PASEC results from one cycle to the next.	The results of the PASEC with those of another international assessment or national examination, which do not measure the same thing or on the same population.



Assessing learning to transform education policies

Established in 1991, CONFEMEN's Programme for the Analysis of Education Systems (PASEC) has become the reference instrument for steering the education systems of CONFEMEN member States and governments. Its purpose is to inform public decision-making by measuring changes in the performance of education systems, in order to guide the design, monitoring and evaluation of education policies and, through them, the improvement of the quality of education.

Its work goes beyond measurement. PASEC strengthens national assessment capacities, promotes the ownership and effective use of results by education stakeholders, and supports the development of education research. Through its assessments and analytical work, it provides decision-makers with reliable and comparable data as well as rigorous analyses, levers for higher-performing, more equitable and more efficient education.

Finally, PASEC contributes to the production of knowledge by supporting researchers and making its data and assessment frameworks available to them. It feeds into work that is useful both to education systems and to the academic community.

CONFEMEN – PASEC

Complexe SICAP Point E, Building C
3rd floor, Avenue Cheikh Anta Diop
BP 3220 Dakar, Senegal
Tel.: +221 33 859 29 79 / +221 33 859 29 91
Fax: +221 33 825 17 70
Email: pasec@confemen.org
Website: www.pasec.confemen.org

@CONFEMEN

