

CIMA

Latin America and the Caribbean

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HOW INEQUAL IS LEARNING
IN LATIN AMERICA?
AN ANALYSIS OF SOCIOECONOMIC AND
INDIGENOUS SKILL GAPS

Socioeconomic and indigenous status contribute significantly to achievement gaps across subjects and grade levels. Mathematics gaps between low and high socioeconomic status students widen from third to sixth grade, notably in Brazil and Uruguay. Language gaps are particularly large in Brazil, Colombia, Guatemala, Panama, Peru, and Uruguay. Indigenous sixth graders score lower than non-Indigenous peers, with the largest gaps in Costa Rica and Panama and the smallest in Honduras. A significant portion of the achievement gap between indigenous and non-indigenous students in mathematics and science is attributed to indigenous status.

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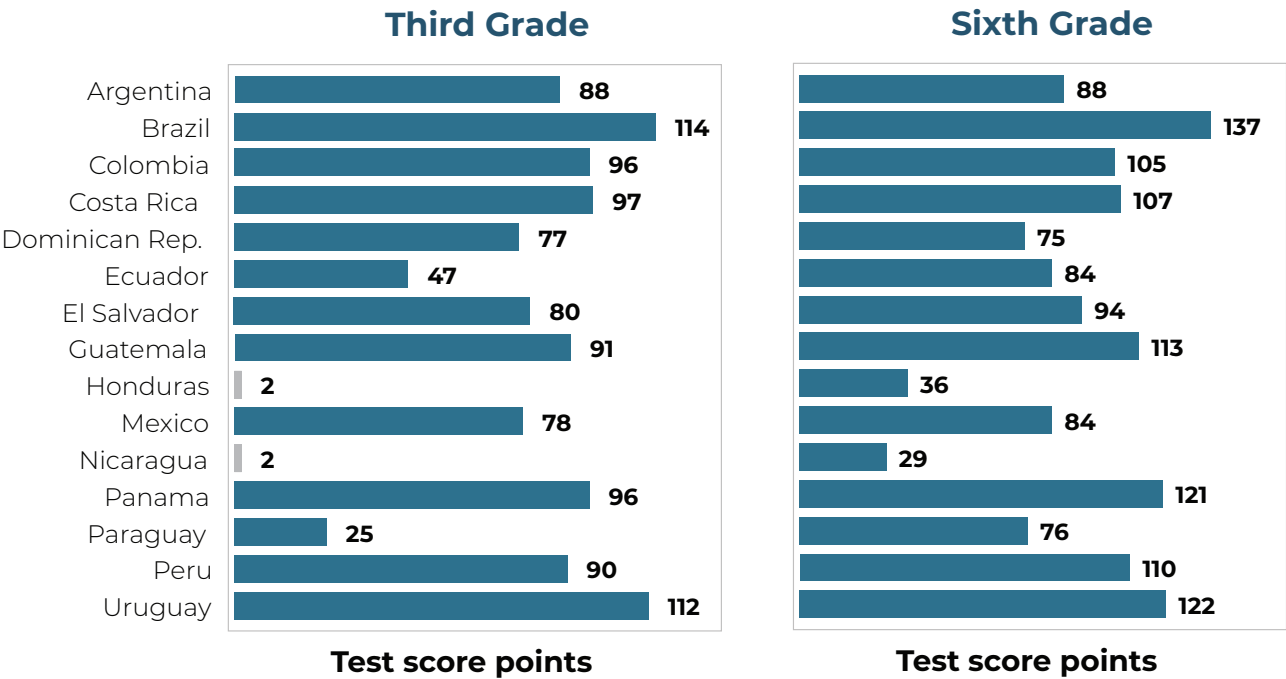
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The socioeconomic achievement gaps in mathematics are larger in 6th grade than in 3rd grade

- Most countries have significant gaps in third-grade mathematics test scores between students of low and high socioeconomic status, ¹ ranging from 25 to 115 points in favor of students from more affluent households.
- By sixth grade, achievement gaps widen in most countries, ranging from 29 to 137 points.
- Brazil and Uruguay have the region’s largest achievement gaps in mathematics.
- While Honduras and Nicaragua have no significant mathematics achievement gaps in third grade, by sixth grade gaps have developed of 36 and 29 points, respectively.

ACHIEVEMENT GAPS BETWEEN STUDENTS WITH HIGH AND LOW
SOCIOECONOMIC STATUS, MATHEMATICS



Statistically significant difference favoring students with high socioeconomic status

Source: Authors' calculations based on ERCE 2019 databases.

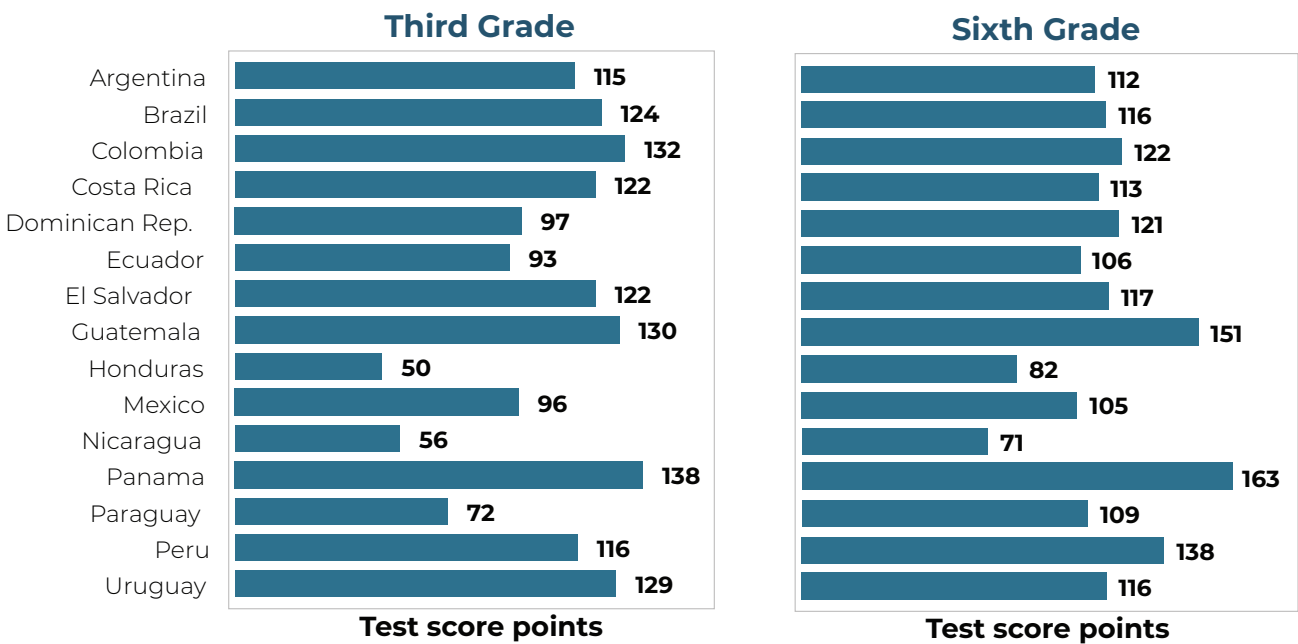
¹ Students categorized as low socioeconomic status (SES) belong to the bottom SES quintile. High SES students belong to the top SES quintile.



There are significant socioeconomic achievement gaps in language and science.

- In language, third graders from low socioeconomic status households score 50 to 139 points lower than their peers from high socioeconomic status households.
- In third and sixth grades, Brazil, Colombia, Guatemala, Panama, Peru, and Uruguay exhibit the largest achievement gaps in language, with the Dominican Republic and El Salvador also showing considerable gaps in sixth grade.

ACHIEVEMENT GAPS BETWEEN STUDENTS WITH HIGH AND LOW SOCIOECONOMIC STATUS, LANGUAGE



Statistically significant difference favoring students with high socioeconomic status

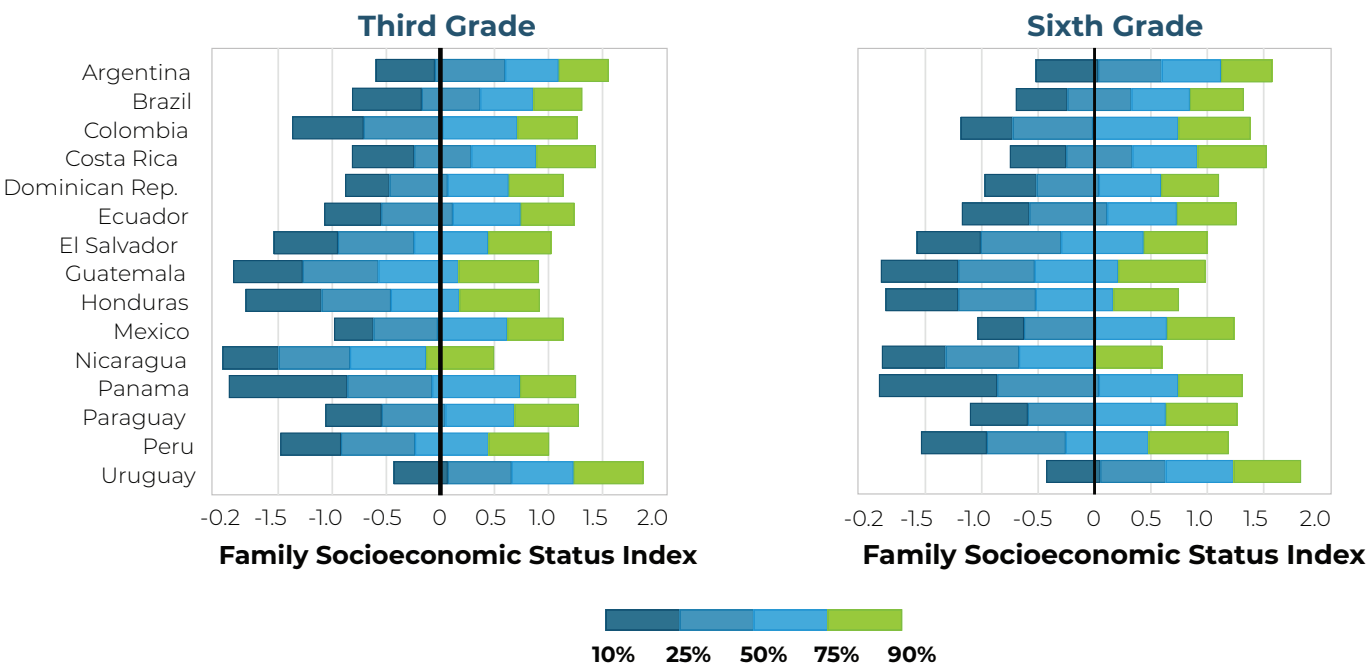
Source: Authors' calculations based on ERCE 2019 databases.

Socioeconomic inequality varies across countries.



- The countries with the highest proportion of students from high socioeconomic status households are Argentina, Costa Rica, and Uruguay.
- Guatemala, Honduras, and Nicaragua have the highest proportions of students from low socioeconomic status households.

DISTRIBUTION OF THE FAMILY SOCIOECONOMIC STATUS INDEX



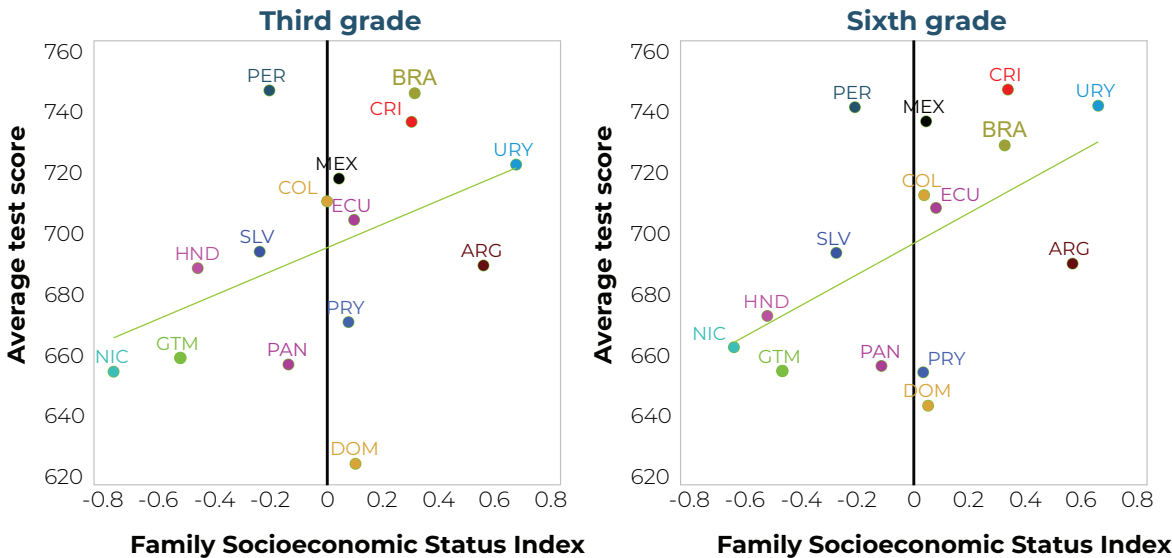
Source: Authors' calculations based on ERCE 2019 databases.



There is a positive relationship between the country average of the socioeconomic status of students' households and test scores.

- Across subjects and grade levels, the higher the socioeconomic status of the participating students, the better the test scores.
- Students in Brazil, Costa Rica, Colombia, Ecuador, El Salvador, Mexico, Peru, and Uruguay perform on average, beyond expectations based on the country average socioeconomic status.
- Conversely, students in Argentina, Dominican Republic, Guatemala, Nicaragua, Panama, and Paraguay perform, on average, below what would be anticipated given the country average socioeconomic status..

RELATION BETWEEN THE COUNTRY AVERAGE SOCIOECONOMIC STATUS INDEX AND TEST SCORES²

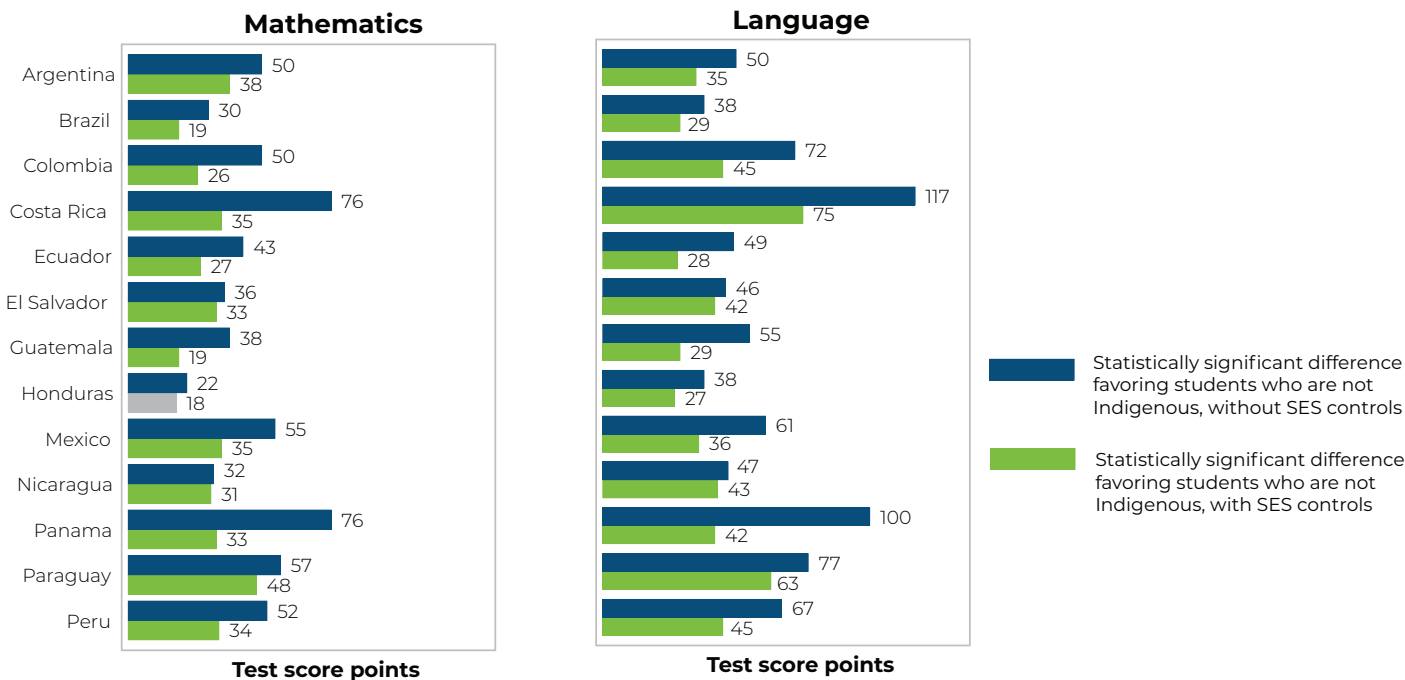


Source: Authors' calculations based on ERCE 2019 databases.

Indigenous students have lower achievement across grades-levels and subjects.³

- Indigenous sixth graders score, on average, 38 points lower on the ERCE 2019 tests compared to their non-indigenous peers. These disadvantages fluctuate among countries from 22 points in Honduras to 117 points in Costa Rica. Moreover, such differences persist even when controlling for socioeconomic differences among students.
- While students in Costa Rica and Panama experience the highest achievement gaps in mathematics, language and science, the lowest achievement gaps in all three subjects are found in Honduras.

ACHIEVEMENT GAPS BETWEEN INDIGENOUS STUDENTS AND NON-INDIGENOUS STUDENTS, SIXTH GRADE



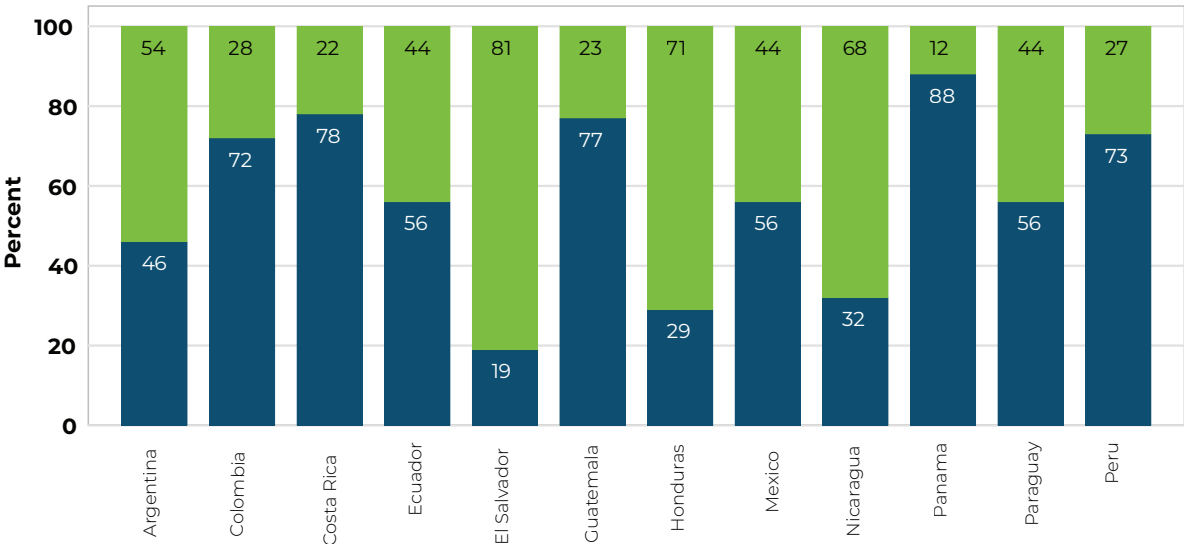
Source: Authors' calculations based on ERCE 2019 databases.

² The average test scores refer to the combined average of scores obtained in mathematics and language in the third grade and mathematics, language, and science in the sixth grade.
³ Cuba, the Dominican Republic, and Uruguay were excluded from this part of the analysis.



- In Colombia, Costa Rica, Guatemala, Panama, Paraguay, and Peru, between 16 and 34 percent of the mathematics achievement gaps between indigenous students and their peers are explained by indigenous status.⁴
- In Argentina, Ecuador, El Salvador, Honduras, Mexico, and Nicaragua, between 45 and 80 percent of the mathematics achievement gap is explained by indigenous status.
- Important proportions of the science achievement gaps between indigenous students and their peers, can be explained by indigenous status. In Guatemala and Panama, a fifth of the science achievement gap is explained by indigenous status.
- In Argentina, Brazil, El Salvador, Honduras, Mexico, Nicaragua, and Paraguay more than half of the sixth grade science achievement gaps are explained by Indigenous status.

TEST SCORE DIFFERENCES EXPLAINED BY INDIGENOUS STATUS USING THE OAXACA-BLINDER DECOMPOSITION METHOD, SIXTH GRADE MATHEMATICS (%)



Source: Authors' calculations based on ERCE 2019 databases. Explained component Unexplained component

⁴ The Oaxaca-Blinder Decomposition method decomposes the difference in test scores between girls and boys into two parts: (ii) the explained component (factors that can be quantified and explained as drivers of the group differences in test scores), and (ii) the unexplained component (unobservable factors related to gender).

The Information Center for Improvement in Learning (CIMA, for its acronym in Spanish) of the Education Division of the Inter-American Development Bank seeks to promote the use of data and indicators in evidence-based decision-making when developing education policy, with the goal of providing a quality education for all. With this objective, CIMA publishes a series of briefs that analyze indicators that contribute to the improvement of education quality in the region.

