



# PISA

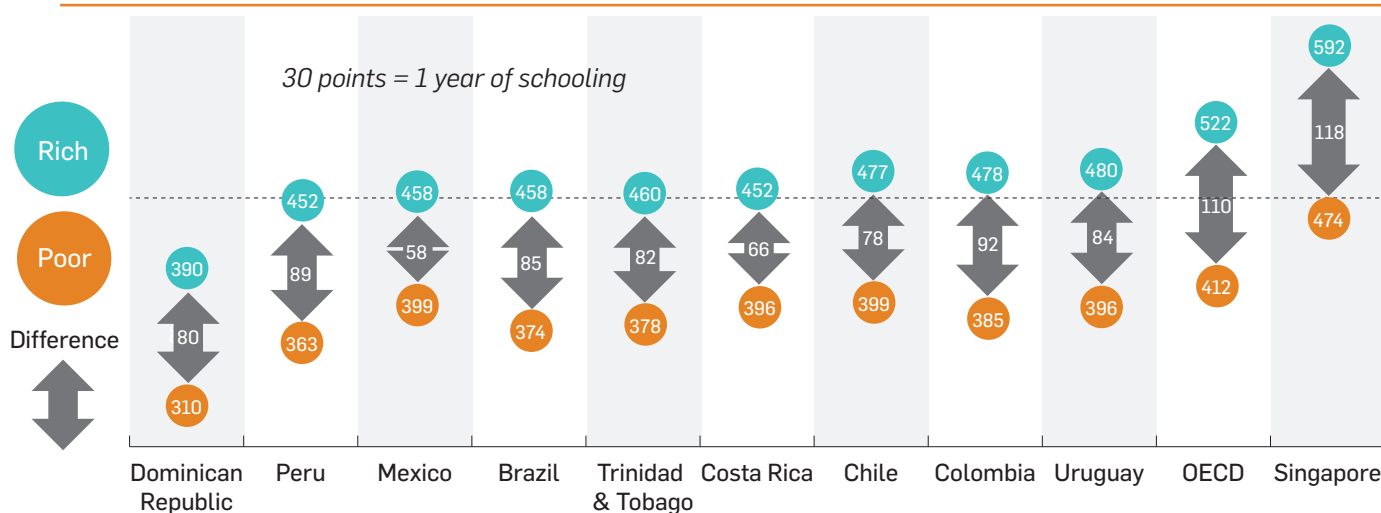
## Latin America and the Caribbean

By María Soledad Bos, Alison Elías, Emiliana Vegas, and Pablo Zoido

### HOW DO POOR AND RICH STUDENTS PERFORM?

Poverty remains one of the most important barriers to learning in the region. However, a small percentage of poor students achieve positive results, showing that everyone, regardless of their circumstances, can achieve success in school.

#### PERFORMANCE GAP BETWEEN RICH AND POOR STUDENTS IN SCIENCE, PISA 2015



Source: OECD, PISA 2015, Vol I, Table I.6.4a  
Note: All differences are statistically significant.

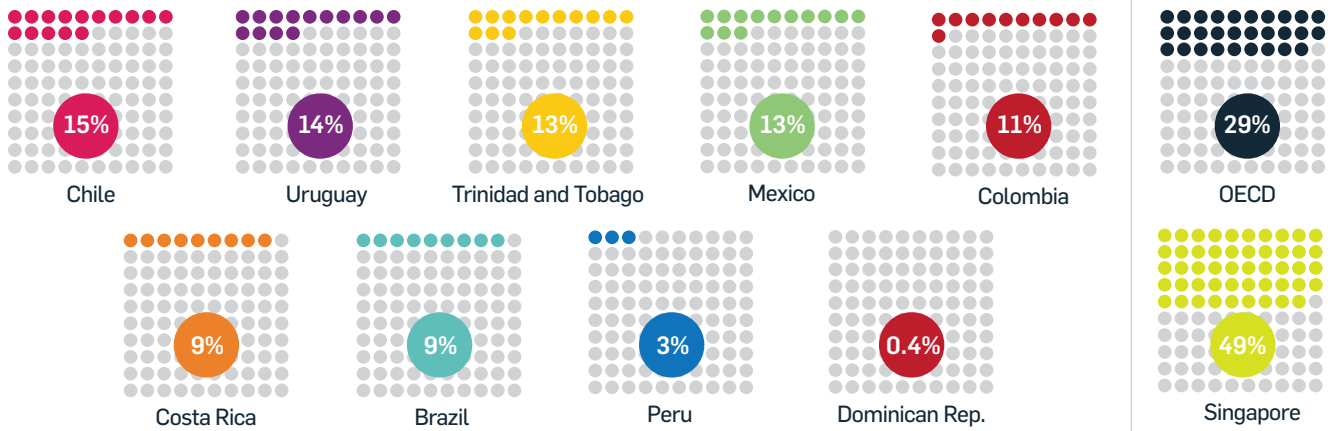
#### Poor students in the region perform far worse than their wealthy peers

- In the countries of the region, poor students perform two and a half years of schooling (80 points) below their richest peers in science. Something similar occurs in mathematics and reading.
- In the OECD and Singapore, this gap is even wider, reaching almost four years of schooling.
- Colombia (92 points) and Peru (89 points) have the widest gaps, equivalent to three years of schooling. In Mexico, the gap is smaller (58 points), though rich students perform more poorly in Mexico than in almost any other country in the region.
- The top-performing groups are wealthy students in Uruguay (480 points), Colombia (478), and Chile (477).
- No group of wealthy students in the region far surpasses the score of poor students in Singapore (474), the country with the best test score.

#### PISA has one of the most complete indices of socioeconomic status

- Wealthy students have parents with a college degree who work in skilled occupations. They also have more educational resources at home (like books), a quiet place to study and do homework, and even works of art, books of poetry, or classical literature.
- In contrast, many parents of the poorest students never finished school, and their jobs require fewer qualifications. At home, poor students have access to fewer educational resources.
- These factors are summarized in the Socioeconomic and Cultural Index. PISA considers wealthy students as those in the top 20% globally and poor students as those in the bottom 20% globally.

## RATE OF RESILIENCY AMONG POOR STUDENTS, PISA 2015



Source: OECD, PISA 2015, Vol I, Table I.6.7

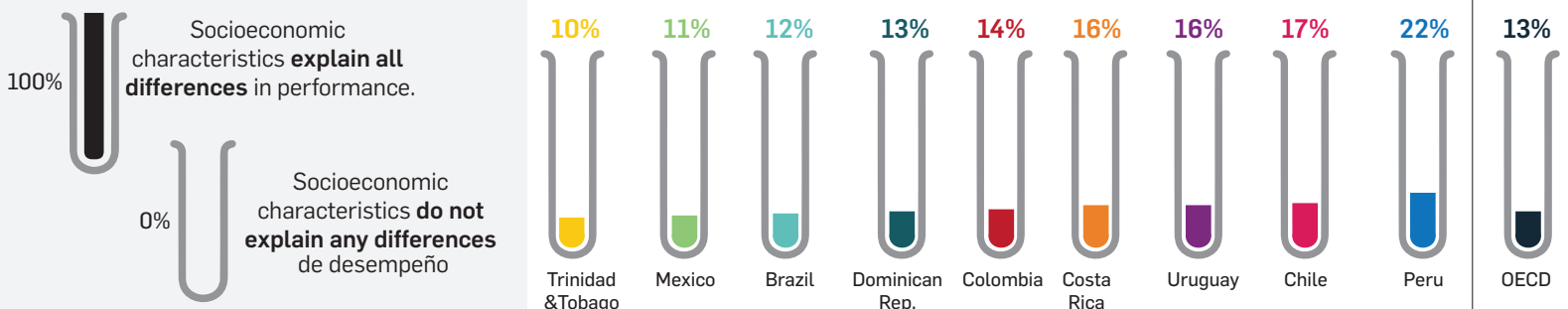
### Very few poor students in the region are resilient

- PISA considers resilient students to be those who, despite their socioeconomic status, perform well on the test.
- Resilient students achieve above-average results compared to their peers of similar socioeconomic status in all participating countries.
- Fifteen percent of poor students in Chile qualify as resilient. The percentage is lower in the rest of the region. There are practically no resilient students in the Dominican Republic, and only 3% of poor students in Peru classify as resilient.
- In the OECD, almost one in three poor students is resilient. In Asian countries such as Singapore, almost half (49%) of poor students are resilient.

### Poverty explains a high percentage of student performance in some countries in the region

- The higher the percentage of performance explained by students' socioeconomic characteristics, the less likely it is that poor students can achieve above-average results.
- Peru is the country where socioeconomic characteristics explain the highest percentage of student performance (22%), followed by Chile (17%). However, both countries have very inclusive school systems with very high percentages of 15-year-olds in their education systems, including poor children.
- In Mexico and Trinidad and Tobago, socioeconomic characteristics explain a lower percentage of performance (less than 11%). However, in Mexico, many 15-year-olds remain outside the school system, including many of the poorest children.

## PERCENTAGE OF PERFORMANCE EXPLAINED BY SOCIOECONOMIC CHARACTERISTICS, PISA 2015

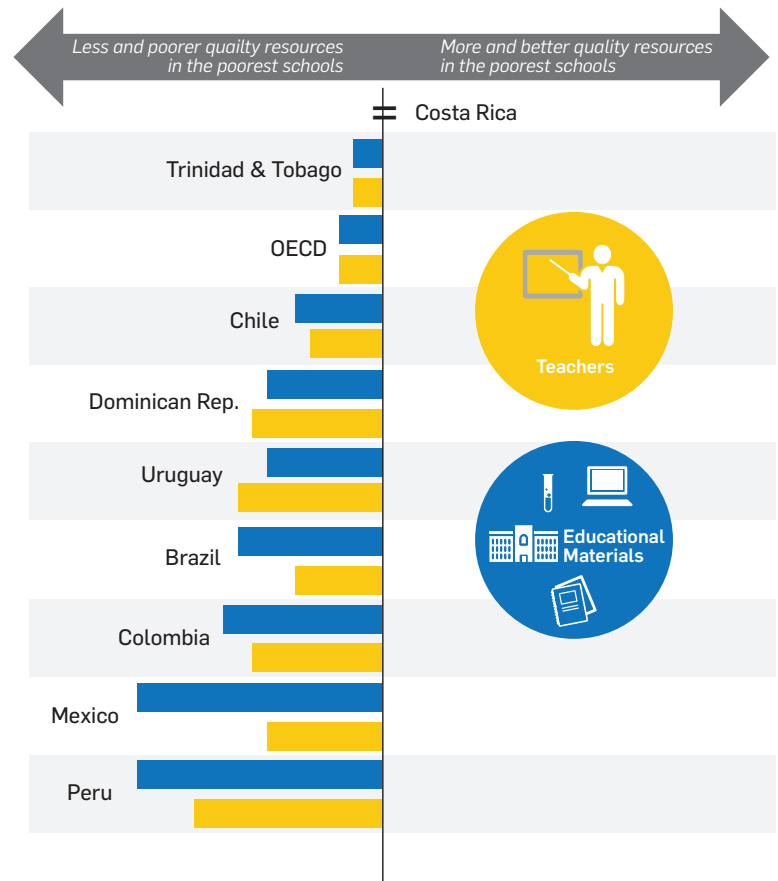


Source: OECD, PISA 2015, Vol I, Table I.6.3a

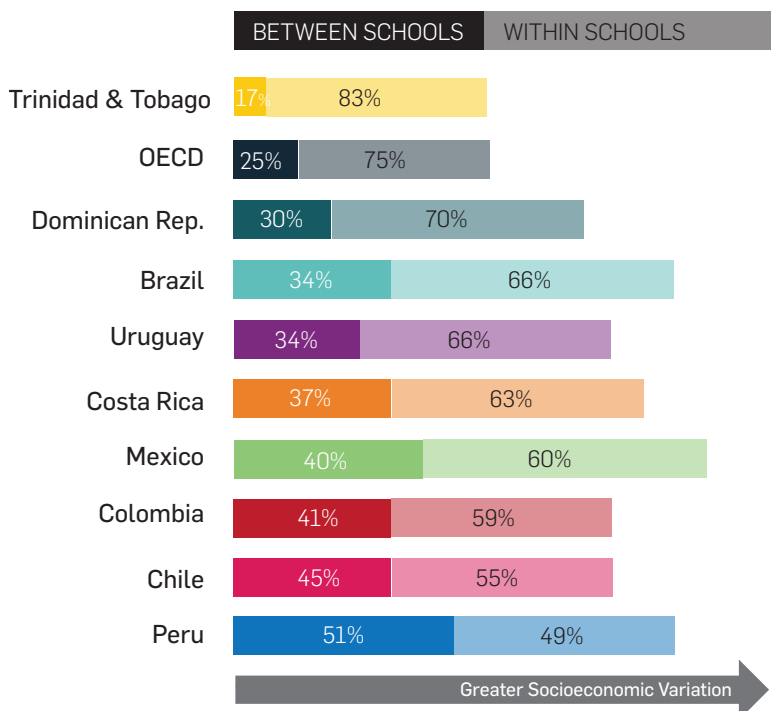
## Schools in the region are socioeconomically segregated

- There is greater socioeconomic variation among students in the region than in the OECD, as shown by the longer lengths of the bars in the chart below. This points to greater socioeconomic dispersion in the countries of the region than in the OECD.
- In turn, this socioeconomic variation is analyzed within and between schools. Lesser socioeconomic variation within the schools shows greater social segregation, where schools are no longer a meeting point for students from different socioeconomic backgrounds. In addition, greater variation between schools show segregation, where the socioeconomic composition of schools varies greatly.
- In the region, there is greater socioeconomic variation between schools than within them when compared to OECD countries. For example, in Peru, the variation between schools is 51%, while within them it is 49%. In the OECD, the variation between schools is 25% and within them is 75%. These two trends, taken together, show substantial segregation in the region's schools, with some schools having mostly wealthy students and others having mostly poor students.

## RESOURCES GAP BETWEEN POOR AND WEALTHY SCHOOLS, PISA 2015



## SOCIOECONOMIC VARIATION, PISA 2015



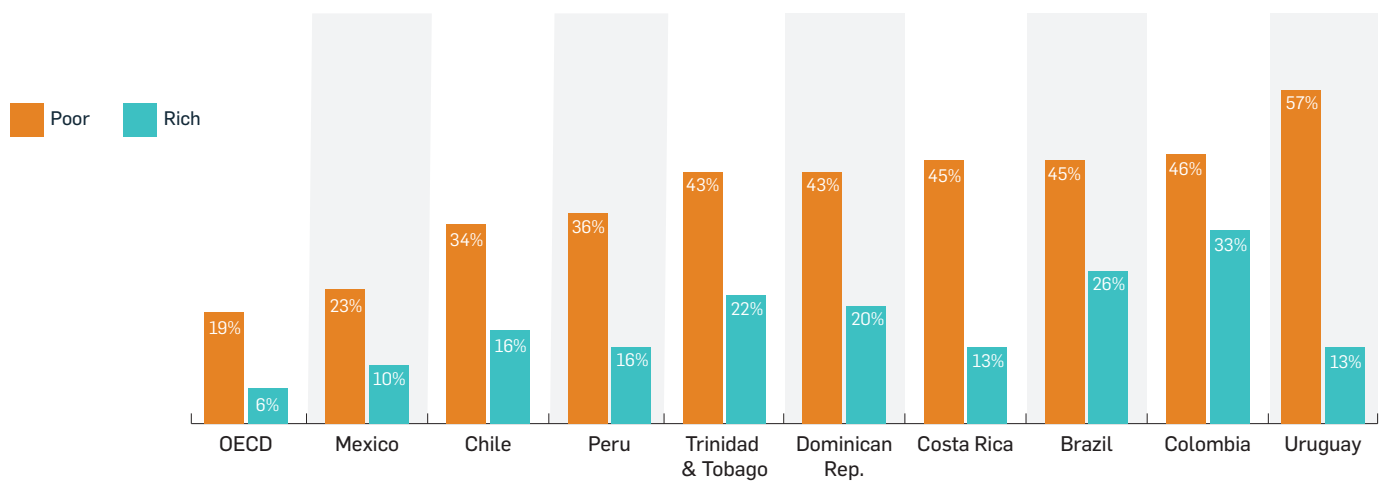
## Schools with poor students have fewer and lower-quality resources compared to schools with wealthy students

- The poorest schools in the region have fewer or lower-quality teachers and educational materials. It should be noted that educational policies aiming to improve educational equity seek to allocate more and better-quality resources to schools with poorer students.
- Among the countries in the region, the gap in material resources shows that principals in poor schools perceive, to a greater extent than their peers in wealthy schools, that the quantity and quality of educational resources impedes teaching. In the case of teachers, although the gap is smaller, principals in poor schools perceive, to a greater extent than their peers in wealthy schools, that the lack or low quality of their teachers impedes instruction.
- There are wide resource gaps between schools across the region, but this is particularly true in Peru. Costa Rica, on the other hand, does not see gaps in access to resources between schools of different socioeconomic levels.

## The likelihood of failing a grade is greater for poor students, even when their performance on PISA is similar to that of wealthy students

- In the OECD, 19% of poor students fail at least one grade, while only 6% of wealthy students do so.
- In Uruguay, 57% of poor students have failed a grade, while only 13% of the rich have done so. In Mexico, 23% of the poor and 10% of the rich have repeated at least one grade.
- Grade repetition among rich students is relatively high in Brazil (26%) and Colombia (33%). It is even higher among poor students, with approximately 45% failing at least one grade.
- Failing a grade is usually associated with poor performance, but these socioeconomic gaps show that these differences go beyond differences in skills.
- The probability that a poor student in the OECD will repeat a grade is four times (4.1) higher than that of a wealthy student doing the same.
- If we compare rich and poor students in the OECD with similar performance, the poor remain almost twice as likely (1.8) as the rich to fail a grade.
- The probability of a poor student failing a grade in Uruguay is almost nine times (8.8) higher than that of his or her wealthy peer. Even when testing for performance, the poorer student is almost four (3.8) times more likely than the rich student to fail.
- The same is true in Costa Rica (5.4 and 2.5), the Dominican Republic (3 and 1.5), Peru (3.9 and 1.3), and Trinidad and Tobago (2.3 and 1.3).

### GAPS IN GRADE REPETITION BETWEEN RICH AND POOR STUDENTS, PISA 2015



Country/Region	OECD	Mexico	Chile	Peru	Trinidad & Tobago	Dominican Rep.	Costa Rica	Brazil	Colombia	Uruguay
Increased likelihood of repeating a grade if a child is poor than if he or she is wealthy	4.1	2.9	2.6	3.9	2.3	3.0	5.4	2.2	1.7	8.8
Increased likelihood of repeating a grade if a child is poor than if he or she is wealthy, despite similar performance in PISA	1.8	=	=	1.3	1.3	1.5	2.5	=	=	3.8

Source: OECD, PISA 2015, Vol I, Table I.6.14

Web: [www.iadb.org/pisa](http://www.iadb.org/pisa) | [www.iadb.org/cima](http://www.iadb.org/cima)

Twitter: @BIDEducacion

Contact: [education@iadb.org](mailto:education@iadb.org)

References: OECD (2016). PISA 2015 Results Excellence and Equity in Education (Volume I).



Copyright © 2016 Banco Interamericano de Desarrollo. Esta obra está bajo una licencia Creative Commons IGO 3.0 Reconocimiento-NoComercial-SinObraDerivada (CC-IGO BY-NC-ND 3.0 IGO) (<http://creativecommons.org/licenses/by-nc-nd/3.0/igo/legalcode>) y puede ser reproducida para cualquier uso no comercial otorgando crédito al BID. No se permiten obras derivadas. Cualquier disputa relacionada con el uso de las obras del BID que no pueda resolverse amistosamente se someterá a arbitraje, de conformidad con las reglas de la CNUDMI.

El uso del nombre del BID para cualquier fin que no sea para la atribución y el uso del logotipo del BID estará sujeto a un acuerdo de licencia por separado y no está autorizado como parte de esta CC-IGO licencia. Notar que el enlace URL incluye términos y condiciones adicionales de esta licencia.

Las opiniones expresadas en esta publicación son de los autores y no reflejan necesariamente el punto de vista del Banco Interamericano de Desarrollo, de su Directorio Ejecutivo ni de los países que representa.