

Are Latin American Children's Reading Skills Improving?

Highlights from the Second and Third Regional Comparative and Explanatory Studies
(SERCE & TERCE)



USAID
FROM THE AMERICAN PEOPLE

LAC Reads Capacity Program

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We would also like to thank the Latin American Laboratory for the Assessment of the Quality of Education (LLECE), at the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) Regional Bureau for Education in Latin America and the Caribbean (OREALC), for making publicly available the results from the Second and Third Regional Comparative and Explanatory Studies (SERCE and TERCE). The first results from TERCE can be accessed at: <http://www.unesco.org/new/en/santiago/terce-study/>.

Preface

The USAID LAC Reads Capacity Project (LRCP), implemented by the American Institutes for Research (AIR), Juárez and Associates (J&A), and partners, works to increase the impact, scale, and sustainability of early grade reading interventions in the LAC region through the development of state-of-the-art knowledge resources and the provision of technical assistance to host country governments and other stakeholders, to enhance efforts to improve early grade reading outcomes, particularly for disadvantaged children.

Working in collaboration with USAID's bilateral missions, with governments, and with key stakeholders, the program facilitates understanding and application of evidence-based, context appropriate approaches to improving early grade reading. The LRCP's priority countries include the Dominican Republic, Guatemala, Haiti, Honduras, Jamaica, Peru, and Nicaragua, as well as several Eastern Caribbean states.

As part of this effort, we present the following summary of highlights from the TERCE reading results as an input to and stimulus for discussions of early grade reading in the region, and to demonstrate the ever more urgent need to improve reading outcomes in the early grades. The recent results across the region, particularly in the lower grades and in the LRCP priority countries generally, paint a disheartening picture in which the majority of children are not reaching satisfactory levels of achievement in this fundamental skill which serves as the foundation of future learning.

The results underline the need for the prioritization of and commitment to understanding and implementing effective strategies for early grade reading to ensure better opportunities and a brighter future for the region's children.

What are SERCE and TERCE?

SERCE and TERCE are the first two regional assessments of student achievement that are comparable over time. The Second Regional Comparative and Explanatory Study (SERCE) was conducted in 2006 and the Third Regional Comparative and Explanatory Study (TERCE) in 2013. The First Regional Comparative and Explanatory Study (PERCE), conducted in 1997, is not comparable to SERCE or TERCE.

Both assessments were conducted by a regional network of national educational evaluation units. This network is known as the Latin American Laboratory for the Assessment of the Quality of Education (LLECE). It is based at the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) Regional Bureau for Education in Latin America and the Caribbean (OREALC).

SERCE and TERCE evaluated third and sixth graders in math, reading, and science. Third graders were assessed in math and reading, and sixth graders were assessed in these two subjects and science.

Fifteen countries participated in both assessments, but not all of them evaluated all subjects. Argentina, Colombia, Dominican Republic, Panama, Paraguay, Peru, Uruguay, and the Mexican State of Nuevo Leon assessed math, reading, and science in 2006 and 2013. Brazil, Chile, Costa Rica, Ecuador, Guatemala, Mexico, and Nicaragua only assessed third and sixth graders in math and reading in 2006 and 2013. Cuba and El Salvador only participated in SERCE and Honduras only in TERCE.

Technical note

A country's performance on SERCE and TERCE is expressed in "points," with 500 points as the mean and 100 points as the standard deviation. The TERCE results released in December 2014 were scaled to be comparable to those of SERCE. However, in April 2015, the TERCE results will be rescaled. These results will not be comparable with SERCE.

Students' performance on SERCE and TERCE is expressed in four "performance levels." These levels range from 1 (lowest) to 4 (highest). There is also a fifth level (below level 1) for students who could not answer the easiest questions in the assessment.

Students at or below level 1 fail to reach minimally acceptable levels of learning and students at level 4 excel.

This report focuses on reading in third and sixth grade, but SERCE and TERCE results also assessed math and science. The focus on reading in this report is to align with the programmatic priorities of the USAID LAC Reads Capacity Program, which commissioned the report. Those interested in the math and science results should consult the official LLECE reports.

Not all differences over time are statistically significant. Whenever LLECE reported whether differences are statistically significant (as opposed to occurring by chance), we have distinguished these differences from those that are indistinguishable from zero. However, for some indicators, this information has not yet been reported. Whenever this is the case, it is specified in the notes below each graph.

How did countries rank?

How did countries rank?

Chile was the best-performing system in reading, outperforming all other systems. However, it performed far below Cuba's reading levels in 2006.

Costa Rica and Uruguay consistently ranked among the best. They were among the top five countries in both subjects and grades. Mexico was also among the top five, except in third grade reading.

Brazil, Mexico, and Colombia performed above the regional average. They ranked above the regional average in reading in both grades.

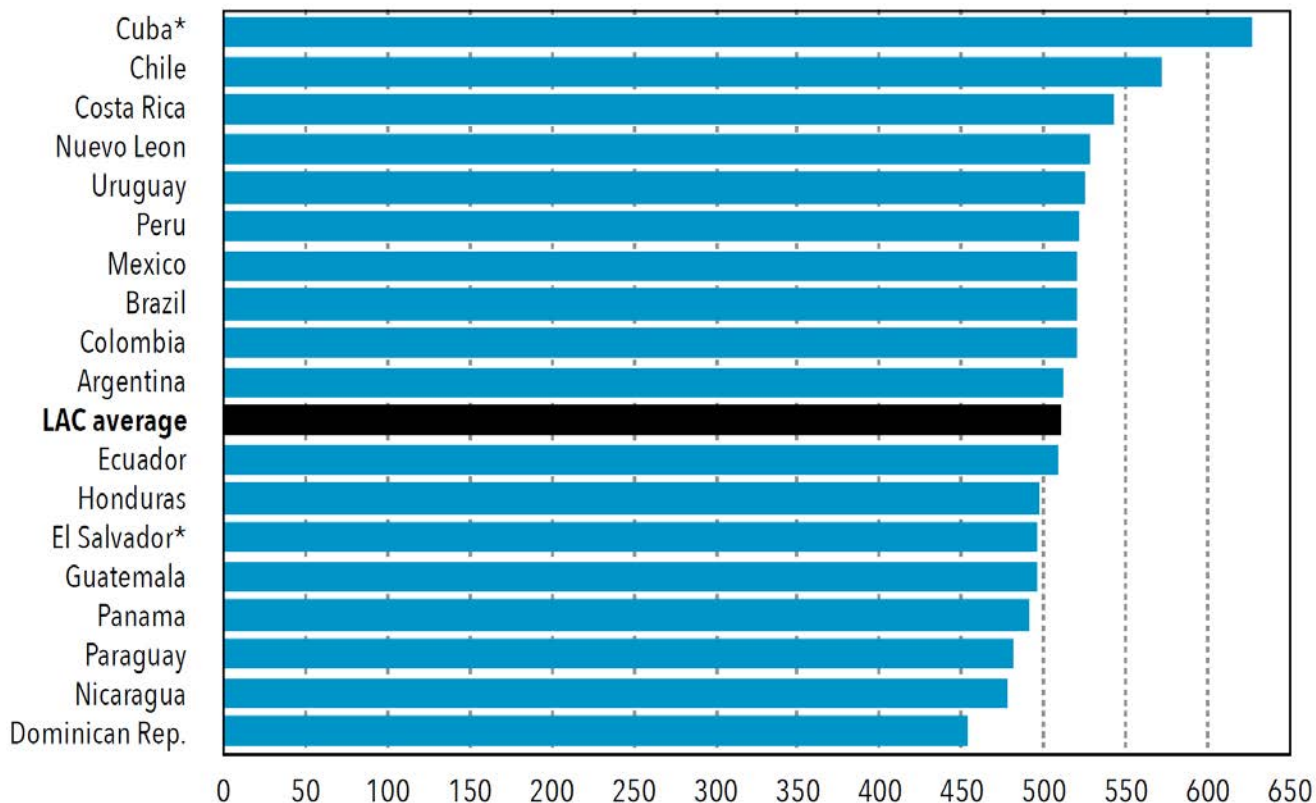
Argentina, Ecuador, and Peru performed close to the regional average. They consistently ranked slightly above or below the region as a whole in reading in both grades.

The Dominican Republic was the lowest-performing country in reading. In third grade, it lagged most other countries by a wide margin. It also had the lowest sixth grade performance.

The rest of Central America performed below the regional average. Guatemala, Honduras, Nicaragua, and Panama performed below the regional average in reading and math in both grades. The same was true for Paraguay.

The Dominican Republic was the lowest performer in third grade reading in 2013.

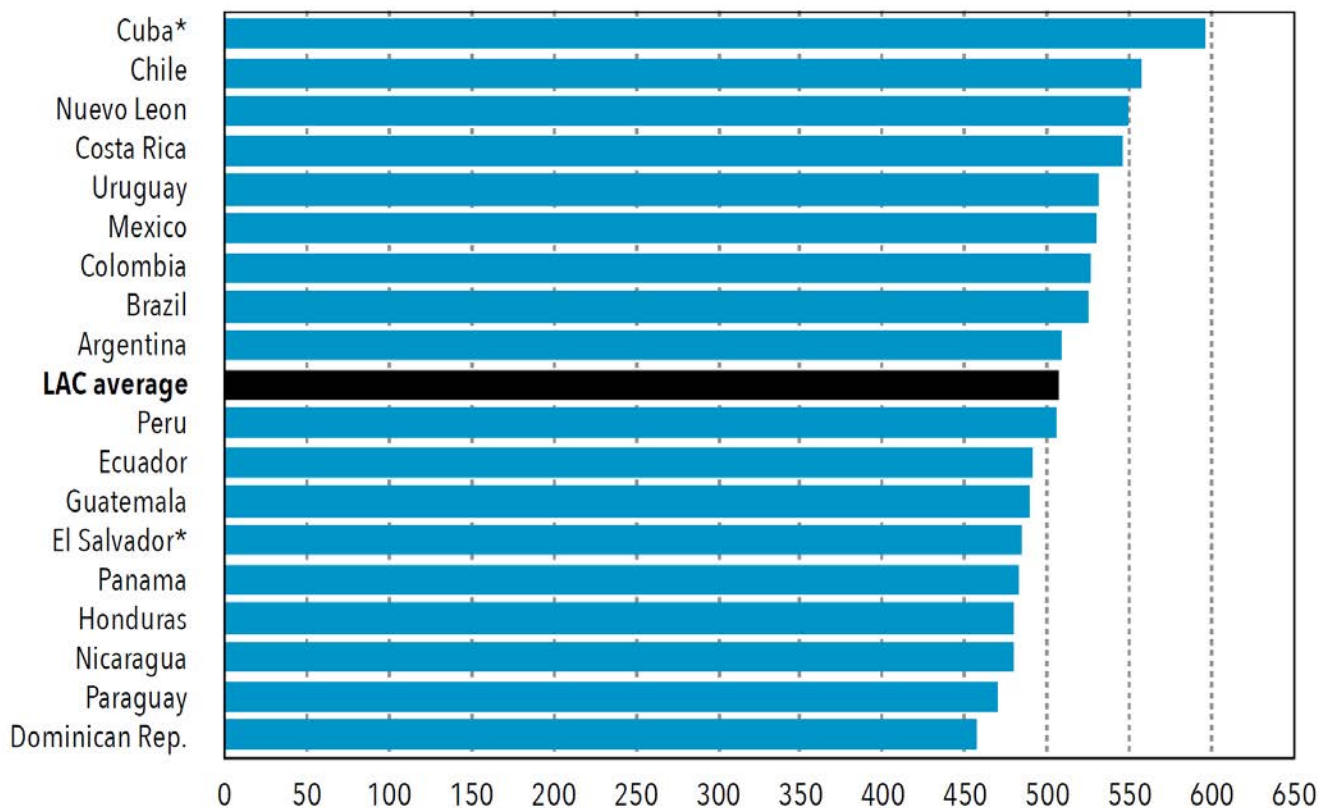
Figure 1. Mean scores in third grade reading, 2013



Source: LLECE (2008). SERCE, p. 193 and LLECE (2014). TERCE, p. 33. **Notes:** (1) Not all differences between countries are statistically significant. (2) The mean score for the region includes all countries except for Cuba, El Salvador, and Honduras with equal weights. (3) Cuba's and El Salvador's scores are from 2006.

Chile, Costa Rica, and the Mexican state of Nuevo Leon were among the top performers in sixth grade reading.

Figure 2. Mean scores in sixth grade reading, 2013



Source: LLECE (2008). SERCE, p. 194 and LLECE (2014). TERCE, p. 39. **Notes:** (1) Not all differences between countries are statistically significant. (2) The mean score for the region includes all countries except for Cuba, El Salvador, and Honduras with equal weights. (3) Cuba's and El Salvador's scores are from 2006.

**How has performance
changed over time?**

How has performance changed over time?

The Dominican Republic, although still the lowest performer in reading in both grades, improved considerably over time. The Dominican Republic demonstrated the most improvement in third grade reading and it was one of the most improved systems in 6th grade reading.

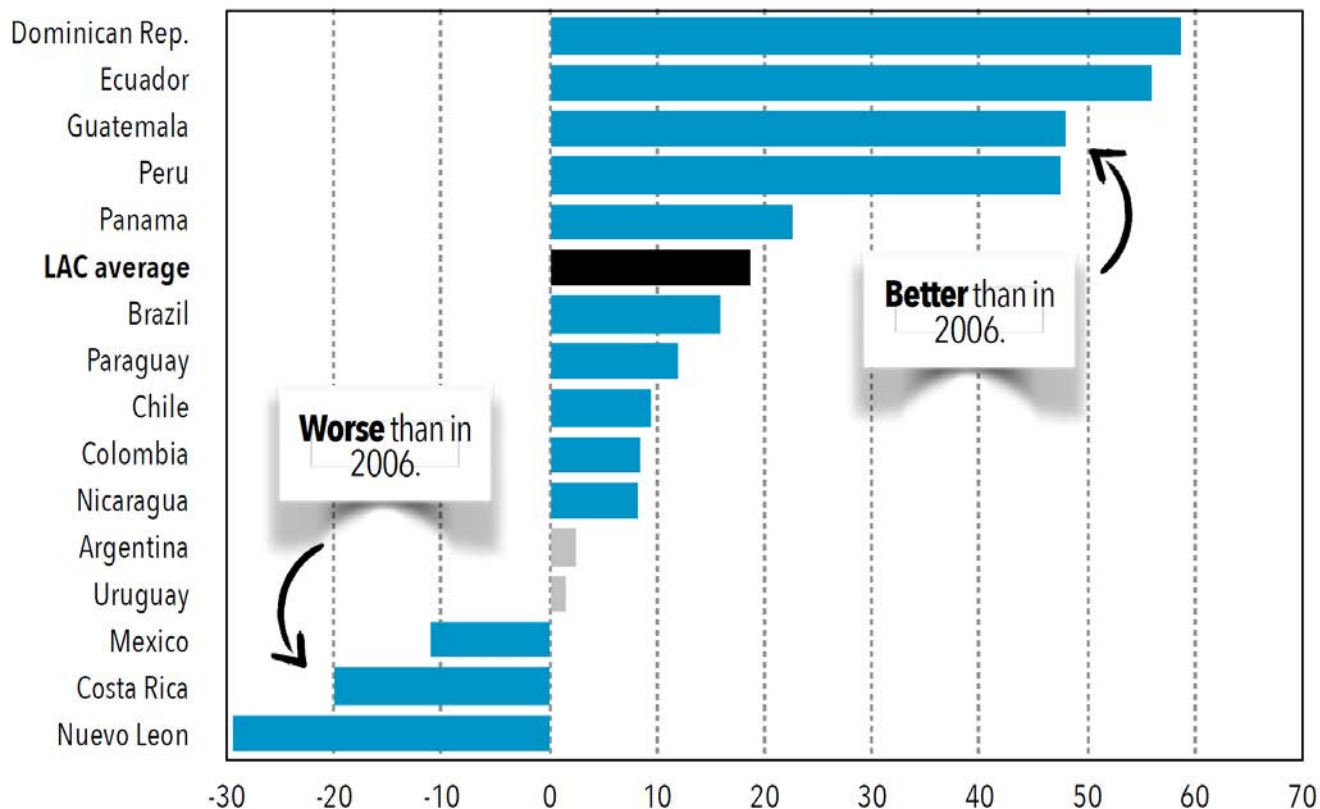
Guatemala, a below average performer in reading, was also one of the most improved school systems. It was among the top three most improved systems in both grades.

Several low-performing countries saw much smaller improvements. Nicaragua and Paraguay performed similarly to the Dominican Republic, but showed much less improvement over time in both grades.

Costa Rica was the only country in which performance in reading has decreased in both grades over time. Its score in third and sixth grade reading was significantly lower in 2006 than it had been in 2013. Few other school systems performed worse in reading performance since 2006. Mexico and the state of Nuevo Leon both performed worse in third grade reading.

The Dominican Republic and Ecuador improved the most in third grade reading since 2006.

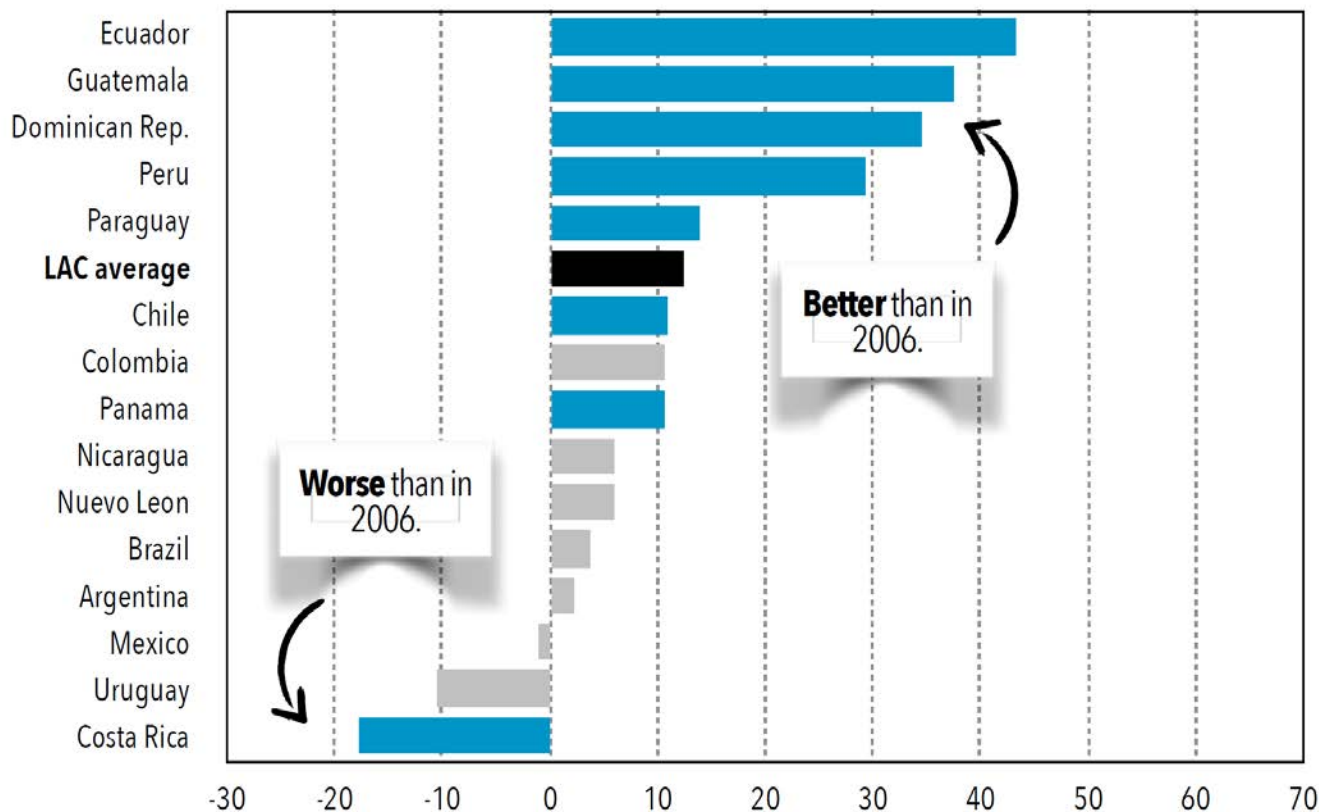
Figure 3. Change in mean scores in third grade reading, 2006-2013



Source: LLECE (2014). TERCE, p. 33. **Notes:** (1) Only changes shown in blue or black are statistically significant. (2) Honduras did not participate in 2006 and Cuba did not participate in 2013, so they were excluded from this graph. (3) The mean score for the region includes all countries in this graph with equal weights.

Costa Rica was the only country in the region that performed worse in sixth grade reading in 2013 than in 2006.

Figure 4. Change in mean scores in sixth grade reading, 2006-2013



Source: LLECE (2014). TERCE, p. 39. **Notes:** (1) Only changes shown in blue or black are statistically significant. (2) Honduras did not participate in 2006 and Cuba did not participate in 2013, so they were excluded from this graph. (3) The mean score for the region includes all countries in this graph with equal weights.

**How many students
underperform?**

How many students underperform?

Many students in the region did not reach minimum learning levels. In the average Latin American country, almost 25% of third graders and over 15% of sixth graders performed in the lowest levels of the reading test.

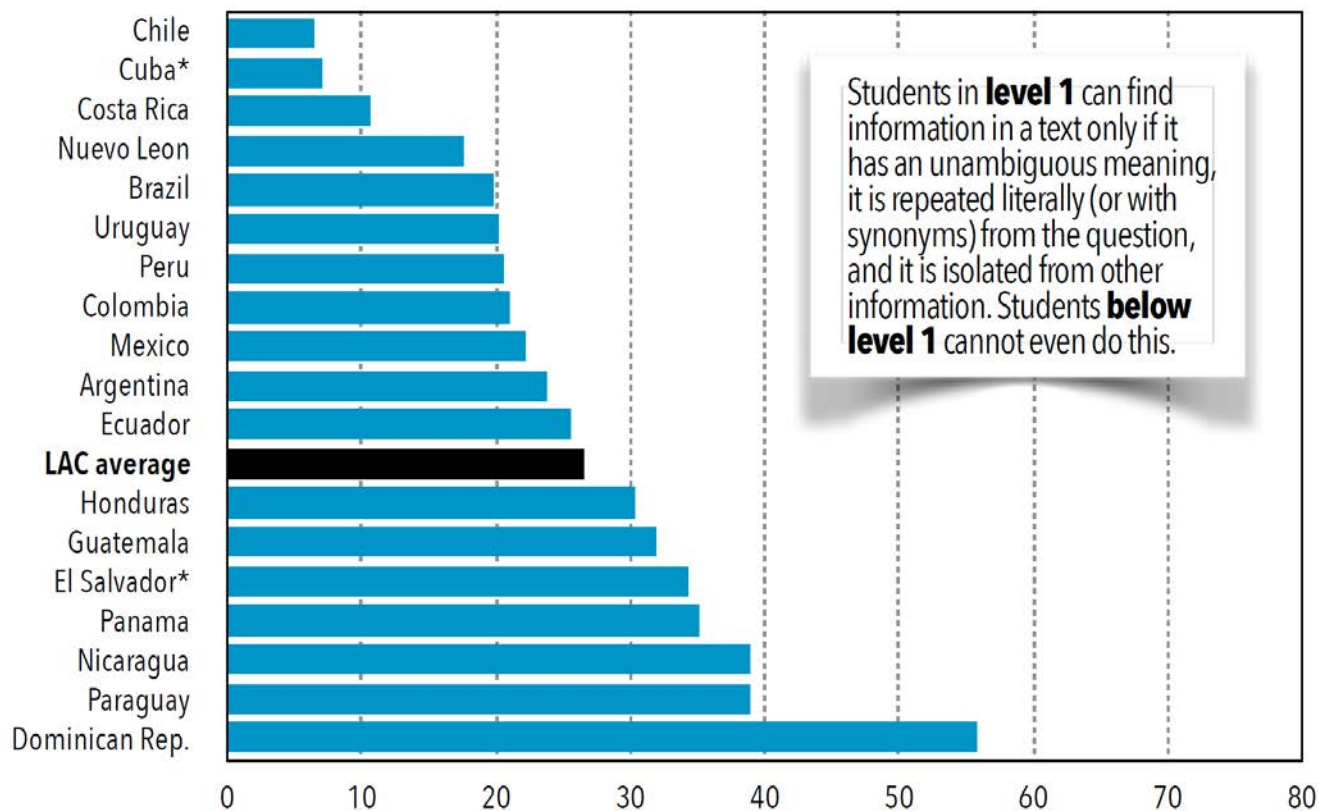
Chile and Costa Rica had similar shares of under-performers as Cuba. Although these countries had a lower mean performance in 2013 than Cuba in 2006, they had similar percentages of students in the lower levels of performance in all subjects and grades.

The Dominican Republic had the largest shares of low performers in both grades. More than 55% of third graders and over 35% of sixth graders performed in the lowest levels in reading.

The rest of Central America had a very large share of under-performers. Guatemala, Honduras, Nicaragua, and Panama had greater shares of under-performers than the average Latin American country.

1 in 4 Latin American third graders performed in the lowest levels of the reading test.

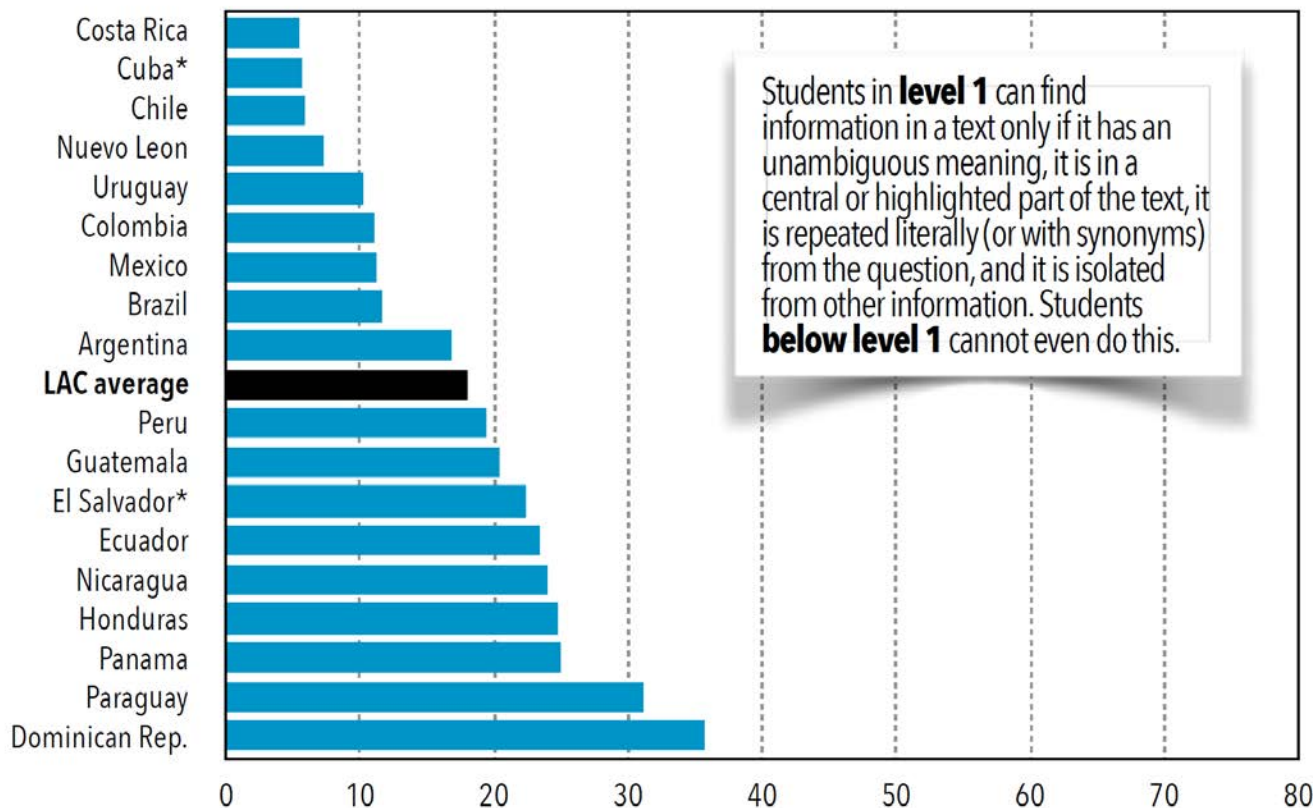
Figure 5. Percentage of students in lowest levels in third grade reading, 2013



Source: LLECE (2008) SERCE, p. 194 and LLECE (2014). TERCE, p. 35. **Notes:** (1) Lowest levels include level 1 and below. (2) The mean score for the region includes all countries except for Cuba, El Salvador, and Honduras with equal weights. (3) Cuba's and El Salvador's scores are from 2006. (4) For a description of what students know and can do at each performance level, see LLECE (2014). TERCE, p. 28.

More than 35% of sixth graders in the Dominican Republic performed in the lowest levels of the reading test.

Figure 6. Percentage of students in lowest levels in sixth grade reading, 2013



Source: LLECE (2008) SERCE, p. 195 and LLECE (2014). TERCE, p. 41. **Notes:** (1) Lowest levels include level 1 and below. (2) The mean score for the region includes all countries except for Cuba, El Salvador, and Honduras with equal weights. (3) Cuba's and El Salvador's scores are from 2006. (4) For a description of what students know and can do at each performance level, see LLECE (2014). TERCE, p. 30.

**How has the share of
under-performers
changed over time?**

How has the share of under-performers changed over time?

Ecuador considerably reduced its share of low performers. It ranked among the top three countries that reduced the share of students performing at the lowest levels in reading in both grades from 2006 to 2013.

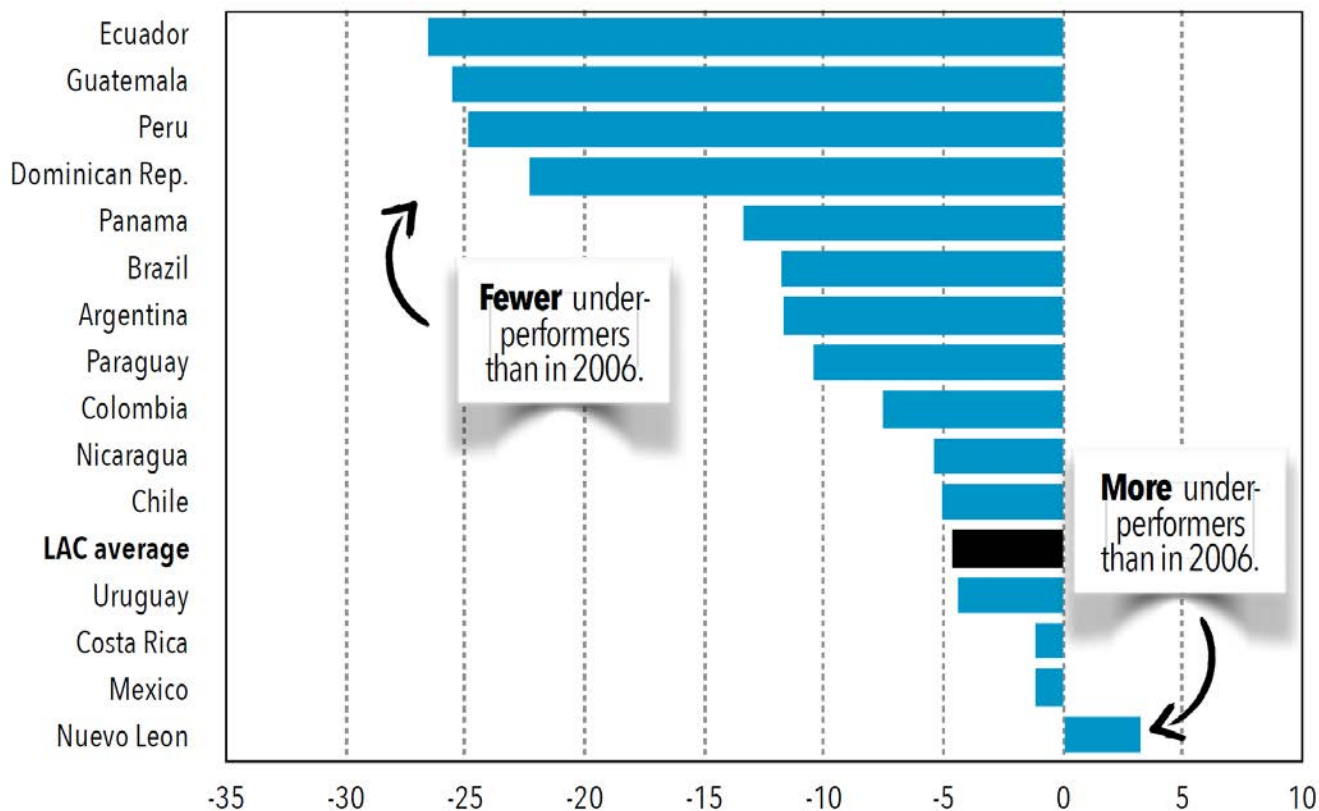
The Dominican Republic, Guatemala, and Peru also saw large reductions in their shares of under-performers. They reduced the share of students at the lowest levels in reading in both grades.

The percentages of low performers in Costa Rica, Uruguay, and Mexico were almost unchanged. These relatively high-performing countries saw small changes in the share of low performers in both subjects and grades, and it is not clear whether these changes that did occur were statistically significant.

No country considerably increased its share of under-performers. A few systems, such as Nicaragua and the Mexican state of Nuevo Leon, saw small increases in the share of low performers in some subjects and grades. However, it is not clear whether these increases were statistically significant.

Ecuador, Guatemala, Peru, and the Dominican Republic saw the largest reductions in their shares of low performers in third grade reading.

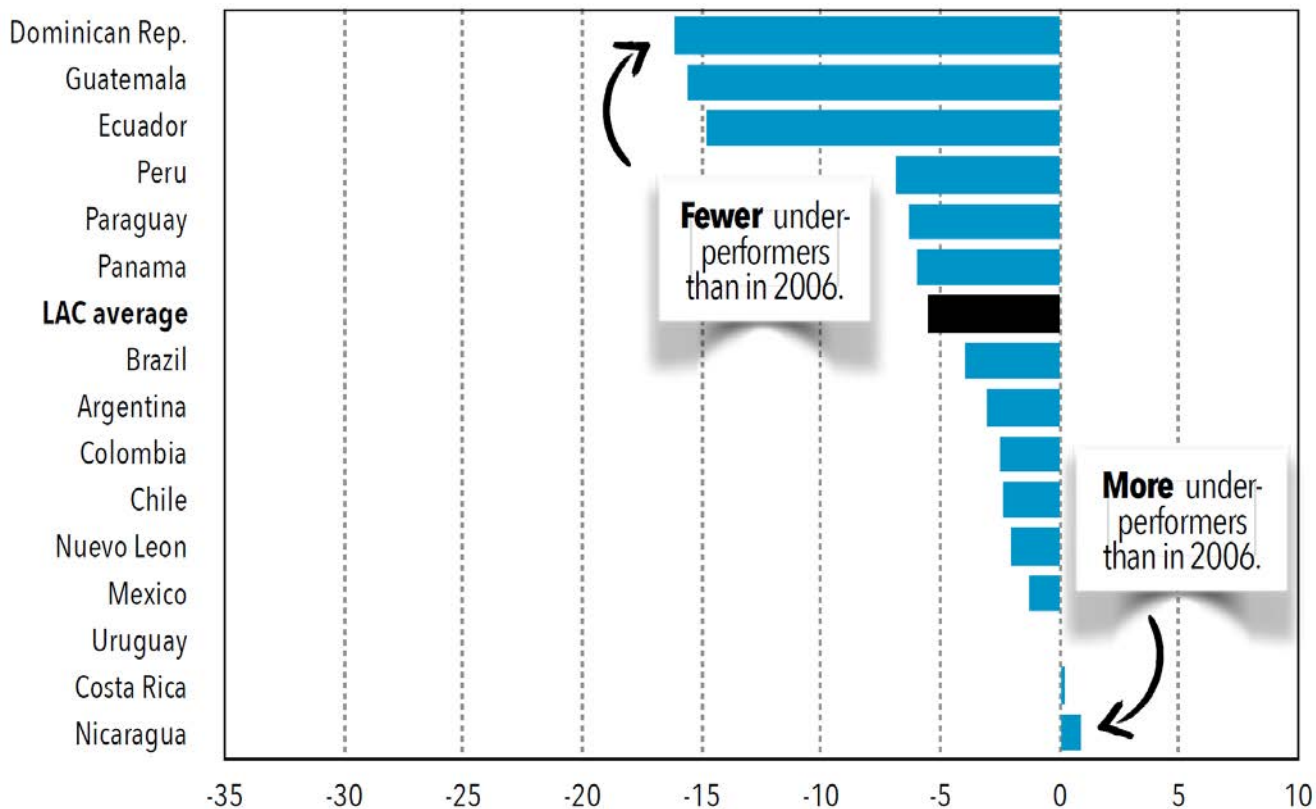
Figure 7. Change in percentage of students in lowest levels in third grade reading, 2006-2013



Source: LLECE (2014). TERCE, pp. 34-35. **Notes:** (1) Not all the differences between 2006 and 2013 are statistically significant. (2) Honduras did not participate in 2006 and Cuba did not participate in 2013, so they were excluded from this graph. (3) The mean change for the region includes all countries in this graph with equal weights.

The Dominican Republic, Guatemala, Ecuador, and Peru reduced their shares of low performers in sixth grade reading since 2006.

Figure 8. Change in percentage of students in lowest levels in sixth grade reading, 2006-2013



Source: LLECE (2014). TERCE, pp. 40-41. **Notes:** (1) Not all the differences between 2006 and 2013 are statistically significant. (2) Honduras did not participate in 2006 and Cuba did not participate in 2013, so they were excluded from this graph. (3) The mean change for the region includes all countries in this graph with equal weights.

How many students excel?

How many students excel?

Very few Latin American students excelled. In the average Latin American country, less than 5% of third graders and about 15% of sixth graders performed in the highest levels in reading.

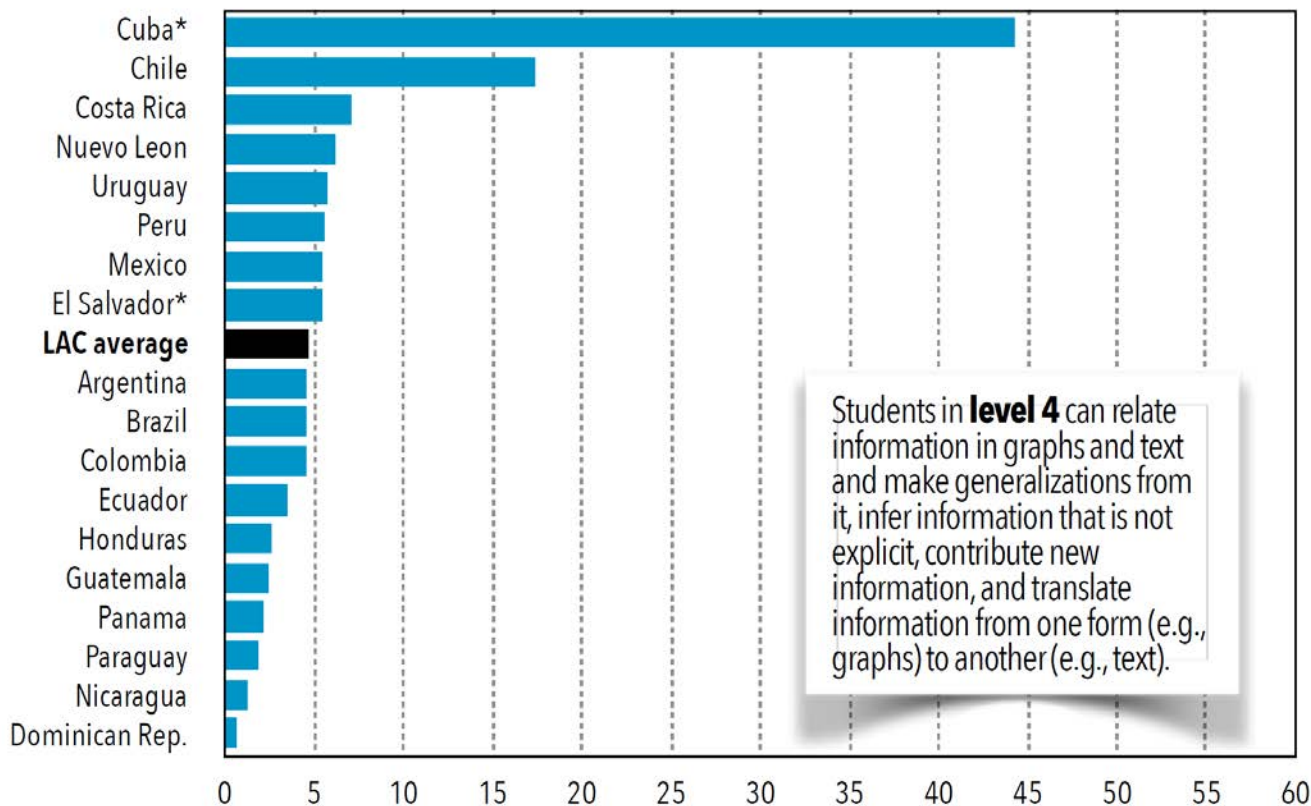
Chile had the largest share of top performers in the region in reading. More than 15% of third graders and 35% of sixth graders performed at the top level. Yet, Chile's shares of top performers in 2013 were far below Cuba's in 2006.

The share of top performers in most of Central America was worrisome. In the Dominican Republic, Guatemala, Honduras, Nicaragua, and Panama, the share of top performers is below 10% for all subjects and grades. This was also the case in Paraguay.

The Dominican Republic had the lowest share of top performers. Its share of top performers was below 5% in reading in both grades.

Chile had a much lower share of top performers in third grade reading in 2013 than Cuba in 2006.

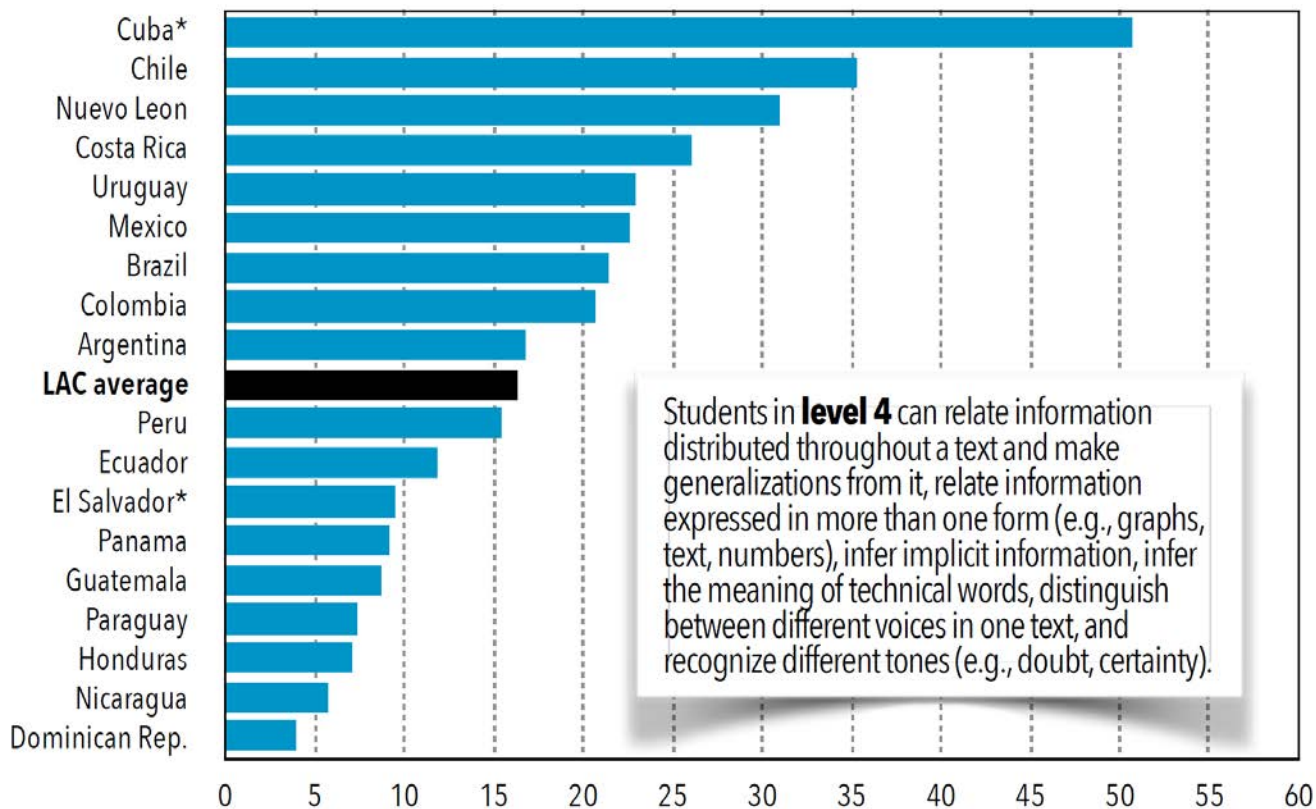
Figure 9. Percentage of students in highest level in third grade reading, 2013



Source: LLECE (2008) SERCE, p. 194 and LLECE (2014). TERCE, p. 35. **Notes:** (1) Lowest levels include level 1 and below. (2) The mean score for the region includes all countries except for Cuba, El Salvador, and Honduras with equal weights. (3) Cuba's and El Salvador's scores are from 2006. (4) For a description of what students know and can do at each performance level, see LLECE (2014). TERCE, p. 28.

More than a fourth of sixth graders performed in the highest level in reading in Chile, Costa Rica, and the Mexican state of Nuevo Leon.

Figure 10. Percentage of students in highest level in sixth grade reading, 2013



Source: LLECE (2008) SERCE, p. 195 and LLECE (2014). TERCE, p. 41. **Notes:** (1) Lowest levels include level 1 and below. (2) The mean score for the region includes all countries except for Cuba, El Salvador, and Honduras with equal weights. (3) Cuba's and El Salvador's scores are from 2006. (4) For a description of what students know and can do at each performance level, see LLECE (2014). TERCE, p. 30.

**How has the share of
top performers changed
over time?**

How has the share of top performers changed over time?

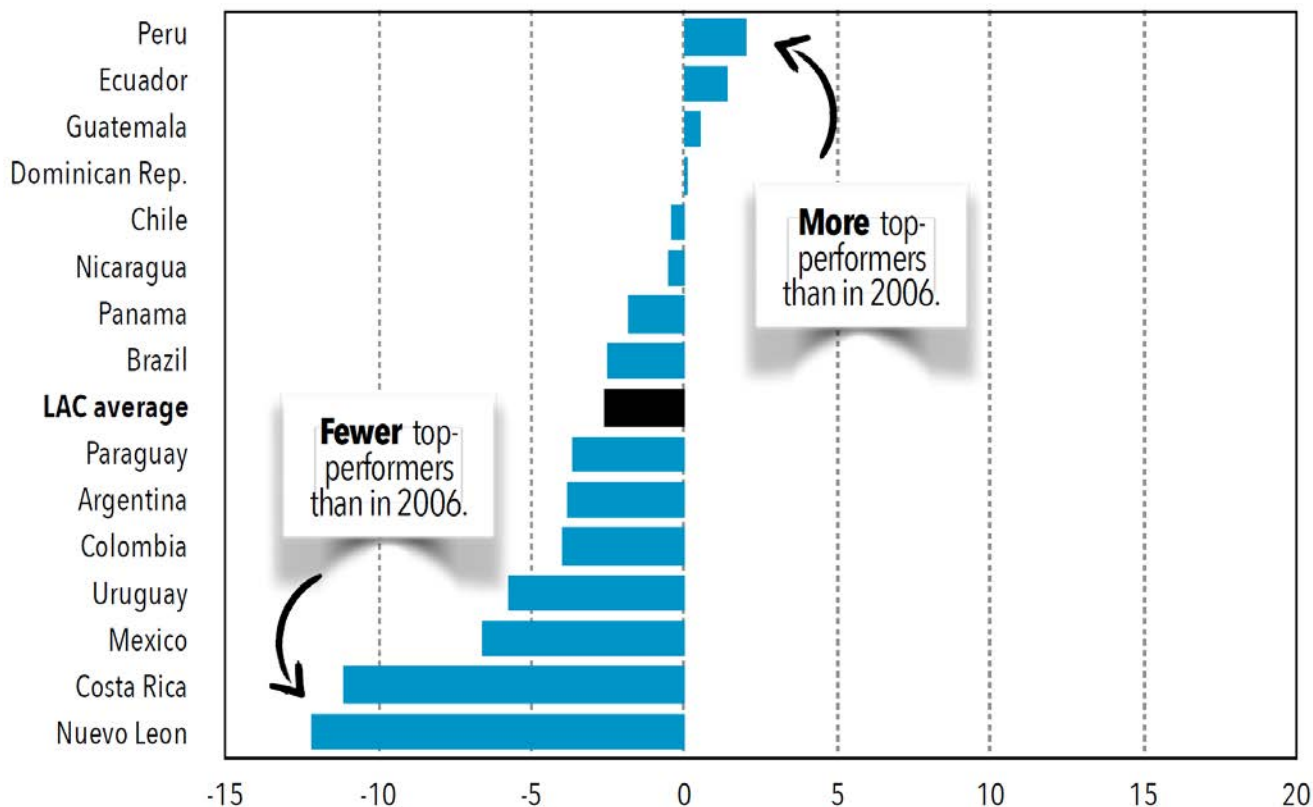
The region saw few changes in its share of top performers. In the average Latin American country, the share of top performers did not increase or diminish by more than 5% in any subject or grade.

A few countries increased their shares of top performers in reading in both grades. Only Ecuador, Guatemala, the Dominican Republic, and Peru had higher shares of top performers in reading in 2013 than in 2006 in both grades. Yet, it is not clear whether these differences were statistically significant.

Particularly in third grade reading, most countries saw a decrease in their shares of top performers. Ten countries and the Mexican state of Nuevo Leon had smaller shares of top performers in third grade in 2013, although these differences may not be statistically significant.

Most countries had lower shares of top performers in third grade reading in 2013 than in 2006.

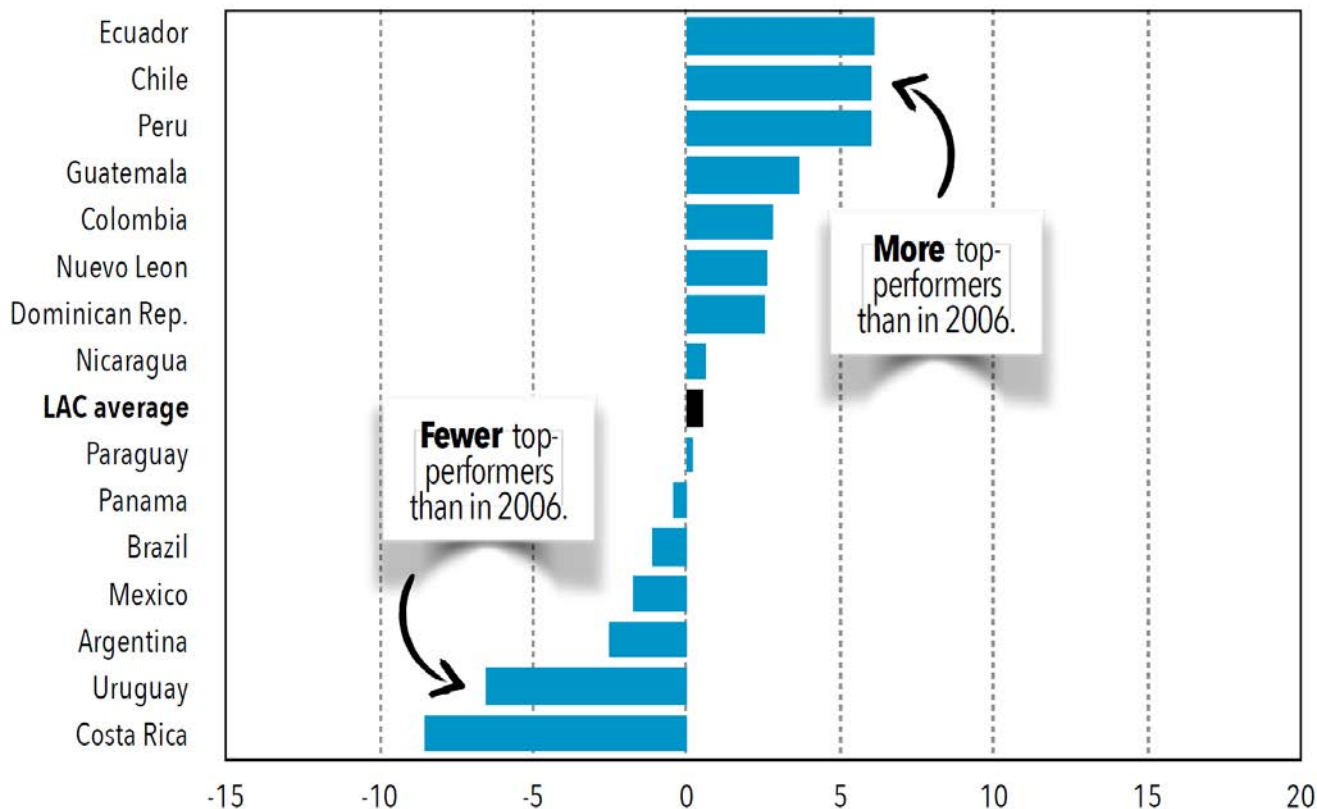
Figure 11. Change in percentage of students in highest level in third grade reading, 2006-2013



Source: LLECE (2014). TERCE, pp. 34-35. **Notes:** (1) Not all the differences between 2006 and 2013 are statistically significant. (2) Honduras did not participate in 2006 and Cuba did not participate in 2013, so they were excluded from this graph. (3) The mean change for the region includes all countries in this graph with equal weights.

Several countries saw small increases in their shares of top performers in sixth grade reading.

Figure 12. Change in percentage of students in highest level in sixth grade reading, 2006-2013



Source: LLECE (2014). TERCE, pp. 40-41. **Notes:** (1) Not all the differences between 2006 and 2013 are statistically significant. (2) Honduras did not participate in 2006 and Cuba did not participate in 2013, so they were excluded from this graph. (3) The mean change for the region includes all countries in this graph with equal weights.

About the program

The USAID LAC Reads Capacity Program (2014-2019), implemented by AIR, Juárez and Associates, and partners, increases the impact, scale, and sustainability of early grade reading (EGR) interventions in the LAC region. The program is implemented through four main results:

Result 1: Evidence on EGR practices and outcomes is collected, consolidated, and systematized for practical use by stakeholders in the LAC region.

Result 2: Dissemination of up-to-date knowledge about EGR practices is targeted to diverse audiences and stakeholders.

Result 3: Capacity is strengthened at institutions so they can more widely implement proven approaches to improve EGR outcomes for poor and disadvantaged children.

Result 4: Sustainability platforms are in place to continue and strengthen EGR interventions in countries in the LAC region.

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