

Education has been hailed in Peru and internationally as a key institution for economic growth and personal development. While Peru has achieved great advances in terms of access and enrolment, there are many challenges associated with achieving high levels of 'learning for all'. Overall, the Young Lives data show that children in the Younger Cohort (age 12 in 2013) are achieving better results than the Older Cohort children at the same age (in 2006). However, children from indigenous families, who were born in rural areas, are relatively poor, or whose mothers did not complete primary education tend to have poorer learning outcomes, even before they start primary school. Many of these children attend public schools in rural areas which are less well equipped than schools in urban areas. Reversing this situation requires early investments in children and their schools, so that they are better prepared to start formal education and can progress as expected, as well as sustained investments throughout their education.

## Introduction

Education has been declared to be a national priority by many of Peru's presidents over the past few decades. How much has been accomplished over this period is an interesting issue that we explore in this fact sheet, using longitudinal data from Young Lives. We focus on Round 4 data from the Younger Cohort of children (born in 2001-02) who were between 11 and 12 years in 2013, but will also present information about the Older Cohort (born in 1994-95), who were around 12 years of age during Round 2 (carried out in 2006).<sup>1</sup>

This fact sheet presents information on enrolment and over-age for grade, as well as on achievement levels, given that the focus on education in international debates has shifted recently from a focus on coverage alone to coverage *and* learning. We also present data on outcomes for children from different backgrounds in order to explore the issue of inequality, which has been a major concern in Peru, expressed in the General Education Law of 2003 and the National Education Project, issued by the National Education Council and adopted by the Peruvian State. Both Young Lives and data from other studies have shown repeatedly that poorer, indigenous,<sup>2</sup> and rural students tend to have fewer educational opportunities and poorer learning outcomes. Furthermore, children tend to be segregated into different types of schools which provide different resources and facilities to their students: private schools, public schools in urban areas (mostly for Spanish-speakers) and public schools in rural areas (with more indigenous children).

## Key findings

- Almost all children within the Young Lives sample (99%) are enrolled in school at age 12, but almost a third of them are over-age for the grade they are attending.
- There is little difference between the number of boys who are behind in their schooling (30%) or girls (31%), but half of children from the poorest households or those whose mothers had little education are over-age for their grade.
- The Younger Cohort children had a larger vocabulary at age 12 and on average scored almost 4 percentage points higher in tests than the Older Cohort at age 12. The fact that children in Peru are now achieving at higher levels is supported by national evaluations and international tests.
- We found large differences in vocabulary test scores between children at private schools (who scored 79%), urban public schools (70%) and rural schools (57%). Children from disadvantaged groups did significantly worse than children from better-off families (who scored on average 77%). Children from the poorest households scored much lower (60% on average), as well as children whose mothers had less than primary education (59%) or whose mothers spoke an indigenous language (60%).
- Our longitudinal analysis allows us to see that these gaps were already quite significant by the age of 5, just before they started primary school, when children in urban areas scored 28% compared with 13% in rural areas, and children from Spanish-speaking mothers scored 26% compared with children from indigenous mothers who scored 16%.

<sup>1</sup> The sample was randomly chosen and the richest 5% districts of Peru were excluded. See the accompanying fact sheet on Survey Design and Sampling for further details.

<sup>2</sup> We have used the first language of the child's mother as a proxy measure of ethnicity, although we acknowledge this is not a comprehensive indicator.

## School enrolment and over-age

Increased enrolment in basic education is perhaps the greatest achievement of the Peruvian education system in recent decades. For our Younger Cohort, at the age of 12 in 2013, coverage was above 99%, and coverage had been only slightly lower for the Older Cohort in 2006.

From the perspective of education planners and policymakers, the challenges now occur at other ages and levels, particularly pre-school and post-secondary education (although access to both is increasing). Beyond school enrolment however, the question remains: *how much have children learned at school?*

One way to explore this issue is to look at the number of children who are over-age for grade (i.e. below the grade that might be expected if they had progressed smoothly through each year of school). In Peru, children usually start school in Grade 1 by age 6, and progress one grade per year until they have completed 11 grades of primary and secondary education. Any delay in this progress (mostly due to repeating a grade) would lead to over-age.

Table 1 shows clearly that there are large gaps between different groups of children, linked to maternal education, household poverty and type of school attended, as well as for area of residence and ethnicity. The gaps between

**Table 1. Over-age children in school (%)**

	Older Cohort	Younger Cohort	
	Age 12 in R2 (2006)	Age 8 in R3 (2009)	Age 12 in R4 (2013)
<b>Average of full sample</b>	44.4	12.3	30.5
<b>Gender</b>			
Boys	42.5	11.7	29.5
Girls	46.5	12.9	31.4
Gap (%)	-4.0	-1.2	-1.9
<b>Area of residence (in Round 1)</b>			
Urban	38.6	8.8	21.6
Rural	51.7	18.1	45.2
Gap (%)	-13.1**	-9.3***	-23.6***
<b>Household wealth (real household expenditure per capita from R2)</b>			
Top quintile	30.6	6.0	11.7
Bottom quintile	60.0	20.4	50.9
Gap (%)	-29.4***	-14.4***	-39.1***
<b>Mother's first language</b>			
Spanish	39.1	9.4	24.4
Indigenous language	51.3	17.6	41.5
Gap (%)	-12.1**	-8.2***	-17.1***
<b>Maternal education level</b>			
Higher education	14.9	3.8	10.3
Primary complete up to complete secondary	38.6	8.7	22.5
Primary incomplete or less	55.3	22.0	52.0
Gap (%)	-40.4***	-18.2***	-41.7***
<b>Type of school</b>			
Private	15.5	6.1	12.4
Public (urban children)	39.3	9.5	25.8
Public (rural children)	53.5	19.3	46.3
Gap (%)	-38.0***	-13.2***	-33.9***

Data is for children interviewed in all 4 survey rounds. Differences are significant at \*\*\*1%, \*\*5% and \*10%. Gaps are percentage points.

**Table 2. Peabody Picture Vocabulary test scores\***

	Older Cohort	Younger Cohort		
	Age 12 in R2 (2006)	Age 5 in R2 (2006)	Age 8 in R3 (2009)	Age 12 in R4 (2013)
<b>Average of full sample</b>	63.4	22.2	46.0	67.1
<b>Gender</b>				
Boys	64.9	22.8	46.8	68.9
Girls	61.7	21.7	45.3	65.3
Gap (%)	3.2**	1.2*	1.5**	3.6***
<b>Area of residence (in Round 1)</b>				
Urban	68.9	27.6	51.0	71.9
Rural	56.5	13.2	37.7	59.1
Gap (%)	12.4***	14.4***	13.3***	12.7***
<b>Household wealth (real household expenditure per capita from R2)</b>				
Top quintile	70.6	32.5	54.9	76.9
Bottom quintile	58.1	12.6	37.3	59.6
Gap (%)	12.5***	20.0***	17.6***	17.3***
<b>Mother's first language</b>				
Spanish	66.9	25.7	49.7	70.8
Indigenous language	58.7	16.0	39.3	60.3
Gap (%)	8.2***	9.7***	10.4***	10.5***
<b>Maternal education level</b>				
Higher education	78.0	36.2	57.8	79.8
Primary complete up to complete secondary	67.3	23.3	48.1	68.6
Primary incomplete or less	57.2	14.2	37.4	59.0
Gap (%)	20.8***	22.0***	20.4***	20.8***
<b>Type of school</b>				
Private	77.5	ND	57.5	79.4
Public (urban children)	68.4	ND	49.3	69.8
Public (rural children)	55.9	ND	36.5	57.2
Gap (%)	21.7***		21.0***	22.2***

Note: PPVT test scores are points out of 125. We have converted the scores to % for ease of reporting.

boys (30% over-age) and girls (31% over-age) are relatively small. As expected, the number of children who are over-age for grade increases as children progress through school, particularly those whose mothers had little education or from the poorest households – half of whom are behind in their schooling. However, a comparison between the Younger Cohort and Older Cohort shows that over-age would seem to be declining (from 44% of 12-year-olds in 2006 to 30% in 2013). Nevertheless, this data suggests groups that should be a priority from an early age for policymakers, so that over-age can be prevented as much as possible.

## Schooling and learning outcomes of 12-year-olds

Young Lives gathers information about children's learning achievement through a variety of measures to estimate the cognitive abilities of children. One of these is the Peabody Picture Vocabulary Test (PPVT), which is a measure of receptive vocabulary. Numerous studies have shown its association with cognitive abilities and schooling, as well as its predictive value for future educational outcomes. For comparison purposes, we have used the raw scores in the PPVT, which we administer in Spanish in Peru.

As with over-age, the data show both good news and not so good news (see Table 2). The good news is that children have progressed significantly in their vocabulary over the years; this is of course expected as almost all children attend school, but reinforcing this idea of progress, we also found that the Younger Cohort children had a larger vocabulary at age 12 than the Older Cohort at age 12 by almost 4 percentage points (the difference is about 0.25 standard deviations, which is statistically significant). When compared with the test norms, the scores of the Young Lives sample children in 2013 are slightly below the international median.<sup>3</sup> The fact that children in Peru are now achieving at higher levels is supported by national evaluations, a Latin American evaluation by UNESCO and by PISA.<sup>4</sup>

The differences between groups within the Younger Cohort in Round 4 (2013) are very similar or slightly larger than the gaps between groups in the Older Cohort in Round 2 (2006). This suggests that while achievement has increased, inequality has remained at similar levels. As with over-age, we found large differences in PPVT scores between children at private schools (who scored 79%), urban public schools (70%) and rural schools (57%). Children from disadvantaged groups did significantly worse than children from better-off families (who scored on average 77%). Children from the poorest households scored much lower (60% on average), as well as children whose mothers had less than primary education (59%) or whose mothers spoke an indigenous language (60%).

Perhaps the main result is that the gaps were already quite significant by Round 2 (i.e. when the Younger Cohort children were about 5 years of age, just before they started primary school). At this early age children in urban areas scored 28% compared with 13% in rural areas, and children from Spanish-speaking mothers scored 26% compared with children from indigenous mothers who scored 16%. This suggests the need for a multi-component pre-school intervention to support the most disadvantaged children and ensure they make a good transition into primary school.

As part of the Round 4 survey we also administered tests of mathematics and reading comprehension. The pattern of gaps (not shown here) is quite similar to those for the PPVT, with the largest gaps by maternal education and type of school, and smaller by gender. Within type of school, the gap between children attending private and urban public schools is larger than between children at urban and rural public schools.

## Educational opportunities

Over the past decade Peru has enjoyed a high-growth period with a substantial increase in consumption and income levels. Given the importance that families attribute to education (shown in Young Lives reports and others) and the poor reputation of public schools, many families are moving their children into private education: while only 4% of children from the Older Cohort were enrolled in private schools in 2006, 12.5% of children from the Younger Cohort were attending private schools at age 12 in 2013. As shown above, students from private schools have better learning outcomes. Does this mean that private schools are 'better' than public schools? The achievement data presented above may be misleading, as it cannot distinguish how much achievement can be attributed to quality of schooling and how much to the background characteristics of the children and their families (for example, only better-off children can afford tuition in private schools). While we cannot settle this issue here, Table 3 presents information about resources available at the three types of schools.

From Table 3, at least two facts are clear. First, that rural public schools are in general less well-resourced than private schools (which are all located in urban areas) and public urban schools. This is relevant given that rural schools have a concentration of poorer, indigenous children. Providing equal opportunities, or indeed focusing on rural children, is among the educational priorities of the current government. Second, that private schools provide better resources than public urban schools only in some respects, and there are wide variations in the quality of private schools (as well as public schools).<sup>5</sup>

<sup>3</sup> The median was gathered in the early 1980s and did not include Peru in the sample, so comparisons should be made with some caution.

<sup>4</sup> Programme for International Student Assessment, see <http://www.oecd.org/pisa/home/>.

<sup>5</sup> Young Lives, is carrying out studies on the impact of private schooling across the four study countries, thanks to the support of the PERI (see <http://www.periglobal.org/>). The results should be available by mid-2015.

**Table 3. Resources available by type of school**

	Private	Public urban	Public rural
Telephone	95%	72%	2%
Internet	90%	65%	8%
Running water	100%	93%	41%
Library	50%	60%	18%
Sports field	40%	67%	29%
Computer lab	60%	77%	18%
Psychologist	60%	12%	2%
Teaching assistants/ school aides	75%	22%	4%
Administrative staff	80%	67%	20%

Data from the Young Lives school survey, administered in 2011.

## Looking forward

On the one hand, the indicators presented above paint a positive picture, showing high enrolment and better achievement among the Younger Cohort children in 2013, compared with the Older Cohort at age 12 in 2006. On the other, there are important challenges associated with equity. Advancing on this front would require giving a higher priority to poorer, rural, and indigenous children and the schools they attend in terms of investment, and policies and programmes to support them, so that education may indeed become an instrument for the economic growth and personal development for all children in Peru.

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