



Education and Learning:

Preliminary Findings from the 2016 Young Lives Survey (Round 5): Peru

This fact sheet presents preliminary findings from the fifth round of the Young Lives survey of children in Peru in 2016. Young Lives has followed two cohorts of children born seven years apart. This fact sheet gives a snapshot of key education indicators for 15-year-olds in 2016 (Younger Cohort) and compares that to the data for 15-year-olds in 2009 (Older Cohort) to show changes in the context of education over that seven-year period.

According to Young Lives data, the indicators of educational achievement of the Younger Cohort are better than for the Older Cohort across all five survey rounds (since 2002). The improvement in educational performance between the two cohorts is clear in patterns of enrolment, over-age and dropout rates, and performance in tests of vocabulary, reading and mathematics. Still, there are large differences between children of different socio-economic backgrounds.

Key Findings

- By age 15, 37% of the Younger Cohort were behind the normative grade for their age (i.e. over-age), compared with 49% of the Older Cohort at the same age. Children from the Younger Cohort are making better progress in their education than the Older Cohort. However, there are large differentials for both cohorts associated with poverty, ethnicity, area of residence, and maternal education.
- In spite of improvements in performance, the majority of children in the Younger Cohort at age 15 are unable to solve simple mathematical problems.
- Children who have lived all of their lives in urban areas show performance in tests that are between 13 and nine percent points above children who always lived in rural areas. The performance of children who migrated from rural to urban areas lies in-between.
- For the Younger Cohort, there is a large gap (almost 25 percent points) in vocabulary between groups of children that are noticeable from age five. This gap diminishes slightly, to 16 percent points, by age 15.

The policy context for education in Peru

Since 2013, education in Peru has undergone important changes. The national budget increased by nearly 50% between 2013 and 2016, an increase from 3.1% to 3.8% of the country's Gross Domestic Product (Ministry of Economy and National Institute of Statistics).¹ In addition, a series of programmes have been implemented to increase quality and reduce inequality in education, such as the extended school day programme for secondary schools, and the pedagogical support programme.² At the same time, national data suggest that enrolment is increasing, and achievement in national and international standardized tests is improving.³

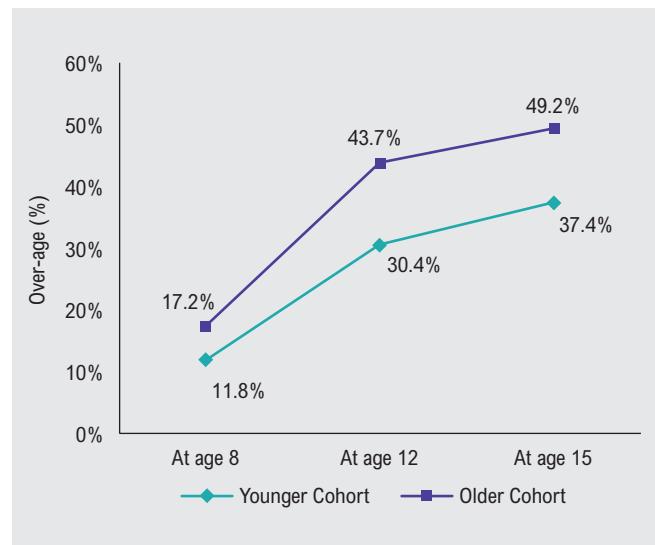
School enrolment, over-age and dropout rates

While the levels of enrolment of 15-year-old Older Cohort children in 2009 were already high (around 91%), enrolment of Younger Cohort children at the same age in 2016 is even higher (almost 97%; see Table 1). 15-year-old Younger Cohort children had also completed more grades (8.9 years) compared to 8.6 years for the Older Cohort at the same age. In part, this may be attributable to the fact that the Younger Cohort started school at a slightly younger age, but also to the fact that they have repeated fewer grades over the years.

Over-age⁴ is another indicator of educational performance. As shown in Figure 1, the percentage of children over-age at eight, 12, and 15 years is lower for the Younger Cohort than the Older Cohort, although, at 37% (for 15-year-olds in 2016), it could still be considered high.

Dropout rates increase for both cohorts at the beginning of secondary education, but these rates are much lower for the Younger Cohort than for the Older Cohort (Table 1). Looking at the detail we find only small differences between boys and girls but large differences depending on level of maternal education, level of wealth, ethnicity, area of residence, and type of school attended. Differences on these parameters are observable to various degrees in all comparisons included in this fact sheet.

Figure 1. Over-age by age and cohort



The differences between the Older and Younger Cohort are statistically significant at all three age points.

Schooling and learning outcomes

Young Lives gathers information about children's learning achievement through vocabulary and maths tests conducted in each survey round. Results for vocabulary testing shows that the Younger Cohort perform better than the Older Cohort at the same ages.⁵ These test results are predictors of educational performance and indicators of intellectual ability. Comparison of tests in mathematical skills, including number operations and problem-solving, shows that the Younger Cohort perform better at age 15 than the Older Cohort at that age (although achievement in specific topics varies). Similar patterns showed up in reading ability with a positive and significant correlation between scores in mathematics and reading.

We also found that children who migrated from rural to urban areas perform better than children who have remained in rural areas, and often only slightly less well than children who always lived in urban areas (Figure 2). There are at least three possible explanations for the improved results of children who migrate from rural to urban areas; it may be that in urban areas migrant children find more availability of services and better quality services, including better schools. Second, it may be that migration is linked with an increase in their levels of wealth. Finally, families who migrate may have different priorities and family dynamics than those who stay in rural areas. In any case, it is evident from the data that rural education should be a priority, and indeed, as we write this fact sheet the government is preparing a national policy for rural education.

1 See <http://apps5.mineco.gob.pe/transparencia/Navegador/default.aspx> and <https://www.inei.gob.pe/estadisticas/indice-tematico/economia>

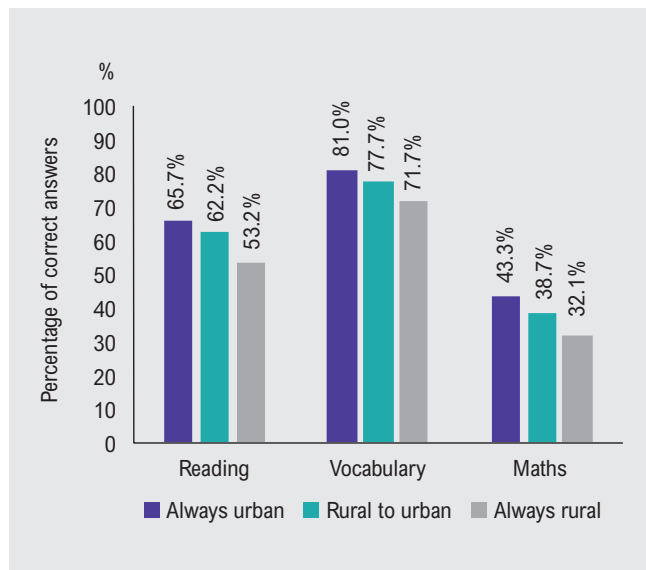
2 Jornada Escolar Completa (<http://www.minedu.gob.pe/jec/>) and Soporte Pedagógico (<http://www.minedu.gob.pe/soporte-pedagogico/>)

3 See for example UNESCO and Consejo Nacional de Educación (2016). *Revisión de las políticas educativas 2000-2015. Continuidades en las políticas públicas en educación en Perú: aprendizajes, docentes y gestión descentralizada*. Lima: Authors.

4 Over-age refers to children being over-age for their grade, that is, in a grade that is below the norm given their age.

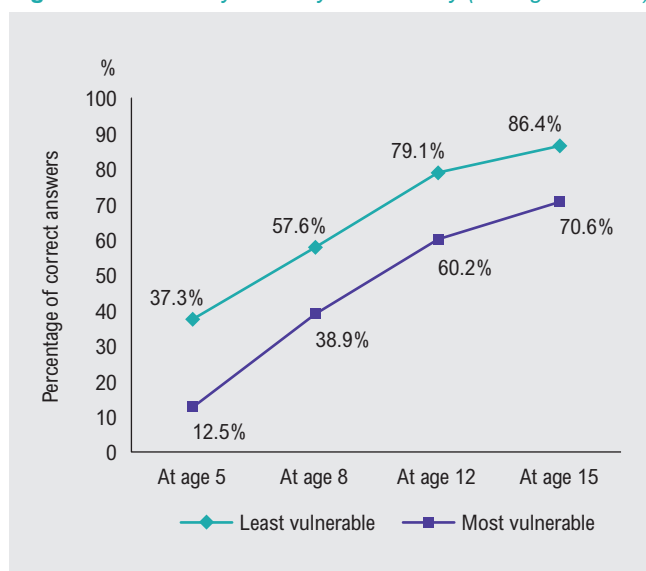
5 Young Lives measures receptive vocabulary by administering the Peabody Picture Vocabulary Test (PPVT) in Spanish.

Figure 2. 15-year-old Young Cohort performance grouped by migration history



All differences between groups in reading, vocabulary and mathematics are statistically significant.

Figure 3. Vocabulary score by vulnerability (Younger Cohort)



Note: Only children who were evaluated in Spanish are considered.

The differences between the least and most vulnerable are statistically significant at all ages.

The ‘vulnerability’ arising from some of the socio-demographic characteristics of children and their families – maternal education, position in the wealth index⁶ in Round 1 of the Young Lives survey, and ethnicity – mean that the abilities of children are already quite different by the age five. Over the years, the degree of disparity in achievement

between the extremes of vulnerability has diminished slightly, although it is still considerable at the age of 15. This is probably explained by the differences in levels of overall wealth of the families through the years; Young Lives has repeatedly found that the position in the wealth index estimated at the age of one has significant power to predict educational performance in the years ahead.

Another source of inequality in Peru is access to public or private education. While the former is free of charge, private education must be paid for and is almost exclusively available in urban contexts where families are more able to afford it. More children in the Younger Cohort at age 15 are enrolled in private schools than in the Older Cohort at the same age. In addition, fewer children are enrolled in rural schools as a result of migration to urban areas. Overall, students ranking lower on the wealth index, with less educated mothers, or from indigenous backgrounds are more likely to attend rural public schools (Table 1). Other studies led by Young Lives show that the quality of teachers and of the schools themselves is lower in rural areas (Cueto et al, 2017, and Guerrero et al, 2012). In this way, inequalities are routinely reinforced as the child’s personal family background interacts with the characteristics and quality of schools they attend.

Conclusions: looking forward

We hope that the largely positive trends documented here between the Older and Younger Cohorts – increased enrolment, reduced levels of over-age, and lower dropout rates – will continue over the next seven years and beyond.

The challenges to this trend continuing must be met with actions that seek to reduce the gaps: first, to reduce the large differences relating to wealth, ethnicity, maternal education, and living in a rural rather than an urban area. These differences tend to be greater than those between boys and girls, hence the conscious absence of gender in these priorities. Secondly, to raise overall achievement levels; even though the scores have increased, many children show low levels of reading comprehension or are unable to solve relatively simple mathematical problems. Finally, for all groups, the gaps in achievement are evident from the age of five. This suggests the importance of investing in pre-school interventions – with nutrition and health components, and programmes to fight poverty – and focusing on vulnerable children during primary and secondary years. The challenge for education in Peru over the coming years is to reinforce the positive trend by both raising the quality of schooling and reducing inequality associated with a student’s background.

⁶ The wealth index is a composite index that reflects the welfare of household members in terms of the quality of the dwelling and access to basic services. For more details on the construction of the Young Lives Wealth Index, see Briones (2017).

Table 1. Schooling outcomes – Younger and Older Cohort at 15 years of age

	Children enrolled in school (%) at 15 years of age		Highest grade completed (grade level) at 15 years of age		Over-age for grade (%) at 15 years of age		Dropout cumulative rate (%) at 15 years of age		Type of school currently attended (%)		
	Older Cohort	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort	Younger Cohort	Younger Cohort at 15 years of age		
	2009	2016	2009	2016	2009	2016	2009	2016	Private	Public (urban children)	Public (rural children)
Gender											
Male	91.57	96.48	8.64	8.89	45.29	39.13	9.94	5.72	14.11	52.89	33.00
Female	90.24	97.42	8.60	8.91	53.29	35.68	9.95	3.87	11.96	49.56	38.48
Difference	1.33	-0.94	0.04	-0.02	-8.00	3.45	-0.01	1.85*	2.15	3.33	-5.48**
Maternal Education											
Higher Education	100.00	99.47	9.47	9.46	16.60	10.07	0.00	0.53	34.67	60.31	5.02
Complete Primary or Secondary	95.45	97.53	8.84	9.08	41.32	29.97	4.57	4.02	14.75	62.80	22.44
Primary Incomplete or less	85.29	95.19	8.25	8.41	62.84	58.85	16.43	7.35	3.36	27.89	68.74
Difference	14.71***	4.28***	1.22***	1.05***	-46.24***	-48.78***	-16.43***	-6.82***	31.31***	32.42***	-63.72***
Wealth index in Round 1											
Top tercile	97.98	98.90	9.37	9.33	18.08	19.88	2.02	2.21	30.93	67.09	1.98
Middle tercile	94.47	96.95	8.80	8.93	46.46	36.63	5.53	4.97	8.52	63.74	27.73
Bottom tercile	85.96	95.45	8.18	8.54	64.35	51.54	15.75	6.59	2.97	27.45	69.59
Difference	12.02***	3.45***	1.19***	0.79***	-46.27***	-31.66***	-13.73***	-4.39***	27.96***	39.64***	-67.61***
Mother's first language (ethnicity proxy)											
Spanish	91.58	97.15	8.72	9.07	43.96	31.76	9.72	4.46	17.31	64.75	17.94
Indigenous language	89.68	96.67	8.48	8.58	56.99	47.90	10.54	5.33	5.09	25.43	69.48
Difference	1.90	0.48	0.24*	0.49***	-13.03**	-16.14***	-0.82	-0.87	12.22***	39.32***	-51.54***
Area of residence in 2002 (Round 1 of the Young Lives survey)											
Urban	93.09	97.51	8.83	9.13	42.50	29.24	6.60	3.49	18.76	81.24	0.00
Rural	87.97	96.00	8.32	8.50	58.79	51.29	14.47	6.95	3.26	0.00	96.74
Difference	5.12	1.51	0.51***	0.63***	-16.29***	-22.05***	-7.87*	-3.46***	15.5***	81.24***	-96.74***
Migration											
Always urban	94.71	97.56	8.85	9.14	41.73	28.49	4.96	3.50	19.74	80.26	0.00
Rural to urban	93.27	95.78	8.75	8.66	44.75	42.96	8.40	7.83	7.30	0.00	92.70
Always rural	84.13	96.24	8.07	8.43	68.14	54.73	17.27	6.58	2.07	0.00	97.93
Difference	10.58*	1.32	0.78***	0.71***	-26.41***	-26.24***	-12.31**	-3.08**	17.67***	80.26***	-97.93***
Vulnerability											
Most vulnerable	88.90	95.11	8.34	8.33	62.43	59.54	11.37	7.16	2.45	1.31	96.24
Least vulnerable	97.70	99.69	9.32	9.40	18.99	15.39	2.30	1.57	34.16	65.84	0.00
Difference	-8.80*	-4.58***	-0.98***	-1.07***	43.44***	44.15***	9.07*	5.59***	-31.71***	-64.53***	96.24***
Average of full sample											
	90.91	96.95	8.62	8.90	49.20	37.39	9.94	4.79	13.03	51.22	35.76

Differences are significant at ***1%, **5% and *10%.

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This is part of a series of fact sheets giving a preliminary overview of key data emerging from Round 5 of the Young Lives household and child survey, covering *Survey Design and Sampling; Education and Learning; Growth and Nutrition; Poverty and Intergenerational Change; and Youth Transitions: Work Skills, Work and Family Formation*. This fact sheet on education was written by Santiago Cueto and Claudia Felipe from GRADE, with support and comments from the Peru Young Lives team. In particular, we would like to thank the Young Lives children and their families for their participation and time, which they gave freely and generously, as well as our teams of field researchers and data management staff for their dedication and enthusiasm.

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The images throughout our publications are of children living in circumstances and communities similar to the children within our study sample © Young Lives/ Sebastian Castañeda Vita.



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Young Lives is an international study of childhood poverty, following the lives of 12,000 children in four countries (Ethiopia, India, Peru, and Vietnam).

In Peru, Young Lives is known as Niños del Milenio, and is a partnership between the Instituto de Investigación Nutricional (IIN), the Grupo de Análisis para el Desarrollo (GRADE) and the University of Oxford.