

Choosing a Better Future: Information to Reduce School Drop Out and Child Labor Rates in Peru



PHOTO: SERGIO DE MARCO

Children and parents sometimes make ill-informed educational choices, resulting in unrealized educational goals, children dropping out of school, and children joining the labor force. In partnership with Innovations for Poverty Action and the Ministry of Education in Peru, researchers designed and rigorously evaluated two interventions intended to improve decision-making about education and time-use by providing schoolchildren and their families with information about the returns to education.

Preliminary Findings*

- » **Students' and parents' perceptions of the financial benefits to education increased.** Accessing information about the social and financial returns to education via videos and an interactive tablet application corrected misconceptions about the benefits of education.
- » **Dropout rates fell.** Information had a significant negative effect on dropout rates in both rural and urban areas.
- » **Child labor effects were mixed.** Videos decreased child labor for girls in urban areas, but did not affect child labor in rural areas. The tablet application reduced child labor among 6th graders in rural areas, but not among other groups.
- » **The Ministry of Education in Peru is continuing the intervention in 2,001 secondary schools.** The marginal cost of the video campaign was less than US\$0.05 per student (not including the fixed costs of producing the video). Given the low cost and promising results, the Ministry of Education is scaling the use of these videos in after school programs.

MINEDULAB | MineduLAB is an innovation lab for education policy housed within the government of Peru. The lab pilots and evaluates the effectiveness of low-cost innovations, with the goal of allowing the Ministry to use rigorous evidence to improve student learning. This project was developed as part of the first round of MineduLAB innovations, and is now being scaled up by Peru's Ministry of Education. IPA and J-PAL (Abdul Latif Jameel Poverty Action Lab) partnered with Peru's Ministry of Education to initiate MineduLAB, beginning in 2013.

* These results are preliminary and may change after further data collection and analysis.

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COUNTRY

Peru

TIMELINE

2015-2016

SAMPLE

2,611 urban primary and secondary schools;
249 rural primary schools

The Challenge

HIGH SCHOOL DROPOUT AND CHILD LABOR RATES

High school dropout rates continue to be a significant problem in Peru, despite recent advances in the coverage and quality of the education system. At the national level, 12 percent of children leave school before age 13, and 17 percent do not finish secondary school. According to SIAGIE 2015, a government source for administrative information on student enrollment, between the 2014 and 2015 school years, approximately 178,000 Peruvian students dropped out of school. Peru also has a relatively high prevalence of child labor: figures from the ILO and the Ministry of Labor show that 21.8 percent of children aged 5-17 were working in Peru in 2015. In the rural area the child labor rate was almost

four times higher than in the urban areas.¹ Researchers and policymakers are interested in cost-effective interventions that would keep children in school and delay their entry into the labor force. One such mechanism might be the provision of accurate information about the returns to education. Researchers partnered with Innovations for Poverty Action and Peru's Ministry of Education to investigate whether providing this information via video and/or an interactive tablet application could change perceptions about the returns to education and reduce dropout and child labor rates.

¹ Magnitud y Características del Trabajo Infantil en el Perú, Informe 2015 (OIT, y MTPE).

The Program

INFORMATION ABOUT THE FINANCIAL AND SOCIAL BENEFITS OF EDUCATION

Two innovative information campaigns provided information about the financial and social benefits of education to target false perceptions about the returns to education.

- » **Policy Pilot:** The campaign featured a *telenovela*-style video series whose plot conveyed messages about the social value of education, real earnings information for different education levels and fields, and options for financing higher education. Students watched these videos in their schools. This campaign was implemented in schools across 24 departments in urban areas of Peru, as well as in the rural areas of Cusco and Arequipa.

- » **Application-Based Intervention:** The second intervention delivered similar messaging through a more intensive, tablet-based information campaign, built into an app-based survey which used infographics, interactive activities, and in-depth presentations to present information to students and parents. Some students interacted with the tablets in their homes, and others at their schools. This campaign was also implemented in both rural and urban areas across Peru.

In primary schools, the videos were projected for 5th and 6th graders, while in secondary schools, the videos were projected for all grades (7th through 11th).

The Evaluation

HOW DOES INFORMATION ABOUT THE RETURNS TO EDUCATION AFFECT SCHOOL DROPOUT AND CHILD LABOR RATES?

In partnership with IPA and the Ministry of Education, researchers conducted a randomized evaluation to assess the impacts of information on the returns to education on school dropout and child labor rates over two years. In the first year of the intervention (2015), the evaluation design differed slightly between urban and rural areas:

- » **Urban areas (24 capitals of the 24 departments of Peru):** Researchers randomly assigned 2,611 schools to either receive the **policy pilot** video campaign (346,000 students within 1,393 schools) or serve as part of the **comparison group** (322,000 students within 1,218 schools). The study sample included half of all the urban schools in Peru.

Within the 266 schools in urban Lima that were part of this sample, researchers randomly selected 3,334 students and 1,816 parents to either receive the **application-based intervention** or serve as part of the **comparison group**.



- » **Rural areas (of Arequipa and Cusco):** Researchers randomly assigned 249 schools to either receive the **policy pilot** video campaign (125 schools) or serve as part of the **comparison group** (124 schools). From these same groups, researchers randomly selected 3,000 primary students and 993 parents to either receive the **application-based intervention** or serve as part of the **comparison group**.

In the second year of the intervention (2016), researchers and IPA scaled back the implementation of both the policy pilot and the application-based intervention in order to

Preliminary Results

In 2015, the implementation of the policy pilot faced some difficulties, and only 33 percent of the schools in the policy pilot group successfully received and viewed the videos. The 2016 implementation involved the same policy pilot and comparison groups and achieved better implementation: a 66 percent success rate. Some of the results below compare areas in which the policy pilot was successfully implemented to the comparison group (rather than comparing the entire policy pilot group, including schools that did not receive the videos, to the comparison group).¹

- » **Students' and parents' perceptions of the financial returns to education increased.** Parents and students alike underestimated the returns to education. The difference between what the median child expected a university graduate to earn, and the real wages in 2015 for a university graduate, was 31 percent. The delivery of accurate information corrected these beliefs. The **application-based intervention** increased both students' and parents' expected returns to all levels of education. In urban areas where the **policy pilot** was successfully delivered, students' expected returns to university education increased 8 percent, compared to the comparison group (in rural areas, the policy pilot did not affect perceptions of the financial returns to education).
- » **Dropout rates fell.** The **policy pilot** had a significant negative effect on one-year dropout rates in both rural and urban areas. In both areas, the effect was driven by boys, and in urban areas, the effect was largest for 5th and 6th graders. The pilot had even larger negative effects on two-year dropout rates across groups in both urban and rural areas, all of which were significant. In

comply with budget constraints and to focus on improving implementation. The 2016 samples remained balanced according to the original randomization and student/school characteristics.

Researchers used a combination of administrative and survey data to measure changes in school-wide dropout rates; how likely students were to engage in child labor; how much time students spent studying; how supportive students' parents were; what level of education students hoped to pursue, and in what field; and how students perceived and invested in their unique talents.

urban areas, the effect was larger for boys than girls, as well as for younger children relative to older ones. Note that these results hold true even when not correcting for implementation issues (that is, when comparing all areas in which the pilot ought to have been implemented to the comparison group). These results therefore apply to a scaled-up implementation of the policy; even if there are implementation challenges, dropout rates fall.

- » **Effects on child labor are mixed.** The **policy pilot** reduced child labor for girls (but not the full sample) in urban areas by 15 percent. In rural areas, the policy pilot did not affect child labor measures. In terms of working hours, for all children in urban areas who worked at the beginning of the intervention, the policy pilot increased work hours by 2.2 hours per day. In rural areas, the videos had no detectable effect on work hours across all children, but did reduce work hours for certain groups, particularly boys and 6th graders. The **application-based intervention** reduced child labor for 6th graders in rural areas by 7.3 percent (but did not affect child labor in the overall rural sample).



¹ This has implications for thinking about how to apply the results to policy. Since implementation was such a challenge, the results that compare areas where the policy pilot was successfully implemented to comparison areas would only apply to a program that was more fully and accurately implemented than the pilot. The tablet application also faced implementation problems particularly in urban areas. For this reason, the preliminary results here only report the effects of the application-based intervention in the rural areas.

Conclusion

Preliminary results suggest that providing information about the financial and social benefits of education via videos and/or an interactive tablet-based application can reduce school dropout rates. Evidence on the effects on child labor is mixed. The information also corrected parents' and students' perceptions about the financial returns to education.

Based on these promising results, the Ministry of Education in Peru plans to continue showing the videos in 2,001 secondary

schools in 2018. Schools seem to value the intervention, with 95 percent of head teachers reporting willingness to continue to participate in the campaign in future years. To optimize the efficacy of this scale-up, researchers recommend improving on-time delivery of the videos, which the Ministry of Education plans to advance by uploading the videos to a central website for schools to download. The videos will be incorporated into tutoring hours, and thereby become part of the school curriculum.



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Innovations for Poverty Action (IPA) is a research and policy nonprofit that discovers and promotes effective solutions to global poverty problems. IPA designs, rigorously evaluates, and refines these solutions and their applications together with researchers and local decision-makers, ensuring that evidence is used to improve the lives of the world's poor. Our well-established partnerships in the countries where we work, and a strong understanding of local contexts, enable us to conduct high-quality research. This research has informed hundreds of successful programs that now impact millions of individuals worldwide.

