



A country at risk of being left behind: Bolivia's quest for quality education

Lykke E. Andersen, SDSN Bolivia¹

Agnes Medinaceli, Fundación ARU

Carla Maldonado, SDSN Bolivia

Werner Hernani-Limarino, Fundación ARU

Abstract

While the Sustainable Development Goals (SDGs) are universal, the challenges of reaching them are unique for each country. This paper provides a study of one particularly challenging case, namely that of achieving SDG 4 (quality education) in Bolivia, an entire country at risk of being left behind due to a severe lack of data on educational achievements during the last couple of decades. Bolivia initiated an Education Revolution in 2007, to make education more inclusive, equitable, collaborative, and relevant for reaching the ultimate goal of living well in harmony with nature. The Education Revolution, implemented by law in 2010, appears to have been quite successful at getting almost all children through primary and secondary education, irrespective of gender, ethnicity, and income levels. Unfortunately, the labour market does not seem to value the education received. Indeed, for young, urban, non-indigenous men, the first 15 years of education do nothing to increase their wages. This is partly due to global processes outside the control of the Bolivian government, e.g. commodity prices, which are impacting the structure of the economy, and the demand for qualified labour.

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¹ Lykke E. Andersen, PhD, Sustainable Development Solutions Network – Bolivia
e-mail: lykke.e.andersen@sdsnbolivia.org.

Introduction

This study uses the case of Bolivia to show the complexities of implementing and monitoring SDG 4 (quality education) in some developing countries. Bolivia constitutes an entire country at risk of getting left behind because of a severe lack of reliable data and analysis. Bolivia has not participated in any international standardised tests (e.g. SIMECAL, PISA, TIMSS, LLECE) during the past two decades. As a result, Bolivia is one of the few countries in the Americas not included in the new Global Database on Education Quality, 1965–2015 (Altinok, Angrist & Patrinos, 2018), or in the World Bank's new Human Capital Index (World Bank, 2018).

The last time Bolivia participated in an international education achievement test, in 1997, Bolivia's public schools received the lowest scores in the region for reading comprehension in fourth grade (Casassús, Froemel, Palafox & Cusato, 1998). For several years after that, there was, understandably, a reluctance to repeat the experience, resulting in an almost complete lack of information about how students are performing in the Bolivian education system.

Bolivia's 2007 Education Revolution tried to break free from the previous neoliberal education model, and to make education more inclusive, equitable, collaborative, and relevant to the ultimate goal of living well in harmony with nature. However, the lack of performance information is problematic: things may have changed substantially, either for better or for worse, but to date very little is known about the outcome of the Education Revolution.

Despite the severe lack of data on education quality in Bolivia, this paper tries to piece together some scattered and indirect evidence to answer the following research questions:

- How are the SDGs in general, and SDG 4 in particular, being implemented in Bolivia?
- Who has been left behind by the current Education Revolution in Bolivia, and why?
- What are the synergies and complementarities between educational achievements, poverty, inequality, and decent work?
- What are the critical global systemic issues that affect the education system in Bolivia?

Carefully analysing already existing data, the research reached the surprising conclusion that virtually nobody in Bolivia is left behind of access to free education at all levels, but also that almost nobody benefits from relevant and effective learning outcomes. Bolivia has never had more people enrolled in the formal education system; however, the labour market still pays little or no premium for the

education workers have received, which means that the large public and private investments in education are not contributing to increased earnings, reduced poverty, and reduced inequality.

Box 1. SDG progress in Bolivia

The implementation of the 2030 Agenda has not been prioritised by the Bolivian government, mainly because it has focused on achieving its own 2025 Patriotic Agenda for the country's 200th anniversary. However, in 2020 Bolivia will finally present its first Voluntary National Review.

The Minister of Development Planning presides over an inter-institutional committee charged with monitoring the implementation of both the National Development Plan and the 2030 Agenda. All the development cooperation partners in Bolivia have aligned their interventions with both the 2025 Patriotic Agenda and the 2030 Agenda and are coordinating their responses through monthly meetings of the GruS (Group of Development Partners).

However, since Bolivia has recently changed from being a low-income country to a lower-middle-income country, many bilateral development partners have left the country, and foreign aid has fallen substantially.

During the first semester of 2019, the National Statistical Institute has been carrying out a comprehensive assessment of data available for monitoring SDG implementation, which will be used as an input into a new National Strategy of Statistical Development. In addition, the Bolivian government hosted a UN-supported Mainstreaming, Acceleration and Policy Support (MAPS) mission, to identify policy combos and accelerators that can be included in the next five-year Economic and Social Development Plan to speed up progress towards the goals.

The private sector is also becoming increasingly active in the SDG arena. The UN Global Compact initiative in Bolivia, led by the Confederation of Bolivian Private Businesses, supports companies to take strategic actions towards the advancement of the SDGs. Additionally, the Sustainable Development Solutions Network (SDSN) now has an office in the country, which is working on a municipal atlas of the SDGs in Bolivia to provide a thorough diagnostic and baseline of the situation in every municipality in the country.

Research methodology and results

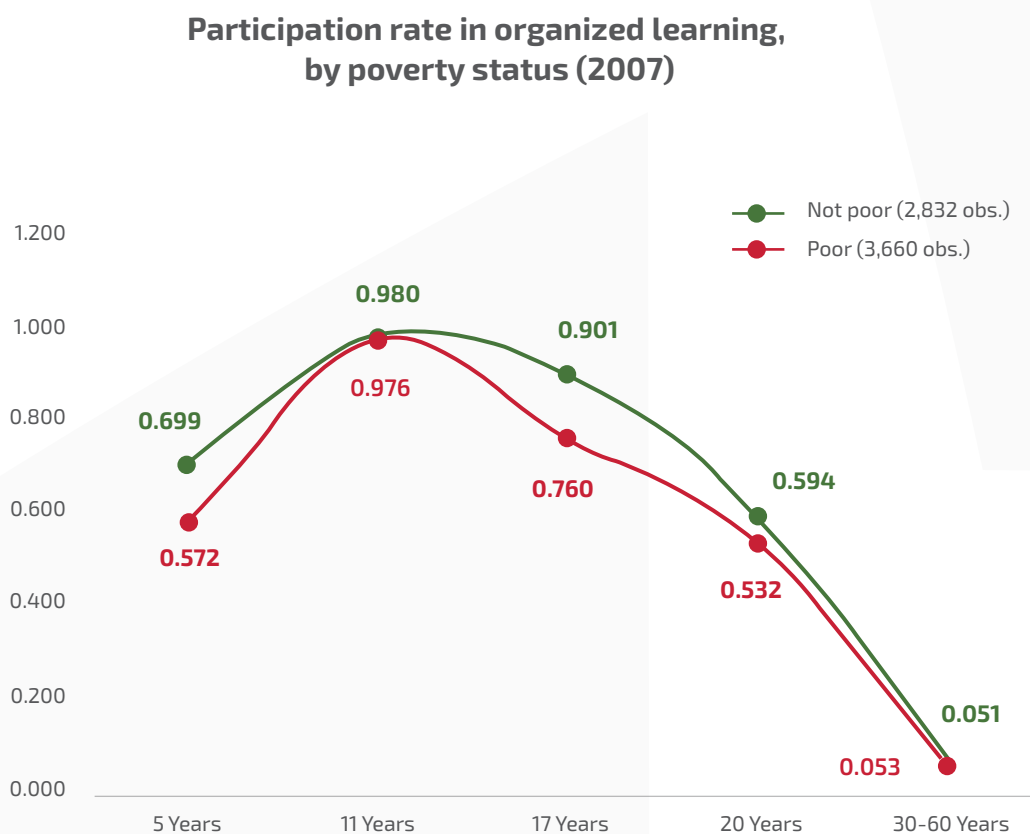
This study analyses already existing micro-data in creative ways to answer the main research questions. Except for a few unstructured interviews with key actors in the education sector, no new primary data gathering was carried out.

The primary sources of data were the regular household surveys carried out by the National Statistical Institute and administrative data from the Ministry of Education. This data was complemented by

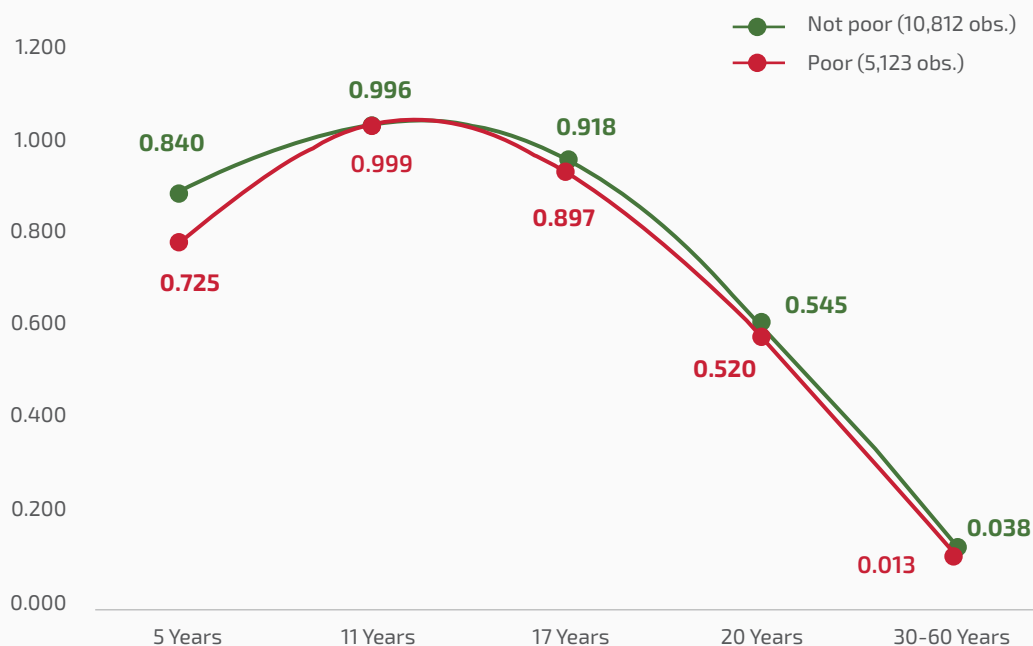
graduation data from different Bolivian universities, perception data from the annual Gallup surveys, and information from various sources. This data was used to compare participation rates and other schooling indicators by gender, ethnicity, location, and income level over time. The data was also used to simulate the impacts of changes in schooling levels on poverty, inequality, and access to decent jobs using counter-factual micro-simulations.

The results showed dramatic increases in participation rates in organized learning between 2007 (before the Education Revolution) and 2017 (latest survey available), especially for disadvantaged groups (girls, indigenous people, poor, and rural inhabitants). Perhaps the most notable change between 2007 and 2017 is that the income-based gap in school attendance at the end of the secondary-school age group had closed. Figure 1 shows that in 2007 only 76% of 17-year-olds from poor households were in school, while this was the case for 90% of 17-year-olds from non-poor households (as defined by the national poverty lines established by the National Statistical Institute). By 2017, the gap was insignificant, with 90% of 17-year-olds from poor households still in school, very close to the 92% from non-poor households.

Figure 1. Participation rates (no unit) in organised learning, by poverty status and age, 2007 and 2017



Participation rate in organized learning, by poverty status (2017)



Note: Poverty status is defined by the official national poverty line each year.

Source: National Institute of Statistics, Bolivia Household Survey (2007 and 2017); elaborated by the authors.

Similarly, by 2017, the gender-based participation gaps had been eliminated, and girls were as likely to attend school at all levels as boys. However, girls tend to do much better than boys in the Bolivian education system, with lower repetition and drop-out rates. By the end of undergraduate studies, women dominate graduating classes and are substantially over-represented among those graduating with honours. For example, during the last round of graduation at Universidad Privada Boliviana (UPB) in La Paz, in August of 2018, almost 60% of the 200+ graduates were women, and 71% of the 21 graduates with Summa Cum Laude or Magna Cum Laude distinctions were women (UPB, 2018). Another similar example is from Universidad Mayor San Simón (UMSS) in Cochabamba, a public university and one of the best universities in Bolivia, where 75% of the top students were women in 2018 (Universidad Mayor de San Simón, 2017). This tendency is confirmed by an interview with the Dean of Economic Sciences, Juana Borja, at the largest public university in Bolivia, the Autonomous University Gabriel René Moreno in Santa Cruz. According to her, 73% of the students accepted in economic sciences are women, as they tend to do much better at the entry exam.

While access to education is now pretty much secured for everybody and special attention is given to particularly vulnerable groups (e.g. children with special abilities and children of incarcerated parents), the usefulness of the education received is debatable. The analysis shows

that the direct and indirect benefits of education have decreased substantially over the last couple of decades to the point that the previously most privileged group (non-indigenous, urban men) now see virtually no benefits from the first 15 years of education. The situation looks a little bit better for women, rural, and indigenous people, who see slightly positive, but still meagre, benefits of education.

Given the shallow impacts of education, especially for the biggest group of workers (non-indigenous, urban men), it comes as no surprise that the micro-simulations show no positive synergies between education and other SDG targets, such as poverty eradication (SDG 2) and reduced inequalities (SDG 10). While Bolivia has seen substantial decreases in poverty and inequality during the last 15 years, the data shows that these improvements cannot be explained by the significant increases in schooling.

Several international systemic conditions have hindered Bolivia's ability to make progress on SDG 4². The recent Commodity Super Cycle, which caused a massive, exogenous increase in the prices of all of Bolivia's major primary export products, is crucial to explain shortcomings (Andersen, Jemio and Medinaceli, 2018). With large windfall profits to be obtained in the extractive sectors, many young men dropped out of school and many workers abandoned other activities to take up employment in the mining sector. Since the boom period turned out to be quite extended (2006–2014), many of these young men are unlikely to return to school.

The commodities boom also indirectly led to an appreciation of the exchange rate, which in turn caused a construction boom—a typical case of Dutch Disease caused by high commodity prices. Throughout the commodities boom, the construction sector grew at an average annual rate of 9%, by far the fastest growth of any sector in Bolivia. This created a big increase in the demand for construction workers, and due to the shortage of these workers, wages in the construction sector increased substantially. Since construction workers usually have little formal schooling, but rely instead on on-the-job training, this was yet another important reason for the fall in returns to education among male workers. It was also another factor that discouraged young males from pursuing education.

Conclusions and implications

This study analysed the implementation of SDG 4 (quality education) in the case of Bolivia. Since Bolivia has not participated in any of the international achievement tests this century, it is particularly challenging to assess students' performance.

Many quantitative education indicators have improved since 2007.



Girls tend to do much better than boys, with lower repetition and drop-out rates.

² In-depth analysis of the global systemic issues affecting the achievement of SDG 4, can be found in the full case study.



Decreases in poverty and inequality during the last 15 years cannot be explained by increases in schooling.

Gender, ethnicity, and income-based gaps in school attendance at primary and secondary levels had almost been eliminated in Bolivia by 2017. About 90% of children complete secondary education and those who drop out before graduation tend to do so by choice rather than due to limited access or availability. In addition, the number of certified teachers has tripled between 2000 and 2017, while the total number of children enrolled in pre-school, primary school, and secondary school only increased by 15%, implying that the number of school children per certified teacher dropped from 65 at the beginning of the century, to 24 in 2017.

However, although almost all young people now complete at least 12 years of education, the labour market prefers workers with practical experience rather than theoretical knowledge, so there is a mismatch between supply and demand for educated workers. This causes a reduction in returns to education.

One group that has suffered particularly from the massification of education in Bolivia is young, urban, non-indigenous, working males, who currently see little or no benefit from the first 15 years of education. This group constitutes a very important demographic, which has been particularly let down by the Bolivian education system and the Bolivian labour market. This group is about 13 times larger than the group of young, rural, indigenous, working women that the international development community tends to be most concerned about.

The extremely low returns to education in Bolivia need to be addressed. The labour market currently favours cheap manual labour, such as the work required in construction and mining. Meanwhile, highly educated university graduates work for free as interns in the minimal number of businesses/sectors that require highly skilled workers. The lack of demand for highly skilled workers in Bolivia means that most qualified people tend to leave the country in search of opportunities that reward their skills and talents. According to the United Nations (2015), about 7.5% of Bolivians live abroad, more than half of whom are women.

This is largely the result of global economic forces, which have led Bolivia to specialise in the export of unprocessed primary products (such as natural gas and minerals), resulting in an economy of low complexity, and thus with low demand for skilled labour.

Since education is not valued in the labour market, most of the expected synergies from education, in the form of reduced poverty, reduced inequality, and reduced gender inequality, do not materialise in Bolivia. The micro-simulations carried out in this study show that there are hardly any differences in poverty, inequality, or decent jobs between the factual simulations (with increased education) and the counterfactual simulations (without increased education).

With few benefits and no synergies from education, Bolivia is left with a significant trade-off, as the private and public investments in education are enormous. According to the 2017 household survey, 39% of all Bolivians enrolled in some formal education that year, investing both time and money in further education. Additionally, according to United Nations Educational, Scientific, and Cultural Organization (UNESCO, n.d.) Bolivia has the highest government expenditure on education in South America, spending on average 7% of GDP³. Such significant investment could potentially have been invested in other areas with more benefits for the population and the economy.

Recommendations

Several recommendations arise from the analysis presented in the study. First, it is essential for the country to resume participation in standardised achievement tests for the Ministry of Education to obtain up-to-date performance data. Such information is important to identify problems and implement corrective measures. Fortunately, Bolivia is preparing for that and is scheduled to implement the Latin American LLECE test in November of 2019.

Secondly, since the fall in returns to schooling in Bolivia is to a large extent driven by external factors, such as commodity prices, as well as internal political factors, returns to schooling could change quite quickly again and the significant investments in education may therefore not be wasted. In this rapidly changing world, with exponential technological advances, it certainly seems better to err on the side of too much education rather than too little education.

Finally, it is pertinent for the Ministry of Education to work and coordinate with other ministries in Bolivia and the private sector to strengthen the links between the education system and the labour market. One of the reasons for seeing less benefits from formal schooling may be that the comparison group—those who are not studying—are swiftly learning and acquiring useful skills on the job, at a much lower cost, and with more benefits for the worker, the employer, and the economy. Apprenticeships and internships could thus become a much more critical part of the education system.

Some highly successful businesses in Bolivia have already made the training of their employees an integral part of their business model. The world-renowned restaurant Gustu, for example, operates a cooking school for disadvantaged youth, where they have already trained a large number of Bolivian cooks, some of whom work at the restaurant in La Paz, while others have started Gustu spin-offs, thus contributing to the ongoing culinary revolution in Bolivia. Similarly, the software company Jalasoft in Cochabamba has an educational foundation that trains world-class software engineers for the company, along with others who are starting their own software companies in a region that is quickly becoming Bolivia's Silicon Valley. On-the-job training is also widespread in small, informal family businesses, but practical, on-the-job, technical training could become



The direct and indirect benefits of education have decreased substantially over the last couple of decades.

³ Annual average since 2006.



Urban men see virtually no benefits from the first 15 years of education.

more formal and better integrated within the education system, as it is in Germany, for example.

Indeed, if Bolivia is to achieve the ambitious goal of ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all, then it needs to mobilise many more actors and make much better use of new learning technologies.

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List of contributors

Lykke E. Andersen holds a PhD in economics from University of Aarhus, Denmark. She has been researching development in Latin America for more than 20 years and is currently serving as executive director of the Sustainable Development Solutions Network in Bolivia. Being a prolific writer with more than 300 publications to her name, she is the highest-ranked economist in Bolivia, and among the top 5% of female economists in the world (according to RePEc).

Agnes Medinaceli holds a Bachelor's (Hons) in economics from the University of St Andrews and a Master's in Latin American development from King's College, London. She has worked as a consultant at INESAD, SDSN Bolivia, and ARU Foundation. She has also gained experience as an intern at the Central Bank of Bolivia and as a research assistant at King's College, London, doing research for the European parliament on sexual violence against minors in Latin America.

Carla Maldonado Ivankovic studied economics in La Paz, Bolivia at the University of San Andres. She is currently studying mathematics at the same university, and she has taken postgraduate courses in econometrics and higher education. Previously she worked at the Ministry of Economics and Finance as a junior analyst in the General Directorate of Analysis and Fiscal Policies.

Werner Hernani-Limarino holds a Master's degree and has completed doctoral studies in economics of the University of Pennsylvania. He is co-founder and an associated researcher of Fundación ARU in La Paz, Bolivia, and has advised on research and policy decisions in more than 35 countries across the developing world, including East Africa, South East Asia, Latin America, and the Caribbean Islands.

Southern Voice is an open platform for think tanks that contributes to the global dialogue on the Sustainable Development Goals (SDGs). It does this by disseminating evidence-based policy analysis by researchers from the Global South.

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