

Education and Economic Development of Bolivia

La Educación y el Desarrollo Económico de Bolivia

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Abstract

In this work, it was considered that education is the basis for emerging from poverty and improving people's quality of life, but considering access to impartial and quality education. In this way, the study established three aspects to analyze: first, examine the level of relationship between people's income with schooling, as a second aspect, discuss the impact of investing in education for the economy and third, the relationship of education and COVID - 19. After an exhaustive review on the topic, we consider that there is significant evidence both outside the country and within, that the level of education has an inversely proportional relationship with the educational level and it is responsible for the person to remain in poverty, being education the main factor that allows them to emerge from it. The pandemic has decreased the quality of our educational system, evidencing failures in the training of teachers; problems such as school desertions have caused a significant pause in curricular progress.

Keywords: *Education; Poverty; COVID-19; Income; Curriculum*

Resumen

En este trabajo, se consideró que la educación es la base para emerger de la pobreza y mejorar la calidad de vida de las personas, pero considerando el acceso a una educación imparcial y de calidad. De esta manera, el estudio estableció tres aspectos a analizar: en primero, examinar el nivel de relación entre el ingreso de las personas con la escolaridad, como segundo aspecto, discutir el impacto de invertir en la educación para la economía y como tercero la relación de la educación y el COVID-19. Después de una revisión exhaustiva sobre el tema, consideramos que existe una evidencia significativa tanto fuera del país como dentro, que el nivel de educación tiene una relación inversamente proporcional con el nivel educativo y es responsable de que la persona siga en la pobreza, siendo la educación el principal factor que le permite emerger de la misma. La pandemia ha venido a disminuir la calidad de nuestro sistema educativo, evidenciando fallas en la formación y capacitación de maestros. Los problemas, como el abandono escolar, han ocasionado un retraso significativo en el avance curricular.

Palabras clave: *Educación; Pobreza; COVID-19; Ingresos; Currículum*

INTRODUCTION

The different development hypotheses attribute to education a fundamental role in economic growth, well-being and human development. International organizations such as the UN, the IDB, UNESCO and ECLAC highlight the importance of education as a key element in reducing extreme poverty (Ordaz, 2009). Sen (1999) argues that improving basic education not only directly increases the quality of life, but also a person's ability to earn an income and also get rid of income-based poverty; higher levels of education lead to an improvement in the quality of work (higher productivity of this factor). This improvement is rewarded in the labor market with higher returns to human capital, that is, with higher wages. If an (initially) poor person invests in education, he expects an improvement in his income as a reward, which automatically has an effect on his probability of not being poor.

On the other hand, since the 1990s, education has played a fundamental role in the global anti-poverty agenda. Education becomes a central and strategic factor for the socioeconomic development of any country, one of the basic components of investment in human capital, as well as being a powerful tool to increase productivity and competitiveness in developing countries (Rosales, 2006). Several countries have designed programs to combat poverty in order to improve human capital, building schools close to the poorest sectors, providing economic incentives to teachers or granting monetary transfers to families who send their children to school (Ordaz, 2009).

In the case of Bolivia, education has experienced great progress in literacy in the last two decades; according to the National Population and Housing Census of 1992, 20 out of every 100 people were illiterate, while in 2012 the figure decreased to 5 out of every 100. This shows a reduction of 15 to 34 percentage points in a period of 20 years.

Furthermore, the enrolled population in Bolivia grew by 5.3% between 2008 and 2013 (INE, 2014). This reflects the greater coverage of the educational system in Bolivia. The economic context allowed a substantial reduction in moderate poverty from 63% in 2002 to 45% in 2011, while the Gini inequality index fell from 0.60 to 0.49 between 2002 and 2013. These remarkable results may also be due to

different economic and social variables such as public investment. The effects that the pandemic has had on education are a worrying fact, due to the discontinuity of assistance and reduction of content progress, which resulted in many operational difficulties. Virtual classes had to be designed, which were not the best at the beginning, but thanks to the will and preparation of teachers in an unprecedented time, they were able to improve significantly, but it was not at everybody's disposal since a smaller percentage of students did not have access to virtual classes (lack of internet signal, economic reasons, lack of technology, etc.). All these aspects caused the 2021 progress at risk and led to a significant break for the following years. (IDB, 2020 and UNESCO, 2021)

The gap generated by the educational discontinuity secondary to the pandemic is worrying, due to the implications that have begun to be noticed in high school students as well as those who are in the first semesters of university. (IDB, 2020 and UNESCO, 2021).

DEVELOPMENT

1. Poverty and education

In different periods and countries, several studies attempted to measure the influence of education on poverty and show improvements in well-being, higher wage levels, lower unemployment rates and a higher status for those with more education.

In the nineties, ECLAC (1990) shows data from several countries (Brazil, Colombia, Guatemala, Honduras, Panama, Uruguay, Venezuela, Costa Rica and Chile) and concludes that, in the region, 10 or more years of study, preferably culminating in secondary school, were necessary to access greater well-being, which translated into an 80% chance of not falling into poverty. Data from Uruguay and Venezuela show that the social stratum of the parental home continues to condition the educational opportunities of children. Only one in four young people aged 15 to 19, whose father did not complete primary education, was studying without interruption in school, and when the parents' education exceeds secondary school, that proportion rises to three out of four young people.

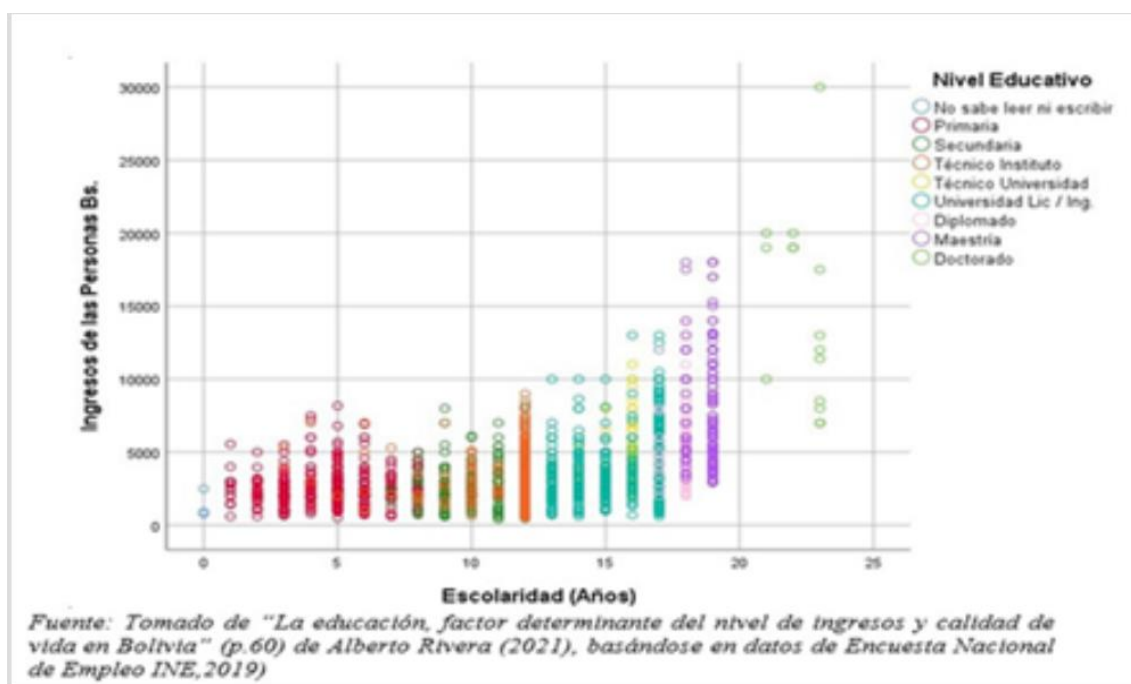
Verner (2004) analyses the case of Paraíba (Brazil) and reveals that education is the most important factor for poverty reduction. All levels of

education (primary, secondary and tertiary) are significant and negatively associated with the probability of being poor. He states that the higher the level of education, the lower the probability of being below the poverty line. Once secondary education is completed, the probability of being poor is four times lower in relation to complete primary education. The probability of being poor having completed tertiary education, according to his calculations, is six times lower in relation to complete primary education.

Ordaz (2009) presents a study that evaluates the impact of primary and secondary education in the rural sector of Mexico on three levels of poverty: food, capacity, legacy poverties.

He finds a positive impact of education on poverty reduction, with a greater impact when it comes to secondary education than only primary education. For the rural sector, it is concluded that when the average person has completed primary school, the probability of being in food poverty decreases by 7.3 percentage points, 8.3 in capacity poverty and 6.1 in legacy poverty. Secondary school reduces the probability of being in food poverty by 10.1 percentage points, while the reduction in capacity and legacy poverty decreases by 11.2 and 9.6 percentage points, respectively.

Figure 1. Correlation between educational level and individuals' income



Borraz et al. (2010) evaluated the role of educational systems as a mechanism to improve people's well-being in different Latin American countries. They determined the returns to formal education in six countries: Argentina, Brazil, Colombia, Paraguay, Peru and Uruguay. The authors consider that the high levels of profitability observed in secondary education are particularly indicative that education can be an effective opportunity for disadvantaged people in society to access better job opportunities. Their work analyzes the impact of education at different income levels and considers it important to understand the design of educational policies that favor the creation of

opportunities for those individuals located in the lowest segments of income distribution.

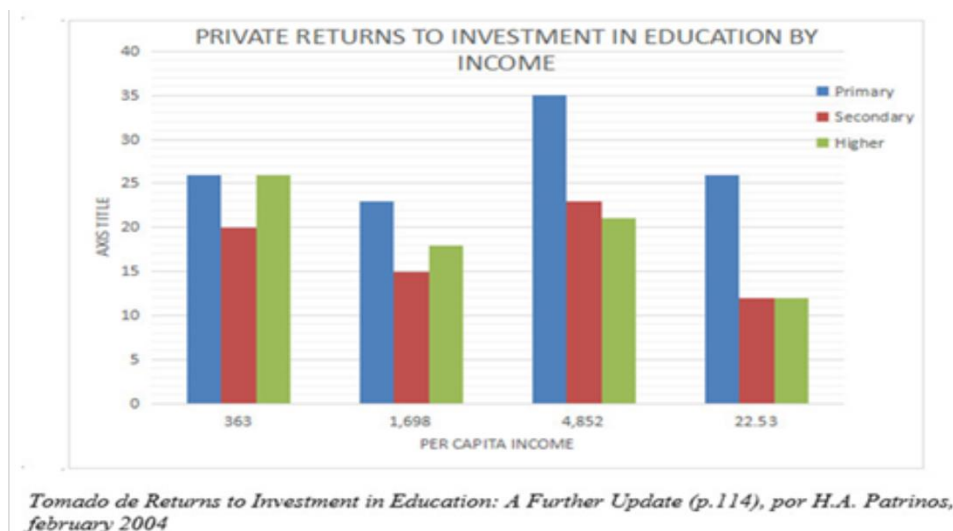
In the case of Bolivia, Zambrana (2010), when analyzing the determinants of poverty, points out that years of schooling are very important in defining people within the non-poverty range. Recently, Bernal (2014) shows that each additional year of education decreases the probability of being poor by 1.84%.

Villegas H. (2016) based on surveys applied at home, showed that the probability of a house considered not poor depends on the level of education of the family heads. The higher the level of education, the lower the percentage of poverty.

Confirming that there is a clear link between education and poverty in Bolivia, where the higher the level of education, the higher the value of the probability of not being poor.

In the graph above we can see the national reality in terms of profitability and income in our country according to investment or academic level, despite the fact that the figures mentioned are much lower than international ranges, however, the relationship between level of training and economic income shows a good return on what investment in the training of human resources and the purchasing power of Bolivians means, these figures reflect a previous study reflected in the INE 2019, due to economic inflation and the current sociopolitical situation of our country these data are far from reality; however, we still maintain the line of the positive effect of education and its personal and social benefits.

Figure 2. *Return on investment in education by income*



We can see that the return on investment is not 100% in many cases; however, the investment relationship is almost proportional to the level of development of industrialized countries.

Brazil presents a study at the request of the Latin American Campaign for the Right to Education (CLADE) by Crespo Burgos, (2020) in which they show us relevant data on the relationship of investment in education at the primary, secondary and university levels, with the impact on social, political and opportunity inequalities in Latin America and its imminent effect on the social problems of poverty and the economy of the

countries, detailing the changes

2. International impact of education and development

For industrialized countries, Patrinos (2004) mentions in a quasi-experimental study the positive impact of investment in human resources on the economy and development of industrialized countries, where tangible and measurable results of investment in education are obtained. These results motivate us to continue working and trusting that education is, among many, one of the best alternatives and proposals for the economy and development of all countries.

incredible that has been had in the last 20 years in education and social and political investment in this area; however, adjustments have had to be made due to the Covid-19 pandemic with immediate repercussions, therefore, sufficient efforts are being made to achieve the goals and objectives proposed by the CLADE, the International Institute for Educational Planning (IIEP) UNESCO Buenos Aires and Oxfam who have joined forces to prepare the regional study of Educational Inequalities in Latin America for 2024, for which they continue to seek political and government strategies to achieve the investment goals in education and thus provide greater opportunities for study and training with an immediate effect on the levels of poverty and inequality of the countries involved.

3. Education and COVID-19

School closures had a direct effect on children's learning (Hammerstein et al., 2021, and Werner and Woessmann, 2021). Particularly in Latin America, the impact of the pandemic on these three dimensions has been one of the strongest worldwide.

Indeed, considering all these dimensions in their simulations: health crisis, economic crisis, recession, and educational losses, Neidhöfer et al. (2021) predict a large drop in the probability of completing secondary education for the current 15-19 year-old cohorts in Latin America. Subsequent studies based on real-time information from surveys or administrative data on learning losses, school disconnection, and school desertion rates in 2020 confirm that the pandemic had a significant negative short-term effect on education in basically all countries in the region. Although these estimates refer to 2020, the situation did not improve substantially in 2021.

Although Latin American economies recovered slightly compared to the previous year, a high number of infections still limit school attendance, vacancies, and in-person learning in most countries. In each country, the regular weeks of school that children would have had are fewer compared to pre-pandemic periods. In most countries, the proportion of weeks with closed schools exceeds 90% of instructional time in the two academic years. The average across all countries is 85% (Bracco et al., 2022).

CONCLUSIONS

After an exhaustive review of the available literature and scientific articles on the subject, we consider that there is significant evidence both outside and in the country, that the level of education has an inversely proportional relationship with the educational level at home, and it is responsible for the person to remain in poverty, being education the main factor that allows them to emerge from it.

Various authors point out that poverty is not the only cause of poverty, but it is the most important one; other causes such as deficiencies in the educational system, inequality, migration, conflicts and violence are problems that should also be considered; however, it seems to be a vicious circle where poverty conditions educational opportunities and is therefore persistent.

The advantages of education are not only personal, since it allows the human being to be a valuable contribution to the development of a country, it allows the individual to have better tools and resources to adapt to a society and improve their quality of life.

If the rulers of the countries were committed and directed government policies with a better and greater investment in education in Latin America and mainly in our country, the objectives and global results of having a population with equal opportunities for the benefit of the community in general would be more easily achieved and thus raise the quality of life with better personal and collective opportunities at a national level.

The pandemic has come to compromise and diminish the (not so good) quality of our educational system, evidencing failures in the teaching and continuous training of teachers. This, added to other problems such as school desertions, have caused a significant interruption in curricular progress that has become more evident when analyzing the level with which students enter the first semesters of university. It is considered that in the future it could affect poverty levels in Latin America and Bolivia, particularly which will be felt in the coming years.

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