

Perception of inequality in access to quality education amongst Chilean young people compared with other age groups

Percepción de la desigualdad en el acceso a educación de calidad en jóvenes chilenos comparado con otros grupos de edad

TORRES, Rodrigo A.¹

Abstract

This research analyzes and assesses perceptions of inequality in access to quality education amongst Chilean young people (aged 18 to 29) and compares them with other age groups. The 2016 survey *Encuesta Desigualdades Económicas y Sociales*, conducted by the UNDP office in Chile, was used to identify whether social disaffection caused by inequality in access to quality education is felt solely amongst young people or whether a universal phenomenon across the population as a whole.

Keywords: youth, Inequality, Education, Chile

Resumen

Esta investigación analiza los niveles de percepción de desigualdad en el acceso a educación de calidad en jóvenes chilenos (18 a 29 años) y se comparan con otros grupos de edad. Recurriendo a la encuesta *Desigualdades Económicas y Sociales* del año 2016, realizada por la oficina del PNUD en Chile, se identifica si el malestar social por la desigualdad en el acceso a educación de calidad se aprecia solamente en los jóvenes o es un fenómeno mucho más transversal en la población.

Palabras clave: juventud, Desigualdad, Educación, Chile

1. Introduction

1.1. Study context and objectives

Within the field of studies into inequality in access to quality education, Chile stands as a remarkably interesting case due to two main characteristics. First, since the 1990s the Chilean State has implemented education policies to increase coverage and enhance levels of equity at all levels; although this process has brought about a

¹ Researcher and Full Professor at Centro de Investigación en Ciencias Sociales y Juventud (Social Science and Youth Research Center). Universidad Católica Silva Henríquez. PhD in Political Science. Contact: rtorrest@ucsh.cl.

significant rise in the number of students accessing education, it has left in its wake significant levels of inequality in education quality at the secondary and higher levels (Matear, 2006; OECD, 2013, 2017; UNDP, 2017; Torche, 2010). Secondly, despite these policy objectives, the country has witnessed mass mobilizations of students protesting their discontent with an education system oriented towards privatization – protests that have brought the problem of inequality in access to quality education to the fore of public and political discussion (Cabalín, 2012; Torres, 2012). Indeed, the mobilizations of secondary school students in 2006 and university students in 2011 raised important social and political questions about the suitability of the education market system that had been developed in Chile, opening the way for a number of reforms that have endowed the State with a greater regulatory capacity in the education sector (Matear, 2007; Torres, 2014; OECD, 2017).

To date, most literature published on the topic has adopted a strategy based on analyzing the effects of the country's education system on the production and reproduction of inequalities, contributing valuable empirical information on structural inequality in Chilean education (Matear, 2007; Torche, 2005; Cabrera, 2016; Elacqua, 2012; Espinoza, 2008). However, few studies have addressed the population's perceptions surrounding this inequality in access to quality education, and particularly the vision of young people – the societal stakeholders who have mobilized en masse to protest this societal problem. In a bid to fill this gap, the objective of this project is to analyze and assess perceptions of inequality in access to quality education amongst Chilean young people and compare them with other age groups. This comparison will allow contrasts to be observed if any significant differences exist in perception of inequality in access to quality education between different age groups, thus determining whether the social discontent rooted in educational inequality exists solely amongst young people – the main age group that has shown its dissatisfaction with the education system (Cabalin, 2012) – or whether this is a phenomenon that affects other age groups in the population. To this end, the 2016 survey *Desigualdades Económicas y Sociales* (UNDP-DES) was used. The survey was conducted by the UNDP office in Chile and contains data on 2613 persons making up a representative sample of the country's population.

Finally, the objective and results of this article form part of a broader research project on the emergence and construction of the education problem in Chile (Fondecyt Research Project 3170570), funded by the National Scientific and Technological Development Fund, which falls within the purview of Chile's National Scientific and Technological Research Commission.

1.2. Background on inequality in access to quality education in Chile

During recent decades the Chilean education system has achieved major advances in terms of coverage and access to education amongst the population. For example, almost all children aged between 6 and 13 attend primary school (over 96% in 2016) and more than 90% of those aged 14 to 17 attend secondary school: values close to the average of OECD member states (Mineduc, 2018). Meanwhile, over 40% of young people aged 18 to 24 are enrolled in higher education (Mineduc, 2018). However, despite these advances, a number of reports showcase the existence of major challenges for the education system, affecting access to quality education for all young people (OECD, 2013, 2017; UNDP, 2017). By way of example, attention may be drawn to the high percentage of private expenditure incurred by families, principally to pay for higher education (OECD, 2013), and the heavy workloads placed upon primary and secondary school teachers – far above the OECD average (OECD, 2017). It should here be noted that available evidence indicates that the principal factors relating to inequality in access to quality education constitute structural elements of the Chilean education system (Bellei, 2015; Matear, 2007; Espinoza, 2008).

The literature shows that the following structural factors in the country's school system have contributed to the production of inequalities in primary and secondary education. First, the development of a municipal administration system for public schools, which emerged in a context of favoring decentralization, and has resulted in significant differences in public schools' endowment of resources depending on levels of wealth within their local districts (Elacqua et al, 2012). Second comes State subsidization of private schools under a voucher system. Studies published by Elacqua (2012) and Mizala & Torche (2012) show that the education voucher system has exacerbated socio-economic segregation, creating divides around state-subsidized private schools for the middle and upper classes, while public schools attend to students from less wealthy families, achieving lower levels of academic performance. Finally, as noted by Bellei (2015), the system shows progressive tendencies towards privatization, based on a logic of free selection of schools. This is a cultural factor that has placed subsidized private education at the forefront of schooling in Chile.

Investigating inequality in access to quality higher education, Matear (2006) identified three barriers that have stood in the way of equitable access for all young people. First of all, unequal quality in the education offered by secondary schools favors access by students who were privately educated at that level, attending the country's more prestigious establishments, and reduces the possibilities for those who attend public schools. Meanwhile, the admission process for higher education institutions, based on a national exam to gauge applicants' knowledge rather than addressing their academic backgrounds during their secondary education. Finally, the institutional financing system offered to higher education students during the 1990s and 2000s, based principally on state subsidies or bank loans, rather than an increase in public funding for universities to reduce costs to students. For example, despite the increase in public spending on education, state expenditure per student at education institutions remains among the lowest in the OECD, with families paying much of the cost associated with education (OECD, 2013, 2017). Here, Espinoza (2008) notes that although recent decades have seen an increase in access for lower and middle-class young people at higher education institutions, this has come at the same time as an increase in the proportion of students from upper-class backgrounds attending the most prestigious institutions. This analysis is echoed in a recent study by Cabrera (2016), showing that from 1990 to 2009 young people with more cultural and economic capital showed greater increases in their probability of accessing higher education, while lower social classes faced cultural and financial restrictions in accessing the most prestigious institutions.

1.3. Organization of the article

The article is organized in four sections. Following this introduction, the second section introduces the data, variables, and method. The third section presents results about perception of inequality access to quality education in Chilean youth people compared with other age groups. The final section contains concluding remarks.

2. Methodology

2.1. Sample

The data used in this study were taken from *the Encuesta Desigualdades Económicas y Sociales* (UNDP-DES), a survey that was developed and conducted by the UNDP office in Chile during 2016 as part of a research project investigating socio-economic inequality in the country. A sample (N=2613) was used comprising men and women aged over 18, belonging to different socio-economic groups, and residing in both urban and rural areas of all of the 15 regions than make up Chile. The maximum sampling error is 2.1% with maximum variance, at a confidence

level of 95%. The survey was conducted using a probabilistic sampling design stratified by conglomerates for selection of city blocks and households. Stratification was given by a variable for region and geographic zone. With the goal of maintaining the design's probabilistic nature, the survey features expansion factors for statistical inference drawn from the sample.

2.2. Instruments and variables

This study is built on two questions about perception of inequality in access to quality education as the dependent variables, taken from the survey noted above:

- *Perception of inequality in access to quality education.* In order to gauge current perceptions regarding inequality in access to quality education, survey question P9G was used: "How equal or unequal do you believe Chile is in terms of people's access to quality education?" with responses given on a scale of 1 (Very equal) to 10 (Very unequal).
- *Perception of trends in inequality in access to quality education.* To gauge perceptions regarding changes in inequality in access to quality education, question P10G was used: "Comparing the present day with the situation when you were 15 years old, do you believe that inequality in access to quality education has increased, decreased, or stayed the same?"

Respondent age was taken as the independent variable, with values reconfigured into age groups. Under the parameters of the Chilean National Youth Institute (INJUV, 2015), the group of young people was defined as persons aged 18 to 29. In line with the survey's sample design, the other age groups used were 30-44, 45-54, 55-64, and 65 or over. Finally, analysis of perceptions regarding trends in inequality in access to education amongst young people included two socio-demographic variables: first, the variable sex (male or female), and secondly, respondent geographic area of residence: Northern Chile, Central Chile, Southern Chile, and the Santiago Metropolitan Region, the latter including the country's capital city and a large proportion of the population.

2.3. Methods

In order to conduct this analysis, student's t-tests were used for the independent samples, with one-way ANOVA and the Welch test as techniques for comparing means. Chi-squared tests were also used to observe association and independence between categorical variables.

3. Results

3.1. Perception of inequality in access to quality education amongst young people

This section analyzes perception levels of inequality in access to quality education amongst young people (aged 18 to 29), establishing whether any statistically significant differences exist by sex or geographic zone of residence in Chile.

Table 1 shows values assessed on a scale of inequality running from 1 (Very equal) to 10 (Very unequal), with the 18-29 age group showing a mean of 8.10 (SD=2.31), that is, a perception level close to the extreme of "Very unequal". The study sample shows a mild difference in perception of inequality in access to quality education in Chile between male (M=8.06, SD=2.48) and female young people (M=8.14, SD=2.13). A t-test for two independent samples was applied to determine whether the sex difference is statistically significant. The result shows that the difference between male and female young people is not statistically significant $t(672)=-0.479$,

$p=0.632$. Therefore, the existing evidence is not sufficient to indicate that any significant difference by sex exists in perceptions of inequality in access to quality education amongst young people aged 18-29.

Table 1
How equal or unequal do you believe Chile is in terms of people’s access to quality education?

Respondents aged 18-29, by sex	Mean	Standard Dev.
Male	8.06	2.48
Female	8.14	2.13
Male and female	8.10	2.31

Table 2 shows the average levels of perception of inequality in access to quality education amongst the population aged 18 to 29 by residence zone: Northern Chile (M=6.98, SD=3.10), Central Chile (M=8.19, SD=2.42), Southern Chile (M=7.63, SD=2.09), and the Santiago Metropolitan Region (8.70, SD=1.88). In line with the study sample, differences appear in the mean values, with a lower average perception level of inequality in access to quality education in Northern and Southern Chile and the highest average in the Santiago Metropolitan Region. A one-way ANOVA test was applied to detect whether these differences are statistically significant. As the supposition of equality of variance was not assumed (Levene test), the analysis was corrected using the Welch test to compare means. The result shows that statistically significant differences do exist in average levels of perception of inequality in access to quality education amongst young people resident in different areas of the country; $F(3, 257.465)= 15.035, p < 0.001$. Comparison of mean values using the Games-Howell post-hoc test shows that these statistically significant differences arise between young people from the Santiago Metropolitan Region and those from Northern and Southern Chile; in other words, the available evidence indicates that young people in the Metropolitan Region perceive higher levels of inequality in access to quality education than their peers in the Northern and Southern Zones. This test also detected a significant difference between young people in Northern and Central Chile, with a higher mean amongst the latter.

Table 2
How equal or unequal do you believe Chile is in terms of people’s access to quality education?

Respondents aged 18-29, by area of Chile	Mean	Standard Dev.
Northern	6.98	3.10
Central	8.19	2.42
Southern	7.63	2.09
Santiago Metropolitan Region	8.70	1.88

3.2. Perception of inequality in access to quality education by age group

This section addresses perception levels of inequality in access to quality education amongst young people (aged 18-29), compared to other age groups: 30-44, 45-54, 55-64, and 65 or over, establishing whether any statistically significant differences exist.

Table 3 shows mean values for perception of inequality in access to quality education by age group. On a scale running from 1 (Very equal) to 10 (Very unequal), young people (aged 18-29) showed an average of 8.10 (SD=2.31) – the lowest of all age groups studied. Respondents aged 30-44 showed a mean of 8.51 (SD=2.09), and those aged 45-54 showed a mean of 8.58 (SD=1.90) – the highest average level of perception of inequality in access to quality education of all age groups. The group aged 55-64 showed a mean value of 8.32 (SD=1.99),

while respondents aged 65 and over showed a mean of 8.30 (SD=1.95) – both groups showing averages higher than that of the group aged 18-29.

A one-way ANOVA test was applied to detect whether the differences between mean values by age group are statistically significant. As the supposition of equality of variance was not assumed (Levene test), the analysis was corrected using the Welch test. The result shows that statistically significant differences do exist in average values by age group in the population; $F(4, 1137.703) = 4.769, p < 0.001$. Comparison of mean values using the Games-Howell post-hoc test shows that these statistically significant differences arise between the 18-29 and 30-44 age groups, and between the 18-29 and 45-54 groups; in other words, the available evidence indicates that young people aged 18-29 have a lower average level of perception of inequality in access to quality education than people aged 30-44 and those aged 45-54.

Table 3
How equal or unequal do you believe Chile is in terms
of people's access to quality education?

Age group	Mean	Standard Dev.
18-29	8.10	2.31
30-44	8.51	2.09
45-54	8.58	1.90
55-64	8.32	1.99
65 and over	8.30	1.95

Table 4 shows the response to the following question amongst different age groups, expressed as a percentage: Comparing the present day with the situation when you were 15 years old, do you believe that inequality in access to quality education has increased, decreased, or stayed the same? In line with the study sample, the 18-29 age group generally believes that “inequality in access to quality education has stayed the same” (48%); this is the only age group in which this response had the highest score. Meanwhile, all other age groups show the largest percentage of responses for the option “inequality in access to quality education has increased”: 39.4% amongst respondents aged 30-44, 38.3% amongst those aged 45-54, 38.4% amongst those aged 55-64, and 45.3% amongst those aged 65 and over – the group with the strongest perception that inequality in access to quality education “has increased”.

A chi-squared test indicates that a statistically significant association exists between age group and perception of increase, decrease, or maintenance of the same level of inequality in access to quality education: $\chi^2(8) = 59.686, p < 0.001$. Here a z-test was applied to compare column proportions, showing at a 95% confidence level that statistically significant differences exist amongst young people aged 18-29, who mainly perceive that inequality in access to quality education remains the same (48.0%) compared to the proportion who believe that it has increased (29.6%) or decreased (22.4%). A statistically significant difference was also detected amongst persons aged 45-54, who believe that inequality in access to quality education has declined (30.3%) compared to those who believe that it remains the same (31.4%). Finally, a statistically significant difference also emerged amongst persons aged 65 and over, who mainly feel that inequality has increased (45.3%) compared to those in this group who feel that it has remained the same (29.2%).

Table 4

Comparing the present day with the situation when you were 15 years old, do you believe that inequality in access to quality education has increased, decreased, or stayed the same?

Age group	Increased (a)	Decreased (b)	Remains the same (c)
18-29	29.6%	22.4%	48.0% (a & b)
30-44	39.4%	24.6%	36.0%
45-54	38.3%	30.3% (c)	31.4%
55-64	38.4%	29.0%	32.6%
65 and over	45.3% (c)	25.5%	29.2%

4. Conclusions

This study analyzed perceptions of inequality in access to quality education amongst young people (aged 18-29) and compared them with other age groups to determine whether statistically significant differences exist.

First of all, young people perceive access to quality education as “Very unequal” – a perception that is shared by male and female young people. Differences in perception are also observed amongst young people from different areas of the country. Available evidence indicates that young people in the Metropolitan Region perceive higher levels of inequality in access to quality education than their peers in Northern and Southern Chile.

Secondly, comparison of perception levels of inequality in access to quality education shows that young people aged 18-29 have a lower average level of perception of inequality in access to quality education than people aged 30-44 and those aged 45-54. It was also observed that a statistically significant association exists between age group and perception of increase, decrease, or maintenance of the same level of inequality in access to quality education. Here, young people were noted to constitute the only age group in which the majority believes that “inequality in access to quality education remains the same,” while most members of other age groups feel that “inequality in access to quality education has increased.” In conclusion, available evidence indicates that not only do young people perceive a high level of inequality in access to quality education, but all other sectors of the population also share this perception.

Finally, the results of this research project suggest that further relevant findings may be drawn from a generational analysis in studies of this kind. Here, two elements stand out to guide future work. Firstly, further research on the higher level of perception of inequality in access to quality education amongst persons aged 45-54 could bring interesting results. Secondly, perceptions amongst older people (aged 65 and over) should be investigated: while this age group has observed a process of democratization in access to education, these people believe that levels of inequality in access to quality education have increased since their youth. These two examples show strong potential for future research projects in this field.

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