

Creating (in) equalities in access to higher education in the context of structural adjustment and post-adjustment policies: the case of Chile

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Abstract By analyzing the access of different socio-economic groups to post-secondary institutions by quintile, this paper examines the impact produced by higher education financing policies in Chile during the Pinochet (1973–1990), the Aylwin (1990–1994) and the Frei (1994–2000) administrations. To this purpose, CASEN databases and semi-structured interviews conducted with former and current government officials as well as higher education administrators provide valuable information to measure the impact that higher education financing policies had on different socio-economic groups. Access to post-secondary institutions is seen in relation to two aspects: (a) enrollment rates by type of institution and sector and (b) access of students (18–24 year-old group) by family per capita income level. Major conclusion set up that despite increased participation across all socio-economic groups within the post secondary system, upper and upper-middle income students gained access to higher education disproportionately compared to lower, lower-middle, and middle income groups during the 1987–1998 period.

Keywords Access · Equity · Privatization · Structural adjustment and post adjustment policies

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Introduction

Nobody might ignore the progress that Chile has achieved since the return of “democracy”¹ in 1990. From a low starting point as compared to other Latin American nations, access to education (elementary, secondary and higher) expanded rapidly, bringing Chile into line with Argentina and Uruguay, the regional leaders.

By 1990, elementary education was already virtually universal, but the coverage of high school education reached only 80%. Today, that is also close to 100%, and seven in ten of today’s university students are the first generation in their families to receive higher education.

Despite this progress, there is, indeed, consensus among experts and all actors that Chile’s education system is not delivering the necessary results, either in terms of equity or attainment. In this scenario, there was recently (July, 2006) a huge protest led by secondary students nationwide against the quality of state schooling and its inequity. According to the students the system has a structural flaw. Their complaint is that, under a reform introduced in the 1980s, state-funded private schools can cream off the best and cheaper-to-educate pupils while children from poor families are forced to attend state-run schools, with fewer resources to compensate for their greater educational disadvantages.

In this context, by analyzing the access of different socio-economic groups to post-secondary institutions by socio-economic status (SES), this paper examines the impact produced by higher education financing policies. From a critical theory perspective, the main purpose of this study is to determine through descriptive and inferential statistical analyses the equity/equality consequences of higher education financing policies in Chile during the Pinochet (1973–1990), the Aylwin (1990–1994) and the Frei (1994–2000) administrations.

In the debate over higher education financing policy in developing countries, the “equity” goal is frequently mentioned. To pursue this goal, governments intervene to improve “equity of access” to financial aid because students from low-income families do not have money to pay the full cost of higher education. Moreover, even if they were able to, low-income families tend to be more reluctant than high-income families to take the risk associated with financing post-secondary studies for their children. In the absence of offsetting government policy, there would be a strong tendency for personal/family (versus government) expenditure in both public and private higher education to be more common among children from high-income families.

Country case studies (see, for example, de Mello e Souza, 1991; Espinoza et al., 2007; Fried & Abuhadba, 1991; Fuentes, 1998; James, 1991; Larrañaga, 1992; Navarro, 1991; Sverdllick, Ferrari, & Jaimovich, 2005) provide strong evidence for the fact that many developing countries through public funding of higher education facilitate access to post-secondary institutions for students from high-income families (quintile 4 & 5) who are disproportionately represented in the tertiary educational level given their percentage in the overall population and their representativeness among secondary school graduates.

¹ The concept of democracy has many meanings depending on the perspective used to examine it. According to the author democracy or political democracy in the absence of social equality/equity (case of Chile in the post-Pinochet era) might be qualified as “democracy”.

Access to post-secondary institutions is seen in relation to two facets: enrollment rates and access by family per capita income level. First, enrollment rates are discussed with regard to two aspects: enrollment growth rates at the undergraduate level and enrollment gross ratios (18–24 year-old group) in the higher education system. Second, access to higher education by SES quintile is analyzed with reference to four variables: percentage of young people (18–24 year-old group) from families in each SES quintile who attended at least some higher education, percentage of youth (18–24 year-old group) from families in each SES quintile attending higher education institutions when CASEN surveys were conducted, socio-economic composition of students (18–24 year-old group) attending higher education by type of institution and sector, and, percentage of students enrolled in higher education institutions who received loans and/or scholarships by family per capita income.

Additionally, drawing upon personal semi-structured interviews conducted with former and current government officials as well as higher education administrators, this paper reports key actors' perceptions and explanations of the impact that higher education financing policies had on different socio-economic groups.

The following research questions will frame the analysis in this study:

1. How do changes in enrollment growth affect coverage and equity of access in the higher education system?
2. How and why has demand for higher education changed across socio-economic groups during the implementation of adjustment and post-adjustment policies?
3. What appear to be the consequences of the Chilean governments' policies in terms of access to higher education for different socio-economic groups?
4. How do former and current government officials and higher education administrators describe and explain the consequences that policies have had on different socio-economic groups?

Privatization of the Chilean higher education system

The process of privatization of higher education in Chile was initiated by the military regime of Augusto Pinochet (1973–1990) and continued by the “democratic” governments of Patricio Aylwin (1990–1994), Eduardo Frei (1994–2000) and Ricardo Lagos (2000–2006). Prior to 1981 Chile's higher education system consisted of eight publicly funded² universities; two of these were public and enrolled sixty-five percent of the students, while six were privately controlled³ and enrolled thirty-five percent of the students (González, L. E. & Espinoza, O., unpublished).

In 1981, the Pinochet government implemented a reform, which affected all the social sectors (education, health and social security). With the implementation of the 1981 reform, Chilean higher education underwent changes, which dramatically increased the privatization of the system. Besides expanding the system by allowing the creation of privately controlled and privately funded university and

² Prior to 1981, the Chilean government covered approximately 80.0 percent of institutional expenditures. The other institutional revenue sources were generated through sale of services and tuition payments.

³ Among the six universities privately controlled but publicly funded, two universities belonged to the Catholic Church and the other four belonged to non-profit and philanthropic organizations.

non-university institutions and, thus, expanding significantly the number of students enrolled in private higher education, the changes involved partially transferring the cost of state-funded institutions from tax revenue to the resources of individual students and their families as well as encouraging strongly these institutions to diversify their funding resources. As a result higher education institutions (both publicly and privately funded and/or controlled) sought out or otherwise attracted funds from other (generally private) sources. These included tuition payments, sales of services, loans from private banks, and other sources (including donations).

Antecedents of privatization

The above-noted dynamics involving the higher education system of Chile did not occur by coincidence; some of the internal and external institutional actors which played a role in initiating and/or continuing these dynamics will be examined.

Endogenous and exogenous antecedents

The policies and practices pursued by the Chilean government during the 1980s and 1990s reflect a neo-liberal agenda promoted (“endogenously”) by the “Chicago Boys,” who came to dominate the Pinochet administration in the early 1980s, and reinforced (“exogenously”) by the policy recommendations and structural adjustment/stabilization program conditionalities of the World Bank and the International Monetary Fund (Espinoza, 2002).

The origins of the implementation of neo-liberal economic policies in Latin America, and particularly in Chile, must be related to a group of Chilean economists trained at the University of Chicago in the late-1960s and early-1970s and identified as the “Chicago Boys.” The neo-liberal economic reforms implemented by the “Chicago Boys” in the early-1980s were based on the assumed benefits of privatization and trade liberalization. Based upon the neo-liberal perspective, the “Chicago Boys” sought to achieve two major goals related to institutional funding in higher education policy reforms in Chile during the 1980s: (a) to get universities to transfer teaching costs to students or their families and (b) to encourage competition in determining the allocation of public resources. With reference to student aid the “Chicago Boys” promoted as of 1981 a new system called student-based formula, which pursued three goals: (a) to reduce higher education student allowances, (b) to introduce and overtime increase the proportion of revenue generated via tuition and fee charges, and (c) to emphasize student loans rather student scholarships or direct institutional funding.

The neo-liberal agenda also came to shape Chile’s policies and practices with regard to higher education because the policy recommendations of the World Bank, the IMF’s stabilization programs, and the World Bank’s structural adjustment programs, which were grounded in a neo-liberal agenda, all came to influence how Chilean government officials developed their higher education enterprise.⁴ It is well

⁴ Most of the World Bank’s and the IMF’s experts as well as many outsiders believe that these institutions played a significant role in shaping the way Chile and Latin America in general dealt with the external debt crisis and undertook financial and social reforms (Edwards, 1994; Corbo & Rojas, 1991). But saying that they were influential does not mean that World Bank and IMF had a positive impact on Latin American economies. Indeed, critics of World Bank and IMF adjustment/stabilization policies believe that these contributed to increased inequity and poverty (Carnoy, 1995; Danaher, 1994; Ruccio, 1992; Samoff, 1994).

known that macro-economic reforms imposed in Chile in the 1980s by the World Bank and the IMF were strongly connected with the neo-liberal economic model. In fact, those reforms were based on the assumptions of economic liberalization, decentralization and privatization of public services. In this context, the World Bank's higher education policies influenced Chile's policies in the direction of privatization, commercialization, and marketization during the 1980s and 1990s. For instance, some policies suggested by the World Bank and adopted by Chilean government officials in the 1980s and reaffirmed in the 1990s were the following: (a) to reduce public expenditure in higher education by shifting resource allocation within the education sector budget in order to favor primary education; (b) to diversify institutional revenue sources by introducing competitive funding mechanisms and increasing sale of services; and (c) to fund higher education studies via tuition and student loans, which were introduced in the early-1980s.

In 1998 the Chilean government negotiated a loan agreement with the World Bank to implement the Higher Education Improvement Project (*Mejoramiento de la Calidad y Equidad de la Educación Superior, MECESUP*).⁵ In the proposal submitted to the Bank by the Chilean government, the Ministerio de Educación (1998, p. 5) recognized that the lack of efficient mechanisms to support academically qualified but financially needy students is producing inequitable access to the higher education system across socio-economic groups.

Evidence suggests that adjustment and post-adjustment policies affected negatively public expenditure in the higher education sub-sector as well as institutional development and access to post-secondary education. Indeed, public expenditure in higher education (in constant Chilean pesos of 1998) decreased considerably in Chile between 1981 and 1989 and then after 1990 recovered slowly but without reaching the level of expenditure observed in 1981. Similarly, between 1972 and 1997 Chile's higher education budget as a percentage of education budgets and the higher education budget as a percentage of GNP declined substantially affecting both institutional development and access (Espinoza, 2002).

As a result of the reduction of public social expenditures "imposed" by IMF/World Bank stabilization and structural adjustment programs, higher education institutions in Chile and in other Latin American countries have moved to generate institutional revenue sources by increasing the level of sale of services and tuition fees. Another negative consequence of the reduction of public expenditures promoted in the 1980s, particularly in the higher education budget, was the high level of institutional indebtedness taken on by publicly funded universities.

Privatization via institutional growth and enrollment expansion

Enrollment in higher education institutions, 1980–1998

In Chile approximately 140,000 students graduate annually from secondary schools. Of this total, 43,000 are admitted to the twenty-five publicly funded universities, based on two indicators: (a) their performance in a national "achievement" test (*PSU*), which measure abilities in areas such as mathematics, verbal (language, analogies, etc), history, social sciences, and geography, and (b) their performance

⁵ The *MECESUP* (1998–2003) is a five-year project co-funded by the World Bank and the Chilean government.

(grades) in high school. While the national test is counted in terms of admission decisions between 70.0 and 90.0 percent, depending upon the university, the high school performance is considered in a range between 10.0 and 30.0 percent. Within this segment it is possible to find out students coming from every social strata with higher “abilities” in the different disciplines. Likewise, 80,000 high school graduates are admitted yearly in private higher education institutions without public support. In most cases, the ability to pay tuition in this kind of institution is the most important factor to obtain access. Therefore, with the exception of few new private universities, academic requirements (e.g., *PSU* score) are not required or are very flexible.

The 1981 reform allowed for significant enrollment growth in higher education, most notably in privately controlled and funded institutions. The expansion of enrollments, however, was not backed by sufficient resources to maintain per-pupil expenditures in such relevant areas as books, equipment, and teachers. Decreasing expenditures often resulted in decreasing teaching quality (Fried & Abuhadba, 1991). Also, as a result of the high cost of different programs offered by post-secondary institutions, access has increasingly depended on socio-economic background (students’ family income levels) more so than merit.

This enrollment growth, particularly that caused by the creation of new private institutions, did not promote equitable access to the system. Because of the high tuition cost in private institutions, access was extended disproportionately to the high school graduates coming from upper-middle and upper income families (Ministerio de Planificación y Cooperación, 1996).

It is important to point out that a significant percentage of high school graduates from low-income families do not pursue post-secondary studies for two reasons: (a) they enter the labor market early to support their families economically and (b) students from low-income families are more reluctant to finance higher education studies through loans than students from high-income families.

In the Chilean case it has been argued that the 1981 reform transformed the tertiary educational system into a mass system dominated by private institutions which strengthened the “elitization” of higher education (Briones, 1984; Espinoza, 2002). In line with this argument, for example, a large percentage of high-income students became enrolled in expensive programs offered by privately funded universities because they could not gain access to the most prestigious universities (Universidad de Chile and Pontificia Universidad Católica de Chile) or other of their choice. For example, in 1990 72.1 percent of youth enrolled in private universities without public funding belonged to the fifth quintile, while in 1996 61.2 percent of students attending new private universities represented the fifth quintile. In contrast, the proportion of students from quintile 1 and 2 represented 4.2 and 6.5 percent in 1990 and 1996, respectively (Larrañaga, 1992, 1999).

Between 1980 and 1998 higher education enrollment increased by more than 274,000 students, equivalent to a growth rate of 230.0 percent. In general terms, enrollment rose from 118,978 undergraduate students at all levels to 393,466 (see Table 1). Between 1990 and 1998 there was an increase in university enrollment of nearly 115.0 percent, from 127,628 students enrolled in 1990 to 274,583 in 1998. While in 1990 the percentage of students attending private universities without direct public funding represented 18.0 percent of university enrollments, in 1998 this proportion increased up to 45.0 percent. Within traditional publicly funded universities enrollment rose from 118,978 to 188,522 undergraduate students between 1980 and 1998, a growth rate of 58.0 percent (see Table 1). For non-university institutions,

Table 1 Number and percentage of undergraduate students enrolled in higher education institutions by type of institution and sector, 1980–1998

Institution	1980	1985	1990	1994	1998
Universities	118,978	113,625 (100.0%)	127,628 (52.0%)	205,738 (64.0%)	274,583 (69.8%)
Universities with Public Funding	118,978	108,674	108,119	145,744	188,522
New Private Universities without Public Funding	0	4,951	19,509	59,994	86,061
Professional Institutes	0	32,233 (16.4)	40,006 (16.3%)	38,252 (11.9%)	64,593 (16.4%)
Professional Institutes with Public Funding	0	17,668	6,472	0	0
New Private Professional Institutes, no Public Funding	0	14,565	33,534	38,252	64,593
Technical Training Centers	0	50,425 (25.7)	77,774 (31.7%)	77,258 (24.1%)	54,290 (13.8%)
Technical Training Centers with Public Funding	0	0	0	0	0
New Private Technical Training Centers without Public Funding	0	50,425	77,774	77,258	54,290
Total	118,978 (100%)	196,283 (100.0%)	245,408 (100.0%)	321,248 (100.0%)	393,466 (100.0%)

Source: Ministerio de Educación (1999)

Table 2 Gross enrollment ratios^a in the higher education system (18–24 year-old group), 1980–1998 (Percentages)

1980	1985	1990	1994	1998
7.5	11.2	14.2	18.9	23.5

^a Ratio of total enrolled -regardless of age- to the total population of the 18–24 age cohort

Source: Personal elaboration based on enrollment data from Ministerio de Educación (1999). Population data from INE (1990)

all of which are privately controlled and funded, enrollment increased from zero in 1980 to 117,780 in 1990 and 118,883 in 1998. Thus, by 1998, 52.1 percent of all higher education enrollments were in privately controlled and funded institutions, up from zero percent in 1980.

Enrollment growth within professional institutes had a significant expansion, though less significant than in the university system, going from no student enrolled in 1980 to 40,006 in 1990 and 64,593 in 1998, which represents a growth rate of 61.0 percent between 1990 and 1998. Similarly, in the 1980s enrollment grew rapidly at technical training centers moving from zero in 1980 to 77,774 in 1990. But, during the 1990s technical training centers experienced a tremendous decline in their enrollments. As a result of this decline, technical training centers enrolled 54,290 students in 1998, which represents a reduction of more than 23,000 students or 30.0 percent compared to that of 1990 (see Table 1). The decline may be explained by three facts: (a) high school students prefer to get credentials from universities or professional institutes, which provide a higher social status; (b) high school students wishing to attend technical training centers are not eligible for tuition scholarships⁶ and (c) students enrolled in this kind of institution do not have access to loans supplied via higher education budget.

Like enrollment figures, gross enrollment ratios for the population between 18 and 24 year-olds also grew in the Chilean higher education system during the 1980s and 1990s. Indeed, within the 18–24 age group, gross enrollment rose from 7.5 to 23.5 percent in the period 1980–1998. In other words, gross enrollment ratio in higher education tripled in less than twenty years (see Table 2).

In Chile as well as in other Latin American countries (e.g., Brazil, El Salvador, and Venezuela) expansion of private higher education (Winkler, 1990; Eisemon & Salmi, 1995; Wolff et al., 1997) is producing a double injustice. On the one hand, the most privileged high school graduates move from the top secondary schools generally private) into free (and high quality) public higher education and, on the other hand, less privileged students pay for the inferior education provided by private higher education institutions.

⁶ In the 1990s there was a heated debate in Chile among government representatives, scholars and student organizations with regard to the possibility of providing scholarships for students already enrolled or planning to attend technical training centers. As a result, in the year 2000 the Ministry of Education created a new Scholarship Program called Millennium oriented to provide scholarships to economically disadvantaged students expecting to attend private technical training centers. Students enrolled in technical careers either in professional institutes or traditional universities are also eligible (interviews with Pilar Alamos, December 2000; María Elvira Cornejo, December 2000; and Carlos Velasco, November 2000).

Access to higher education institutions by SES quintile

From an equity point of view⁷ the expansion of enrollment does not say anything by itself. To examine issues of equity it is necessary to analyze access by SES quintile to determine how higher education financing policies have affected students' access from different socio-economic groups in the context of adjustment and post-adjustment policies implemented by the Chilean government at the macro-economic level.⁸ In this regard, for example, in the early-1990s it was broadly recognized by government representatives, *rectors* of universities and scholars, in general, that in terms of "equity of access," the Chilean higher education system was still biased towards upper income students, but less so than other university systems in Latin America (Carlson, 1992).⁹ Indeed,

'the student driven model, with high tuition fees, partial vouchers and loans, has resulted in difficulties for lower income students in meeting the private costs of education. Chile has experimented with a student loan program, but this has not resolved equity problems since many students who are interested in studying in fields with low private returns are effectively denied access' (Covarrubias & González, 1991. Cited in Albrecht & Ziderman, 1992: 48)¹⁰

In this paper section, equity of access is examined by using different variables including percentage of young people (18–24 age cohort) from families in each SES quintile who attended at least some higher education, percentage of young people (18–24 year-old group) from families in each SES quintile attending higher education institutions by SES, and socio-economic background of 18–24 year olds attending higher education by type of institution and sector.

Certainly, there is strong relationship between equity of access and socio-economic status of students enrolled in higher education institutions. In that perspective, Table 3 contains the proportion of youth (18–24 year-old group) who had

⁷ Concerning equity of access, the analyses considers two dimensions: (a) equity for equal potential, which assumes that access to education should be guaranteed to all individuals having equal abilities and (b) equity for equal needs, which conceives that access to education should be assured at the individual and group levels on the basis of need (see Espinoza, 2007).

⁸ For this purpose, the main source to be used will be the *CASEN* household survey. Statistics on the level of access to higher education by socio-economic group were not available before 1987 because *CASEN* databases started recording these data at the beginning of that year. Unfortunately, there are no other instruments or studies which provide that kind of information. *CASEN* is a national household survey conducted by the Ministry of Planning every two years. The *CASEN* survey is a sample geographically stratified by conglomerates, polietapic and probabilistic.

⁹ Interviews with former government officials Raúl Allard (November, 2000), Luis Eduardo González (December, 2000) and current government official Carlos Velasco (November, 2000). See also Larrañaga (1992, 1999) and Arriagada (1993).

¹⁰ For example, various former and current government officials and administrators of higher education institutions agree that the student loan scheme should have been open, from the beginning, to all students attending post-secondary institutions (universities, professional institutes and technical training centers). The student loan scheme, however, has always been reserved for those students enrolled in traditional publicly funded universities. Therefore, high school graduates from low or middle-income families wishing to attend technical training centers or professional institutes have found serious financial restrictions to enrollment (interviews with Eugenio Cáceres, November 2000; and María Elvira Cornejo, December 2000). In 1996 some technical training centers grouped in *CONIFOS* set up institutional student loans with similar characteristics to the university loan system (interview with Luis Penna, November 2000). One year later, in 1997, the Chilean government launched the *CORFO* loan system as an alternative financial mechanism to support students attending at the non-university level.

Table 3 Percentage of students (18–24 year-old group) from families in each SES quintile who attended at least some higher education (but were out of the system), 1987–1998^a

SES quintile	Year					
	1987	1990	1992	1994	1996	1998
I	3.7	4.0	4.8	5.1	6.7	6.1
II	5.5	7.4	7.4	7.1	10.9	11.5
III	9.2	12.2	11.5	14.9	17.5	17.0
IV	20.0	22.1	21.3	28.2	31.7	31.5
V	44.6	41.5	40.3	51.2	57.7	58.8

^a There are no data available before 1987

Source: Personal elaboration based on *CASEN* household survey years 1987, 1990, 1992, 1994, 1996, and 1998

attended at least some higher education when the *CASEN* survey was conducted. Data show that the proportion of students who attended some higher education across all quintiles grew, although to somewhat varying degrees. Indeed, while young students belonging to the top quintiles (4 & 5) were over-represented (above 20.0 percent of higher education population) in the post-secondary system in the 1987–1998 period, youth from the low and middle income families were underrepresented, if it is assumed that to obtain perfect “equality” across all socio-economic groups each quintile should represent 20.0 percent of the higher education population.

By observing Table 3 it is feasible to conclude that youth across all socio-economic groups experienced a higher proportional participation in higher education in the 1987–1998 period, though the increase in percentage of students participating in higher education was greater for the more economically advantaged groups. That is, during this period, while the percentage of young students from low (quintile 1) and lower-middle (quintile 2) income families, having at least some higher education, moved up from 3.7 to 6.1 percent and from 5.5 to 11.5 percent, respectively, students from middle income families (quintile 3) and upper-middle income families (quintile 4) increased their participation in higher education to a greater extent, going from 9.2 to 17.0 percent and from 20.0 to 31.5 percent, respectively. However, the largest increase in higher education participation was experienced by young people from upper income families, going from 44.6 to 58.8 percent in the period 1987–1998.

Table 4 displays the level of current higher education attendance among students (18–24 year-old group) by SES quintile. Data demonstrate that regardless of the higher education financing policies (improvement of criteria to allocate student loans and creation of new scholarship programs) implemented during the Aylwin and Frei administrations, strong inequalities prevailed in access to the higher education system by SES. In fact, while in the 1987–1998 period students from lower income families (quintile 1) increased their participation in the post-secondary system from 2.6 to 4.4, the proportion of young people from wealthiest families (quintile 5) increased from 27.6 to 45.0, respectively.¹¹ This means that the

¹¹ This unequal growth among socio-economic groups could be explained in part because most developing countries, including Chile, subsidize students from all socio-economic status. The result is that a large share of the benefits from such subsidy schemes tends to accrue to high-income families (see Jiménez, 1987). In the case of Chile in the late-1980s the top 20.0 percent income group obtained 53.0 percent of public subsidies, while the bottom 20.0 percent only received 6.0 percent (Ministerio de Educación, 1998).

Table 4 Percentage of 18–24 year olds from families in each SES quintile attending higher education institutions, 1987–1998^a

SES quintile	Year					
	1987	1990	1992	1994	1996	1998
I	2.6	3.0	3.6	3.9	5.1	4.4
II	3.5	5.0	4.7	4.9	8.0	7.6
III	6.6	8.2	7.7	10	12.4	12.6
IV	13.1	13.4	14.3	18.4	22.0	22.9
V	27.6	25.3	26.6	35.8	43.5	45.0

^a There are no data available before 1987

Source: Personal elaboration based on *CASEN* household survey years 1987, 1990, 1992, 1994, 1996, and 1998

proportion of higher education attendees by SES grew at different rates among students from poor and rich families. Similarly, between 1987 and 1998 students from lower-middle (quintile 2) and middle income (quintile 3) families increased their participation in the higher education system from 3.5 to 7.6 and 6.6 to 12.6, respectively.

As Chile other Latin American countries like Argentina, Bolivia y Uruguay present strong inequalities in access to the postsecondary system by SES. However, the Brazilian system is the most elitist system in South America, particularly, in private universities where over 90% of students enrolled come from the wealthiest families (quintile 4 and 5) (Sverdlick et. al., 2005; Espinoza et. al, 2007).

Table 5 shows the distribution of students attending two types of higher education institutions by SES quintile. Most students from the upper-middle and upper income

Table 5 Socio-economic composition of students (18–24 year-old group) attending higher education by type of institution, 1987–1998 (Percentages)^a

Type of Institution	Year	Quintile					Total ^b
		I	II	III	IV	V	
		University	1987	6.1	7.6	15.8	
	1990	6.9	11.7	17.9	23.0	40.4	100.0 (648)
	1992	8.3	11.3	15.1	25.6	39.7	100.0 (931)
	1994	7.7	10.5	16.7	25.4	39.7	100.0 (1,356)
	1996	7.6	11.9	17.0	24.9	38.6	100.0 (1,557)
	1998	7.2	11.8	17.0	26.4	37.6	100.0 (2,100)
Professional Institute & Technical Training Center	1987	6.5	12.2	19.3	33.0	29.0	100.0 (549)
	1990	6.3	14.7	24.8	27.8	26.4	100.0 (637)
	1992	11.3	15.1	24.1	29.3	20.2	100.0 (717)
	1994	12.5	13.6	22.9	28.0	23.0	100.0 (971)
	1996	10.4	17.1	21.3	29.8	21.4	100.0 (813)
	1998	9.0	18.1	24.4	29.0	19.5	100.0 (1,009)

^a There are no data available before 1987

^b The total number of cases recorded in each *CASEN* survey is placed between parentheses in the last column

Source: Personal elaboration based on *CASEN* household survey years 1987, 1990, 1992, 1994, 1996, and 1998

families are enrolled in universities. Even though the proportion of students from richest families (quintile 4 and 5, constituting 40.0 percent of the population generally) enrolled in post-secondary institutions decreased slightly from 70.5 to 64.0 percent (mostly explained by the decline observed in quintile 5) in the period 1987–1998, these socio-economic groups remained over-represented in the higher education population in comparison to those students belonging to the first three quintiles. In turn, students from low and lower-middle income families (quintile 1 and 2, representing 40.0 percent of the population generally) attending universities represented 13.7 and 19.0 percent of total enrollment in 1987 (during structural adjustment) and in 1998 (after adjustment), respectively.¹² Nevertheless, the highest attendance of the poorest at the university level took place in 1996 when students coming from quintile 1 and 2 represented 19.5 percent of enrollment. Table 5 also demonstrates that attendance of middle class students (quintile 3, representing 20.0 percent of the population generally) increased to some extent between 1987 and 1998, moving from 15.8 to 17.0 percent, with the highest attendance taking place in 1990 when students from quintile 3 represented 17.9 percent of total enrollment at the university level.

At the non-university level (professional institutes and technical training centers) there were changes in the socio-economic distribution of students (18–24 year-old group) enrolled in the 1980s and 1990s. While the percentage of students in professional institutes and technical training centers¹³ from the poorest families (quintile 1 & 2) increased from 18.7 to 27.1 percent between 1987 and 1998, the percentage of these institutions' students from middle income (quintile 3) families also increased in the 1987–1998 period, moving from 19.3 to 24.4 percent. In contrast, the proportion of students attending professional institutes and technical training centers who were from the wealthiest (quintile 4 & 5) families declined from 62.0 to 48.5 percent in the 1987–1998 period (see Table 5).¹⁴

But how can be interpreted these changes? The positive change in the socio-economic composition of youth attending higher education among students from low and middle income families can be explained by the implementation of higher education financing policies associated with student aid programs promoted by the Aylwin and Frei administrations. In this respect, new tuition scholarship programs, such as the Mineduc, the Repair and the Juan Gómez Millas Scholarship programs as well as student loans appear to have increased the access of economically disadvantaged and talented students to the higher education system. Certainly, thanks

¹² However, the proportion of students from low (quintile 1) and lower-middle (quintile 2) income families enrolled in various regional, publicly funded universities (e.g., Universidad Católica del Maule) approached 40.0 percent in the late-1990s (interview with María Elvira Cornejo, December, 2000).

¹³ A large percentage of students enrolled in technical training centers are workers who take classes in the evening after business hours (interview with Luis Penna, November 2000).

¹⁴ Even though former and current government officials had positive balances (not based in empirical data) about access by SES quintile at the non-university level with regard to those youth belonging to low and middle income families, these data confirm what they pointed out in the interviews in the sense that a higher proportion of working and middle class students were attending non-university institutions compared to the university level (interviews with Luis Eduardo González, December 2000; José León, November 2000; and Carlos Velasco, November, 2000).

Table 6 Percentage of students enrolled in higher education institutions who received loans and/or scholarships by family per capita income, 1992–1996^a

Year	Student aid	Quintile				
		I	II	III	IV	V
1992	Loans	18.4	25.4	19.1	19.8	11.7
	Scholarships ^b	13.9	12.7	5.7	6.3	3.7
	Without student aid	67.7	62.0	75.2	73.9	84.6
	Total ^c	100.0 (158)	100.0 (213)	100.0 (314)	100.0 (448)	100.0 (515)
1994	Loans	16.8	20.8	21.7	18.2	9.3
	Scholarships ^b	16.4	14.2	10.5	10.5	5.0
	Without student aid	66.8	65.0	67.8	71.3	85.7
	Total ^c	100.0 (226)	100.0 (274)	100.0 (448)	100.0 (617)	100.0 (762)
1996	Loans	23.2	21.9	20.3	17.1	10.6
	Scholarships ^b	24.6	17.3	14.6	8.9	4.6
	Without student aid	52.2	60.8	65.1	74.0	84.8
	Total ^c	100.0 (203)	100.0 (324)	100.0 (438)	100.0 (630)	100.0 (775)

^a There are no data available before 1992

^b Includes the following scholarship programs: Mineduc, President of the Republic, Repair, and Indigenous

^c The total number of cases recorded in each *CASEN* survey is highlighted between parentheses in the last row of each year

Source: Personal elaboration based on *CASEN* surveys years 1992, 1994, and 1996

to the growing volume of resources allocated for tuition and non-tuition scholarship programs (see Espinoza, 2002), poor students (quintile 1 & 2) have been encouraged to pursue higher education studies, especially during the 1990s.¹⁵

Table 6 presents the percentage of students from families of different SES levels enrolled in higher education institutions who received loans and scholarships. We can observe that access to student loans and scholarships changed significantly among low and middle-income students enrolled in post-secondary institutions during the 1990s. The percentage of students who were granted loans and/or scholarships increased between 1992 and 1996 from 32.3 to 47.8 (for quintile 1), from 38.1 to 39.2 (for quintile 2), and from 24.8 to 34.9 (for quintile 3). In contrast, the proportion of students from high-income families receiving loans decreased slightly from 26.1 to 26.0 (for quintile 4) and from 15.4 to 15.2 (for quintile 5).

Data illustrate that a substantial proportion (more than 50.0 percent) of students from the poorest groups (quintile 1 and 2) and from middle class (quintile 3) could not obtain loans and/or scholarships either in 1992 or in 1996. Data also reveal that a significant proportion of students from wealthiest families (quintiles 4 and 5) continued receiving loans and/or scholarships, even though rhetorically stated policy goals in this regard were aimed at allocating resources to other socio-economic groups (see Table 6).

¹⁵ Although there are no data available before 1987 it is possible to speculate that the low proportion of poor students (quintile 1 & 2) enrolled in universities, professional institutes and technical training centers in 1987 compared to that of subsequent years might be associated with three possible explanations: (a) the negative effects caused by structural adjustment programs implemented in the 1980s in terms of income distribution, which mostly affected low and middle-income families; (b) the non existence of tuition scholarships oriented towards these socio-economic groups; and (c) programs offered in professional institutes and technical training centers were of low quality and unattractive.

Final remarks

In this paper it has been discussed how higher education financing policies implemented by the Pinochet, the Aylwin and the Frei administration have affected access to the post-secondary institutions by socio-economic group. It might be concluded that as a direct consequence of the 1981 reform there was an important enrollment growth in the higher education system (at the university and at the non-university level) during the post-adjustment period, especially in privately controlled and funded institutions during the 1980s and 1990s. Equally, gross enrollment (within the 18–24 age cohorts) at the higher education level tripled in the 1980–1998 period. However, while the proportions of students from all socio-economic backgrounds attending higher education institutions gradually increased between 1987 and 1998, students enrolled in post-secondary institutions from quintile 4 and 5 remain definitely over-represented in comparison to those youth from quintile 1, 2 and 3. Consequently, data reflect that during the post-adjustment period strong social inequalities across socio-economic groups still persist in access to post-secondary education despite increased participation observed across all socio-economic groups and regardless of student aid policies promoted by the Aylwin and Frei administrations in the 1990s.

If the analyses is focused on the socio-economic composition of students attending higher education by type of institution (universities v/s professional institutes and technical training centers), then two general conclusions could be sketched. First, universities enrolled a growing proportion (slight increase) of students representing the first three quintiles in the late-1990s compared to that of 1987, when structural adjustment was still being carried out, while students from upper-income families (quintile 5) decreased their participation in this type of institutions during the 1990s. Second, the proportion of 18–24 year olds from upper-middle and upper income families attending non-university institutions (professional institutes and technical training centers) decreased substantially during the 1987–1998 period, while young people from the first two quintiles gradually increased their participation in professional institutes and technical training centers in the 1987–1998 period.

There is no doubt that the implementation of higher education financing policies associated with student aid programs promoted by the Aylwin and Frei administrations has improved access of low and middle income students. Nevertheless, even though student aid policies allowed increasing attendance of talented students with financial needs, policies have been unable to reduce the gap between the proportion of students attending post-secondary institutions by SES compared to the proportion of population that each quintile represents. To promote more equitable access across socio-economic groups two actions are recommended. First, financial aid programs (student loan scheme and scholarship programs) should be targeted towards students from lower (quintile 1 & 2) and middle (quintile 3) income families. This means that students from wealthiest families (quintile 4 & 5) should not be granted loans and or awarded scholarships. Hence, the access gap between rich and poor students could be reduced to some extent although not totally. Second, to reward those institutions that enrolls talented and economically disadvantaged students coming from public secondary schools.

The success of a reform in addressing fundamental problems-for example, facilitating equity of access-also depends on how a society supports the growth potential

of its citizens after the conclusion of their formal schooling. A nation's practices may be consistent or at odds with policies that define the education system. For example, no matter how egalitarian the education system, these advantages will be diminished if graduates are chosen for powerful or prestigious positions based primarily on graduation from a very few elitist schools.

Similarly, it will be no sufficient to guarantee equitable admissions standards for low income students and minorities if there is discrimination in the job market or if these groups, in practice, are excluded from high-ranking positions in government and the private sector.

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