

Chile's Higher Education System: a comparative political economy focus¹

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Descriptive Statistics

Chile's higher education system can be shown, with the help of descriptive statistics, to have a highly diversified institutional platform (Table 1). It is made up of 209 institutions; 61 universities, 43 professional institutes and 105 technical training centers. Universities offer principally types 5A and 6 programs (according to the International Standard Classification of Education or ISCED, 1997)³ but can offer 5B programs. Professional institutes offer 5A programs that are not exclusively reserved for universities⁴ and 5B programs, while technical training centers can only offer 5B programs (Fernández, Gutiérrez & Martínez, 2005).

In turn, institutions are classified as public (state) institutions and independent and dependent private institutions (see OECD, 2007). A great majority (88 per cent of the total) are independent private institutions; of these, almost all universities have full autonomy - that is, they have completed the required legal process prior to their licensing, as do most professional institutes. In contrast, only 15 per cent of the technical training centers have achieved full autonomy⁵. All professional institutes and technical training centers are private independent institutions.

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³ UNESCO, "Clasificación Internacional Normalizada de la Educación/International Standard Classification of Education". Available at: http://www.uis.unesco.org/TEMPLATE/pdf/iscled/ISCLED_E.pdf

⁴ The law reserves for universities the right to offer 5A programs which require an academic degree (*licenciatura*) as a condition for a professional qualification. Among these programs are, lawyer, architect, biochemist, agricultural engineer, civil engineer, commercial engineer, forest engineer, surgeon, veterinarian, dentist, psychologist, primary and secondary school teacher, and pharmacist.

⁵ But most students are enrolled in centers that have attained their full autonomy

Table 1 Chile: Higher education institutions (number)

Institutions	209
Universities	61
Professional Institutes	43
Technical training centers	105
Universities	61
State	16
Dependent private	9
Independent private	36
Autonomous	32
Non autonomous	4
Professional Institutes	43
State	0
Dependent private	0
Independent private	43
Autonomous	27
Non autonomous	16
Technical training centers	105
State	0
Dependent private	0
Independent private	105
Autonomous	16
Non autonomous	89

Source: Based on data from *Consejo de Educación Superior, INDICES – 2007*

These institutions cater to around 656 thousand students of which 19.3 per cent attend 5B programs; 74.6 per cent 5A programs and 2.8 per cent postgraduate courses (masters, doctoral or medical specialties courses), and 3.4 percent are enrolled in special programs⁶ (Table 2). Of the total, 78 percent attend private institutions.

⁶ These are programs for students who do not enter higher education directly from the secondary level either because they pursue the completion of tertiary level studies and/or adult education or because they are distance education students.

Table 2 Chile: Higher education student enrolment by program 2006

	5B Programs	5A Programs	Masters Programs.	Doctoral Programs	Medical /Dental Specializations	Special Programs	Total
Universities	14.941	412.561	14.590	2.617	1.170	20.075	465.954
State	3.049	124.234	5.528	1.144	509	12.093	146.557
Private dependent	3.267	89.923	3.961	1.341	462	2.159	101.113
Private independent	8.625	198.404	5.101	132	199	5.823	218.284
Professional Institutions	43.368	76.276				1.398	121.042
Technical training centers	68.275					530	68.805
Total	126.584	488.837	14.590	2.617	1.170	22.003	655.801

Source: from data of *Consejo Superior de Educación, INDICES – 2007*

The three principal higher educational markets – universities, professional institutes and technical training centers – have different levels of concentration. The five largest universities, measured by enrolment, accumulate 24.7 percent of all university students, while the five largest professional institutes and five largest technical training centers cater to 65.6 percent and 60.8 percent respectively of students in these markets. This indicates that the competitive dynamics of each market is different and which in turn, as will be explored below, affects institutional behaviour and strategies.

In terms of access and graduation results and impact within the adult population, the attainment of the Chilean system is in general similar to other middle income countries that participate in the World Education Indicators Program (WEI)⁷ but distant from OECD member country's averages (Table 3). While entry ratios into tertiary education and graduation rates are higher than the WEI average, the percentage of the adult population that have completed higher education is less. Nonetheless, the percentage of the younger generation (between 25 to 34 years) that has attained higher education reflects the vigorous growth of Chile's undergraduates and graduates over the last 15 years.

⁷ Composed of the following countries: Argentina, Brazil, Chile, China, Egypt, the Russian Federation, Philippines, India, Indonesia, Jamaica, Jordan, Malaysia, Paraguay, Peru, Sri Lanka, Thailand, Tunisia, Uruguay y Zimbabwe.

Table 3 Chile & other groups of countries compared: Higher education results for access, graduation and impact, 2004

	Chile	WEI countries (average)	OECD countries (average)
Gross entry ratios into higher education %relevant age group			
5B programs	24	20	16
5A programs	44	37	53
Higher education graduation rate			
First degree programs (5B)	14	12	9
First degree programs (5A)	26	19	35
Advanced research programs	0,1	0,4	1,3
Female graduation rates			
5B programs	51	58	57
5A programs	54	55	57
Advanced research programs	34	46	42
Percentage of the adult population with higher education			
25-64 years	13	16	25
25-34 years	18	19	31
35-44 years	13	17	27
45-54 years	11	15	23
55-64 years	9	11	18

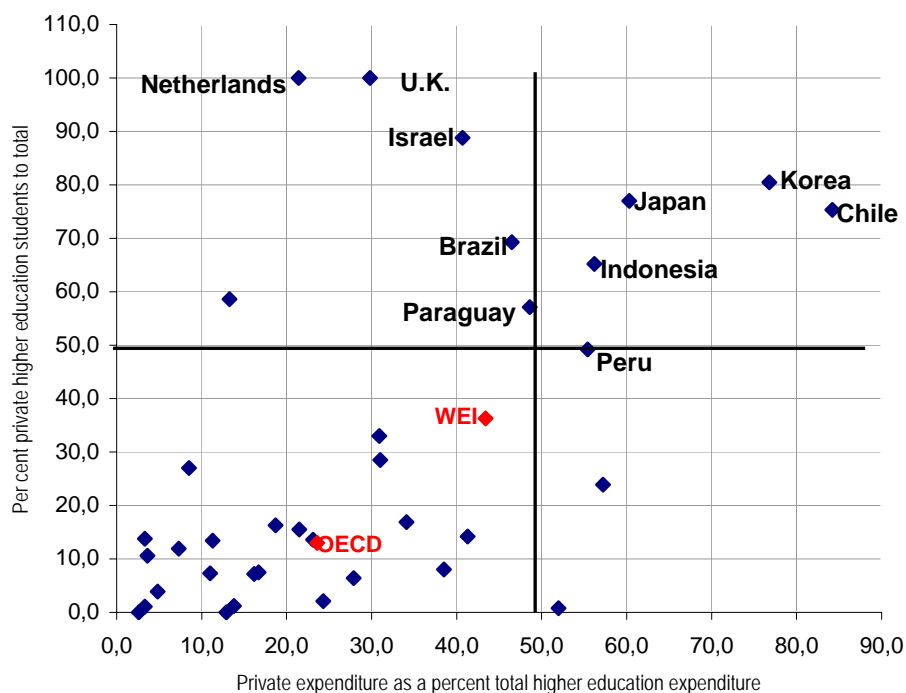
Source: from UNESCO, *World Education Indicators – 2006*

The political economy of higher education systems

While the descriptive statistics may show that the Chilean system is not very different from other middle-income countries in Latin America, Asia and Eastern Europe, its political economy (Halsey, 1992), is very different (Brunner y Uribe, 2007). Taking into account two major dimensions that characterize the political economy of higher education systems - (i) the relative proportion of higher education students in private (independent and dependent) institutions and (ii) the relative proportion of total higher education expenditure from private sources – the Chilean higher education, together with Korea, Japan and Indonesia is in the high ‘privatism’ quadrant⁸ (Graph 1). Peru is at the limit of this quadrant where systems with the greatest proportion of students in private institutions and of private funding are located.

⁸ The term ‘privatism’ maintains the assumptions of Habermas (1975:54 y 96), summarized by McCarthy (1978:369) as follows: “Essential to this system is a widespread *civil privatism*—“political abstinence combined with an orientation to career, leisure, and consumption—which “promotes the expectation of suitable rewards within the system (money, leisure, time, and security)”. This involves a “high output-low input” orientation of the citizenry vis-a-vis the government, an orientation that is reciprocated in the welfare state program of the alter, and a “familial-vocational privatism” that consists in a “family orientation with developed interests in consumption and leisure on the one hand, an in a career orientation suitable to status competition on the other”, an orientation that corresponds to the competitive structures of the educational and occupational systems”.

Graph 1 Political economy of education systems: the quadrant with the greatest privatization.



Source: Based on OECD, *Panorama of Education 2006* & UNESCO, *World Education Indicators – 2006*. Slovenia & Israel: OECD, *Education at a Glance - 2007*. Brazil: private expenditures: J. J. Brunner (2007:220).

* The horizontal axis represents the proportion of private expenditure to total expenditures after public transfers. The figures include subsidies attributable to payments to educational institutions received from public sources. The vertical axis represents the proportion of higher education (5A & 5B) students at private (dependent and independent) institutions.

This section is concerned only with the high 'privatism' quadrant, which as shown in Graph 1 is made up of a limited number of national systems, as different from both OECD and WEI averages.⁹

What in general characterizes those systems that operate in this quadrant?

First, competition in different markets is the key process for integration and system coordination. In practice there is a *consumers' market* especially apparent in the case of undergraduate teaching with a broad range of choice for students who normally pay for services, either directly or through scholarships and loans; the latter have different levels of subsidies financed by the government through the financial system with state or institutional guarantees. In general fees are charged by public institutions not only in Chile but in Indonesia (where 40 percent of university income comes

⁹ The Graph only uses data for OECD and WEI higher education systems where information is available and comparable for both dimensions, i.e. student numbers and expenditure.

¹¹ Colombia does not appear in the high 'privatism' quadrant of Graph 1 where it should be located Brunner (2007:211) because the available information is not strictly comparable with the other countries.

from this source, Tadjudin, 2006:774); in Japan (Yonezawa, 2006) and Korea (where student payments amount to around 50 percent of per student expenditure, Park, 2006:871).

There is also an *academic labor market*. This functions with greater or lesser intensity according to country and institutional sectors; it tends to be lightly regulated for private institutions and subject to different kinds of regulations in the case of public institutions. In Chile however (Bernasconi 2003:cap.5) state institutions, according to their own statutes, can define the structure of academic career, hire and fire staff, and fix their salary scales.

Last, there is an *institutional market*, where Clark (1983:165-69) notes, reputation is the medium of exchange . Reputation or relative prestige is supposed to function works as a signal of quality, attracting the best students, teachers and researchers in a self-reinforcing cycle.

At the top of the institutional pyramid there is generally a university or a group of universities with the greatest relative prestige within the system, while the rest are ordered hierarchically toward the lowest end on the reputation scale. Universities located at the summit tend to be national public universities with a long history that have received support from the government in terms of subsidies and influence, and often train a significant proportion of the national political and administrative elite (for example, Korea and Japan). However, on occasion some private dependent universities are part of the apex, as in Chile, or private independent universities reach preeminent positions as, for example, in Colombia¹¹.

Competition in these markets, particularly that for undergraduates, is often geographically circumscribed (to local and regional markets) (Brunner y Uribe, 2007; Brunner et al, 2005); can be more or less intense or restricted within each sector (public and private); or can be directed towards specific student segments defined by socio-economic characteristics or certain academic standards or towards particular faculty groups within the system's internal labor market.

So, as there is no one higher education market (Teixeira et al, 2004¹²) neither are current markets unified geographically, functionally or socially, (Avery et al, 2005; Hoxby, 2001, 1997, 1997a). Further, higher education market systems become highly differentiated and order themselves around diverse hierarchic scales, precisely because of market fragmentation where they operate and the variety of strategies that institutions employ in each one of them (Geiger, 2004, 2004a).

¹² In particular see *Introduction* and *Conclusion*.

As a result of these dynamics, systems that belong to this quadrant are likely to have a high degree of self-regulation; that is, they adjust to competition in different markets. The system that emerges from these conditions is the result of unsought or unanticipated competitive exchanges together with the strategies each institution employs in particular markets. The system is neither made up nor maintained by a central design or the decisions of a central authority, nor planned by agreements among institutions or with the governments. There is then a low level of ‘social constructivism’ and little room for ‘rational planning’ in this context, as existed for example in Western Europe between 1960 and 1980 (Bertrand, 2004; Neave & Van Vught, 1991: chapter 13).

To the contrary, as Clark has pointed out, “market coordination works without benefit of a superstructure: unregulated exchanges link persons and parts together” (Clark, 1983:161-62). In short, under market conditions, higher education systems do not adopt an architectural or geometrical form but appear, rather, as an arrangement of ‘loosely coupled’ components (Weick, 1976), each one propelled by its own mission and interests, with an eye to competitors’ actions and decisions in the various different markets (White, 2002:131-32).

In sum, these systems behave as a series of small scale capitalist entrepreneurs which live or die according to the market; in contrast to their European counterparts, that are slow to be born and even slower to die¹³. They correspond, according to this author, to a specific type of political economy – without macro planning, where each institution resolves its own problems, competing with numerous other suppliers for student-clients, teachers and institutional prestige.

Policies, markets and institutions

All that has been said to this point about the dynamics of coordination in systems with a high degree of ‘privatism’ should not be understood to imply that Clark’s ‘coordination triangle’ (1983:143) has disappeared from this quadrant; that is, the simple elimination and substitution of institutions and government /state (policies and bureaucracies) by market forces as part of overall coordination. This view is grossly reductionist, more than often than not a purely ideological interpretation of the way market mechanisms work in this quadrant. However it does not take into account the governments, institutions and markets’ roles in these types of systems.

¹³ See Halsey (1992:1916)

First of all, the role of institutions and of professional coordination as described by Clark –that is, coordination provided by academic and management elites of institutions, especially those with the greatest prestige-- continue to be fully effective within this quadrant, although the balance of power between academic and administrative elites might now favour the latter (Marginson, 2007).

In fact, institutions intervene in many ways in the integration and coordination of these systems. In practice, and most likely more than in other quadrants, the decisions and strategic behaviour adopted by institutions condition the evolution of their systems; for example through the ‘self-regulated’ supply of programs and places; or the establishment of institutional branches in different places within the national territory. At the same time, institutional elites maintain, in greater or lesser degree according to each country's political traditions, the capacity to directly or indirectly influence people and organizations within governments as well as the public autonomous bodies that design and implement higher education policy. Further, institutions can, within certain limits, create, maintain or transform markets that organize the workings of the system, as often happens with the supply of post graduate programs, life long training programs or the sale of knowledge services.

Further, the fact that institutions within this quadrant do not depend exclusively on government funding, gives them greater autonomy to pursue their own goals and interests and to adapt, in a businesses like way, to the changing conditions of their environment (Clark, 2004, 2001, 1998)..

This is probably the main reason why governments that work with more centralized systems and under conditions of ‘rational planning’ increasingly seek to introduce forms of ‘quasi markets’ or ‘administered markets’ (Shatock, 2006, 2003) into higher education, while employing ‘market mechanisms’ (Kaiser et al, 1999) to finance public universities, forcing them to diversify their source of income (OECD, 2007a, 2007b, 2004). An implicit or explicit purpose of these policies, today widely diffused among European countries, (Teixeira et al, 2004) is to create competitive elements within systems, stimulate institutions to behave in an entrepreneurial way, and innovate and adapt to growing competition within the framework of global higher education (Marginson, 2004a, 2003).

National governments, too, intervene to structure those markets in which higher education institutions operate, and in their subsequent regulation.

Markets are initially a political creation (Fligstein, 2002) and their functioning is defined in great measure by the institutions, norms and rules established by public authority (North 2005). Basically

these determine the markets' structure and functions and set out the conditions under which suppliers and consumers exercise their 'market freedoms' (Jongbloed, 2004).

For *suppliers*, public authority decides under what rules they can enter the market, specify their 'products', use available resources and determine the prices at which services are offered. For *consumers*, the public authority fixes the limits for choosing suppliers and 'products', determines the depth of information for consumers about prices and quality, and can condition the range for exercising their options of 'loyalty', 'voice' and 'exit', (Hirschman, 1970) which are an essential part of consumer sovereignty.

Once the fundamental market conditions are determined, they are further molded by public regulations (Jongbloed 2004:99-104). These regulations basically will affect: (i) *market structure*, - the legal regime that defines and redefines the rules under which suppliers act and the institutional structure that conditions their behaviour; (ii) *institutional behaviour*, for example, through restrictions imposed on their freedom to fix the price and/or quantity of their services offered, the intensity and character of the competition or the modalities by which institutions can merge or be bought and sold, and (iii) *administrative aspects of the functioning of markets* as, for example, the obligation to provide information and financial accounts, contracting and dismissal procedures for academic staff, the way university authorities are to be designated, etc.

The differentiation and distinctive features of each of the systems found in the high 'privatism' quadrant follows, in important ways, how each market was established and the regulatory frame used by governments to adjust market structure, shape institutional behaviour and control its administrative aspects.¹⁴

In particular a great deal will depend on how public authorities employ their most effective instruments at hand to intervene in higher education markets (Van Vught, 1999:39-45). These are *public funding instruments* (volume of resources assigned to the system and especially the modalities employed for their allocation, as a function of either inputs or results, favoring either supply or demand, through either centralized or decentralized mechanisms etc., Vossesteyn, 2004; Vossesteyn & Canton, 2001) and *authority and control instruments* (like authorizations, recognitions, licenses, information requirements, accountability, subjecting institutions to external evaluation procedures, etc.) (Burke et al, 2005; Brunner, 2004).

¹⁴ For the case of Chile see Brunner & Uribe (2007); for Korea, Kim and Lee (2006), Lee and Kim (2003), Park (2006); for Indonesia, Beerkens (2007), Tadjudin (2006), Directorate General (2003), Brodjonegoro, S. S. (2002); Japan, Yonezawa (2006), Marginson (2004), Tsuruta (2003).

The Chilean case; policy continuity

In Chile, the political roots of a higher education market have their origin at the beginning of the 1980s, with a series of legislative changes, the stimulus of neo-liberal policies and ‘privatizations’ (Jones 1992) adopted by the military government. This institutional framework had low initially entrance barriers for independent suppliers (on condition they were politically acceptable to the government) while restricting the geographic scope of both preexisting state universities. The market would operate without greater restrictions on institutional behaviour and with few demands for information, quality control and accountability. At the same time direct financial support for state and private dependent institutions was drastically reduced so forcing them to charge attendance fees that reflected the real costs of teaching different programs; a policy of demand financing (but with reduced resources) and the creation of new competitive instruments to finance research (Brunner 2005, 1997, 1993a; Brunner y Briones, 1992).

From 1990, together with the recuperation of democracy, a new policy phase was opened for higher education that, without altering the role of the market looked to (i) consolidate the system’s diversified institutional base; (ii) promote undergraduate expansion consistent with the needs of society and the economy; (iii) assure equality and equity of supply; (iv) promote scientific research and cultural development; (v) increase and diversify funding for greater equity, quality and efficiency of institutions and (vi) improve the legal framework with the objective of creating a new public regulatory framework. (Comisión, 1990)

Broadly, over the last fifteen years higher education policies have been consistent with the pronouncements formulated in 1990. So, for example, the higher education policy framework of 1997, proposed the following objectives: to promote quality, support equity, encourage cultural development; link higher education to national and regional development; support research and technology; promote internationalization and develop a system of higher education which meets the country’s needs (Allard, 2000). To achieve these goals a Program for the Improvement of Equity and Quality of Higher Education (*Programa de Mejoramiento de la Equidad y la Calidad de la Educación Superior*, MECESUP), was established - with the assistance of the World Bank - and which operated between 1999 and 2003. A competitive fund (*Fondo Competitivo*) was created to allocate resources for competing projects in the fields of improving undergraduate and graduate teaching and training advanced technicians; develop an experimental first phase for a system of quality assurance later established by law; provide resources to strengthen institutions (infrastructure, equipment and

management); study and design new public finance instruments and propose the foundations of a public higher education information system.

Recently, the Higher Education Advisory Council (*Consejo Asesor de la Educación Superior*) created by the government in order to receive policy proposals for this sector, after affirming that Chile “has moved from a state funded, elitist and homogeneous higher education system to one that is massive, diversified and is financed above all with private resources allocated by market mechanisms, proposed to “improve its regulation with the purpose of assuring that the system, without reducing its diversity, converges with the objectives of social welfare”, (Advisory Council, 2007). To this end it recommended:

First, to improve private institutions’ entrance requirements into the higher education market. For achieve this goal it suggests: (i) to improve the system of official recognition of private independent institutions, making the requisites more rigorous and to ensure they possess the available inputs to allow quality education to prosper; (ii) to make conditions for obtaining a license more explicit in such a way that in exercising their autonomy institutions recommit themselves to their project when autonomy has been conferred; to improve the accreditation system, ensuring the impartiality of participating agencies, avoiding conflicts of interest, guaranteeing that its deliberations are well publicized and encouraging the inclusion of all institutions within the system; to provide incentives for accreditation and set out relevant consequences for those that do not obtain it, avoiding, for example, that non accredited institutions can publicize or promote without mentioning this essential fact; (v) to establish more stringent information requirements both for the state and the institutions.

Second, the Council suggests that the state assume direct activities in the field of vocational higher education orientated to the labor market (programs 5B) in such a way as to guide the subsystem of technical training centers, encouraging a greater agreement between the supply of vocational programs and the needs of the economy.

Third, the Council states that public expenditure for higher education is low and that there is an “exceptional predominance of private expenditure”. On the other hand, it remarks that, in the light of available evidence, the autonomous income per capita of families, with the exception of the fifth quintile, does not attain levels that can cover the cost of higher education, particularly university fees. It therefore recommends to increase higher education funding, especially resources targeted at socially disadvantaged students.

Thus, as noted above, there has been a strong policy continuity over the last 17 years.

Policy effects in Chile: undergraduates, equity and funding

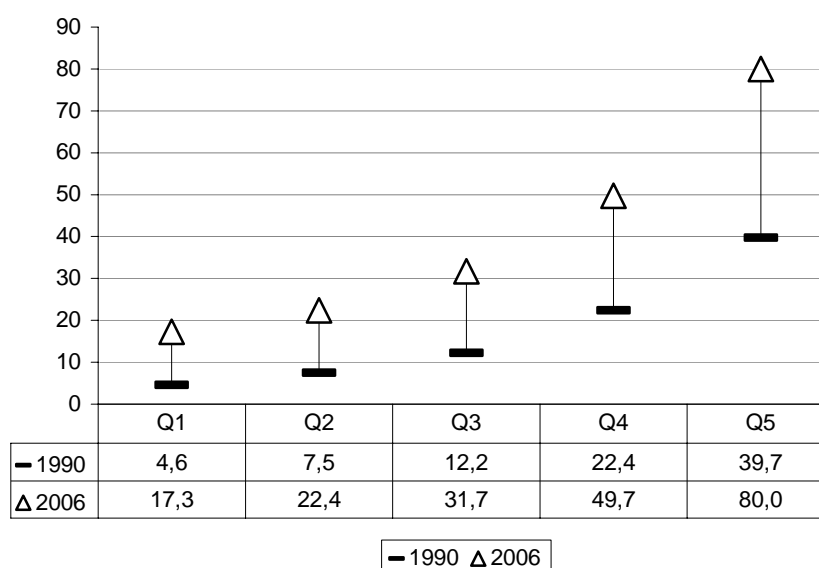
As a result of these policies pursued since 1990 – and studied in detail elsewhere, (Brunner y Tillett, 2006; Brunner et al, 2005; Bernasconi y Rojas, 2004)– an institutional supply platform has emerged and is now consolidating itself by the system’s own dynamic – market discipline, as Halsey stated, a discipline that will continue to produce marginal adjustments by the closure, sale or merger of institutions. This might particularly affect technical training centers where there still remains segment of weak, small-scale institutions that face strong competitors in a market where demand has been stable over time.

System access has widened notably. The student body has increased from 250 thousand (1990) to 650 thousand students (2006). As an index, setting the first year as 100, the student body increased by 900 percent for private independent universities; by around 160 percent for state and private dependent universities, and a slightly higher figure for professional institutes. That for the technical training institutes fell slightly during this period (Uribe & Salamanca, 2007).

This expansion and sustained increase in student support – i.e. loans and scholarships – targeted toward young people with few resources, has allowed for a greater equity in the *distribution of opportunities to access higher studies* among different socio-economic groups. As can be seen from Graph 2, the 20/20 inequality index fell from 1:8.6 to 1:4.6 in the last 16 years.

Graph 2

Chile: Gross higher education participation rate by income quintile
(per capita autonomous household income), 1990 & 2006



Source: Based on MIDEPLAN, Results CASEN – Education survey 2006

In terms of *scientific research promotion policies* the results are encouraging given the limited number of researchers in the country (Allende et al, 2005). In practice, the scientific output originating in universities and published in journals registered by ISI-Thompson increased from 1.151 (1990) to 3.141 in 2004, (SCImago, 2006)¹⁵. However this output is concentrated in a small number of universities two of which – the University of Chile (state) and the Pontifical Catholic University (private dependent) – generate around 62 percent of higher education output¹⁶. The following three – the Universities of Concepción (private dependent), Austral de Chile (private dependent) and Santiago de Chile (state) add an additional 22 percent. So, five universities account for 84 per cent of scientific and technical articles registered internationally and which have their origin in the university system.¹⁷

In terms of *comparative finance*, Chile spent, including research and development, the equivalent of US\$ 4,371 per student in 5B programs and US\$ 8,090 in 5A programs and advanced research programs, with an average expenditure per higher education student of US\$ 6.873 (all US dollars -

¹⁵ The data for this period was obtained during the last quarter of 2006.

¹⁶ These two universities are the only ones that are listed in global rankings; *Academic Ranking of World Universities* produced by the Shanghai Jiao Tong University & the *Times Higher Education Supplement Academic Ranking of World Universities*.

¹⁷ For a comparative analysis of higher education in Ibero-America see Brunner (2007).

PPP). This latter figure amounts to 62 percent of the OECD's average expenditure per student of \$11,100.

When compared to GNP per capita, the per student expenditure of higher education institutions amounts to 35 percent in 5B programs and 64 percent in 5A programs and advanced research programs, with an average of 54 percent. The OECD averages are 23, 41 and 40 percent respectively.

Chile's higher education expenditures reached 2 percent of the Gross Domestic Product (GDP) in 2005, 0.3 percent above 1995 and higher than the OECD average and that of most of its member countries. If total expenditure is divided by program then 0.4 percent corresponds to 5B programs and 1.6 percent to 5A and advanced research programs. By expenditure source --and consistent with a highly privatized political economy-- in Chile only 0.3 percent originates from public sources with the remaining 1.7 percent coming from private sources.

Direct expenditures on public (state) institutions accounts for 35.1 percent of all higher education public expenditures; 30 percent on private institutions (practically all private dependent institutions) and 34.8 percent as indirect transfers and other subsidies to the private sector of which 13.8 percent are for scholarships and other family subsidies and 21 percent for student loans. The following Table (Table 4), summarizes data for Chile and the average for OECD countries.

Table 4

Chile & the OECD average: expenditure on higher education institutions.

	Chile	OECD Average
Per student expenditure in higher education institution (US\$ - PPP)		
Higher education Type B	4,371	..
Higher education Type A and advanced research programs	8,090	..
All higher education	6,873	11,100
Per student expenditure in higher education as proportion of GDP per capita (%)		
Higher education Type B	35	23
Higher education Type A and advanced research programs	64	41
All higher education	54	40
Higher education expenditure as percent of GDP		
Higher education Type B	0.4	0.1
Higher education Type A and advanced research programs	1.6	1.2
All higher education	2.0	1.4
Higher education expenditure as proportion of GDP by funding sources (%)		
Public funding	0.3	1.0
Private funding	1.7	0.4
All	2.0	1.4
Relative proportions of public & private expenditure in higher education (%)		
Public funding	15.5	75.7
Private funding		
Family expenditure	83.7	..
Other private sources	0.9	..
All private sources	84.5	24.3
Subsidized private sources	2.5	1.3
Distribution of public expenditure in higher education (%)		
Public direct expenditure to state higher education institutions	35.1	73.7
Public direct expenditures to private higher education institutions	30	8
Indirect transfers & other allocations to the private sector	34.8	18.4
Public support to families and other private entities as a percentage of total public expenditure in higher education (%)		
Public direct expenditure to institutions	65.2	81.9
Student financial support		
Scholarships and other family support schemes	13.8	9.9
Student loans	21	8.6
Total	34.8	17.5
Transfers and payments to other private entities	0	0.7
Total public support for higher education at private entities	34.8	18.1

Source: based on OECD – Education at a Glance 2007

Chile – allocating public resources

Public expenditure on higher education is made by the government using different allocation mechanisms.

A direct public contribution or AFD (*aporte fiscal directo*) is distributed annually using the criterion of historic continuity, for 25 state and private dependent institutions. This contribution is used by institutions at their discretion, without conditions attached. However 5 percent of the annual contribution is allocated by a formula that uses various performance indicators -- publications in mainstream journals, research projects awarded by competition and the number of academic staff with higher degrees, (masters or doctorates). The favored universities then incorporate this increase into their historic AFD base for future calculations.

An indirect public contribution or AFI (*aporte fiscal indirecto*) is provided to all higher education institutions that attract undergraduates from the best 27,500 students measured by their score points when taking the annual University Selection Examination or PSU (*Prueba de Selección Universitaria*). These top students are divided into five groups of equal size, and the institution receives increasing amounts for students in successively higher score groups.

A Competitive Fund (*Fondo Competitivo*) finances universities by project competition to undertake activities that improve teaching (doctoral, curriculum renovation, etc.) and management (capacity development).

An Academic Innovation Fund (*Fondo de Innovación Académica*) allocates funds, again by competition, to finance academic staff mobility, doctoral scholarships, technical assistance and the acquisition of equipment and infrastructure investment.

Performance agreements (*Convenios de desempeño*), a pilot scheme initiated in 2004 that introduces a new funding modality by objectives, and provides support to institutions to pursue agreed national or regional development goals. Winning universities must set out plans for their restructuring and modernization, strengthening management, use performance indicators and show a greater accountability for results.

Student support (*ayudas estudiantiles*) is made up of three components. First a University Loan Solidarity Fund (*Fondo Solidario de Crédito Universitario*) for those students with few resources and

studying at state or private dependent universities. The loan covers student fees totally or partially and repayment begins two years following graduation, contingent on income. It has a strong subsidy, is administered by each university and shows mixed success at recuperation. Second, a state guaranteed loan (*crédito con garantía estatal*) which students with scarce resources can use to pay fees at all higher education institutions. These resources are financed and administered by the banking system. Each university guarantees the loan up to a student's graduation and from then on the state is guarantor until the last credit repayment is completed.. Third, scholarships that can be used to pay fees or student maintenance. On the other hand, and with the purpose of avoiding or limiting continuous fee increases by institutions and pressure on student aid schemes, the government fixes 'reference fees' according to the type of programs offered and their quality, reflected in accreditation results. While institutions are at liberty to set their own fees, the amount of credits and scholarships provided by the state are defined by the reference fees, which cover around 83 percent of the value of university fees for state and private dependent universities (with a range of 75 and 93 percent); 65 percent of the average fees of private independent universities; and 94 percent of fees charged by professional institutes and technical training centers.

R & D funds are contributed directly to public research centers (outside the university system) or through a number of competitive funds to which researchers and higher education institutions apply, and where projects are evaluated by national and international peers. These funds support both individual and team projects in all areas of basic knowledge; international centers of excellence; nuclei and inter-institutional links for disciplinary and public policy research; advanced training programs and academic exchanges; consortia with firms; applied research projects and increasingly – encouraged by the Competitive Innovation Fund or FIC (*Fondo de Innovación para la Competitividad*) – innovation projects (Consejo Nacional 2007).

In general, these diverse allocation mechanisms have expanded during the past decade. So, for example, the AFD grew by 29 percent in real terms between 1995 and 2007 while the AFI (a small sum) has remained frozen; the Competitive Fund (FC) increased by 150 percent during the same period; R&D funds (from both public and private sources) grew threefold between 1990 and 2005 and resources for student support increased by 320 percent, until they made up 50 percent of total public expenditure on higher education by 2006¹⁸ (Uribe & Salamance, 2007, chapter 7).

One can thus reach the conclusion that tertiary education funding is evolving, first, by the growing participation of private resources and second, because the pivot of public institutional funding is

¹⁸ Because of differences in calculation, these figures are not comparable with those that appear in Table 4 (last column).

moving from direct contributions to a combination of student loans and scholarships, competitive funds (for R & D and others) and performance contracts. In this way, the modalities which now determine higher education finance – replacing supply by demand, from input to results, and from central to decentralized market allocations - are increasingly aligned with the system's political economy, while at the same time the government uses the instruments of the public treasury to guide the system at a distance.

Problems and challenges

What are the main issues and challenges that face a system, like Chile, located in the high 'privatism' quadrant? Only a few of these issues will be raised here using the higher education comparative policies literature.

The first set of problems has to do with market institutions and the regulations that public authorities ought to implement. In practice, systems with similar characteristics to Chile have particular regulatory needs (Gornitzka, 2006; Brunner et al, 2005; Gornitzka, A., & P. Maassen (2000); Brunner, 1994; Neave & Van Vught, 1994, 1991). They must rely on an institutional environment which encourages suppliers from diverse sectors, supports non hierarchic coordination for social welfare goals and complies with high demands of accountability.¹⁹

An ample literature shows that the disposition of private providers to invest is a function of property rights recognized for the institutions and their degrees, the level by which transaction costs and information asymmetries are reduced, and where administrative discretion in resolving conflicts is limited (North, 1990). This group of principles deserves careful examination in terms of the regulatory structure in Chile (Bernasconi, 2002) and probable reform initiatives.

The evidence also indicates that for state institutions the forms of corporate government, accountability mechanisms and fund allocation procedures are fundamental to avoid capture by corporate interests. Comparative experience illustrates too, including state institutions, an increasing use of market mechanisms (auctions, contracts, models of efficient institutions, formulae, etc.) (Kaiser, Vossensteyn & Koelman, 2002), in place of using political-administrative criteria (as partly continues to be used in Chile) for resource allocation (AFD, for example) (Brunner & Uribe, 2007; Brunner et al, 2005; Bernasconi y Rojas, 2004; Brunner, 1993).

¹⁹ I thank C. Peña for his help in the analysis of this section (personal communication).

Further the literature on corporate governance teaches that non-profit institutions do not necessarily guarantee that their altruistic approach is socially beneficial (Masy, 2004). Chile's experience supports this hypothesis; in fact, non-profit organizations frequently show severe deficiencies and low accountability. The reason is that without a principal these institutions suffer depredation by agents that is similar to other common goods if specific forms of governance are not found which have counterweights to avoid capture. An analysis comparing profit and non-profit institutions shows that - *ceteris paribus* – the former have greater controls than the latter and that regulation can make a trade off between non profit making and accountability.

Systems with a strongly differentiated institutional platform, a broad diversity of suppliers, and competitive coordination are highly dependent on how resources and reputational capital function among institutions that compete (Brunner & Uribe, 2007; Winston, 1999, 1998). These raise sharp questions about public support. There are two issues here.

First, policy legitimacy is dealt with from different analytic angles. An affirmation of the public good character of higher education (Newman, Couturier & Scurry, 2004) –that is, a good that is both nonexcludable and nonrival— is said to generate significant social benefits over time (Task Force, 2000). This approach has been questioned from both the point of view of economics (Barr, 2004, 2004a), and the sociology of organizations (Dill, 2005), requiring new arguments to legitimize public support and assistance policies.

It has been suggested that in competitively coordinated systems, the public authority has the responsibility of guaranteeing a level playing field to competitors, (Jongbloed, 2004a), for example assuring conditions of equal access to the system, symmetric regulatory demands, similar evaluations for accreditation and performance measurement, selective assistance to counter the inequality of initial capacities and in general controlling for destructive strategic competition (Newman & Couturier, 2001).

More specifically, it is proposed that in the case of public institutions, the should have the specific obligation to support and help capacity development, while the market under adequate regulations should take charge of disciplining the development of private institutions (Neubauer, 2007; Duderstadt, 2005). This solution is far from being perfect however, as it could increase the gap between, on the one hand, public and private dependent institutions and on the other, private independent institutions.

Second, there is a discussion about the most effective and efficient mechanisms by which to guide the system's development dealing particularly with the political economy of higher education and the application of the New Public Management literature (Hood 2004) applied to higher education (Amaral, Meek & Larsen, 2003). Among the critical issues are: (i) how to balance 'market failures' in these systems without incurring 'coordination failures' which could generate government intervention; (ii) what mechanisms and instruments to use for financing institutional capacity development with public funds (OECD, 2007, 2007a, 2004); (iii) how to align the competitive results among institutions with national development objectives and priorities set by the political process (Newman y Couturier y Scurry, 2004).

Chilean institutions face important changes in their environment that impose learning and organizational adjustments of distinct types and intensity (Brunner et al, 2005; 2000). The responses have been varied. While some have implemented long term planning and made an effort to systematically adapt to the new scenarios, others have reacted more spontaneously with little planning. Some of the organizational changes have been induced by the Ministry of Education to make the institutions more amenable to government objectives and with specific supranational initiatives.

On the other hand the new methods for allocating public resources to universities have brought about a growing diversification of instruments forcing universities to compete for resources (Agasti y Catalana, 2006). This, at the same time, has affected institutional strategy and behaviour, their organization and management and the role and culture of academics (Marginson 2007a, 2006; Bernasconi, 2006; Meek, 2003).

In summary, what is highlighted here is the contrast between markets which are coordinated through competitive interchanges but which do not necessarily ensure , improved institutional capacity, a 'failure' that ought to be countermanded by the government both in the subsidized sectors and the private independent sector which now caters for most undergraduates and receives a growing number of low income students. Japan has experimented with various solutions to the latter challenge (Yonezawa, 2006, 2002). However, in Chile any proposal to financially support accredited higher education institutions equally – i.e. without discriminating by property or management – brings general political-ideological rejection.

A third set of problems and challenges deal with the processes and procedures of quality control in competitive mixed-provider higher education systems.

One public policy assumption in this area is that there exists a relation between the level of market competition in higher education and the supply of academic quality. From this perspective, it is argued that the public interest is best served where there is an institutional framework of policies, norms and rules (North, 2000) which maximizes in the most efficient and equitable way possible, the academic standards that students need to achieve (Dill 2005). Under a competitive regime with sufficient information about the price of services offered and the relative quality of the offers, it is argued that a convergence would occur between personal preferences and the public interest.

The assumptions of this argument have been questioned however. On the one hand, Winston (2003, 2000) and others have shown that undergraduate market prices do not adjust in the way predicted by conventional economics; on the other, Dill and Soo (2004) reject the idea that in this market undergraduates have the necessary information to make rational choices about institutions and programs. In effect, this is the acquisition of an “experience good”, that is one that the consumer cannot know with anticipation nor inspect its quality easily (Franck & B. Schönfelder 2000; A. Animesh, V. Ramachandran, and S. Viswanathan, 2005). So students are not in a position to opt for quality nor later exercise an exit option.

Therefore the need to look for substitute indicators for service quality. It has been suggested that the relative prestige of institutions could provide this information, although it is well known that in higher education, institutional reputation is principally linked to the production of scientific publications in journals (Garvin, 1980), an indicator which at times only weakly reflects an institution’s teaching quality and has limited utility in systems where the majority of universities are teaching institutions. Neither is the exercise of ‘voice’ and ‘exit’ by students converted into pressure that forces institutions to review the quality standards of programs especially where the undergraduate market is undergoing sustained expansion. Last, the supply of commercial information about educational quality generated by the media through league tables and rankings has been the object of various criticisms, (Moodie, 2005, 2005a; Dill y Soo, 2005; Fernández, 2003).

Under these conditions it falls to the public authorities to assure students and their families, as well as society at large, that the institutions and programs meet certain quality standards. Norms which impose on institutions the obligation to provide information and procedures for independent external evaluations can be used for this purpose (Brunner & Montoya, 2006). In addition, some governments

produce, or demand institutions to produce, information about how graduates enter the local labor market and their value to the economy, (QAA, 2007; section 8; Maharosoa & Hay, 2001).

In Chile, to recall, these issues have been broached by public policy with the establishment – first as an experiment, then with legal status – of a national system of quality assurance, responsible for the information functions for the management of the system and public information; licensing of new private institutions; the accreditation of institutions based on analysis of current mechanisms within the institutions to ensure their quality and careers or programs accreditation that verify their quality as a function of the purposes and criteria established by respective academic and professional communities (República de Chile, 2006). The Ministry of Education has been concerned also about providing information about the entrance of graduates in the labor market (Brunner & Meller, 2004) with its site, Future Work (www.laboral.cl). Studies have been undertaken, using this information, seeking to translate labor market signals into quality of institutions indicators (Rappaport, Benavente y Meller, 2004).

While there have been advances in resolving ‘market failures’ in this field and in compensating for information asymmetries, serious information gaps remain. There is no statute that defines the obligations of either the state or the institutions to provide information. The accreditation of programs proceeds very slowly. The effects that should follow negative external evaluations and non-accreditation remain in the clouds. And, in general, public authorities appear helpless when faced with serious incidents that cheat consumers; or with abusive publicity from institutions, or with institutional strategies that are in conflict with the market’s code of good conduct.

Last, more generally, the Chilean system needs to approach questions of organization and curriculum renewal; the internal efficiency of teaching; the market value of human capital acquired by students; mobility within and between institutions; the training costs for young people with little school and cultural capital that increasingly enter tertiary education; the organization of inter-institutional networks necessary to deal with complex initiatives for postgraduate training, R&D activities and internationalization; of links with the productive sector; the incorporation of new information technologies into teaching and learning; the professionalization of teaching and the legitimation of new types and emerging modalities of university institutions that are competing to acquire an identity and to find room within the market.

Many of these issues and challenges – and without doubt the list could be expanded even more – make up an inherent part of the high ‘privatism’ quadrant where Chile is located, and have

identifiable and specific expressions within this quadrant. Approaching them effectively assumes, by the same token, that there is a platform of knowledge and evidence that is the result of specialized higher education research, a field very much at its beginnings in Chile. Hence, the potential importance for Chile of the system's found in this quadrant for policy comparison and international collaboration. The present chapter tries to make a contribution from this perspective.

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