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4.3 The PACE Access Program at the University of Santiago de Chile

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Country

Chile

Institution

Universidad de Santiago de Chile, Santiago - https://www.usach.cl/

Objectives

Equity, inclusion, diversity in higher education.

Main Contacts and Sources of Information

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Type of initiative

Affirmative action program to promote the access of low-income students

Introduction: National, Regional, and Institutional Context

Chile's higher education (HE) system has, as is the case for other countries in Latin America and other regions of the world, undergone substantial expansion in recent decades. Currently, the system has 1.21 million students enrolled in undergraduate programs in 132 higher education institutions of three types: 47 Technical Education Centers (*Centros de Formación Técnica*), 31 Professional Institutes (*Institutos Profesionale*s) and 54 Universities (*Universidades*). Participation by institution type in the total enrollment is 11%, 33% and 56%, respectively.

A majority of the institutions are private, including all Professional Institutes and almost all Technical Education Centers. The overall split in enrollment is 84% for private and 16% for public ("estatales") higher education institutions (HEIs). Among universities, the private subsystem is split into those that are members of the *CRUCH* group[8], the more prestigious ones, which also include

8 The Council of Rectors of Chilean Universities (*Consejo de Rectores de las Univerisades Chilenas*) – *CRUCH* brings together the 30 most prestigious universities in Chile, including all 18 publics and 12 privates, of which 5 are catholic universities (Mineduc 2022). https://www.consejoderectores.cl/en/

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all public universities, and those that are not. Universities' participation in total enrollment is 16% for public universities, 16% for *CRUCH* private universities and 25% for the remaining private universities (Mineduc 2022).

Chile's HE system also includes another 55 thousand postgraduate (master's and doctoral) students, all enrolled in universities. Public ones enroll 23% of those students, *CRUCH* privates 29% and privates 48% (Mineduc 2022). Chile has the highest gross tertiary enrollment rate in Latin America, and it also leads the region in the number of scientific publications per capita.

Geographically, institutions located in the capital, Santiago, account for approximately half of the total student enrollment in HE in Chile. The *Universidad de Santiago de Chile* (*USACH*), a major player in the development of the program to be presented in this case study, is one of them.

Despite numbers that would be seen as very positive in the Latin American context, less than half of all admitted students are starting college right after graduating from secondary schools, and that rate has declined in recent years: 45% of those graduating from high school in 2020 were admitted by HEIs in 2021, a drop from the rate of 53% for those admitted in 2017 (Mineduc 2021).

An important development in recent years was the 2014 reforms that affected access, financing and quality assurance of the system. These reforms were introduced in response to students' demonstrations of 2011, which had financing issues as central motivation, as it became clear that the student loan system used since the 1980s had become unsustainable because of the debt burden on students. Other issues involved deregulation effects on quality and lack of control of private institutions.

One of the main points of the reforms had to do with the national standardized tests used for admissions (Prueba de Selección Universitaria - PSU). It had become clear that the results of the test were highly correlated with the socioeconomic level of students' families, with clear negative equity effects in terms of access to the system, especially enrollment in universities (Pearson, 2012).

Given that scenario, in 2014, the Program to Improve Access to Higher Education (*Programa de Acceso Efectivo a la Educación Superior - PACE*) was developed. *PACE* provides a path for secondary level students who had good academic records but could not reach the cutoff point scores in the national test (PSU) to be admitted by HE institutions, given the prevailing inequalities in basic education. Before *PACE* is described and how it came to be, we briefly outline the university that was fundamental in its development and the basic current enrollment information that are relevant for inclusion analysis.

The Universidad de Santiago de Chile

The Universidad de Santiago de Chile (*USACH*) is a century-old public university located in the capital Santiago, with a distinctive academic trajectory. One of its hallmarks has been the creation of programs of inclusive access to HE, for

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which it has been granted a UNESCO Chair of Inclusion in High Education, which has played a central role in the development of social inclusion policies in Chile, including the development and establishment of *PACE*.

USACH currently has 23,787 undergraduate students enrolled (Mineduc 2022). As evidence of its leading role regarding social inclusion, its student body presents one of the lowest rates, among universities, of participation by those who graduated from paid private high schools, as shown by data in Table 1. The table presents data about the type of secondary school system of origin of enrolled students, for the whole system, for universities and, for direct comparisons, for USACH, Universidad de Chile and the major Catholic university in Chile, PUC-Chile.

Table 1 - Type of secondary institution of origin of students (TES)

	Total enrollment	TES* (identified)	% TES/Total	%Municipal/ TES	%Private subsidized/TES	%Private/ TES	Other**/ TES
Total Chile	**1,211,797**	**1,098,085**	**90.6**	**30.4**	**53.0**	**11.9**	**4.7**
Total Universidads	**683,217**	**648,798**	**95.0**	**24.8**	**54.1**	**17.9**	**3.2**
Universidad de Chile	**34,833**	**34,302**	**98.5**	**26.6**	**40.2**	**32.2**	**1.1**
U. de Santiago de Chile	**23,787**	**23,093**	**97.1**	**25.4**	**60.2**	**10.2**	**4.1**
PUC-Chile	**30,636**	**30,214**	**98.6**	**11.0**	**27.4**	**60.9**	**0.7**

*TES: type of secondary institution of origin ("tipo de establecimiento secundario")
**Institution of delegated administration and local educational services
Source: Database Higher Education (Mineduc 2022), authors' processing

First, more than 90% of all students had their schools of origin identified, a figure that increases to 95% for universities and is more than 97% for the three universities with data included. *USACH* has only 10% of its students with paid private high schools (among those with schools identified), while the average for the universities is 18%, and for the two comparison universities, the figures are 32% for *U. de Chile* and 61% for *PUC-Chile*. This is a clear indication of the impact of the affirmative action policies at USACH, including the program to be presented in this report, as the stratification of the educational system of Chile is well documented, with students from the higher socioeconomic strata tending to concentrate in the paid private system (Bellei, Orellana and Canales (2020), Villalobos et al (2020)).

Regarding the sex of students, *USACH* shows a slightly different outlook compared to the whole system or to that of public universities. There are more male than female students enrolled, 54% to 46% in participation rates, respectively, while for the whole system, the split is exactly reversed, 46% to 54%, respectively. Similarly, we observe reversed ratios, 47% and 53%, for male and female participation in public universities. This is a direct consequence of the fact that engineering is a much stronger field at *USACH* when compared to health, and, not only in Chile but in most countries, engineering is a mostly male field and health is a mostly female one. The figures confirming those remarks are described next.

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At *USACH*, engineering and related fields account for 40% of the total enrollment, while only 21% of students are enrolled in those fields for the whole system, and 26% are enrolled at public universities. On the other hand, only 10% of the enrollment at *USACH* is in health-related fields, while for the whole system, the figure is 24%, and for public universities, it is 22%. When we check the split by sex, women account for 21% of the enrollment in engineering-related fields for the whole system and for 30% for *USACH* and for public universities, so that, actually, *USACH* is doing relatively well in that regard, including more women than the overall average and similar to other public universities. For health-related fields, participation by women stands at 77% overall, 73% for *USACH* and 72% for public universities; thus, again, *USACH* is not an exception in that regard. The figures above, put together, explain why women's participation at USACH, overall, is lower than that of other universities and of the whole system: it follows from the academic structure of the institution and is not related to inclusion issues specific to USACH (Mineduc 2022).

Development and description of *PACE*: the institutionalization of inclusion efforts

Early initiatives

Since the early 1990s, a group of researchers at the *Universidad de Santiago de Chile* (*USACH*), led by Francisco Javier Gil, undertook studies showing how, historically, a large group of students who had finished secondary education had not had access to the more prestigious group of Chilean universities, despite having attained the minimal scores in the national entrance examinations. Those students were in their majority from poor and vulnerable families. As a result of these studies, USACH started to provide funding for a series of programs, such as the *5% Bonification Program* (1991), Unesco's *Propedeutic Program* (2007) and the *Ranking Point Program* (2012), which paved the way for the development and adoption of *PACE* a few years later. USACH also set up an institutional umbrella for all its inclusion programs, the *Inclusive Access, Equity and Permanence Program* (*PAIEP*), which was established in 2012 under the UNESCO Chair of Inclusion in Higher Education and with support from the Ministry of Education (for details of the history and features of these programs, see Lizama, Javier Gil, Rahner, 2018).

The UNESCO *Propedéuticos* Network (2007)

This program, created in 2007 by *USACH* under UNESCO's *Chair of Inclusion in Higher Education*, is directed at students in the last year of secondary education in schools considered more vulnerable in the regional context of the institution. Students in the top 10% of their class are admitted to the university without use of the national test scores after a preparatory phase. They would not have been

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admitted if the standardized test had been used. The results of this initiative were positive, despite differences in pre-college education, when compared to the students admitted with high scores in the national test (Koljatic, Silva, 2011). Presently, the model has been expanded, and other Chilean universities have adopted the system, always in accordance with the original UNESCO's Chair vision (Lizama, Javier Gil, Rahmer, 2018).

The *Ranking Point Program* (2013)

Until 2012, to be admitted to a university, the main criteria were the score obtained in the National Standardized Test and the grades of secondary education (to a lesser extent). As of 2012, the Council of Rectors of Chilean Universities (CRUCH) decided to incorporate a new criterion: **the ranking score**. This score seeks to measure school performance in context, that is, within the educational establishment of each student. In this way, the best student in each school will have the maximum possible score, taking into account the differences of each educational establishment and its evaluation practices. This scoring system had been created years before by the University of Santiago de Chile (USACH), and although it did not have the support of the Ministry of Education, CRUCH began to use it because it provided greater guarantees of equity than the National Standardized Test. In the first year of use, it was given a low weighting in the admission processes (10%), but over the years, this has increased in many Chilean universities, reaching 40%. The PACE program, on the other hand, uses this score as its main mechanism for student selection.

Unlike the National Standardized Test (in which the scores correlate strongly with the socioeconomic status of the students), the ranking score ensures greater equity, since the best students in each school will obtain the maximum score, thus responding to the principle of "talents are equally distributed between rich and poor" and therefore in every school there are good students.

PACE (2014)

The accumulated evidence of positive results of programs dedicated to improving the admission opportunities of vulnerable and poor students, developed since the early 1990s, as well as a favorable political context, not to mention the impact of the 2011 student demonstrations, form the general background for *PACE*. This was the first national public policy of inclusion in higher education in Chile involving positive discrimination for those studying in underresourced high schools in the country, with legislative and executive support. It was created in 2014 by the Ministry of Education by a team led by Francisco Javier Gil, who had also led many of the previous initiatives, especially at *USACH*.

Currently, *PACE* involves 29 universities, of which 28 are *CRUCH* members, and 581 secondary schools considered to be of high vulnerability, distributed

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across the country. It offers programs of academic preparation and support for students during the last years of high school and the first year of college. This last aspect is very important for the success of the program. Thus, its objectives not only include improving the chances of access for the target population but also increasing the chances of success during their undergraduate education. Between 2015 and 2018, the program reached over 90,000 students in the last 2 years of secondary education, with more than 7,000 students admitted to universities through *PACE* (Lizama, Javier Gil, Rahner, 2018).

There are three criteria for participation:

1. To have attended the last years of secondary education in a *PACE* school and to have graduated the year before applying for admission to a higher education institution.
2. To be in the top 20% of the ranking point scores of the high school's graduating class.
3. To have taken the admission test in the same year of graduation from the school.

The program involves two parts: a. preparation during secondary education and b. support during the college years.

a. Academic preparation during secondary education

In this phase, the program works together with secondary schools through affirmative action initiatives developed by higher education institutions (HEIs). The objectives are to develop competences and skills at various levels, cognitive, inter and intrapersonal, which will help students to define their postsecondary paths in accordance with their interests, motivations, and necessities. The actions include in-school and out-of-school activities and are designed to help students in the processes of application to, selection by, and enrollment in their program of choice at the participating HEIs.

b. Support during the college years

This component of the program is dedicated to following and supporting students during the first two years at the university, with the objective of helping them stay enrolled and improving their chances of academic success. It involves academic and psychological evaluation and support and has an early alert monitoring system to allow for intervention if needed. Tutoring is an important part of the system, provided by the HEIs, and especially designed to respond to the needs of the incoming students. Special attention is given to subjects in which failure is more common, such as natural sciences and mathematics, as well as language and communication, which are important for all other subjects.

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Results

We present the results of two detailed studies on *PACE*: the first one was developed by the Ministry of Education of Chile on the *PACE* pilot program, and the second one was developed under the auspices of the Ministry of Economy of Chile by the Budget Directorate (*DIPRES*) with the Ministry of Education. Before we go forward with describing those studies, we observe that data in Table 1 in the Introduction already show a very relevant performance by *USAC*H, in part due to *PACE* but also helped by other equity programs developed by the university over the years, as mentioned in the previous sections.

a. **Ministry of Education Report**

This report (Mineduc 2017) presents an analysis of data related to the first cohorts of students (2014, 2015, 2016) who finished their secondary education in *PACE* schools, using students from schools with similar characteristics that were not part of the program as a comparison group. The results show a clear increase in the chances of students from the *PACE* schools being admitted by the participating universities.

There was no significant difference regarding academic development during the last years in high schools or in the success chances of graduating from the schools between the two groups. However, regarding applications to higher education, there was an increase from a 24% rate for the 2014 graduating class to 43% in 2016 in the *PACE* schools, thus almost doubling the admission rate. In the control group, the change was from 23% to 29%. The success rate for admission increased by 3.1 percentage points (pp) in the Pace schools from 2014 to 2016, compared to an increase of 0.4 pp for the control group. This study did not include an analysis of the academic results of students after admission to college.

In conclusion, the preliminary analysis of the *PACE* pilot data showed a substantial positive impact on the admission rate for students from *PACE* schools compared to non-*PACE* schools. The first point must not be dismissed as irrelevant, as the phenomenon of self-exclusion regarding admission to higher education for high schools in vulnerable and poor areas is one of the major sources of inequality and stratification in higher education systems (see the Unicamp/Brazil case in this volume).

b. **The Budget Directorate study**

According to the Budget Directorate study (DIPRES 2019), *PACE* had a positive impact on the chances of students being admitted by universities in the participating group of institutions but had no effect on increasing general participation in higher education (which was not part of its objectives). This is expected, as the program did not involve a policy of expansion of the whole system. Nevertheless, when university undergraduate enrollment in Chile is split

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among *CRUCH* and other universities, one notes very distinct trends. From the year before *PACE* was developed (2013) to 2022, undergraduate enrollment at *CRUCH* universities has increased by a third, from 288 to 381 thousand students enrolled, while it has decreased by 11% in non-CRUSH universities (which are all private HEIs), from 337 to 301 thousand students[9]. As 28 of the 29 *PACE* universities are also in the *CRUCH* group, *PACE* students' admissions are certainly part of the recent increase in enrollment in the most elite group of universities.

Confirming these remarks, in its summary of results, the report states that *PACE* "*increases the probability of entering institutions ascribed to the Unified Admission System (SUA in Spanish). In addition, differentiating by type of HE institution, we find that PACE increases the probability of entering university, while it decreases the probability of entering a professional institute. We also find that students enter programs that they would have not had access to without PACE by estimating a positive and statistically significant "boost" in terms of application score. Along with these results, we find that PACE increases the expected economic return of students and probability of access to better-ranked institutions.*"

In the conclusions section, the report expands on that point: the results "*suggest that students in the program are having access to programs of better chances of higher future returns and that the program, more than having an impact on the number of students in higher education, is impacting the quality and types of programs and institutions in which the students can have access to*" (p. 45). Regarding the institutions, the report states that the results show that "*PACE has a statistically significative effect of increasing the probability of being admitted to the 10 best universities in the country*" (p. 30).

The study also finds a lack of impact of the program on the academic results of students during the last years of secondary education, even though this may be more an issue resulting from the statistical models used and availability of data to develop the analysis than one relating to the actual situation in the schools. Nevertheless, the study concludes that the top 15% of the students in their classes at the end of secondary education are positively impacted in their chances of having access to higher education.

Regarding the overall impact of *PACE* and other equity programs at Chilean universities, two relevant examples follow. Data for the most prestigious public university of Chile, Universidad de Chile (*UC*)[10], show that not only has *PACE* had a direct impact on admissions, but the university has also developed other inclusion programs in recent years. In 2012, less than 10% of the admitted students were beneficiaries of inclusion programs, a number that has increased to approximately 15% in 2022. The results may be seen in the figures included in Table 1, which show that more than half of all enrolled students at *UC* in 2022 have studied in high schools other than paid private schools.

9 Matrícula Sistema de Educación Superior (Online), Consejo Nacional de Educación. https://www.cned.cl/indices/matricula-sistema-de-educacion-superior Access: 2022/07/26.

10 The authors thank Bárbara Prieto and Andrés Bernasconi for providing detailed data about admissions at the Universidad de Chile and PUC-Chile (personal communications).

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Despite being lower in volume, *PACE* and other equity programs at the Catholic University (*PUC-Chile*) have also gradually helped increase the participation of students who graduated from municipal and subsidized high schools. In 2010, such programs comprised only two very small programs, one providing scholarships for students from local schools and another for students with disabilities, benefitting only 46 of the 3,773 students admitted in that year. In 2022, 385 students were admitted through various programs, ¼ of whom were admitted through PACE. Accordingly, 37% of the students admitted in 2010 had graduated from schools that were not paid privates, while in 2022, that percentage has increased to 42%. Accordingly, Table 1 shows that approximately 40% of all students enrolled at *PUC-Chile* in 2022 are in that group.

Conclusions

PACE is a clear positive development for a society such as Chile, marked by historical inequalities of various types, especially those related to access and chances of success in higher education. Another important aspect of PACE is how the government eventually recognized the need for such a program, which developed as a result of initiatives by individual academics and institutions. PACE was not initially designed to increase general participation in higher education but to increase the chances of vulnerable young adults, especially regarding their secondary schooling, having access to and succeeding in college. It is also correctly designed to have the most impact on the more elite and selective institutions, as they are the ones that have been closed to students from the most vulnerable groups in Chilean society. Directly and indirectly related to the program, the *PACE* participating universities have shown a significant increase in enrollment in the period since the *PACE* was in place compared to other subsystems in Chile's higher education system.

Despite a relatively large group of institutions already participating in the program (29 universities), much more can be done, as the other half of the group of universities (essentially private institutions) are not yet taking part in the program.

In any case, PACE is certainly an example to be followed since it has had political support at a scale not found in most countries, especially in Latin America. The philosophy of those involved in this 30-year-old effort to develop inclusion policies for the Chilean higher education system, as proposed by Francisco Javier Gil, is "… *talent is equally distributed among rich and poor, in all ethnic groups and cultures*".

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