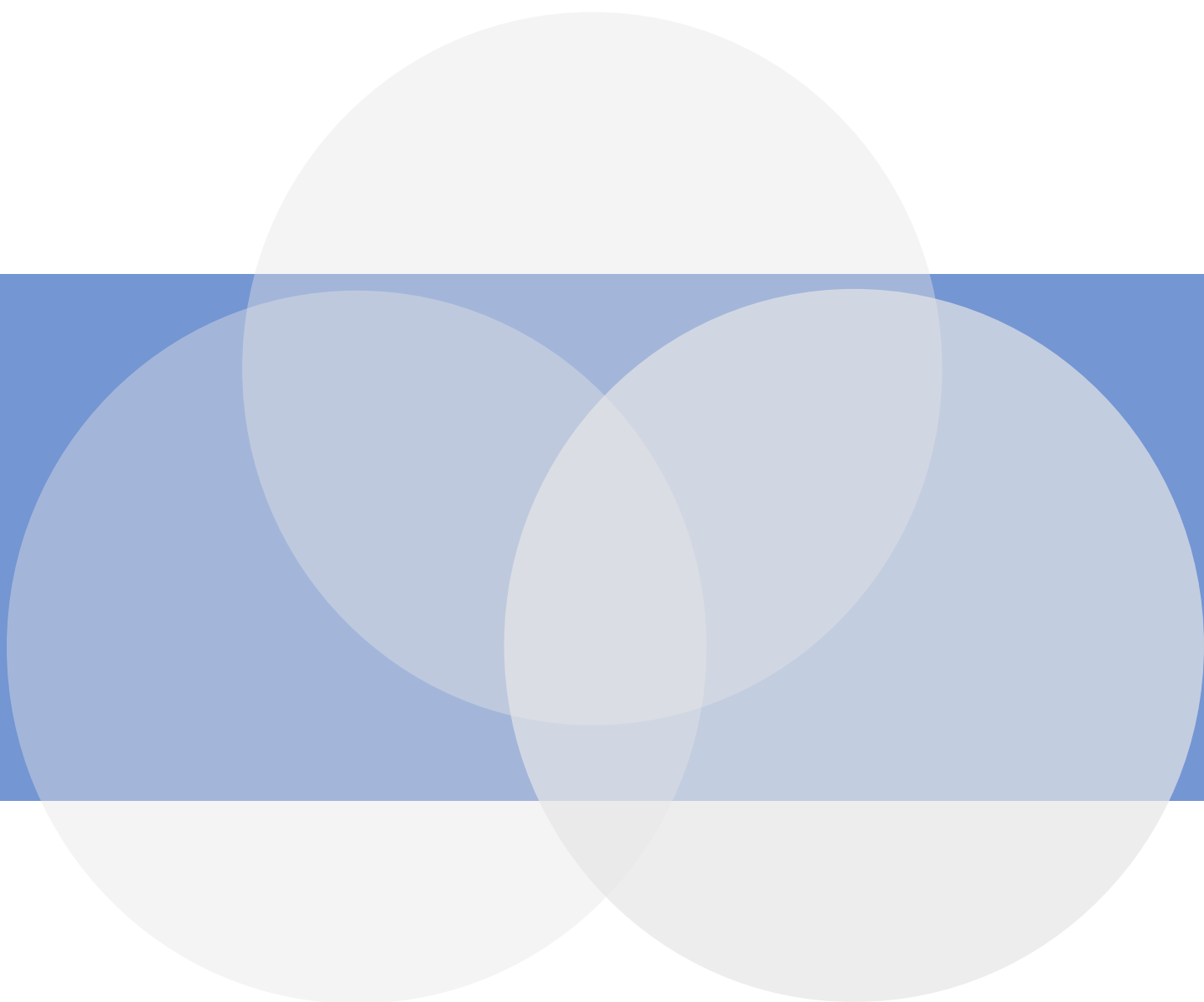


FLEXIBLE LEARNING PATHWAYS IN CHILEAN HIGHER EDUCATION – CAN A BOTTOM-UP APPROACH WORK?

Report for the IIEP-UNESCO Research ‘SDG 4: Planning for flexible learning pathways in higher education’

María José Lemaître, Anely Ramírez, Pablo Baeza and Christian Blanco



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This report was prepared for the IIEP-UNESCO research project ‘SDG 4: Planning for flexible learning pathways in higher education’ in collaboration with the Interuniversity Development Centre (CINDA) and the National Council for Education (CNED). The project aims to produce knowledge and provide evidence-based policy advice to ministries of (higher) education in different development contexts that are considering building or strengthening flexible learning pathways as an area of reform. It comprises a stocktaking exercise, an international survey, eight in-depth country case studies, and thematic studies. This report is one of the eight in-depth country case studies.

*The views and opinions expressed in this research report are those of the authors and do not necessarily represent the views of UNESCO, IIEP, CINDA or CNED.

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List of abbreviations

| | |
|---------|--|
| AFD | Direct public funding (Aporte fiscal directo) |
| BETA | Programme for talented students at PUCV (Programa Educacional para Talentos Académicos) |
| CAE | State Guaranteed Loan (Crédito con aval del estado) |
| CASEN | National Survey of Socioeconomic Characterization (La Encuesta de Caracterización Socioeconómica Nacional) |
| CCM | Council for Mining Competencies (Consejo de Competencias Mineras) |
| CFT | Vocational formation centres (Centros de formación técnica) |
| CFTLL | Vocational Centre at Los Lagos (Centro de Formación Técnica Los Lagos) |
| CFTST | Vocational Centre Santo Tomás (CFT Santo Tomás) |
| CNA | National Commission for Accreditation (Comisión Nacional de Acreditación) |
| CNAP | National Commission for Undergraduate Accreditation (Comisión Nacional de Pregrado) |
| CNED | National Council for Education (Consejo Nacional de Educación) |
| COCH | Olympic Committee Chile (Comité Olímpico de Chile) |
| CONICYT | National Commission for Science and Technology (Comisión Nacional de Ciencia y Tecnología) |
| CPC | Confederacy of Production and Trade (Confederación de la Producción y del Comercio) |
| CRUCH | Council of University Rectors (Consejo de Rectores de Universidades Chilenas) |
| CSE | Higher Council for Education (Consejo Superior de Educación) |
| CST | Santo Tomás Corporation (Corporación Santo Tomás) |
| CUP | Council of Private Universities (Consejo de Universidades Privadas) |
| DAE | Department of Student Affairs (Departamento de Asuntos Estudiantiles), PUCV |
| EMTP | Vocational secondary education (Educación media técnico profesional) |
| FCH | Chile Foundation (Fundación Chile) |
| FIFA | Fédération Internationale de Football Association |
| FLPs | Flexible learning pathways |
| FSCU | Solidarity Fund for University Loans (Fondo Solidario de Crédito Universitario) |
| GDP | Gross domestic product |
| HEI | Higher education institutions |
| INDICES | Higher Education Information System (INDICES Educación Superior) |
| IIEP | UNESCO International Institute for Educational Planning |
| IP | Professional institutes (Institutos profesionales) |
| IPM | Multidimensional Index of Poverty (Índice de Pobreza Multidimensional) |
| IPST | Professional Institute of Santo Tomás (Instituto Profesional Santo Tomás) |
| ISCED | International Standard Classification of Education |
| JCE | Full Time Equivalent (Jornada Completa Equivalente) |
| MCM | Qualifications Framework for Mining (Marco de Cualificaciones para la |

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| | Minería) |
| MCTCI | Ministry for Science, Technology, Knowledge and Innovation (Ministerio de Ciencias, Tecnología, Conocimiento e Innovación) |
| MCTP | National Vocational Qualifications Framework (Marco de Cualificaciones Técnico Profesional) |
| MECESUP | Higher Education Quality Improvement Program (Programa de Mejoramiento de la Calidad y Equidad de la Educación) |
| MINEDUC | Ministry of Education (Ministerio de Educación) |
| MoE | Ministry of Education |
| NEM | Secondary school grade average (Notas de Enseñanza Media) |
| OCDE | Organisation for Economic Co-operation and Development (Organización de Cooperación y Desarrollo Económico) |
| PACE | Programme for Effective Access and Support (Programa de Acceso y Acompañamiento Efectivo) |
| PSU | National University Admission Test (Prueba de Selección Universitaria) |
| PUCV | Pontifical Catholic University of Valparaíso (Pontificia Universidad Católica de Valparaíso) |
| QA | Quality assurance |
| RPL | Recognition of prior learning |
| SCT | System of Transferrable Credits (Sistema de Créditos Transferibles) |
| SDG | Sustainable Development Goal |
| SENCE | National Service for Training and Employment (Servicio Nacional de Capacitación y Empleo) |
| SIES | Information System for Higher Education (Sistema de Información de la Educación Superior) |
| SINACES | National System for Quality Assurance for Higher Education (Sistema Nacional de Aseguramiento de la Calidad de la Educación Superior) |
| SUA | National Admission System (Sistema Único de Admisión) |
| TVET | Technical and vocational education and training |
| UCEVALPO | Technical Training Centre of the Pontifical Catholic University of Valparaíso (Centro de Formación Técnica de la Pontificia Universidad Católica de Valparaíso) |
| UST | University Santo Tomás |
| Vertebral | Association of Accredited Professional Institutes (Consejo de Institutos Profesionales y Centros de Formación Técnica Acreditados) |

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Executive summary

Within the framework of the UNESCO International Institute for Educational Planning (IIEP) project, ‘SDG 4: Planning for flexible learning pathways in higher education’, this research aims to provide a review of policies and development initiatives in Chilean higher education to support flexible learning pathways. This study uses a mixed methodology of in-depth interviews of agency representatives, document analysis, and case studies. The report describes the institutional landscape and how access, quality assurance, and funding conditions shape the system and foster or prevent the development of flexible learning initiatives.

The Chilean higher education system has experienced significant changes in the last three decades, characterized by the expansion of student numbers, higher education institutions (HEIs), and programmes. This was triggered in part by a growing demand for higher education from a new and developing middle class, by the significant privatization of higher education institutions, and by continued national policies to increase access, especially for disadvantaged groups. The diversification of the provision of higher education led to the setting up of a quality-assurance system, initially catering only to new, private higher education institutions, and later to the whole system. In 2018, Congress approved a comprehensive reform of higher education, which intends to strengthen the role of the state through changes in the governance of the system, regulation, and funding schemes.

Most HEIs and programmes in Chile are of fair quality, measured by accreditation results, and most students are studying in accredited HEIs. The Chilean higher education system has opened opportunities for a large and diverse body of students, but its operation is still largely designed for traditional students, which puts, usually older, part-time students or online students at a disadvantage. Hence, formal flexible learning pathways have not been a part of national policies. However, even though no actions have explicitly addressed flexibility or articulation between different higher education levels, the provision of funding for students, the establishment of a free-tuition policy for all students belonging to the poorer 60 per cent of the population and attending an accredited institution, and the development of alternative admissions mechanisms have helped a significant number of disadvantaged students to access higher education.

This study shows that HEIs have developed different initiatives for increasing flexibility and helping students to upgrade their qualifications, even though they meet with different obstacles:

regulation and administrative restrictions, cultural issues at the more prestigious HEIs and their reluctance to move away from their ‘comfort zone’, and a quality-assurance system mostly designed with the traditional provision of higher education for traditional students in mind.

At the national level, key instruments for improving flexibility are those intended to compensate for reducing inequalities in secondary education. It is mainly achieved through programmes destined to provide pre-higher education support to good students from public secondary schools, financial aid for students, and the establishment of a qualifications framework for vocational education.

At institutional level, as the case studies show, these have been complemented with support during the first year for students benefiting from alternative admission mechanisms, and alternatives for transfer between programmes, and, in some cases, between other HEIs. Some institutions also apply different mechanisms for the recognition of prior learning.

The study included three case studies: a traditional university, a new public vocational training centre, and a corporation that runs three HEIs (a university, a professional institute, and a vocational training centre). They operate under quite different conditions, which made the analysis of their policies, mechanisms, and practices particularly interesting. All of the case studies provided examples of different processes for improving flexibility and articulation between different levels of study, despite funding and regulatory policies that restrict their effective operation. Lack of awareness and insufficient levels of trust and collaboration, both intra- and intersectoral, among other factors, could be the cause of persisting difficulties.

Some broad policy recommendations can be derived from this review, to help orient a larger-scale shift towards a more flexible higher education system: (1) place greater emphasis on **student learning as the centre** of the higher education system; (2) promote a **national dialogue** on the need for flexibility in order to align the provision of higher education to the demands of the twenty-first century; (3) encourage **quality-assurance criteria** that facilitate articulation and flexibility; (4) identify, systematize, and **share good practices** in flexible trajectories, such as facilities for transfer between programmes or institutions, mechanisms for the recognition of prior learning, or of incomplete studies, or different modes of provision, enabling part-time students to complete their studies in a more flexible way; (5) favour **coordination with the school system** at the secondary level; (6) engage **private sector** stakeholders, for horizontal articulation, to improve curricular design, practical training, or opportunities for internship; and (7) improve the **collection and provision of information** to better accommodate the changing scenario of higher education.

Chapter 1. Introduction

Given that one of the features of Chile's higher education system is the absence of top-down systematic mechanisms for articulation and flexibility, at first glance, the decision to include Chile in this study may seem at odds with the project's purpose. Nonetheless, throughout the past decade, higher education has dominated public debate in Chile. It has been characterized by a continuing expansion in enrolment, a significant diversification of institutions and students, the development of a strong private sector, and a limited role of the state, both in terms of funding and policy-making. At the same time, most indicators regarding quality and equity position Chile at the forefront of Latin American higher education (Brunner and Miranda, 2016). These considerations made it advisable to investigate the Chilean case in detail.

Therefore, the study's objective is to identify policies, practices, and instruments in place, either formal or informal, that support flexible learning pathways. The study also aims to analyse their effectiveness and the role they play in providing learning opportunities to disadvantaged groups. In this way, it is expected that the study will provide an opportunity to analyse the system's shortcomings and to identify possible courses of action to improve its flexibility and opportunities for lifelong learning.

An important feature of higher education in Chile is that it is at the beginning of an implementation process to comprehensively reform the system's financial and regulatory aspects, discussed between 2014 and 2018 and published as law in May 2018. The main aspects of the reform show the priorities as well as the shortcomings of the way in which higher education is viewed and understood by political and governmental actors in the system.

The reform focuses mainly on the governance of the system, its structure, regulation, and funding. These issues were the subject of strong discussions among higher education leaders, policy-makers, students, experts, and the public in general, and concluded with the approval and publication of Law 21091 and Law 21094 in 2018. While the reform did not satisfy many of the stakeholders (Brunner and Gangas, 2018), it made significant changes in the abovementioned aspects of the system (Educación 2020, 2018).

1.1. Context of the Chilean higher education

Law 21091 created an Undersecretary for Higher Education at a high level in the hierarchy of the Ministry of Education and provided it with more staff and resources. It also established separate

directorates, one for universities and another for professional and vocational education. The new law, however, did not directly address the prospect of an institutionalized arrangement that makes it possible to look at higher education from a medium- or long-term perspective, going beyond the four years term for a given government. Nevertheless, it put in operation SINACES (the National System for Quality Assurance for Higher Education), a coordinating committee which had existed formally since 2006 without playing an active role in the system. This committee (which meets once a week) is composed of the Undersecretary for Higher Education, the President of the National Commission for Accreditation (CNA), the President of the National Council for Education (CNED) and the Superintendent for Higher Education. While they do not have the mandate to establish long-term policies, their coordinated efforts may have a significant impact on the consistent alignment of higher education policies. Although the law establishes a ‘Coordination Plan for Quality Improvement’, it has not yet been formulated and it is not currently seen as a long-term planning tool, as it could become at some point in the future.

Structure

The reform, through Law 21094, recognized the specific role and characteristics of state universities, and the responsibility of the government towards them. It established a Coordinating Council for State Universities, provided special funds for them, and gave them the authority to design their own statutes. The government also created two new state universities, and 15 state vocational training centres. This is particularly relevant, since, up to 2018, all vocational training centres were private, and many of them underfunded and loosely regulated. Additionally, and in line with the growing concern about professional and vocational education, it established an Advisory Council for Vocational Education, in charge of the design of a national strategy for this sector of higher education. This did not change the structure of degrees, which is still rigid and used to define different types of institution (only universities can grant academic degrees, even if they have a professional approach; professional institutes can offer undergraduate professional and vocational degrees; and vocational training centres can offer only vocational or technical degrees).

Regulation

Regulatory changes were significant and covered several aspects. The first was the legal prohibition of for-profit higher education institutions (HEIs). This already existed for universities but was expanded to cover professional institutes and vocational training centres in receipt of any kind of public resources.

The reform also created a Superintendence for Higher Education, in charge of controlling the legal and financial management of HEIs and their relationship with related business corporations. It is also responsible for receiving and investigating claims and complaints.

Quality assurance was also reformed. Institutional accreditation became compulsory, as it already was for doctoral programmes and medicine. Dentistry and teacher training programmes also became mandatory. Accreditation of all other programmes was eliminated. The National Commission for Accreditation (CNA) was mandated to develop and publish new standards and criteria, which, in the case of institutional accreditation, must take into consideration governance and management, teaching and learning, links with the environment (outreach and public engagement), and internal quality assurance. The area of research is optional, but HEIs cannot get the highest level of accreditation unless they show that they meet the criteria for research.

The government recently approved a qualifications framework for professional and vocational qualifications, closely linked to the requirements of the labour market, which is currently in a pilot phase.

Funding

The main change in this respect was the introduction of free-tuition higher education, initially for students belonging to the first five income deciles, and later expanded to the sixth income decile. Free tuition – or rather, tuition covered by the government – started in 2016 but was consolidated in the 2018 higher education law. Students can access free tuition if they study in a fully accredited institution, for their first degree, during the stated length of the programme. This means that free tuition is not available for students who want to upgrade their qualifications (except for students with a vocational or technical degree, who want a professional degree), and for students in evening courses or in distance or online programmes. Since it only covers the time defined in the study plan (usually between eight and ten semesters for a professional degree), it makes matters difficult for students who exceed that length of time and, because of that, it also discourages transfer between programmes. Furthermore, for many HEIs, free tuition meant a reduction in their income, since the government covers a standardized fee, usually lower than the normal fee the institution charges its students.

As can be seen from the description of these reforms, issues of flexibility or articulation were not present in their design or priorities. However, for many HEIs, flexibility and articulation are highly important, and they have developed specific instruments and practices, which will be analysed in this report.

Priorities and shortcomings of the reform

A significant issue that was not directly addressed by the reforms was the lack of any institutionalized arrangement to guide the higher education system. The government steers higher education through regulation and financial incentives, unaccompanied by a long-term strategy or definition of priorities that go beyond an acting government's four-year term limit. The establishment of the office of the Undersecretary for Higher Education is an improvement from the previous situation, especially since the law mandates the undersecretary to have a long-term strategy and a plan to promote quality; however, since the undersecretary serves at the will of the government, the following appointee may change both strategy and plans.

Still, many policy decisions are based on the relative negotiating power of different groups of HEIs, and, lately, by the public mobilization of students and other social groups. The only policy that has been systematic is that focused on increasing access for students with lower socioeconomic status, which has been successful, at least at the entry point.

The reforms strengthened the issue of access, and highlighted quality as one of the main priorities. This can be seen in the activation of SINACES, which brings together the organizations in charge of quality assurance and regulatory norms, as well as in the creation of the post of Undersecretary for Higher Education. In addition, while the reform made institutional accreditation compulsory, unfortunately, at the same time, it eliminated programme accreditation, which was considered by HEIs to be an important tool for the improvement of teaching and learning.

Most policy decisions regarding funding and quality assurance still tend to be informed by a traditional view of higher education, with little consideration to changes in the student population. For example, the new free-tuition programme only applies for the nominal duration of the programme, for a student's first degree, in face-to-face programmes. The rigid standards of quality assurance make it difficult to approve innovative practices, modular programmes, or mechanisms for the recognition of prior learning.

From the abovementioned, it can be noted that policies and regulations do not promote or facilitate flexibility and articulation. For this reason, it becomes important to identify, through the experience of different stakeholders, any institutional practices for flexible learning pathways. This can help to make them visible and to show how flexible learning pathways can improve the relevance and effectiveness of higher education in Chile and provide better opportunities for the increasing number of individuals who are interested in lifelong learning.

Since there are no explicit formulations of flexible learning pathways, this research took an exploratory approach, open to different perceptions of institutional leaders, academics, students, and policy-makers. In order to organize the collection of information and views, the concept of flexible learning pathways was explored from the point of view of existing policies, such as quality assurance and access to higher education; instruments (a qualifications framework, transferable credits); and specific institutional practices, such as diversified access mechanisms, opportunities for transfer between programmes or institutions, and recognition of prior learning. It was also open to unanticipated flexible pathways, mainly based on the experience of the institutions included in the study, as well as on the comments made by the different interviewees.

Thus, this research included different approaches and mainly addressed information obtained from interviews with national stakeholders and representatives of higher education institutions, as well as considering documentary sources and historical and current statistics. A special source of information was expert papers dealing with analysis of the national higher education system. The study considered the following sources:

1.2. Documentary review

- A review of the laws and by-laws that define the current structure of degrees, their allocation to different types of higher education institution, and the issues that arise from this structure.
- A review of the literature that analyses and discusses the past and present organization of higher education.
- A review of the laws passed in the last five years, including the provision of free tuition for students in the three lower-income quintiles, the establishment of state-owned vocational training centres, changes in the funding system and student aid, the reform of the quality-assurance system, the new admission system that must be put in place and the establishment of the Undersecretary for Higher Education post, its role and responsibilities.
- National and institutional statistics on enrolment, retention, and any other relevant issues.

1.3. Primary data collection

National level interviews

Interviews at the national level included the following participants:

- High official dealing with universities, Ministry of Education.

- High official dealing with vocational education, Ministry of Education.
- Commissioner, National Accreditation Commission, the public body in charge of quality assurance.
- Two professionals working in the National Information System for Higher Education (SIES).
- Head of Human Capital of the Confederacy of Production and Trade (CPC).
- Head of the Council for Mining Competences (CCM).

Institutional level interviews

Three types of higher education institutions were selected for the case studies:

- *Pontificia Universidad Católica de Valparaíso* (PUCV), a regional, private university with public funding and a traditional campus, located outside of the capital city.
- *Centro de Formación Técnica Los Lagos* (CFTLL), a new state-owned vocational training centre, operating in the south of the country. It is very new and very small, but it nicely illustrates the new TVET policies in place and may show the way in which higher education – at least, at the vocational level – could develop in the future.
- *Corporación Santo Tomás* (CST), a private corporation which operates at the three institutional levels: a university, a professional institute, and a vocational training centre. It operates in many sites along the country and offers a good example of institutional policies for flexible learning pathways, even in the absence of national or public policies.

The selection of these three case studies was guided by the need to cover the different types of HEI present in the Chilean higher education system. PUCV represents a good case of a traditional private university with public funding; it is recognized as a sound university, not located in the capital city, which has a strong leadership and has a clear concern with expanding opportunities for its students. CFTLL is a new, state-owned technical formation centre. As such, it is exploring innovative ways of organizing teaching and learning, and although it is not representative of state-owned institutions, it allows us to learn about potentially effective strategies, especially for (but not necessarily limited to) the vocational sector. Finally, CST is a comprehensive organization responsible for the three levels of higher institutions in Chile: a university, a professional institute, and a technical formation centre. It is a good example of the way in which many private HEIs with no public funding operate.

This report follows a common structure for all national case studies. After the executive summary and this introduction, it is organized in four chapters. Chapter 3 focuses on the national context, which puts in perspective the results of the study. This chapter analyses the main elements that show the way in which the system has evolved in the last decades, and why improving flexibility and articulation within the higher education system would significantly enhance opportunities for the student population, which is quite different from traditional students. Chapter 4 shows national policies and instruments, as well as the way in which national leaders perceive the need for flexibility and articulation, and the possible developments for the future. Chapter 5 focuses on the views gathered from representatives from the institutions included in the study, their expectations, and the way in which they adapt to the current policies. Finally, Chapter 6 analyses the actions of specific institutions from the perspective of the national policies and instruments. It also summarizes the main findings of the research, considering both enablers and obstacles to flexible learning pathways. It ends with the recommendations that the research team consider important to promote flexible learning pathways within the higher education system.

Chapter 2. National context

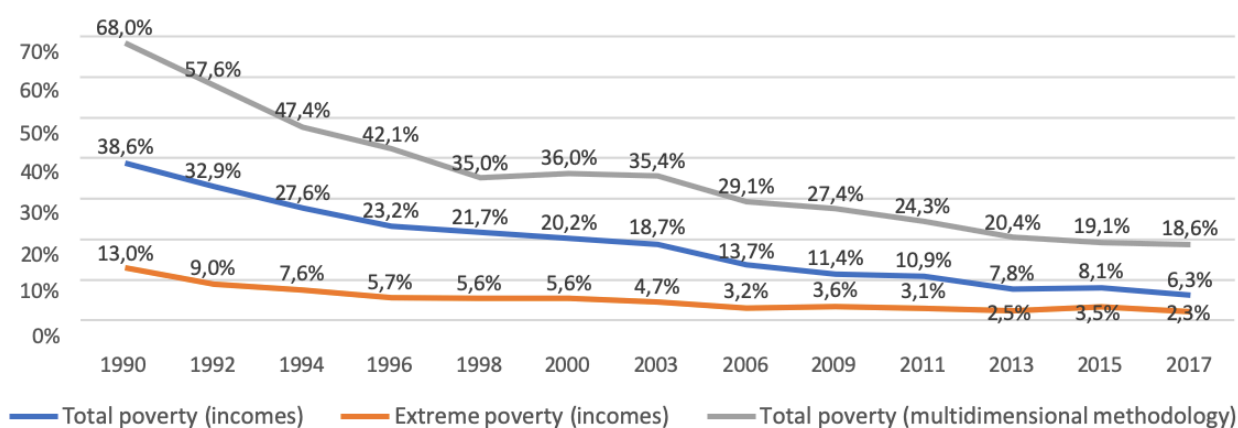
2.1. Overview

In the last three decades, Chile has experienced social and economic transformations of great importance. As an example, Chile's gross domestic product doubled between 1990 and 2017 (OECD et al., 2019) and the country improved against a series of social indicators (e.g. life expectancy, mortality rate, access to primary, secondary and higher education). At the same time, higher education also saw significant changes, related to the expansion of enrolment, diversification, privatization, and quality assurance. A brief description of the main features of higher education in Chile, and of their impact on flexible learning pathways, is the subject of this chapter.

2.1.1. Poverty and social equality

Since the 1990s, Chile has significantly decreased the proportion of people living below the poverty line: from 38.6 per cent in 1990 to 6.3 per cent in 2017 (see Figure 1).

Figure 1. Percentage of people living in poverty



Source: Ministry of Social Development, 2018

In addition, in the same period, the total number of people who live in extreme poverty conditions decreased from 13 per cent in 1990 to 2.3 per cent in 2017. In 2014 the methodology to measure poverty changed from an income-based methodology to a multi-dimensional methodology¹; this

¹The Multidimensional Index of Poverty (IPM) considers four dimensions: education, health, labour and social security, and housing, with three indicators each. Through this IPM, a person would be considered poor if he or she was deprived in at least three indicators or is at the poverty level in one dimension.

changed the quantification of poverty, but the downward trend of people living under the poverty line remains (Ministry of Social Development, 2018).²

One of the elements associated with policies to reduce poverty is the average level of schooling in the population aged over 15 years old, which grew from 9 years in 1990 to 11.2 in 2017 (Ministry of Social Development, 2018). Primary education has been compulsory in Chile since the 1920s. In 2003, secondary education was made compulsory and, in 2019, the year before primary education (pre-school 5–6 years old) followed the same rule. This expanded compulsory education to 13 years for all children in the country and committed the government to offer free education for the K-12 years.

The reduction of poverty led to the emergence of a large section of the population which self-identifies as middle class, but which, at the same time, recognizes the risk of returning to poverty. Education, and especially higher education, is seen as a safety net that would protect people from this risk. In 2015, 21 per cent of the population aged 25–64 years old had a higher education degree, but among 25–34-year-olds this figure increased to 27 per cent (Brunner and Miranda, 2016).

Despite this remarkable reduction of poverty and the increase in educational attainment, one of the distinctive and persistent characteristics of Chile is its social inequality. One of the indicators that measures economic inequality, based on income distribution, is the Gini coefficient. Chile's Gini is 0.44, one of the highest within the OECD countries, indicating a high level of income inequality (World Bank, Development Research Group, 2020).

2.1.2. Higher education system

The higher education system has experienced significant changes in the last three decades, which can be characterized in terms of expansion, diversification, privatization, and the emergence of a quality-assurance system. These will be briefly described in the following sections.

2.1.3. Expansion

The expansion of the higher education system is associated with the larger number of students graduating from secondary education and the increasing importance given to higher education as a means to ensure upward mobility (or at least, to avoid downward mobility). The expansion of the higher education sector has been supported by specific policies aimed at promoting it.

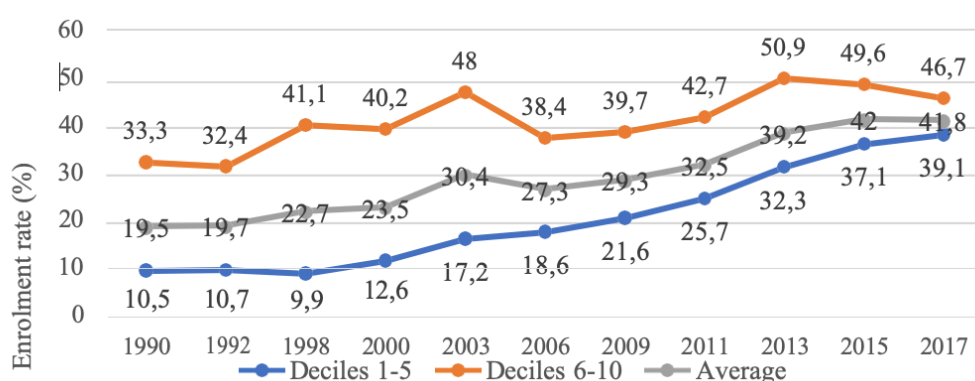
² This, of course, may have changed dramatically with the onset of the coronavirus pandemic. The closure of many sources of work, unemployment, and the generalized economic decline in most countries will have a serious impact on social mobility.

Another factor that has contributed to the increased demand for higher education is the high rate of return of higher education. Education at a Glance (OECD, 2018) shows that the income of those with tertiary education degrees is significantly higher than that of secondary school graduates. Figures for 2017 show that those with professional or technical degrees earn 40 per cent more than a secondary school graduate; bachelor's degrees increase income 2.63 times and master's and doctoral degrees, 4.7 times.

Increasing enrolment and access has been a primary concern of higher education policies, observed through the allocation of significant resources for student aid, in the form of scholarships, grants, and two complementary systems of subsidized loans. In addition, in 2016, the government established a mechanism that provides free-tuition higher education to students belonging to the lower income deciles (initially, the poorest 50 per cent, later increased to six deciles).

Although this expansion has slowed, higher education has reached a significant level of coverage. The gross first-time entry rate (that is, all entrants, whatever their age, rather than the 18–24 cohort) is 87 per cent; considering only students below 25 years old, it is 67 per cent (OECD, 2017). About 60 per cent of new entrants are the first generation in their families to enter higher education. The growth in enrolment has been fuelled mostly by students from the first five income deciles. As a result, the gap between the more affluent students (deciles 6 to 10) and the poorer ones (deciles 1 to 5) has steadily diminished (see Figure 2).

Figure 2. Enrolment rates of the 18–19-year-old cohort, by income level



Source: Arzola, (2019), based on the annual CASEN survey (Ministerio de Desarrollo Social, s.f.).

A relevant issue is the system's internal efficiency. Attrition, measured by students who do not enrol in higher education in their second year, is close to 20 per cent. There is again a loss of students in the third year, and the overall figure for graduation is about 70 per cent. An interesting fact, though, is that students who receive student aid (scholarships, subsidized loans, or other) tend

to have higher retention rates than students who do not receive student aids (87.8 per cent vs 73.8 per cent). Notably, 92.7 per cent of students who benefit from free tuition persisted in the system a second year. While it is still too soon to present data on the graduation rate, this figure is significantly higher than the average retention rate (78.6 per cent) for the second year (SIES, 2019a).

2.1.4. Diversification

The significant increase in enrolment means a more diverse student population, in terms of age, previous schooling, cultural and socioeconomic background, among other characteristics. This also implies greater variety in their incentives to study and expectations following graduation, including further study for personal, academic, or professional growth; to access a higher income to support a family and/or lifestyle goals; or as a mechanism for social mobility. Increasingly, both young people and adults are combining work and study, at different stages of their lives, so lifelong learning is increasingly present in the system. As a result, institutions have also diversified their offer, for example, providing greater flexibility to obtain traditional degrees through face-to-face, blended, online, and day and evening courses. However, diversification is still quite limited because of the restrictions imposed by quality-assurance processes and funding mechanisms, which are still focused on the more traditional operation of HEIs.

Diversity in HEIs can be formally defined according to their administration or type of degree offered. Regarding the former, they are either: (1) state-owned (public); (2) private universities with public funding, which receive similar treatment as their state-owned counterparts; or (3) private, mostly funded through student fees, with limited support from the government.

In Chile, universities can grant any type of degree, both professional and academic;³ professional institutes (IPs) can grant professional and vocational degrees; and vocational training centres (CFT) may offer only vocational degrees. This diversity would seem a good opportunity for flexible learning pathways, for example, by providing graduates from CFTs the option of furthering their studies towards a professional or academic degree. However, this is difficult, mainly because of different ‘informal’ sources of diversity, particularly perceived quality and prestige. Part of this differentiation derives from tradition – the older institutions enjoy greater prestige and are thus perceived to be of better quality. The other part is linked with their

³In Chile, there are two types of non-vocational undergraduate programme: Academic (*Profesional con Licenciatura*) that can only be imparted in universities and are usually traditional programmes such as medicine, law and others, and Professional (*Profesional sin Licenciatura*) which are four-year programmes that can be offered by professional institutes. To further complicate the issue, some of the professional degrees granted by IPs bear the same name as academic degrees in the same field granted by universities.

accreditation status, which is granted for a period of two to seven years in accordance with evaluation results.⁴ Institutional accreditation considers multiple facets of an HEI, according to its type, including management, teaching and learning, research, and community engagement. As a result, there is a sort of informal ranking, which combines both prestige and accreditation results. For students, this implies that they will have a greater likelihood of transferring credits from an HEI with greater prestige to one with less, as this HEI will be more willing to recognize studies or degrees of an institution perceived to be better or more prestigious. It is almost impossible in the other direction, as there is a lack of trust in the quality of education provided by less prestigious, newer, or smaller HEIs (Aedo and Gonzalez, 2004).

2.1.5. Privatization

Private universities have been a distinctive feature in Chilean higher education since 1888, when the Catholic University was created. However, those established prior to 1956 were considered ‘public’ and enjoyed the same privileges and treatment as the state-owned institutions. In 1981, the military dictatorship set up a comprehensive reform which ‘marketized’ the higher education system and enabled private entrepreneurs to offer higher education, almost without any regulatory barriers. As a result, a new set of private institutions emerged, which were mostly ‘demand-absorbing’ higher education institutions and formed part of the first phase in the diversification of the higher education system (Aedo and Gonzalez, 2004; Brunner, 2014). They currently enrol about 70 per cent of the total number of higher education students (11 per cent in CFTs, 32 per cent in IPs, and 27 per cent in universities), and, until recently, were the only institutions offering programmes at the professional and vocational levels.⁵

2.1.6. Quality assurance

Quality assurance, as it is currently understood, was set up in Chile during 1990, in response to the deregulated expansion of private HEIs. The Higher Council for Education, or CSE (the predecessor of the National Council for Education, CNED), was charged with approving and licensing new private institutions, certifying their full autonomy after supervising them for a number of years or closing them down if they did not meet the standards set for them. In 1999, it became evident that

⁴ This was changed in 2018 to three categories: basic (three years), advanced (four or five years), and excellence (six or seven years).

⁵ The government created 15 state-owned vocational centres in 2016, geographically distributed throughout the country, of which five are currently operating, and five more are expected to start operations in 2020.

quality assurance was not only necessary at the licensing level, but also for autonomous HEIs, both public and private. The Ministry of Education set up two commissions to develop accreditation schemes, for undergraduate and graduate programmes. After a while, the Commission for Undergraduate Programmes (CNAP) started accrediting institutions (universities and professional institutes). Vocational training centres remained under the supervision of the Ministry of Education. CNAP was given a mandate to develop a law project to formally establish a quality-assurance system; this project was approved in 2006 and, as a result, the National Commission for Accreditation (CNA) was created. CNA was charged with accrediting higher education institutions and supervising private QA agencies which accredited programmes, on a voluntary basis. Quality assurance and accreditation policies have been key to equalizing and improving quality standards in higher education, strengthening the accountability and transparency of an essentially deregulated system. Accreditation and the installation of a quality culture within institutions significantly improved academic offerings, emphasizing the relevance of programmes to the labour market. However, this same culture of quality has favoured the development of traditional paths (disciplinary and professional programmes), discouraging the possibility of transfer between programmes and institutions and the recognition of previous learning (formal, informal or non-formal) as a means of access to more flexible paths, or attempts at innovation of curricula, modalities, or others.

The QA system created by CNA tended to develop in a supervisory mode, informed by a general mistrust of HEIs and of the reports of peer reviewers, and relying more on the views of its members. Its processes emphasized a bureaucratic and formal approach, with little consideration of international practices. Its standards tend to focus more on quantitative and formal indicators, based on the performance of the more traditional HEIs, and are applied equally to different types of institutions. Many HEIs and peer reviewers have complained about the lack of flexibility and recognition of diversity in CNA's procedures, and emphasis on control rather than on the promotion of improvement.

The reform approved in 2018 charges CNA with the need to set up new criteria and apply them in a compulsory way to all higher education institutions. It is to be expected that these new criteria will consider the need to contribute to the continuing improvement of institutions.

2.2. Chilean higher education system

This section will describe the higher education system and its components, in order to show not only its goals and priorities, but also the need to adjust governance, regulatory frameworks, and

quality assurance to the new demands and features of a system that, as was shown in the previous section, has changed significantly. A review of the features of the system will make it easier to understand its strengths (which are significant) and the weaknesses that need to be addressed.

2.2.1. Policy framework

General Education Law 20.370

Enacted in August 2009, it represents the framework for a new institutional landscape for education in Chile. In addition to the rights guaranteed in the constitution, the right to education and to free education, the law is inspired by a series of principles, which highlight the need to organize the education system taking into account the different characteristics of students (cultural, social, geographical) and the different conditions for the operation of schools. Regarding quality at the school level, the law created a quality-assurance system that is responsible for maintaining certain standards through four institutions: (i) the Ministry of Education, which proposes the curricular bases, curricula, and quality standards, and supports the establishment in compliance; (ii) the National Education Council (CNED), established in 1990 and reformed in 2009, which is responsible for approving the curriculum, plans and quality standards proposed by the ministry; (iii) the Agency for the Quality of Education, created through this law, evaluates and reports about the quality of public and private schools in the country; and (iv) the Superintendence of Education, a new institution that supervises compliance with legal and financial standards.

While this law applies only to the basic level (pre-school, primary and secondary education), both the Ministry of Education and the National Education Council also have responsibilities for higher education. In addition, the General Education Law provides a framework for the development of other legal instruments applying to higher education.

Higher Education Law 21.091

This law enacted the reform that was discussed in the Introduction. It establishes higher education as a right, which must be available to all people, according to their abilities and merits, and without arbitrary discrimination.⁶ As mentioned above, the law modifies governance, structure, regulatory issues, and funding, but also provides directions to develop different instruments to enact those regulations.

⁶ The law explicitly mentions arbitrary discrimination. It means that access to higher education should only be limited by the need to meet legal requirements (such as having graduated from secondary school) and by the student's abilities and merit.

One of these is the requirement that the Ministry of Education establishes a new common admission system covering all higher education institutions offering academic, professional, or vocational degrees. The Ministry of Education is working on this, but, at least for 2020, the current centralized system, administered by the Council of Rectors, which applies only to public and publicly funded universities, plus a few private ones that have adhered to it, will continue to operate.

This reform has been a controversial issue. Having a common admission system is a way to level the ground, enabling all applicants to compete without any external influence (social, political, or other). It opens opportunities to apply to a wider range of HEIs, and not only those that are easily accessible, especially for students not living in metropolitan areas. The criteria to be used for scoring applicants have been under discussion, since aptitudes and qualifications for different types of study (e.g. academic, professional, vocational) may be very different. They also raise the question of the differential quality of secondary education – some students will approach the test in very different conditions, depending on the kind of school they attended. Despite these misgivings, it seems a step in the right direction, provided some measures are taken to correct current inequalities.

In terms of financing, free tuition is available in HEIs that meet certain requirements: be organized as non-profit institutions; be accredited with a duration of at least four years; ascribe to the national admission system or, while a common system is not yet in place, apply policies that allow equitable access for students; and have in place support programmes for vulnerable students that promote their retention. The focus of this policy is on the access and progress of students who come from households belonging to the first six income deciles of the country's population.

The law also integrated several organizations in a National System for Quality Assurance in Higher Education (SINACES): the newly created Superintendence for Higher Education and Undersecretary for Higher Education, plus the National Council for HE (CNED) and the National Commission for Accreditation (CNA).

The 2018 modification introduced major changes in the QA system. First, it made institutional accreditation mandatory (through a comprehensive accreditation, which includes policies and mechanisms for undergraduate and postgraduate programmes), medicine, dentistry and teacher training programmes, as well as doctoral programmes and health specializations. Second, it introduced internal quality assurance as a mandatory dimension for institutional accreditation evaluation. Third, it eliminated the voluntary accreditation of undergraduate programmes until

2025. Fourth, it eliminated private accrediting agencies (which formerly were responsible for programme accreditation), establishing the CNA as the only legally recognized accrediting agency in the country.

It also changed the conditions for accreditation. Institutional accreditation used to have a validity of between two and seven years, but the law defined three categories: basic (three years), advanced (four to five years), excellence (six to seven years). Non-accredited HEIs have their autonomy limited and fall under the supervision of CNED, after which, if they are unable to become accredited, they must close.

2.2.2. Governance and key steering instruments

The Ministry of Education, and more specifically, the Undersecretary of Higher Education, is responsible for public policy in the field of education, especially where it refers to the normative aspects of higher education, allocation, distribution and supervision of public funding, allocation of student aids, and the implementation of specific enhancement programmes. It is also in charge of managing and overseeing the Higher Education Information System (SIES) and heads the SINACES Coordination Committee, integrated also by the Superintendent for HE, the Chair of CNED, and the President of CNA.

The CNED is the legal successor of the Superior Council of Education, created in 1990 to conduct licensing processes for new higher education institutions. The CNED is also charged with the responsibility to decide on appeals to accreditation decisions made by CNA and acquired new functions in recent laws, including the oversight of new state-owned vocational training centres.

The Superintendence of Higher Education is a public body in charge of overseeing higher education institutions in the compliance of current legal, financial, and administrative regulations. It ensures that HEIs allocate their resources for educational purposes, according to the law and their statutes, as universities must be established as non-profit institutions, alongside some professional and vocational institutions.⁷ It is also the agency charged with reviewing and determining complaints against HEIs.

⁷ Universities are forbidden by law from being profit-making institutions. While professional institutes and vocational formation centres can be for-profit, they must be established as non-profit organizations for their students to be eligible for free tuition. Most of them have changed their status, but there are still some which remain as profit-making HEIs.

CNA is the accrediting commission and is responsible for defining criteria and procedures for accreditation, accrediting institutions and those programmes for which accreditation is mandatory (medicine, dentistry, teacher training, and doctoral programmes).

These institutions and their main functions are summarized in Table 1.

Table 1. Main state agencies of higher education

| Agencies | Main functions |
|---|---|
| Undersecretary of Higher Education | Governing role; information; student aid; HEI funding |
| National Accreditation Commission (CNA) | Mandatory institutional and programme accreditation |
| National Council of Education (CNED) | Licensing of new HEIs, oversight of new state-owned vocational training centres, non-accredited programmes and institutions and accreditation appeals |
| Superintendence of Higher Education | Compliance of regulation and HEI resource allocation |

Source: Elaborated by authors

In addition to these organizations, there is the Council of University Rectors (CRUCH), established in 1954, which coordinates the work of universities in the country. It has been criticized because of its restricted membership, as it grouped only public funded universities (state owned and private), but it has recently included three private universities with no direct public funding (out of a total of 33). There is also an association of the main professional and vocational institutions, called *Vertebral* and an association of private universities (CUP).

Another recent change that affects a relevant part of the higher education system is the creation of the Ministry of Science, Technology, Knowledge and Innovation (MCTCI).

This created a new State Secretary for science, a hierarchically higher level institution that replaced the National Commission for Scientific and Technological Research (CONICYT), which was linked to the Presidency through the Ministry of Education. The creation of the MCTCI in 2018 was grounded in the need for a national institution to coordinate science and technology initiatives and programmes, to address the low economic investment in this area in Chile, barely reaching 0.36 per cent of GDP in 2017 (Balbontin, Roeschmann, and Zahler, 2018).

One of the aims of the new institutional framework for higher education is to improve coordination between the two sub-systems (vocational-professional and academic) and their articulation through different instruments (qualifications framework, information systems, and quality-assurance criteria, among others). However, designing and implementing long-term policies

within an extremely diverse system, with high levels of institutional autonomy and lack of confidence, is difficult and it is even harder to promote flexible paths that facilitate the transition between levels and within them.

Furthermore, system governance has faced significant pressures and demands, mainly from the student movement, which has asked for a stronger role for the state, especially with respect to student access and financing, in a context of high privatization. The issues of flexibility of educational trajectories, linkages to the labour market, and different modalities of provision have been left in the background.

In practice, the main steering instruments are based on public funding, especially through specific development programmes, as well as the quality-assurance mechanisms. Development programmes provide resources through competitive funding. While some of them identify specific goals or priorities, most are left to the interests of HEIs. Quality assurance defines levels of quality, associated to the period of validity of institutional accreditation (from three to seven years) and only HEIs accredited for at least four years are eligible to enter the free-tuition programme and to use some of the available loans and scholarships.

2.2.3. Higher education structure

Degree/title structure

The Chilean tertiary education system recognizes three types of higher education institution, which are distinguished by the kind of title or degree that they are authorized to grant: vocational training centres (CFTs) can offer short cycle vocational programmes (equivalent to ISCED⁸ Level 5), leading to a technical or vocational title.⁹ professional institutes can grant both technical and professional titles (comparable to a four-year college programme). Universities can grant these two types of title, plus the academic degrees of bachelor (called *licenciatura* in Chile), master or doctorate. A special feature of the structure of degrees in Chile is that professional degrees (ISCED 6) have two levels: professional titles offered at professional institutes, and professional titles reserved to universities; the latter require a bachelor's (*licenciatura*) degree before a professional title can be obtained.¹⁰

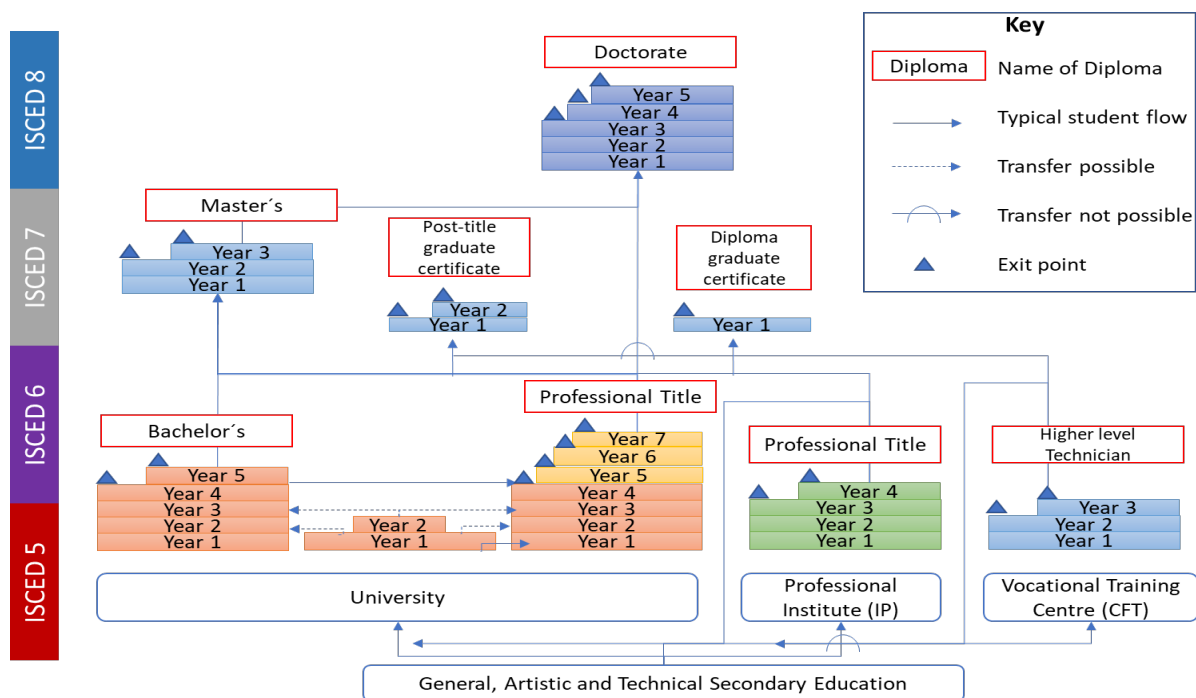
⁸ The International Standard Classification of Education (ISCED) is a comprehensive framework for organizing education programmes and qualifications developed by UNESCO.

⁹ In Chile, qualifications may certify the ability to perform a vocational or professional occupation. The qualification in this case is called a *título* or title; when they refer to academic work, they are called *grado* or degree.

¹⁰ The law defines several professional titles that can only be granted to students who have already received a

Figure 3 shows the different educational levels (ISCED 5 to ISCED 8) of the Chilean higher education system and the different paths of progression between levels. There are no paths that flexibly connect the vocational programmes offered in the CFTs with academic programmes (universities) or professional programmes (universities and IPs). Students who wish to transfer from the vocational level to the university level can apply to the destination HEI for recognition of the credits already completed, but this depends exclusively on the processes and regulations of the respective institutions.

Figure 3. Higher education structure, ISCED 5–8



Source: OECD, 2020

Students graduating from IPs have two ways of transferring to higher education: they can enrol in a one-year programme leading to a bachelor (*licenciatura*) degree, which is offered by several universities, or they may enter a master's programme, in cases where the university offering the degree accepts the IP degree as equivalent to its own degrees. This is more frequent than some suppose, especially for professional master's degrees. In addition, they may enter *post-títulos*,

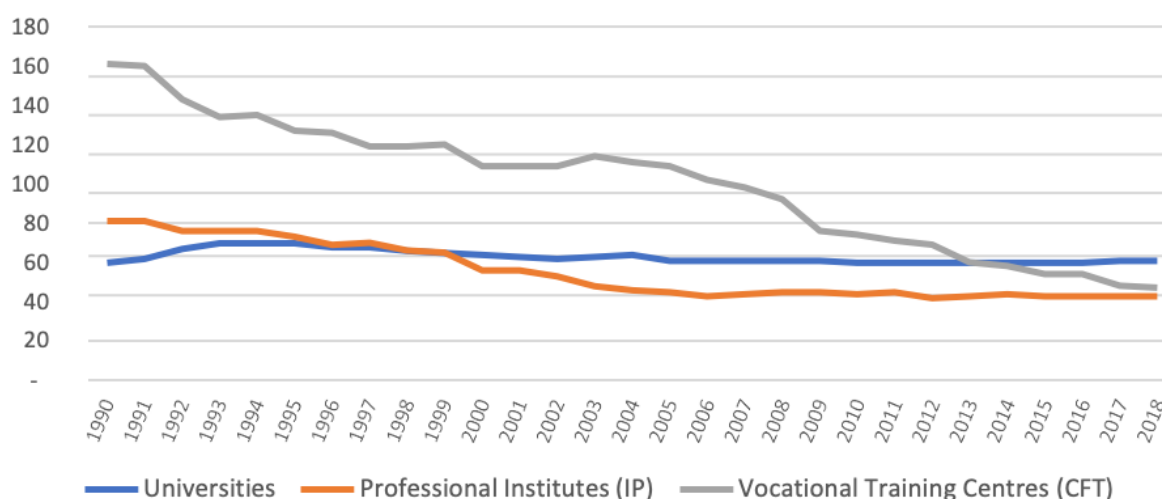
licenciatura degree. Since only universities can grant academic degrees, these professions can only be taught at universities. The list, first established in 1981, focused on high-prestige programmes. It has grown through the pressure of professional associations, as it implies a higher prestige for the degree. The current professions reserved to universities are the following: law, architecture, biochemistry, dentistry, agronomy, engineering, economics, business administration, forestry, medicine, veterinary medicine, psychology, pharmaceuticals, teacher education (for pre-school, primary and secondary education and for students with special needs), journalism, and social work. But some of these programmes can be offered at the professional level, e.g. business administration or applied engineering.

which are professional qualifications, or to specialization or updating programmes offered by universities.

Number of HEIs

The number of HEIs in Chile has varied greatly over the last four decades. After a period of great expansion of institutions during the 1980s, boosted by the 1981 educational reform that allowed private actors to create HEIs, the number began to stabilize after 1990, through the licensing process managed by the Higher Council for Education (CSE), and later decreased, as can be seen in Figure 4:

Figure 4. Evolution of the number of HEIs in Chile



Source: SIES, 2019b

Currently, of the 60 universities in Chile. Eighteen of them are state-owned (two of which were recently created in 2015), nine are state-supported private universities (also called private universities with public funding), and 33 are private universities without public funding (Table 2). All the state-owned and state-supported universities, plus three of the private universities without public funding, are members of the Council of University Rectors or CRUCH. In addition, there are 42 professional institutes (IPs) and 47 vocational training centres (CFTs). The number of universities remains stable near 60, while CFTs have decreasing in the last five years and few new ones are created. Tertiary education supply is concentrated in the highly populated areas, especially in the Metropolitan, Valparaíso and Bío Bío regions.

Table 2. Higher education institutions by type

| Type of Institution | 2015 | 2016 | 2017 | 2018 | 2019 |
|---------------------|------|------|------|------|------|
|---------------------|------|------|------|------|------|

| | | | | | |
|-----------------------------|-----|-----|-----|-----|-----|
| Universities | 60 | 60 | 61 | 61 | 60 |
| Professional institutes | 43 | 43 | 43 | 43 | 42 |
| Vocational training centres | 54 | 54 | 48 | 47 | 47 |
| Total | 157 | 157 | 152 | 151 | 149 |

Source: SIES, 2019b

All HEIs created after 1990 must go through the licensing process managed by CNED; if they meet the licensing requirements, they reach full autonomy status, and must apply for accreditation. Currently, all universities are autonomous, nine institutions are in the licensing process and four are closing. More than half of Chilean HEIs are accredited, which constitutes over 95 per cent of total enrolments. HEIs with lower accreditation rates tend to be CFTs and IPs, while almost two-thirds of universities are accredited. All state-owned and state supported universities in the CRUCH are accredited; they also tend to be the most traditional, selective, and research-intensive universities (Table 3).

Table 3. Accreditation of higher education institutions, 2019

| Sub-type of institution | Accredited | In process of accreditation | Total |
|--------------------------------------|------------|-----------------------------|-------|
| Private vocational training centres | 14 | 28 | 42 |
| State vocational training centres | n/a | 5* | 5 |
| Professional institutes | 17 | 25 | 42 |
| State-owned universities | 16 | 2* | 18 |
| Private universities | 20 | 13 | 33 |
| State-supported private universities | 9 | | 9 |
| Total | 76 | 73 | 149 |

Source: SIES, 2019b. * Newly created HEIs.

Higher education in Chile is complex. It has evolved over the years, changing in terms of the institutional platform, the types of HEI, and the roles of the different organizations. At the same time, the actual governance of the system has not significantly changed, despite the establishment of new institutions. There is an unacknowledged tension between the concern for institutional autonomy (an important feature of higher education in all Latin American countries) and the demand for a stronger role for government in terms of funding and regulation, probably as the result of the increasingly significant role of private higher education institutions and the increased dependence of HEIs on private sources of funding

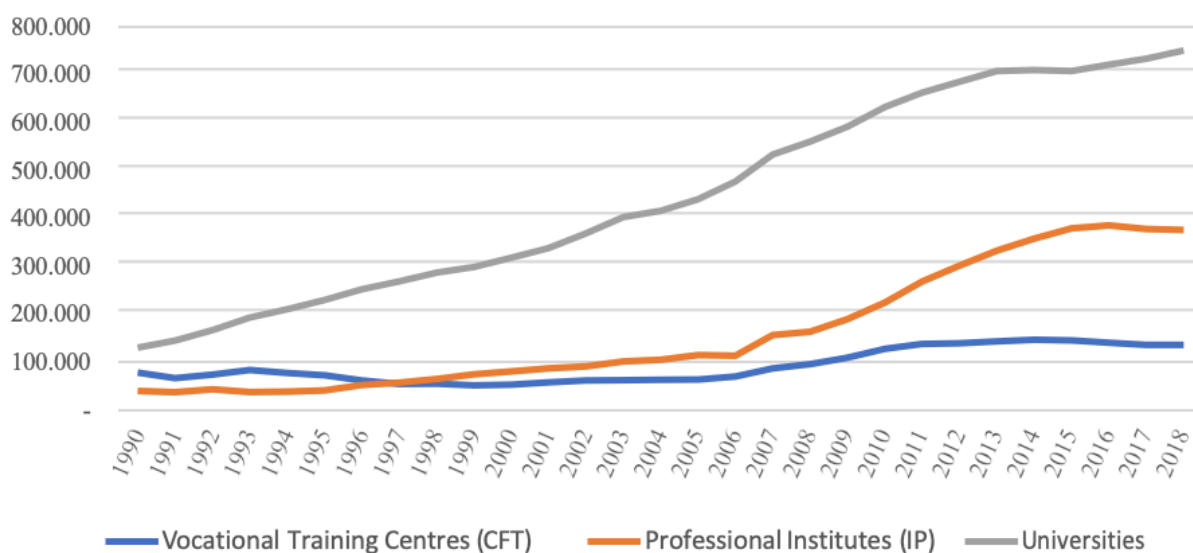
2.2.4. Higher education students

Enrolment by type of institution

From nearly 250,000 students in the early 1990s, the higher education student population in Chile grew to over 1.2 million students, concentrated in universities and professional institutes. This

growth was particularly pronounced between 2006 and 2013, to a great extent favoured by the introduction of the State-Guaranteed Loan scheme (CAE) and a series of scholarships, both of which could be granted to students in private institutions (see Figure 5).

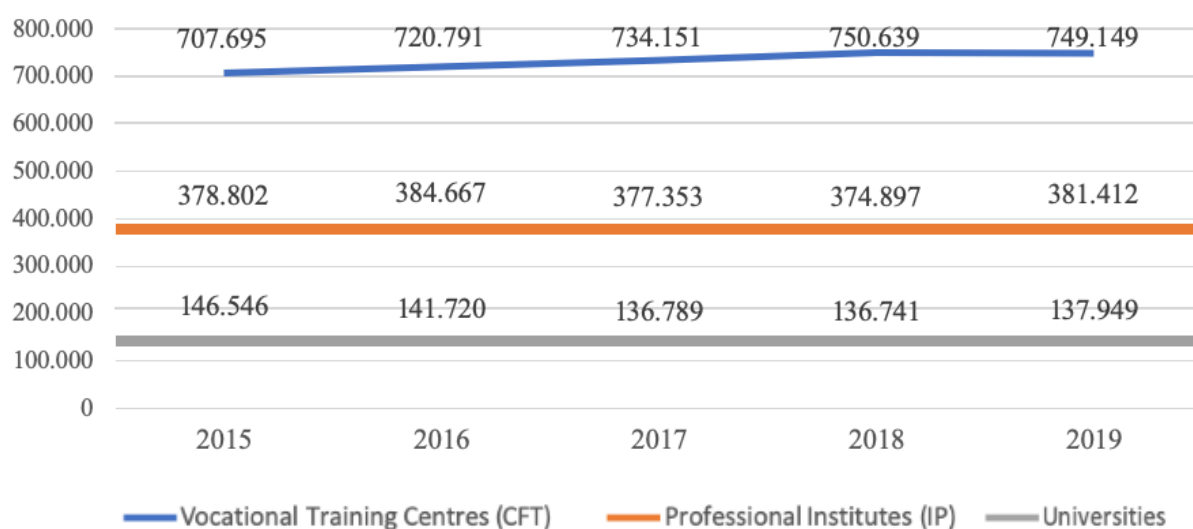
Figure 5. Evolution of enrolment



Source: SIES, 2019b

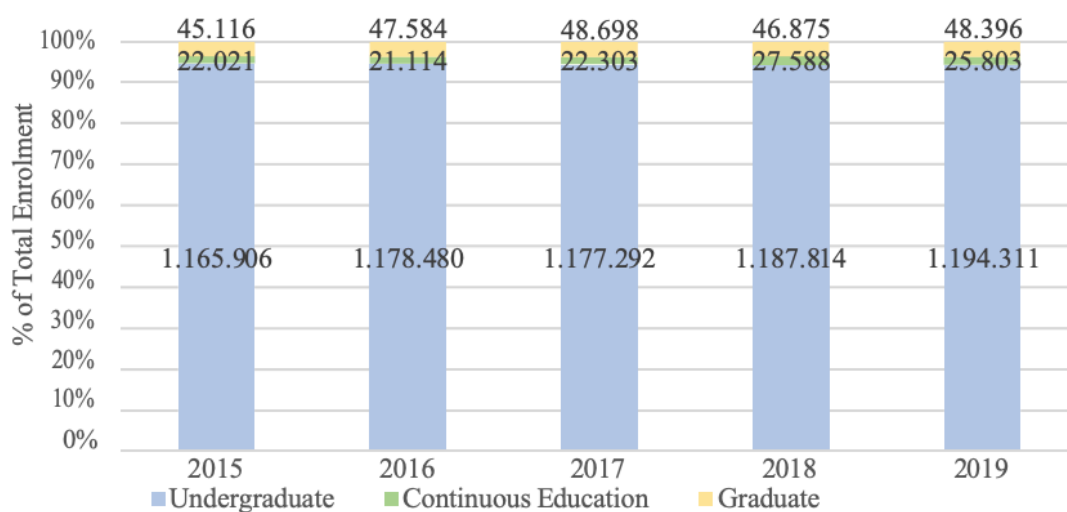
Currently, student population trends show relative stability. While the annual enrolment growth rate between 2007 and 2011 averaged 9 per cent, in the last five years the average annual growth rate only reached 1 per cent. This is probably a consequence of the diminishing size of the 18–24 cohort, especially in the higher income levels, and the relatively closed demand for higher education.

Figure 6. Total enrolment by type of institution, 2015–2019



Source: SIES, 2019b

Figure 7. Total enrolment by level of studies, 2015–2019



Source: SIES, 2019b

Distinguishing by type of programme, at the undergraduate level, 66 per cent of total enrolment corresponds to professional programmes (those leading to a professional degree), while 26 per cent are vocational programmes (Table 4). Academic programmes are offered in the humanities, arts, and science, and end with a *licenciatura* degree, which enables their holders to continue to graduate studies. Most programmes at graduate level are master’s programmes, followed by continuous education¹¹ alternatives (diplomas or post-title certificates that allow you to specialize in different professional and academic areas). Still, the number of PhD students in Chile reached and surpassed the 6,000 mark in 2019, showing a significant growth rate in the system. The growth of PhD students is the result of a scholarship policy conducted since 2008, which dramatically increased the number of students in domestic and foreign programmes.

The increase in continuing education programmes is related to the needs for greater specialization or the development of new competencies in the labour market, which HEIs are trying to meet through the creation of these programmes. At professional and vocational level, this is supported by the certification process carried out by ChileValora and recognized by employers.

¹¹ Continuous education in Chile is a varied set of training and capacity-building activities, offered by HEIs (mainly universities, with a few offered by IPs) to people who want to upgrade, strengthen or specialize their knowledge, skills, or attitudes, either for a better professional or labour performance or for personal development. Continuous education programmes are closely linked to perceived demand, from individuals, or public or private institutions. They have different entry requirements; some require an academic or professional degree, but in many cases, they are open to people without higher education qualifications. They grant a diploma stating the specific competencies achieved in the course.

Table 4. Total enrolment by type of programme, 2019

| Type of Programme | 2019 | Total | Growth rate 2015–2019 |
|---------------------------------|-----------|-------|-----------------------|
| Professional programmes | 824,614 | 66% | 5% |
| Academic programmes | 25,466 | 2% | 1% |
| Vocational programmes | 344,231 | 27% | -5% |
| Doctoral programmes | 6,048 | 1% | 17% |
| Master's programmes | 42,348 | 3% | 6% |
| Continuous education programmes | 25,803 | 2% | 17% |
| Total | 1,268,510 | 100% | 3% |

Source: SIES, 2019b

Enrolment by study schedules and learning modalities

Regarding study schedules and learning modalities, in 2019, 70 per cent of the students were enrolled in daytime studies, and 23 per cent in evening studies. Still, since 2015, distance learning has almost doubled¹² (Table 5). This raises the possibility that traditional evening studies are being replaced by online training alternatives. Part-time also showed an increase in the period, demonstrating an increasing trend in diverse learning modalities (SIES, 2019b).

Both private universities (with and without state funding) and IPs have a higher proportion of part-time and distance learning programmes. These institutions have been more dynamic in creating this type of flexible learning modality since there are no specialized institutions for online or distance teaching and learning. Another interesting fact is that the proportion of females enrolled in distance learning programmes (55 per cent) and part-time programmes (63 per cent) is well above the system average (53 per cent) (IPST/CFTST institutional leader for teaching and learning, in-person interview; SIES, 2019b). This suggests that flexibility increases opportunities for women, who more often must balance domestic work with other activities.

Table 5. Total enrolment by type of learning modalities, 2015–2019

| Type of modalities | 2015 | 2016 | 2017 | 2018 | 2019 |
|---------------------|-----------|-----------|-----------|-----------|-----------|
| Full-time (daytime) | 847,218 | 859,078 | 866,694 | 881,925 | 893,159 |
| Full-time (evening) | 337,853 | 330,665 | 316,735 | 304,489 | 290,945 |
| Distance learning | 30,283 | 32,444 | 37,515 | 45,221 | 55,992 |
| Part-time | 7,691 | 8,745 | 10,203 | 10,955 | 11,360 |
| Other | 9,998 | 16,246 | 17,146 | 19,687 | 17,054 |
| Total | 1,233,043 | 1,247,178 | 1,248,293 | 1,262,277 | 1,268,510 |

Source: SIES, 2019b

¹² The impact of the protests in 2019 made many HEIs shift their teaching mode to online courses, in order to close the second 2019 semester. Later, because of the outbreak of COVID-19, most HEIs have started moving to an online rendering of face-to-face studies; this will probably impact on the future organization of studies.

When the modality is classified in annual growth of full-time, distance learning, and part-time studies, the trend becomes more evident. Distance learning programmes have had a 117 per cent increase in the last five years. In the same period, part-time programmes also grew (11 per cent), while full-time modalities grew very little (see Table 6). Although flexible learning modalities (distance learning, part-time and other) represent only 7 per cent of total enrolment, their growth shows a growing demand for diversification, especially in postgraduate and continuing education.

Table 6. Learning modalities growth variation

| Type of modalities | 2015 | 2016 | 2017 | 2018 | 2019 | Period |
|--------------------|------|------|------|------|------|--------|
| Full-time | 1% | 1% | -1% | 1% | 0% | 2% |
| Distance learning | 17% | 7% | 16% | 21% | 24% | 117% |
| Part-time | 2% | 9% | 13% | -3% | -10% | 11% |
| Total | 1% | 1% | -1% | 1% | 0% | 2% |

Source: SIES, 2019b

Although in Chile the more traditional type of programme and typical student population coming straight from high school still predominates, the emergence of diverse modalities, different schedules, and continuous education programmes, among other non-traditional learning alternatives shows that the higher education system is changing. Students and programmes are becoming more diversified, technology allows new learning possibilities, and HEIs are adapting to the different needs of a new kind of students (many of whom did not attend higher education partly for financial reasons, but also because they had to accommodate either work or family with study) and students that are coming back to higher education. Allowing students to flow through the system in a flexible manner becomes a relevant topic.

2.2.5. Funding scheme for higher education

In accordance with figures published by the OECD (2018), quoted by Brunner and Labraña (2018), Chile makes a significant investment in education (all levels, public and private), equivalent to 6.1 per cent of gross domestic product (GDP), which compares positively with 5 per cent on average for OECD countries. Despite this, expenditure per student is only about 54 per cent of the average expenditure per student for OECD countries. This effort is shared by the government (3.8 per cent) and the private sector (2.3 per cent).

In higher education, the portion covered by the private sector is much higher. In 2016, total national investment reached 2.5 per cent of GDP, 68 per cent of which was covered by the private sector, mostly families paying tuition (OECD, 2019).

Considering both public and private funding for higher education, expenditure per student is US \$8.406 per year, but it is skewed in favour of professional or university education (ISCED levels 6–8), which receives 2.5 times the amount for short cycle programmes (ISCED Level 5). Only 4 per cent of this expenditure is allocated to research and development, making it evident that the higher education system is mostly a teaching and learning system. This is also evident in the composition of expenditure: most of it is dedicated to student aid, thus increasing the gross enrolment rate to 88.5 per cent in 2017, one of the highest in Latin America and higher than many countries in North America or Europe (UIS, 2020).

Total investment in higher education in 2017 reached approximately US \$3.076 million, distributed in the following proportions: 39 per cent to student aid (scholarships and loans), 27 per cent directly to HEIs and 34 per cent to cover the free-tuition programme, resources that go directly to the institutions that enrol beneficiaries of the programme.

These resources went mostly to the state-owned universities (55.5 per cent), with 37.2 per cent to the private universities with public funding, and the remaining 7.3 per cent to private HEIs (universities, IPs and CFTs) with no public funding.¹³

Funding for higher education can be organized into two main components: institutional funding and student aid. These will be briefly described below.

Institutional funding schemes

According to Brunner and Labraña (2018), the reform meant the introduction of preferential treatment for different groups of HEIs using a diversified set of instruments. These include the following:

- Direct public funding (AFD) is granted to the 18 state-owned and the nine private universities with public funding every year, with 95 per cent allocated on a historical basis, and 5 per cent on the basis of efficiency indicators. This 5 per cent becomes a part of the 95 per cent the following year. This is the main institutional funding mechanism and it has been in place for over 30 years.
- Performance-based funding contracts for state owned universities.

¹³ It is important to remember that there are three types of university in Chile according to their funding: 18 state owned or public universities; nine private universities, created by law and entitled to receive public funding; 33 private, income-generating universities, which only receive certain public funds, mostly on a competitive basis. IPs and CFTs are also private, with no public funding (with the recent exception of five state-owned CFTs). However, student aid can be used in any of these HEI, provided they meet certain requirements.

- Framework agreements for state-owned universities.
- Funding for the establishment of 15 public vocational training centres.
- A special assignment for Universidad de Chile, the flagship university.
- Funding for the establishment of two new state-owned universities.
- A support fund for regional higher education.
- A fund to support research activities in private universities with no public funding which have entered the free-tuition programme.
- Other smaller funding schemes mostly addressed to state-owned and private universities with public funding.

Funding for students

All HEIs in Chile charge tuition fees. Students that wish to enter higher education but do not have the financial resources to cover the fees have different options, as outlined below.

Free-tuition programme (*Gratuidad*)

The free-tuition programme was established in 2018, as recommended by the 2018 higher education reform (Law 21091, 2018). According to the law, all students from families in the first six income deciles, irrespective of age, who are enrolled in an eligible HEI are not required to pay tuition for the nominal length of the programme. Thirty-three per cent of total public funding for higher education is allocated to this programme, and it will certainly increase over time.

HEIs eligible for the free-tuition programme are:

- State-owned universities or private universities with public funding.
- Private universities owned or controlled by not-for-profit entities.
- Not-for-profit professional institutes or vocational training centres, owned or controlled by not-for-profit entities.
- Using the national admissions test or a transparent, objective admissions mechanism.
- Accredited with a validity of at least four years.

Students eligible for free tuition must also meet some additional requirements: they must enrol in an undergraduate degree in its full-time mode, so they must take the University Selection Test (*Prueba de Selección Universitaria* or PSU) or meet the alternative access requirements of each

HEI; they must not have a professional or bachelor degree, unless they want to enrol in a teacher-training programme; if they have a vocational or technical degree, they can enrol in a programme leading to a professional degree. Students can change once within the same institution or to another one; to maintain the benefit they must comply with the nominal length of the programme.¹⁴

In 2017, the free-tuition programme benefited nearly 140,000 students and currently reaches over 330,000 students (see Table 7). Most of these students are between 20 and 24 years old (59 per cent of those enrolled in universities; 57 per cent of students enrolled in IPs; and 45 per cent of students enrolled in CFTs).

Although the free-tuition programme allows access to higher education for students who come from the most disadvantaged social contexts in the country – some of whom are the first members of their families to access tertiary studies – it does not encourage flexibility, because it only allows one change of career and privileges full-time education and vertical upward trajectories. These conditions leave out working students who need flexible programmes (part-time or distance learning) to start or continue their studies, or students who follow non-linear learning paths, such as changes between areas of study or the development of more than one career at the same educational level.

Loans

The government also provides subsidized loans to students who need them to cover all or part of the tuition, either directly or through a financial institution. In this last case, the government guarantees payment of the loan. There are two loan systems, with similar but different conditions.

Solidarity Fund for University Student Loans

Enacted in 1994 and modified in 2014 by Law 19287, the Solidarity Loan Fund (*Fondo Solidario de Crédito Universitario*) is a way of financing students who are not eligible for free tuition. There are three requirements for its use. Students must: be enrolled in an accredited CRUCH university (which excludes most students in private universities and all students in professional or vocational HEIs); belong to one of the first eight income deciles; and have an average PSU score (language and math) equal to or greater than 475 points.¹⁵

¹⁴ If a student changes from one programme or HEI to another, funding continues for the total number of years the final programme requires (e.g. if a student studying biology transfers to medicine in their second year, the benefit continues until the seven years required for medical studies are completed. If they exceed that time, they must cover the cost of the additional years).

¹⁵ PSU is the set of tests applied as a common selection mechanism for students applying to a university. It includes two tests all students must take (language and communication, and maths), and two optional ones (history, geography and social sciences, and science, which includes biology, chemistry and physics). The scores are

The fund finances part or all of the annual reference fee¹⁶ of the career, through a loan, according to the characteristics of the students: 100 per cent for those belonging to 60 per cent of the population with the lowest income in the country, 50 per cent for those students over 60 per cent, and up to 80 per cent of the lowest income population in the country. It is a subsidized loan, with 2 per cent interest that must be repaid starting two years after graduation; payment is income contingent, with a ceiling of 5 per cent of the income received in the previous year, for a maximum of 15 years (MINEDUC, 2020a).

The loan is also subject to some conditions: students must not have a professional or bachelor degree; it can only be used in full-time undergraduate programmes, excluding graduate, postgraduate, or diploma programmes; first-year students must pass 60 per cent of the enrolled classes, and 70 per cent for second-year students onwards, to maintain the benefit; and only one change of programme is allowed, either within the same institution or to another one.

State-Guaranteed Loan (*Crédito con Aval del Estado – CAE*)

Enacted in 2005 and amended in 2012, Law 20027 establishes the State-Guaranteed Student Loan. It is also subsidized, with 2 per cent interest. The CAE is a state benefit granted to all students who achieve academic merit and who need financing to start or continue a career in a HEI, regardless of its characteristics, provided it is accredited.

The loan is guaranteed by the HEI during the time for which the student is enrolled. After graduation, the government guarantees payment. Payment is also income contingent, with a ceiling of 10 per cent of the income received in the previous year and a maximum of 20 years.

Initially, to be eligible for CAE, students had to belong to the first eight deciles of household income in the country. However, since 2014, the budgetary conditions have allowed it to be granted without socioeconomic restriction. Students entering higher education are required to have obtained an average PSU test score (language and mathematics) equal to or greater than 475 points for universities, or if they plan to follow a technical or vocational programme, have a high school grade average (*Notas de Enseñanza Media*) equal to or greater than 5.29 (out of a maximum of 7). Students who are already pursuing a career are required to have approved 70 per cent of the total credits or courses of the last year and must be sponsored by an eligible HEI (Ingesa, 2020).

adjusted to a normal curve, with 500 points assigned to the average of right responses, and 100 points added or deducted per each standard deviation.

¹⁶ The government defines for each programme a ‘reference fee’ that is its estimate of the actual cost of the programme in each HEI. Most scholarships, the loans and the free-tuition programme cover the reference fee, not the actual fee charged by the HEI, which is always higher.

Having a prior degree does not impede a student from getting this loan, unless that degree was funded by the solidarity fund or CAE.

Bill of Law for New Student Loan System

A new bill of law was passed in June 2018 proposing the creation of a Solidarity Financing System (*Sistema de Financiamiento Solidario*) that merges the State-Guaranteed Loan (CAE) and the Solidarity Loan Fund (FSCU). The new loans would be administered by a state corporation, excluding the private banking system from its administration.

The loan would cover up to the total reference fee plus a variable portion of the difference between the reference fee and the actual fee charged by the HEI, depending on the socioeconomic level of the beneficiary and the accreditation of the institution in which the student enrolls. This project is still under discussion and may have significant changes before it is approved.

Scholarships

To increase access to higher education, the government grants 12 different types of scholarship for different purposes, beneficiaries, and types of institutions. Some specific scholarships are only granted for a few years or are discontinued. With the introduction of the free-tuition policy, scholarships started reducing the number of beneficiaries, which were on the rise before (MINEDUC, 2020b).

Scholarships cover all or part of the tuition of students that meet certain conditions, in a wide range of areas, irrespective of their age. Funds are allocated directly to the institutions where those students are enrolled. Most of these scholarships are available to new students, that is, students enrolling for the first time in a HEI, but some of them can also benefit students already enrolled in an HEI.

Scholarships are available to:

- students who have the best scores in the national admissions test or are the best in their generation in secondary education;
- students who wish to train as schoolteachers, and who had a high score in the national admissions test;
- students who have a vocational degree and wish to continue to a professional or academic degree;
- students whose father or mother are schoolteachers:

- students who were studying in a university that was closed and need to relocate to another HEI;
- students who have some level of disability;
- indigenous people;
- students from isolated regions (from one of the islands, or the far south of the country).

All beneficiaries must belong to low-income groups and have a good grade average, in secondary education for new students or in higher education for students that are already enrolled in a programme or want to renew the scholarship.

Most scholarships go to students between 18 and 24 years old, but some scholarship-holders are between 25 and 34 years old: 11 per cent in universities, 18% in IPs, and 20% in CFTs. If we look at scholarship holders over 35 years of age, we see that the highest concentration is in CFTs, with 8 per cent, compared to 4 per cent in IPs and 2 per cent in universities. The distribution of student aid is as follows:

Table 7. Total enrolment by type of student aid

| Level | 2015 | 2016 | 2017 | 2018 | 2019 |
|------------------------------|---------|---------|---------|---------|---------|
| Free tuition | - | - | 138,951 | 261,744 | 336,065 |
| Scholarships | 331,408 | 397,386 | 349,387 | 268,959 | 226,107 |
| Solidarity Student Loan Fund | 83,885 | 74,046 | 45,326 | 33,855 | 30,181 |
| State-Guaranteed Loans | 356,556 | 369,253 | 355,579 | 299,904 | 265,467 |
| Total | 771,849 | 840,685 | 889,243 | 864,462 | 857,820 |

Source: Mineduc, 2019

In general, the Chilean student funding schemes do not support or encourage flexible learning pathways. With two exceptions (scholarships for students with a vocational degree, and for students who want to become schoolteachers), scholarships are not available to students who already have a degree. Students who have a vocational degree and want to enter an IP or university for further study must normally go through the regular admissions system, and it is highly likely that their previous studies will not be recognized. The tuition free programme is also not available for students who already have a degree, with the exception of students who have a vocational degree; the provision that tuition is free only for the nominal duration of the programme also makes it difficult to change from one programme to another, as the extra years would have to be covered by the student.

2.2.6. Access to higher education

In order to enter higher education in any degree programme (ISCED 5–8), it is mandatory to have a secondary school level certificate (see Figure 3 for degree structure), which can be obtained by any student at any time, irrespective of age, after completing the four years of secondary schooling. Students can also validate secondary schooling through exams offered by the Ministry of Education. After that, students need to meet the requirements established by each HEI, which can vary significantly.

CRUCH, the Council of Rectors of Chilean Universities, has been using a centralized admissions system for many years. In 2013, it established the Common Admission System (*Sistema Unico de Admisión*, or SUA) in order to respond to the need for continuous improvement and strengthening of the university admission system.

Before that, access to CRUCH universities took into account the score in the admission test, or PSU, and the grades obtained in the last four years of secondary school. But PSU scores are strongly correlated with socioeconomic status, and they depend on the quality of secondary education. In order to mitigate this effect, an additional score was added: a special bonus to students who have consistently been in the best places during the last three years of secondary school, which is called ‘ranking of grades’, which is available to all students.

The national admissions system (SUA) aims to ensure the development and management of the system of selection and admission to the universities of CRUCH and the private universities that are also members of the admission system but not of the CRUCH. It is a standardized, common, and simultaneous student selection system. It operates through three selection factors that are taken into consideration to calculate the weighted score of applicants to the careers of their choice. These factors are:

- High school grades (*Notas de Enseñanza Media*), which consist of the average high school grade transformed into a standard score.
- Ranking of grades, which expresses the relative position of the student in his/her school during the last three years of secondary school.
- University selection test (*Prueba de Selección Universitaria* or PSU), which consists of a series of mandatory standardized tests (language and mathematics) and elective tests (history, geography and social sciences, and science, which includes physics, chemistry

and biology). Any high school graduate (recent, former, or foreign) can take the test, which is sat once a year, as many times as required.

Each programme establishes the weight allocated to each of these three factors, with some restrictions: 1) the maximum weight given to the ranking of grades and NEM will be 50 per cent; 2) the minimum weight of the ranking of grades and NEM will be 10 per cent for each; and 3) the weighting range for the PSU is between 50 per cent and 80 per cent.

Scores in the PSU and secondary school grades are standardized, with 500 points at the average, and 100 points for each standard deviation. Students must have at least 450 points to apply to a university in CRUCH.

Students apply to the programmes and universities of their choice and are allocated to one of them in order of preference and score.

Institutions not belonging to CRUCH or not registered at the SUA may use the scores in the PSU for admission, and many do; however, each must carry out its own admission process.

Vocational HEIs, in general, do not use the PSU scores for admission. They have their own special requirements, or sometimes, just open admission (first come, first served). The higher education reform, approved in 2018, requires the establishment of a national admission process, but still no information is available on the requirements or rationale of the mechanisms or how different they will be for admission into universities, professional institutes, and vocational training centres.

Admission policies have been focused on two main aspects: to select those students who are expected to have good results in higher education, while, at the same time, addressing socioeconomic inequality through these specific measures. Results have shown that, provided the HEI considers the learning needs of these students, their results are similar if not better than those of regular students (Villarroel and Gil, 2019).

The score allocated to the ranking is not the only policy in place to improve opportunities for disadvantaged students. There are programmes dedicated to providing complementary courses to outstanding students from vulnerable contexts and to supporting them once they are admitted into a HEI, as well as offering 'supernumerary places' to students with excellent performance in secondary school. These will be described in Chapter 4.

2.2.7. Efficiency and outcomes of higher education

Dropout and retention are among the most used efficiency measurements of higher education systems world-wide. Retention rates are usually calculated for the first year, by assessing the proportion of new students that remain enrolled in higher education the second year.

Table 8. Undergraduate first year retention by type of institution

| Type of Institution | 2015 | 2016 | 2017 | 2018 | 2019 |
|-----------------------------------|-------|-------|-------|-------|-------|
| Universities | 76.3% | 76.9% | 78% | 78.8% | 78.9% |
| Professional institutes | 67.3% | 67.7% | 68.5% | 71% | 72.4% |
| Vocational training centres (CFT) | 64.5% | 65.7% | 66.7% | 68.8% | 70.5% |
| Total | 70.5% | 71.2% | 72.4% | 74.1% | 75% |

Source: SIES, 2019a

Retention rates in the last five years have been increasing steadily in all types of HEI. Still, universities show significantly lower dropout rates than IPs and CFTs. These differences can be explained by the fact that students at vocational level are usually inserted in the job market. Overall, one out of four students entering higher education is expected to drop out after the first year (see Table 8).

Programme duration is also a concern for HEIs as recent policy has associated shorter academic programmes with greater efficiency and advocated for shortening programme length. As is the case in several Latin American countries, university programmes tend to be long and relatively rigid; the average nominal duration of university programmes was 11 semesters in 2010, but was reduced to 9.8 in 2018. Most programmes now have a nominal duration of 8 to 10 semesters; still, universities show only a small reduction in the length of programmes (Table 9).

The main point here, however, is not so much the nominal duration of programme, but rather their ‘overduration’, that is, the ratio between the average number of semesters students take to graduate and the nominal duration of the programme.

Table 9. Nominal duration and over-duration of programme, by level of study

| Level | Average nominal duration (number of semesters) | | | Over duration of the programmes |
|----------------------|---|------|------|------------------------------------|
| | 2010 | 2015 | 2018 | 2018 |
| Undergraduate | 11 | 9.7 | 9.8 | 31.5% |
| Graduate | 6.2 | 6.1 | 6.2 | 53.8% |
| Continuous education | 3.3 | 3.1 | 3 | 46.8% |

Source: SIES, 2018b

Over-duration can be the result of different factors: curricular rigidity, students enrolled in full-time study who work and cannot manage a full course load, high requirements for graduation, which mean that a student may take two or three years to complete them, or other similar situations.

Over-duration could be significantly reduced if HEIs addressed these issues, but there is no incentive for them to do so, as students must pay a full fee for all the years they remain at the institution.

In the case of types of HEI, the time to graduate has increased slightly in the last five years at professional institutes and CFTs, with an even slighter decrease in universities, as can be seen in the Table 10.

Table 10. Nominal duration and over duration of undergraduate programmes, by type of HEI

| Type of HEI | Average nominal duration | | Average over-duration | |
|-----------------------------|--------------------------|------|-----------------------|------|
| | 2013 | 2018 | 2013 | 2018 |
| Universities | 12.6 | 12.6 | 32.1 | 31.4 |
| Professional institutes | 8.0 | 8.2 | 28.3 | 29.9 |
| Vocational training centres | 6.7 | 6.6 | 35.5 | 36.9 |

Source: SIES, 2018b

The over-duration of programmes is an indication of the relative inefficiency of Chilean higher education, which translates into additional fees that must be covered, and an increase in the opportunity cost for students and their families. This, as might be expected, affects the more vulnerable students worse. It also shows how unrealistic it is to expect students eligible for free tuition to complete their degrees in the time defined for the programme and to limit payment of fees to that period.

On the other hand, this requirement may provide incentives to HEIs and students to increase their efficiency and reduce the over-duration of the programmes.

2.2.8. Expected income and employability

At national and international levels, studies consistently show that income increases significantly as students go through more years and higher levels of education. On average, professional graduates have higher average returns than vocational graduates (65 per cent higher) and higher employment rates (10 percentage points more), as reported by SIES (2015). The average income of graduates from universities is 40 per cent higher than the average income of IP graduates of professional programmes, while the average income of IP vocational graduates only exceeds CFT graduates by 5 per cent, signalling clearly the large increase in income that comes with university studies.

Nevertheless, there is great diversity of income according to the type of institution a student attended. SIES (2015) reported that the top 20 per cent of CFT graduates have a higher monthly

average income (US \$1,626) than the average IP graduates (US \$1,526). In turn, the top 20 per cent of IP graduates earn more on average (US \$2,557) than a university graduate (US \$2,082). SIES reports that the same is true for employability. In general terms, higher income and employment rates are found among graduates at the mining sector and metalworking industries.

2.2.9. Quality assurance

Even though institutional accreditation has been voluntary up to now, most HEIs have undergone the review process, and a large majority of students are enrolled in an accredited institution.

Accreditation is used for several purposes, not only to assure quality. One of the uses of accreditation is to define eligibility to the free-tuition programme: students have access to free tuition if they belong to one of the first six income deciles and are enrolled in an institution accredited for four or more years. Accreditation figures for 2019 are given in Table 11:

Table 11. Accreditation results by type of institution

| Type of HEI | Eligible HEI | Not accredited | Accredited for 2–3 years | Accredited for 4–7 years | Accredited HEIs |
|--------------------------------|--------------|----------------|--------------------------|--------------------------|-----------------|
| Universities | 55 | 10 | 5 | 40 | 45 |
| IPs | 30 | 11 | 10 | 9 | 19 |
| CFTs | 39 | 24 | 8 | 7 | 15 |
| % of students in each category | N/A | 6 | 15 | 79 | 94 |

Source: CNA, 2020

In the case of programmes with mandatory accreditation, the situation is similar: in all cases, most programmes are accredited, and they cover over 80 per cent of the enrolment in each area. The figures are shown in Table 12.

Table 12. Accreditation results for programmes with mandatory accreditation

| Programme | % accredited | % enrolment in accredited programmes |
|------------------|--------------|--------------------------------------|
| Medicine | 100% | 100% |
| Teacher training | 73% | 83% |
| Dentistry | 71% | 86% |
| Doctorate | 66% | 77% |

Source: CNA, 2020

It is interesting to note that, in all cases, the percentage of enrolled students is larger than the number of HEIs, showing that it is the larger institutions that show better results in terms of accreditation status. This may be due to their greater degree of consolidation. It could also show a certain bias towards more traditional and established HEIs.

2.3. Other policy mechanisms in higher education

There are also specific policies that have been put in place as the consequence of particular interests shown by HEIs. One of them is the development of qualifications frameworks, initiated by the universities in the Council of University Rectors, but which, however, ended up by focusing only on vocational and professional studies. Another is the design of a system for credit transfer, which involved a lot of work, and was, in the end, mostly an instrument for supporting curricular design in a competency-based mode. A third example is the provision of information on the higher education system, with two significant mechanisms (SIES and INDICES). None of these developments has made use of the fact that all Chileans have an ID number that they retain through life. This could make it possible to conduct follow-up studies, such as on whether a student who leaves a programme re-enrols in another programme or HEI or abandons higher education altogether. This could also help us to learn about different pathways followed by students who change their programme or return to higher education after some time away.

2.3.1. National qualifications framework

A national qualifications framework for higher education is an instrument that could have been valuable in promoting flexibility in higher education. In 2015, the Ministry of Education formed a taskforce that gathered international information, consulted with multiple actors within and outside of higher education, and developed a proposal. It defined two professional levels, one without a bachelor's degree (professional title delivered by IPs and by universities) and one with a bachelor's degree (exclusively university title). But because of the poor alignment between technical and university higher education institutions, and the lack of clear political will in that regard, the proposal was discarded. At the same time, the Ministry of Education delegated to Fundación Chile the development of a National Vocational Qualifications Framework (MCTP), which was approved, and which reaches the professional level without a bachelor's degree. This, in practice, consolidates the lack of articulation between the technical and the university sector. After long consultation, it was decided to launch the vocational framework, and postpone the higher education one.

2.3.2. National Vocational Qualifications Framework

The MCTP is an effort to achieve relevant and quality professional technical training. Its objectives are to promote educational and labour development itineraries throughout life; promote the mobility of people, between productive sectors, territories, or training institutions; boost the

employability of students and workers; and facilitate the recognition of people's knowledge and abilities.

A qualification is defined as a set of knowledge, skills, and competences acquired by a person, which allow him/her to perform in an occupational environment in accordance with a certain previously established level. The MCTP consists of learning outcomes that are structured in an ordered matrix in five levels of increasing complexity and three dimensions (skills, application of context, and knowledge). The five levels start with low-complexity learning, up to learning of greater length and depth that is frequently associated with training obtained in higher education.

The MCTP began to be developed in 2014, considering national and international experiences, including a wide range of actors and with the support of national and international experts and national and multilateral agencies. The framework is organized from the point of view of employment-oriented competencies, covers only the vocational sector and the first level of professional degrees (those without the requirement of a *licenciatura* degree), and does not take into account competencies that would be needed from a more academic perspective, even at the vocational or professional level. This makes it difficult to link it with a future higher education qualifications framework and may run the risk of creating a barrier between its levels and continuing studies in higher education.

2.3.3. Transferable academic credits system

This was a joint initiative of the universities belonging to CRUCH,¹⁷ with the aim of improving the student experience, the recognition of studies, and the national mobility of students. The Credit Transfer System (*Sistema de Créditos Transferibles* or SCT) was specifically intended to:

- consider the time required for a student to achieve learning outcomes and the development of job skills in each curricular activity;
- promote the readability of a training programme and the transfer of these academic credits from one institution to another;
- promote university mobility.

The SCT is based on three components: 1) total workload of students (including theoretical classes, practical activities, laboratory or workshop, clinical or external activities, assistantships, etc.); 2)

¹⁷ CRUCH, the Council of University Rectors, has as its members all state-owned universities (18), all private universities with public funding (9) and 3 private universities without public funding (or, in the Chilean slang, 'private-private' universities).

time the student devotes to his career, where an academic year of full-time studies means between 1,440 and 1,900 hours of academic work; and 3) the normalizer, which allows the assignment of a number of credits to each of the different curricular activities. The total annual workload (range 1,440–1,900 hours) is associated with 60 SCT credits, one credit represents between 24 and 31 hours of academic work, and a full-time student dedicates to his/her academic training process between 45 to 50 weekly work hours, on average.

The implementation of the SCT has four levels: 1) CRUCH agreements, embodied in principles and components; 2) an institutional policy, expressed in the incorporation of the system into institutional regulations; 3) a macro-curricular framework, reflected in the elaboration of curricula in SCT; and 4) a micro-curricular framework, embodied in the design of subject programmes and the planning of their development.

In practice, the SCT has been used mostly for descriptive purposes, with little use as an articulation tool, because of a lack of trust in the quality of teaching and learning, the difference in the curricular design between institutions and programmes, and the absence of a reliable equivalent to a ‘diploma supplement’ describing the achieved competencies.

2.3.4. Data management systems

Higher Education Information Service (Servicio de Información de Educación Superior)

The Higher Education Information Service (SIES) has as a general objective to be a public information service that provides reliable, timely, and pertinent information for the decision-making of the various actors of higher education (state, HEIs, students and their families). For this, it identifies, collects, and disseminates the necessary background to manage the system and public information.

SIES collects information on academic offer, enrolment, graduates, infrastructure and equipment, teaching staff, financial statements of the institutions, employability and income, and other topics. Although it is an important source of data for the actors in the system, it lacks information regarding possible learning paths and articulation between the different levels available to students.

It also runs the ‘My Future’ (Mi Futuro) platform, providing students with a wide range of data about study opportunities, funding possibilities, employability and expected income, guidance, and so on.

National Education Council Information System

The National Education Council (CNED), through the National Education Council Information System (INDICES), collects, processes, validates, integrates, and makes publicly available various data and statistics of the Chilean higher education system. These data are reported voluntarily by HEIs, though it is mandatory for those in the process of being licensed. One of the objectives of INDICES is to improve the transparency and accountability of the Chilean higher education system, allowing access and understanding of the information both for the decision-making of the council itself and for HEIs, public organizations, the academic and research community, applicants for higher education, and media, among others.

INDICES presents its information through different instruments: databases of undergraduate and postgraduate study programmes between 2005 and 2019; institutional data and historical database for the period 1995–2004 (in development); a platform for displaying statistics on the Chilean system that shows enrolment, teachers, infrastructure, libraries, and retention data; INDICES reports, which disseminate information on topics in higher education.

Although both SIES and CNED provide relevant data for the actors in the system, there is a lack of information regarding possible learning paths and articulation between the different levels available to students, mainly because the Chilean higher education system is highly diverse and lacks articulation.

2.4. Equity groups

Regarding access policies and student aid, the Chilean state recognizes several disadvantaged groups that are the object of specific instruments to support either their access to higher education or provide specific support measures. Among them, the main groups are the following:

- Students who can prove that they belong to households within the lowest income deciles of the country (i.e. below the sixth decile for the free-tuition policy, below the ninth decile for some scholarships).
- Indigenous groups, who have special reserved places in some HEIs, scholarships, and other aids.
- Students with disabilities, who not only have special access mechanisms, but also some specific additional aids to support their progression in HE.
- In addition, there are some instruments – at the national and institutional level – seeking to facilitate access that target specific groups: civil servants, children of civil servants, women in engineering programmes, men in social work or pre-school or primary education (to

improve gender equality), low-income excellence students, children of teachers, technical studies graduates who want to continue academic programmes, among others. In any case, most benefits require that applicants show a significant level of socioeconomic disadvantage.

- The information system does not specifically follow these equity groups. It is possible to find some data in individual HEIs, but there is no national statistics reporting, for instance, on the number of students belonging to the different equity groups who actually graduate, the time they take to get a degree, or the reasons why students leave higher education before graduation.

2.5. Brief overview of the context

The description provided of the higher education system shows a somewhat confusing picture. It has opened opportunities for a large and diverse body of students, but its operation is still largely designed for traditional students, which puts adult, part-time and online students at a disadvantage. It has managed to support lower-income students and made it possible for them to enter higher education; at the same time, it expects of them a better performance than regular students.¹⁸ Most HEIs and programmes are of fair quality, measured by accreditation results, and most students are studying in accredited HEIs.

There are complaints about the approach of information systems. They seem to be designed more from the perspective of researchers, or the needs of HEIs, and not to take into account a presentation of data and other information in a way that would be easily understood with prospective students, their families, or the public in general, who are not familiar with higher education.

The implementation of the 2018 reform could mean a good opportunity to address some of the shortcomings of the higher education system: the improvement of the admission mechanism (PSU), new quality-assurance criteria and procedures, adjustments to the information systems, and even an attempt to design a mid- or long-term strategy for higher education.

¹⁸ Free tuition beneficiaries must graduate within the nominal duration of the programme, and scholarship holders must have an approval rate over 70 per cent to keep their benefits.

Chapter 3. System-level approaches for supporting flexible learning pathways

Flexible learning pathways are by no means at the core of the Chilean higher education system, nor are they perceived as a national priority. Still, some incipient and decentralized efforts are being made in specific areas of funding, access, and regulation, as well as initiatives outside the higher education sector, particularly in some corporate spheres with specific human capital needs. These developments, although few and far apart, show an increased concern with flexible learning pathways as many stakeholders agree on the need for more diverse educational trajectories and training modalities.

Methodologically, this section is the result of a contextual and documentary review, discussed in the light of opinions of educational policy representatives and interviewees from the private sector. The interviews were conducted following semi-structured guidelines, based on the thematic recommendations of the project coordinators, and complemented with locally relevant questions. The participants were selected because of their position within the higher education policy system and, in the private sector, for representing relevant business associations (see Table 13).

Table 13. Fieldwork on system level

| Body/organization | Date | N° | Role of the interviewee | Type of interview |
|---------------------------------------|------------|----|--|--|
| Ministry of Education | Sept. 2019 | 1 | High official dealing with vocational education | In-person interview |
| | Nov. 2019 | 2 | Officials from the of HE information system (SIES) | In-person interview Telephone interview |
| | Jan. 2020 | 1 | High official dealing with universities | In-person interview |
| National Commission for Accreditation | Aug. 2019 | 1 | Commissioner | In-person interview |
| Employers' association | Nov. 2019 | 2 | Head of Human Capital, Confederacy for Production and Trade (CPC) Head of the Council for Mining Competence (CCM) | In-person interviews |

*Source: Elaborated by authors. *It includes representatives from agriculture, mining, trade services and tourism, industry, construction and banking.*

The interviewees were reached by email and, following the presentation of an overview of the flexible learning pathways project, a visit date and time were agreed. All interviewees agreed to participate voluntarily and authorized the team to include their opinions in the report. Typically, an interview would last between 45 minutes and an hour, although some of them extended to nearly two hours. Although the interviews were not recorded, detailed notes were taken of the entire

conversation and literal quotations were extracted. The analysis of the interviews was conducted by means of coding and classification of opinion, following the topics presented in the research guidelines and final report structure recommendations.

3.1. National policies

In Chile, as in many other countries in Latin America, higher education was, for many years, largely led by the public funded universities (both state-owned and private), with little or no ‘interference’ from the government, which nevertheless granted them the funding needed to operate.¹⁹ The landscape changed in 1981, during the military dictatorship, where new, private and demand-absorbing HEIs were established and all institutions, both public and private, were required to become self-funded, mainly by charging fees to their students. The 1981 reforms substituted the corporate self-regulation of existing universities with market-based regulation and introduced a competitive relationship among higher education institutions. It also generated a fragmentation of the higher education system, dividing institutions into private and public,²⁰ universities and other types of HEIs.

At the same time, neither the 1981 reforms nor those of 2018 addressed the issue of the governance of the system. Law 21091 mandates the Ministry of Education to develop a long-term strategy for higher education, but this may be changed with the advent of a new governmental arrangement, which happens every four years.

These are normally the result of projects and negotiations that reflect the relative power or relevance of higher education institutions or groups of institutions. In the last decades, however, a series of national policies on the matter of funding and quality assurance were introduced.

The government acted through the Higher Education Division at the Ministry of Education, but its role was limited. Now, the new law elevates the institutional level of higher education by creating the post of undersecretary, which has a much more significant role in the system. Still, the undersecretary is appointed by each new government, so the incumbent will remain in that position at most four years. Therefore, with very few exceptions, policies depend on the priorities of each head of higher education, without any long-term perspective. The main exception to this has been the concern with increased access, but even that has been implemented through different instruments, which are liable to change by the government.

¹⁹Students paid a token fee, but over 65 per cent of the resources of the two state-owned and the six private universities existing before 1980 came from the government.

²⁰It is important to remember that in this terminology, ‘public’ includes the state-owned and the private universities, all receiving a basic public funding. Private means the new and demand-absorbing institutions.

Another priority has been a concern with the preparation of teachers for primary and secondary education, but it has focused mostly on increasing the requirements for entry into the profession, designing a programme for preparing students to meet these requirements, and providing scholarships to students in teacher training programmes, rather than any change in the curriculum or in teaching practices.

Because of these policies, enrolment has grown significantly, although it is now reaching a plateau. The relative rate of growth in enrolments is higher in the vocational professional sector, which is not only covered by the vocational training centres and the professional institutes, but also by universities.

In general, the support for flexible learning pathways has not been a priority in the last decades, despite growing support, at least at the level of discourse among stakeholders, about the importance of lifelong learning and about the relevance of continuing education, following global trends. The structure of degrees is rigid and linked to the type of higher education institution that grants the degree. In addition, there is a distinction between academic degrees (which include not only masters and doctoral degrees, but also *licenciatura*, a legal requirement for the more consolidated professional degrees) and professional and vocational degrees (*títulos*, which certify the ability to work in an occupation or profession).

This opened a window of opportunity for vocational education and for the new private higher education institutions, which were less bound to tradition and open to non-traditional students. Nevertheless, there is a tension between the willingness to innovate and the constraints imposed by the competitive relationship marketization has established between HEIs. Both competition and quality-assurance standards push institutions to imitate the most prestigious universities and promote a trend of ‘academic drift’ in the larger professional and vocational HEIs.

As a result, recognition of prior learning, of degrees, or incomplete studies is difficult or non-existent, and the same happens with articulation between different levels of study. In fact, the officials in charge of the information system at the Ministry of Education insisted that the barriers to FLP or to flexibility in general were not legal or regulatory, but mainly cultural, which makes them more difficult to eliminate. ‘It is not the law that restricts [FLP], but the traditional ways of doing things’ (MoE, official leading SIES, in-person interview).

HEIs tend to copy the structures of the most established, traditional, and prestigious universities, which are not concerned with increasing flexibility, and quality assurance also tends to use them as the model for their criteria and their evaluations. Each institution, in the MoE official’s opinion,

‘organizes itself on the basis of their [the more traditional] programmes and they constitute watertight compartments’ (MoE, official heading SIES, in-person interview).

This is supported by the staff dealing with university education at the Ministry of Education.

The ministry offers a number of competitive funds, which are open to any HEI that presents a sound project, but there have been almost no bids related to improved articulation or the analysis of possible strategies for flexible learning pathways. (MoE, official dealing with universities, in-person interview)

However, it is possible to identify several areas where policy decisions have contributed to a greater flexibility, even though it was usually not an anticipated outcome: access, regulation, funding, and information.

3.1.1. Access

In order to enter higher education, students must have a secondary education certificate, which they receive on completion of four years either in the academic or the vocational branch of secondary education. Access at most universities requires students to go through the centralized system (which takes into consideration PSU, grades in high school, and students’ ranking). No other criteria, such as interviews, essays, or letters of recommendation, are considered for the main universities but some of the private universities and most of the professional and vocational institutions have their own admissions mechanisms, which, in many cases, also take into account the results in the standardized tests or performance in secondary education.

Students from all educational and socioeconomic backgrounds can take the PSU, but its results make evident the inequality and segregation of the educational system. Students from private schools (about 7 per cent of the enrolment) get the higher scores, and the score curve is highly correlated with the socioeconomic status of the students. In addition, the test has been contested because of its bias against students in the vocational branch of secondary education (whose curriculum for the last two years of secondary education does not cover the same fields as the general education branch, all of which are included in the test). It is also a test centred on the secondary school curriculum, which is taught much more effectively in urban and medium- and high-income schools.

Consequently, the 2018 reform established that, from 2021 onwards, all HEIs (and not only those universities currently using the national PSU test) must admit their students through a national admissions system. This will be one platform, with specific tests or requirements for students

applying to different types of study (vocational, professional, academic). The law states that the admissions system will be ‘objective and transparent, and must consider, among others, the diversity of talents, capacities or previous pathways of the students’ (Art. 11, Law 21091). It is interesting to note that, for the first time, there is a mention of previous pathways, which suggests that recognition mechanisms will have to be put in place. At the same time, an official dealing with vocational education at the ministry cautions that ‘current admission mechanisms for higher education are not valid for vocational education’, although she states that there is a consensus that the new system must recognize the inclusiveness essential for vocational education (MoE, official dealing with vocational education, in-person interview).

As mentioned before, the main, continued policy priority has been to increase access, especially for more vulnerable students. Therefore, it became necessary to introduce some measures to reduce inequality, including alternative admissions mechanisms, which provide secondary students with special learning opportunities, support during the first year in higher education, and bonus scores to students who can show consistent good results during their secondary education. These will be discussed in the section on instruments.

Officials at the ministry, as well as representatives of HEIs and of employers, agree that to increase access to vocational education, it would be necessary to improve the information provided to students at an early stage. This would help them to make better decisions; to recognize and value the grades obtained in vocational secondary education; and to define more clearly the entry profile of students and to recognize entry competences, no matter how they were obtained. What they did not mention was the need to improve the curricula and the links to labour opportunities, and to develop articulation mechanisms that would enhance the chances for upgrading or updating qualifications, which now are very few and difficult to find or finance.

3.1.2. Regulation

In general, there is no explicit link between regulatory policies and flexible learning pathways; they can provide a significant opportunity for more flexible pathways, but they can also act as a deterrent.

In the first case, an important policy is the stated relevance given to vocational studies, which have been historically overlooked and considered less important in the higher education system, in comparison to universities. This is true both at the policy level and in the preferences of students, since it is associated with manual labour and, as such, has low social prestige. The reform developed during the previous government set up a special council with the specific task of

developing a national strategy for vocational education. It created new state-owned vocational training centres and developed a qualifications framework for vocational education.

The current government pursued this policy, working on the national strategy and setting up the National Vocational Qualifications Framework (MCTP). The MCTP is mandatory for the state-owned vocational centres and can be used also by other HEIs. Its existence is recognized by the accrediting commission (CNA) as the ‘only relatively serious mechanism at the national level’ (CNA, Commissioner, in-person interview). The MCTP is now in a pilot phase and, for now, only the newly created state-owned vocational training centres must adhere to it. It is still too early to say what will result of the implementation of the MCTP, but it provides a relevant example of a nationwide project and aids in fostering discussion on flexible learning trajectories.

The officials dealing with vocational education at the Ministry of Education highlighted the importance of flexible learning pathways. They emphasized that ‘FLP are an important component in the modernization of vocational-professional education, with an emphasis on articulation, pathways and bridges that help to move in different directions’ (MoE, official dealing with vocational education, in-person interview). If this is established as a policy for the state-owned HEIs, it may have a strong impact on the way in which vocational education, initially, and professional education later, will soon be developed.²¹

One of the barriers to flexible learning pathways, recognition of prior learning, and transfer of students from one institution to another is the lack of trust in the operation of HEIs and the real or perceived difference in levels of quality. This was one of the issues highlighted by the Ministry of Education: ‘the country has made great progress in increasing access; our current debt is quality’ (MoE, official dealing with vocational education, in-person interview). The lack of trust is probably also linked to a lack of transparency. Higher education is not easily understandable by people outside of it, and the information provided by HEIs is difficult to analyse and interpret. There are programmes with the same names, granting the same degrees, but training for very different professional performances. Learning outcomes are not clearly explained, and graduation probability, given differences in entry skills, differ from one institution to another. Differences in learning outcomes, employability, and quality between institutions persist. There are no mandatory learning outcomes for specific programmes, and the curriculum is left mainly to the decision of the HEI. Thus, a programme may have a strong academic focus, while a programme granting the

²¹ This is the main reason that one of the case studies in Chile is that of a state-owned vocational training centre.

same degree will have a clear and effective professional focus. Both may be good at meeting their expected learning outcomes, but the actual competencies may be very different.²²

One policy that could contribute to increasing the level of trust in educational programmes across the higher education sector is accreditation. Until 2018, institutional and programme accreditation were voluntary, except for programmes of medicine and teacher training. Programmes were accredited by private agencies, supervised by the CNA, and, despite this supervision, their requirements were not always consistent. Since the passing of the reform law in May 2018, institutional accreditation was made mandatory, as was the accreditation of programmes in medicine, dentistry and teacher training. However, accreditation for other programmes was eliminated, which is a counter measure from the point of view of trust and may well make recognition about learning outcomes more difficult, since transfer refers mostly to competences developed in specific programmes.

The commissioner at CNA recognized that the development of FLP was not yet a priority in the national discussion; they thought it should be considered, as continuous learning was an important element of the world of the future. However, when asked about the ways in which quality assurance might promote them, the commissioner said:

... it [QA] may have an influence, but I don't think this is desirable. To define a norm might generate a dangerous herd effect. What should be done instead is to make sure that the norms do not interfere with their [FLP] existence or operation. (Commissioner, in-person interview)

Thus, they made it clear that, in their view, quality assurance should not explicitly promote certain goals and mechanisms in higher education, no matter how relevant they might be, but only make sure that it should not prevent their development.

They also expressed doubts about the capacity of HEIs to provide flexible learning alternatives, showing again the lack of trust in the capacity of HEIs to act in a responsible or effective way. 'Flexibility is important, but I have doubts about the way in which the university sector would apply it', said the CNA Commissioner, mentioning some cases which had been rejected in the accreditation process. HEIs, in this scenario, must evaluate not only whether the flexible learning

²² For example, a programme offering a sociology degree may have a strong academic approach, focusing mostly in sociological theory and research methodology. Another may have a much stronger focus on professional performance, the conduction of surveys or public opinion surveys. Both may do a good job, offer the same professional degree, but the main competencies are different.

pathway initiative that they implement works for them, but also if it satisfies the external evaluators, which could hold different and more traditional views on the matter.

This shows that the lack of trust is not only an issue between HEIs, but also between higher education and policy-makers. The development of quality-assurance processes has moved in the direction of a more supervisory and regulatory mechanism, even though there is a rhetorical emphasis on internal quality management, and quality enhancement. The 2018 reform requires that new criteria are developed for institutional accreditation. It will be interesting to see which direction they will take.

3.1.3. Funding

In Chile, an important barrier to access to higher education is that of resources. All HEIs charge fees, which are quite high compared to the average income of Chilean families. Therefore, policies have focused on student aid, especially through scholarships and subsidized loans, all linked in some way with the scores obtained in the PSU or national admission test. The government has set up a wide range of scholarships, that benefit students with very high grades in secondary school or in higher education, or with the highest scores in the admission test; students who want to become teachers, or who are the children of teachers; students who have a vocational degree and want to upgrade to a professional one; and students with disabilities. In addition, there are two loan systems, both subsidized, and both with an income-contingent repayment provision. One is open only to students of universities in the Council of University Rectors, the other is open to any student attending an accredited HEI.

Since 2016, students belonging to the first six income deciles (the poorer 60 per cent of the population) are entitled to free tuition in any HEI accredited for at least four years.²³ In 2019, 47 per cent of all students enrolled in higher education received student aid, which increased to over 70 per cent in 2020. This includes free tuition, scholarships, and subsidized loans.

The Commissioner of the National Accreditation Commission considers that funding mechanisms could help foster flexible learning pathways, especially in bringing back workers to update their training: ‘A voucher system could be useful in this regard: a student could carry with him a governmental check which could be convertible in educational services’ (CNA Commissioner, in-person interview).

²³ Institutional accreditations used to have a validity of between 2 and 7 years. After the reform, it is from 3 to seven years, in three categories: basic (3 years), advanced (4-5 years), excellence (6-7 years).

However, student aids are still established with regular, traditional students in mind. Free tuition follows a student only for one change of programme or institution. It is valid only for the theoretical duration of the programme, thus making it insufficient for students who study and work. It does not apply for distance education, in any mode. Some scholarships require that beneficiaries have a grade average higher than the minimum required for other students, who may not have to work, or come from more affluent families.

In addition, fees are charged by year or by semester. Students unable to study full time usually must pay a full fee. If they change from one programme to another, this means adding terms to their curriculum and, therefore, increasing the total fee they would have to pay. In many cases, this means they either lose their scholarship or must have loans for a longer period, thus making flexibility or articulation an expensive decision.

3.1.4. Information

A second important barrier for access or transfer in higher education is the lack of clear, relevant, and accessible information. This is slowly improving: Chile has two important information systems. The ministry, which has set up a platform called ‘My future’, manages one system (MINEDUC, 2019b). The objective of this platform is to help students decide what and where to study, through the provision of information on different subjects. This includes an overview of higher education, provides vocational advice, shows the range of study opportunities (by location, institution, and programme), and reports on tuition fees and funding alternatives, employability, and average income of graduates by programme and institution. However, when this was discussed at the MoE, one of the officials mentioned that ‘the problem is that students do not know how to read information’ (MoE, official dealing with universities, in-person interview). The obvious answer would be to make information comprehensible to students, precisely in order that they learn how to understand the information provided.

Another issue is that of dissemination. The platform is not sufficiently known nor understood by students or teachers at school level, and it may even be more difficult for adults to find it. However, it has a lot of visitors (the ministry reported that the platform had over 2 million visits in 2018), but consultation is strictly seasonal (most visits occur at the time of enrolment) and the average visit time was less than five minutes (MoE, official from SIES, telephone interview).

An interesting issue was raised by an information system official at the MoE. The system is organized from the point of view of traditional institutions, with students that enter a programme and follow it. Therefore, flexibility makes information systems very difficult to operate, and it is

highly probable that SIES does not capture adequately some of the FLPs that might exist: ‘Concepts such as continuity, length of study, re-entry are difficult to introduce into the system. Students are not informed, partly because it is difficult for us to provide them with the information’ (MoE, official heading SIES, in-person interview). Information is presented in general terms, but more specific information, which would help better to understand existing flexible learning pathways, is lacking.

A second information system is that developed by the National Council of Education (*Consejo Nacional de Educación* or CNED) which gathers, processes, and integrates data and statistics about the higher education system and makes them available to a wide range of stakeholders. It also has a platform (*Elige Carrera*) that provides interest and skills tests for students, useful tips, and information on programmes, requirements, funding, and other issues (CNED, 2020). Its main objective is to improve the transparency and accountability of higher education, through the availability of relevant information to HEIs, public organizations, researchers, and potential students, as well as to the media.

Flexibility involves a wide range of mechanisms, which may be difficult to systematize for a national information system. In addition, in many HEIs, there are no institutional policies or strategies, but rather options linked to specific programmes or faculties; this makes it difficult for them to provide useful information to be presented at national level. However, if the MoE or CNED were to start asking about transfer opportunities, recognition of prior learning, validation of incomplete courses, or other similar aspects linked to FLPs, institutions would probably begin to gather and then provide the needed information.

3.2. Key instruments in place for FLPs

It has been said already that flexible learning pathways have not been an explicit objective in policy design. However, instruments with different goals have contributed to increased flexibility, mainly but not only regarding access.

3.2.1. Compensating mechanisms for reducing inequality in secondary education

One of the main issues in Chile is the unequal quality of secondary education. Learning outcomes are linked to the socioeconomic status of students’ families, and therefore, students from poorer backgrounds tend to have lower scores in the national admissions test. To improve access, the government has put in place several mechanisms.

Grade ranking

This is a bonus score given to those students who have a grade average higher than the grade average of the last three generations of secondary students in their school. The rationale behind this mechanism is that these students show continued effort, a commitment to study and, if they have low scores, it is not because they did not learn, but rather because they were not taught adequately. The average of the last three years sets the school context of the students, and therefore, is a valid comparison. As a result, good students have a much better chance of entering a more selective institution, and more selective programmes.

Programme for Effective Access and Support

The Programme for Effective Access and Support (PACE) is for students from vulnerable schools. This programme is implemented through an agreement between universities and the Ministry of Education, which provides the funding. It is open to all students enrolled in the last two years of secondary education, who want to take part in the programme. The university offers preparatory courses for university study to students on a voluntary basis. It ensures special places to students graduating from PACE in the top 15 per cent of their group (even if they do not achieve the basic score in PSU), and offers support to the admitted students during their first year, to help them with lessons and thus encourage them to stay at the university. Participating universities offer special places for PACE students, who can use their PACE scores in applying to any of them. In 2019, the programme engaged nearly 100,000 students from the last two years in secondary education, belonging to the more vulnerable groups in society, and about 4,000 students who enrolled in higher education via PACE.

Propaedeutic or preparatory programmes

UNESCO funded a network of universities committed to opening special admission to students who take part in a set of preparatory courses in language, mathematics, and personal management. These programmes are available to students from selected public schools, which have a vulnerable student population. To be selected, students must have been in the top 10 per cent of their class during the four years of secondary education.

3.2.2. Financial aid for students

The provision of student aid has been the most consistent and long-term instrument to reduce educational inequality in Chile. During the last 18 years, the amount of public resources allocated to student aid has grown at an average yearly rate of 13.9 per cent (Salas and Jara, 2019).

Figures for 2019 show that the government provided 598,853 benefits²⁴ to students in 2019, most of which (99.4 per cent) was distributed to students from public secondary schools. Of these benefits, 62.8 per cent correspond to free tuition, 33 per cent to scholarships to cover tuition fees and 4.2 per cent to subsidized loans. Forty-five per cent of these benefits went to students enrolled in professional institutes or vocational training centres; the rest enrolled in public or private universities.

While these measures are not directly linked to FLPs, they are important insofar as they promote access to higher education to more vulnerable students. In practice, participation of poorer students has increased significantly; in 2006, only 30 per cent of students in higher education belonged to the lower five income deciles, while, in 2017, this figure has increased to reflect their actual portion of the population (51 per cent). This is the result of a continued national policy dedicated to improving access to higher education for the more vulnerable population. It is relevant because a higher education degree means a significant increase in salaries. A person with a college degree earns on average 1.8 times what a technician earns and 2.4 times what someone with a high school diploma earns. Technicians trained in vocational higher education earn an average of 1.3 times the average salary of a graduate from secondary education (Salas and Jara, 2019). Access is essential. However, it is just as important to learn how many of these students graduate from higher education. Many of them drop out, which certainly highlights the relevance of promoting FLPs to encourage secondary school graduates to get a degree, offer young people or adults with unfinished degrees a chance to complete them, or even to upgrade the degrees they have.

In general, the interviewees for this project did not refer to funding, except insofar as recognizing that student aid contributed significantly to increasing access for more vulnerable students. The only explicit mention of funding strategies was the comment made by the Commissioner of the CNA about the establishment of a voucher system to help workers return to higher education. When asked about any useful strategy to improve flexibility, he said:

A voucher would be useful: a student carrying a portable study credit, which could be used to pay for educational services. SENCE [the National Service for Training and Employment] could oversee this. It would be important to have mechanisms to pay for studies, for instance, for improvement in six months. This would be a useful policy consistent with the labour world to come. (CNA Commissioner, in person interview)

²⁴ Benefits in this context mean any type of student aid granted in higher education. It can be access to free-tuition education, scholarships of any kind, or access to any of the subsidized loans available.

3.2.3. Regulatory or harmonizing instruments

As stated previously, regulation is one of the few policy mechanisms the state has for steering higher education. In Chile there are several regulatory mechanisms, but except for quality assurance and the supervisory role of the Superintendence, alignment with them is voluntary and has a limited effect. In the following section, some of these mechanisms will be described, showing their potential, but also their shortcomings.

Qualifications framework for vocational training

A significant intervention was the design and approval of the National Vocational Qualifications Framework (MCTP), which links working competencies with training outcomes and is applied jointly by employers and HEIs. The MCTP is mandatory for state-owned vocational training centres. While it is still in its pilot stage, it is expected to benefit different stakeholders in the following ways:

- Workers will be able to recognize their level of qualification, independently from the way in which this has been obtained. It will also help them build labour-training pathways.
- Employers will learn about the competencies available in the labour field and the type of courses offered by teaching institutions, both at the secondary and higher level.
- Educational institutions will have clear criteria to link their teaching strategy with the needs of the social and productive sector that they serve. It will also contribute to the relevance and quality of teaching and learning courses and improve the transparency of the education system.
- The government will be able to focus their investment on training in specific areas, improve employability, and provide better and more focused access to students and workers.

This initiative is currently regarded as one of the most important by MoE and quality- assurance representatives, even if some start from a critical perspective:

What is available [in terms of FLPs] is inorganic. Institutions are not prepared to actively seek articulation, with only a few exceptions. What is being done in vocational training, the National Qualification Framework, is the only relatively serious attempt at a national level. (CNA Commissioner, in-person interview)

For the MoE, to start at the vocational level is a positive factor: ‘Its inclusion as a legal requirement represents an opportunity for the system, especially because the law mandates a pilot

implementation of the vocational qualification framework' (MoE, official dealing with vocational education, in-person interview). Still, a more overarching qualification framework is regarded as an important future objective: 'The qualification framework should not only cover the vocational level, but all educational levels from pre-school to doctoral degrees' (MoE, official heading SIES, in-person interview). At the same time, a representative from the employer's association, the Confederacy of Production and Trade (CPC), insisted that a sound qualifications framework required not only a link with the world of training and education, but also that it should speak the language of the productive sector (representative of CPC, in-person interview). Restricting the qualifications framework to the vocational sector may further isolate continuing study or upgrading qualifications, even at the professional level.

Certification of labour competences

This is a mechanism by which a recognized public or labour organization certifies the practical knowledge of a person to practice a trade, following standards determined by the relevant productive organizations. It is not linked to educational or training processes, but rather to the demonstration of specific competencies. The certification is recognized by vocational training centres and is a significant contribution to FLPs for people without higher education degrees, but with labour experience. These processes were only mentioned as relevant in the interviews with the representatives of the employers' associations. There are some areas where only people with these certificates can operate (e.g. electric and gas services), regardless of their higher education qualifications.

Transferable academic credit system

The Council of University Rectors, which groups all the state-owned and private universities with public funding and some private universities established after 1981, decided, with the support and funding of the government, to design and implement an academic credit system. The goal was to improve teaching and learning and to rationalize academic work based on the actual demands on student time. The more precise objectives of the Credit Transfer System (SCT) were the following:

- To estimate the average time a student requires to achieve the expected learning outcomes in each course.
- To promote understanding of how credits from a teaching programme can be transferred to another institution.
- To contribute to student mobility.

Most of the universities belonging to the Council of University Rectors implemented the SCT, and many others began preparing for; its implementation demanded important curricular adjustments, mainly in translating content-based curricula into competency-based ones. In general, the first objective was effectively achieved, and many universities adjusted the curriculum to the real student workload. However, universities have not been able to progress towards the other objectives. The SCT system ‘does not have the capacity to improve legibility or serve as a tool for the recognition of formal learning, in the absence of a certification of the competencies effectively achieved’ (CNA Commissioner, in-person interview). Some of the new state-owned vocational training centres are providing their students with a certificate similar to the degree supplement implemented together with European Credit Transfer and Accumulation System (ECTS). In the absence of that, or ‘because of cultural issues or the lack of trust in the reliability of degrees’ (CNA Commissioner, in person interview), most institutions do not see SCT as a useful transfer tool, even if they use it to structure academic programmes. As stated by the Head of the Information System, ‘SCT is not always considered’, and, in their view, it is mainly because institutions have not all adopted more flexible curricular schemes or competency-based learning models. The MoE official commented that: ‘If we continue to function on content-based curricula, the flexibility promised by the transferable credit system will not be achieved’ (MoE, official heading SIES, in-person interview). He added: ‘The transferable credit system is not yet a system. 40 credits in a university are not necessarily 40 credits in another’. In fact, ‘SCT is not applied in vocational education’ (MoE, official dealing with vocational education, in-person interview). The interviewee did not elaborate, but the whole SCT model was developed from the point of view of universities, and it is probably difficult to adjust to vocational education.

Mandatory institutional accreditation

The 2018 reform made institutional accreditation mandatory. The CNA is currently developing the criteria it will use, based on the contents of the law: it must develop an integrated view, combining institutional accreditation with programme review; and standards must be developed, taking into account governance and management, teaching and learning, links with the environment and internal quality assurance. Research, which is an additional dimension, is optional for accreditation of universities, but it is essential if a university is to reach the highest level of certification.

These new standards or criteria may follow the prescriptive and supervisory approach currently applied, which is likely to make the development of FLPs difficult, or they can move towards a

more open and flexible mechanism. As mentioned in other sections of this report, flexibility is not a priority for the quality-assurance mechanism, and there is even a certain degree of mistrust about what HEIs would do if it was encouraged: ‘flexibility is important, but I have serious doubts about the way in which the university community would react when applying it’. (CNA commissioner, in person interview). This suggests that the new criteria may not differ significantly from the previous ones, but since there has not been an open discussion about them, it is, as yet, impossible to know in which direction the CNA will move.

The elimination of programme accreditation²⁵ (with the exception of medicine, dentistry and teacher training) is an aspect that will not contribute to FLPs, as transfer is more commonly based on trust in the reliability of learning outcomes in specific programmes, and not on the overall institutional accreditation.

Career advice and guidance

The main available public sources of careers advice and guidance are the two platforms described in the previous section: *Elige Carrera*, designed and managed by CNED (CNED, 2020), which uses the information included in INDICES; and *Mi Futuro*, created by the Ministry of Education and located in the Higher Education Information System (SIES) (MINEDUC, 2019b). While both are in progress, a lot still needs to be done to make them accessible and understandable by students, especially those who are the first generation in their families to enter higher education (about 60 per cent of new entrants). Secondary school teachers and counsellors could make a major contribution to making it better understood, but in general they do not have the necessary understanding of the higher education system to help students, especially in schools outside the metropolitan area or in poorer neighbourhoods.

3.3. Key practices supporting FLPs

Most of the national actions linked directly or indirectly to FLPs are at the level of policies or instruments. However, it is possible to identify some practices:

3.3.1. Reserved places at universities

All students must go through the centralized admission system to enter the more established universities. At the same time, students from public schools, rural areas, or less affluent families are at a disadvantage and receive low scores, which usually makes it impossible for them to enter

²⁵ The integrated accreditation mandated by law is not expected to assess each programme, but rather to review the way in which institutional policies are applied at the level of programmes.

a university. The compensating instruments described above are a useful tool, but, even then, they may be insufficient. The government authorizes universities to reserve a certain percentage of their places for equity groups, including ethnic groups, people with disabilities, women in traditionally male-oriented programmes (such as engineering), or men in programmes traditionally dominated by women (such as social work or nursing), subject to specific requirements. In addition, universities participating in the Propaedeutic or PACE programmes have reserved places for the students that meet the requirements, even if they do not have the necessary score for regular access. The Academic Vice-Rector of PUCV said on this issue:

Our programme is successful: The students we received had a score of less than 450 points [in the admission system], but 76 per cent are able to complete the first year and continue the second year, compared to 81 per cent of our regular students [with much higher scores].

3.3.2. Recognition of prior learning for workers in state-owned vocational training centres

Some of the new state vocational training centres (CFTs) have decided to have a first cohort of students who, through RPL, can finish their training in one year, in order to test their programmes and show results in a shorter period. This has been quite effective, as most students have received a special recognition, in some cases, even an increase in salary, and in general, improved their labour situation. This kind of initiative is valued and deemed to provide better opportunities: ‘Flexible learning pathways could help vulnerable groups that need non-traditional access routes and specific benefits. Recognition of previous learning initiatives are relevant in this regard’ (MoE, official heading SIES, in-person interview). However, RPL depends on institutional initiatives, and is not yet supported at a national level, although the vocational NQF is promoted by the government.

3.4. Monitoring the Implementation of FLPs

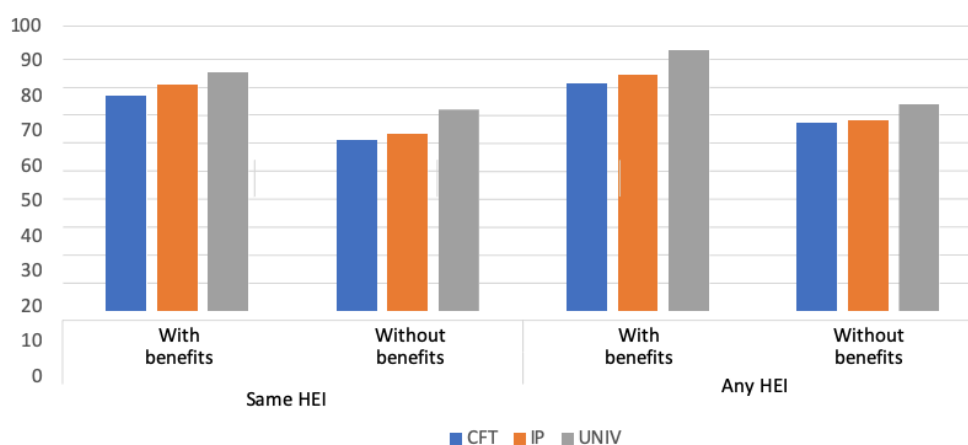
Since FLPs have not been an explicit goal of national policies, there is no official or systematic monitoring of their impact in this respect. Only the PACE programme for vulnerable students ‘has incipiently evaluated its effectiveness, but there is not a systematic policy of evaluation of effectiveness’ (MoE, official heading SIES, in-person interview).

Maybe the most consistent monitoring is that of the new state-owned vocational training centres. The CNED is charged with the supervision of these institutions from their installation to the moment when they decide to apply for accreditation (this is allowed when they have at least two generations of graduates and must be done in a maximum of six years). Supervision focuses on institutional management, teaching and learning, and learning outcomes. Since public CFTs must

follow the MCTP, use RPL in their admission process, and admit workers as students, the supervisory process is in fact a monitoring mechanism. It is done in yearly visits, which then are reported to the MoE and the CFT. However, these institutions are new, and, therefore, evaluation has not taken place and there is no information available yet on their functioning and effectiveness.

As has been mentioned before, the only systematic policy has been that aiming at the improvement of access for students coming from equity groups. One of the most used mechanisms is the provision of different types of student aids (scholarships, subsidized loans, free tuition), which has increased the rate of enrolment of students from the five lower income quintiles. While access is necessary, it is not enough. Students must enter higher education, but once they have entered, they must remain in it. Figure 8 shows the effect the provision of financial aid has had on the retention of students.

Figure 8. Retention rate of students with and without benefits*



Source: SIES, 2018a. *Students enrolled in the first year who re-enrolled in the second year).

The retention rate is measured as the ratio between the number of students enrolled in first year, who re-enrol the second year, either in the same institution or in another HEI. In all cases, the retention rate for students receiving benefits is higher than that for those without benefits; it is also higher for universities than for the other institutional types.

3.5. Experiences beyond higher education

3.5.1. Mining Qualifications Framework in Chile

The Mining Qualifications Framework (*Marco de Cualificaciones para la Minería* or MCM) is a private-sector initiative developed by companies gathered in the Council of Mining Competencies (*Consejo de Competencias Mineras* or CCM) to provide labour profiles for large-scale mining in

Chile, proposing learning pathways for human capital development within the industry, in three main processes of the value chain (mine, plant, and maintenance).

The CCM stressed the importance of building on international experience and national alliances. The process started in 2012, in a context of high demand for human capital in the mining sector that motivated the search for international experiences of qualifications framework models and good practices. The MCM is a validated adaptation of the Australian Qualifications Framework, generated in strategic alliance with Fundación Chile (FCH), which provided the methodology. The resulting framework is organized into five levels of vocational qualification, ranging from entry trainees to specialized technicians.

Competing actors had to sit down to discuss and define a value chain for the mining sector. The leadership of the Mining Council (CM) was paramount in building the necessary trust and prudently regulating the process. The initial proposal went through iterative and participative validation by the companies' own experts, organized in technical committees, the members of which were publicly listed. This transparency exercise reinforced continuity of the process. CM's leadership, mutual trust, and a rigorous validation process was crucial for the MCM's legitimacy, integration, and use in human development management in the industry.

'A process that started without higher education institutions now includes them', commented a representative of the CM, in an in-person interview. In fact, HEIs did not take part in the development of the Mining Qualifications Framework. However, the resulting instrument sent a strong market signal to a highly dynamic economic sector, as mining companies would choose graduates from educational institutions that used the MCM. As one of the interviewees noted: 'While training done at companies is using the framework that they created themselves, higher education institutions are now compelled to adhere' (representative of the CM, in-person interview). After seven years of development of the MCM there is consensus now that higher education institutions' involvement is decisive for the system's strategic goals.

Current and future challenges for the Mining Qualifications Framework have been identified. The first is the need to promote greater involvement of higher education institutions. Currently, the CCM offers a 'quality label' to institutions whose programmes are aligned with the training good practices approved by MCM; it is planning to make this certification process easier, and to apply it to whole programmes or to parts of it (modules). Another challenge is to articulate the MCM with the National Vocational Qualifications Framework, for which intersectoral dialogue is a central requisite. This is especially evident when taking into consideration that the new version of

the MCM emphasizes Industry 4.0 competences, including drones, autonomous vehicles, artificial intelligence, and machine learning, among other technological advances, as well as behavioural and soft competencies.

Flexible learning pathways are a relevant concern in the Mining Qualifications Framework. The central topic for the MCM in this regard is related to recognition of prior learning, acknowledging both formal and work-based learning. Traditionally, mining skills were virtually inheritable, but larger labour mobility and specialization today require higher levels of formalization of competences. Certification processes should be periodic, and qualifications should be fully portable by students and workers within the system. The main goal for flexible trajectories is to enhance employability through pertinent formation, while promoting lifelong learning and development.

3.5.2. Certification of labour competencies and training for workers

There are two mechanisms that support important pathways for workers, although they are not aligned with higher education institutions.

One is that provided by ChileValora, a public service created under Law 20267 in 2008. It is chaired by a board made up of nine members: three workers' representatives, three employers' representatives and three representatives from the public sector (ministries of education, labour, and economy). Its main function is to formally recognize the knowledge, skills, and abilities of people for a given occupation, through certification, regardless of how people have acquired the knowledge or whether they have a degree or an academic qualification. This certification is based on an occupational profile or craft, which is the standard that defines what competencies a person must demonstrate to adequately exercise a craft or occupation. This standard is defined in a tripartite way between employers, workers, and the state, in working groups that represent productive sectors. Each occupational profile is composed of a series of units of work competencies, each of which defines a key activity (such as doing maintenance on equipment) and its performance standard (operating conditions, tools, guides or maintenance manuals, etc.).

The second is SENCE, the National Service for Training and Employment. It supervises and promotes training initiatives and employability of workers, whether they are employed or not. Institutions may offer training courses and part of their cost is covered by employers or by the government through tax exemptions. Courses offered under the SENCE programme do not lead to degrees, even when offered by HEIs, but are recognized by some CFTs.

3.6. Evaluation of effectiveness, enablers, and inhibiting factors in the implementation of FLPs

It was interesting to find out that, in most interviews, the first reaction was that flexible learning pathways were non-existent in the Chilean higher education system. The second reaction, which was heard over and over again, was that flexible learning pathways were a very important issue for higher education; that it was the way of the future; that it should be a priority for all higher education institutions; that the productive sector, businesses, and the public in general would benefit from them; and that vocational and professional education could show the way.

3.6.1. Inhibiting factors

This desirability discourse about flexible learning pathways then collided with some obstacles that impeded their development. The main reasons given for the distance between what was desirable, and the actual reality were as follows.

Lack of trust in the education provided by other HEIs.

Opinions here were quite consistent both in the MoE and in the national accreditation body: ‘there is some suspicion and mistrust’ (CPC representative, in-person interview); ‘one of the hardest problems to overcome is the different levels of quality, and the mistrust generated by these differences (real or perceived)’ (MoE, official dealing with vocational education); ‘flexibility is important, but I have serious doubts about the way in which the institutions would act in its implementation’ (can Commissioner, in-person interview). The lack of trust is a generalized issue, affecting not only relations between tertiary institutions, but among institutions and public policy bodies, and with the private sector. The need for HEIs to find new or different sources of funding resulting from the low level of basal funding from the government, and the accusations of profit in the private HEIs have resulted in a strong mistrust from the government towards many HEIs, with only a few exceptions. The strong marketization of higher education has led to a climate of competition (for students, for academic staff, for resources), and collaboration is deterred by the overall feeling of mistrust between actors.

Cultural issue

Higher education is strongly conservative. Change is difficult, and the higher education tradition is not focused on flexibility. Quality and prestige are usually associated with ‘academic drift’, that is, the tendency to overestimate the need for doctoral degrees, research, and traditional academic values even when offering professional or vocational degrees. Flexibility is dubious, even when it is recognized as necessary: ‘People would like a flexible system, but tradition and practices have

made it rigid. It is a matter of culture, not of law' (MoE, official from SIES, in-person interview); 'individualism is an issue that makes collaboration very difficult' (CPC representative, in-person interview). Although legal conditions do not promote flexible learning pathways, they are not considered the main obstacle in this regard. Customs and traditions impose rigid schemes that end up structuring practices in a way that obstructs the development of more innovative and flexible alternatives for educational trajectories.

Regulation and administrative restrictions.

In many cases, access to work in the public sector or in regulated professions is determined by the requirement that they can only be taken by people who have graduated from 10-semester programmes, who have a university degree or who meet other administrative or formal conditions, which are therefore considered a proxy for assured qualifications. This is a complicated issue, since these requirements are spread over many laws and by-laws. In addition, there is a risk that new requirements in terms of accreditation could reduce even further the incentive to create innovative solutions to promote flexible trajectories in higher education.

Lack of interest or incentives in moving away from a 'comfort zone'

This has been primarily evidenced by the lack of interest among HEIs in developing instruments for recognition of prior learning or improving the reporting of higher education grades by implementing a 'degree supplement' (a description of the competences acquired in each programme). While the Credit Transfer System implemented by the CRUCH HEIs was expected to overcome this, one of the respondents stated that it remained a challenge:

Forty credits from one HEI are not necessarily equivalent to 40 credits in another. This must be verified in the receiving HEI, and depends on persons, faculties, programmes, internal rules. In the end, it is an operation of convenience. ... It is not even clear between programmes in the same institution or faculty. (MoE, official from SIES, in-person interview)

This was corroborated in the interview with the Head of Higher Education at the MoE, who said that given the high level of autonomy of universities, the MoE responded to the issues they set, and that flexibility had not been raised in any of the meetings they had had (MoE, official dealing with universities, in-person interview).

Lack of consideration of flexible learning pathways as a policy objective

The lack of consideration of FLPs in policy strategies in Chile makes it very difficult to judge the effectiveness of instruments or practices. The instruments put in place, which indirectly have made entry or re-entry easier for equity groups, have been quite effective at the level of initial access, but there is hardly any information about their effectiveness beyond that.

The data on flexible pathways is not gathered by the national information system.

The MoE SIES interviewee stated: ‘Flexible pathways make life difficult for information systems. It is impossible to generate measures that are common and comparable. It is much easier to see non-complex pathways’ (MoE, official heading SIES, in-person interview). He added: ‘The concepts of continuity, duration, re-entry, are hard to introduce in the system. The students are not informed, because it is hard for us to report on these’. In addition, one of his colleagues pointed out that flexible pathways are an issue unregulated and undefined for higher education, and, therefore, they are not an area covered by the information system (MoE, official from SIES, telephone interview). The lack of useful information was also highlighted by the representative of the productive sector, who also mentioned the lack of transparency and the ‘fake information’ triggered by competition in a marketized environment (CPC representative, in-person interview).

3.6.2. Enablers

Enablers are much less visible than constraints because they are more linked to unregulated aspects of higher education performance. It is probably much easier for private HEIs (whether with or without public funding) to find and use these unregulated factors, but even for them it is not always possible because of the influence of quality-assurance restrictions, real or imagined. Then again, it is interesting to see that the case studies reported here show a good use of alternatives for access, transfer, or the recognition of prior learning designed by HEIs, even though these alternatives have not been recognized as formal components of the higher education system. This would suggest that the lack of flexibility is not the result of legal or regulatory constraints, but rather a consequence of some of the inhibiting factors mentioned above.

The respondents linked to vocational education were those who most frequently spoke about FLP experiences. Almost all the people interviewed thought that this was an area where flexibility was not only necessary, but also possible. Some of them even thought that vocational education could show the way for the rest of the higher education system.

It would be great to have flexible learning pathways in Chile. We should put down our individual weapons and start networking with public policies. This can perfectly be done

from the vocational sector, and the conditions are in place for this to happen. (CPC representative, in-person interview)

Qualifications framework

The fact that the government accepted and made the qualifications framework mandatory for public vocational training centres is an indication that this is a component of the higher education system where flexibility is recognized, valued, and may be promoted. At the same time, a qualifications framework that does not include the rest of higher education sets a limit to vocational education, which is then isolated with higher levels of professional education, or from academic degrees. The MCTP covers ISCED levels 2 to 6, but in Chile Level 6 is differentiated: the more prestigious professional degrees are required by law to be granted to students who have a *licenciatura* or first academic degree, which can only be obtained at a university. Professional Level 6 without the legal requirement of a *licenciatura* can be offered both at universities and IPs, but most universities also grant a *licenciatura* to students enrolled in other professional programmes, which gives them additional prestige. This is highly relevant, as figures show that enrolment at professional Level 6 (included in the MCTP), in 2019, was 225,758 students, while enrolment in Level 6 at the university level was 609,161 students.

Higher education in Chile is facing a very important challenge. The increased enrolment in undergraduate education has meant an extraordinary diversification of the student population, which will inevitably compel institutions to change their approach to teaching.²⁶ This is certainly more obvious at the vocational and professional levels, and probably is one of the reasons why flexibility is seen as a desirable development. At the same time, given the pre-eminence of the university sector in higher education, it is less likely that universities would willingly follow this lead. Tradition is strong, and prestige is strongly associated with traditional ways of doing things.

Quality assurance system

Here is where the quality assurance system could have a very significant role, if it would take the lead in providing HEIs with guidelines about the ways in which they could better respond to the needs of non-traditional students – now the majority in the system. Accreditation criteria that would look favourably at sound and reliable processes for the recognition of studies and degrees, articulation with secondary education, with trades, within the higher education system and with

²⁶ This is an issue increasingly present in discussions about higher education, in part because of the impact of the coronavirus and the need to move towards the virtualization of teaching and other higher education activities, but also because of the need of this new population of students, who will certainly demand more flexible alternatives to teaching and learning.

the labour environment, would support institutions to dare to innovate. However, it does not seem likely; accreditation in Chile has tended to move towards a more prescriptive approach, with an emphasis on inputs and outcomes rather than processes, and without a prospective view of the role higher education could play considering the social changes in place.

A possible driver for the development of flexible learning pathways is *the role the productive sector* could have in this field. A representative of the Confederation of Trade and Production – an association that represents the main corporate sectors in the Chilean economy – said in interview that the organization had been trying to strengthen the links between businesses and higher education, mainly through their contribution to the development of sectoral pathways (in areas such as mining and maintenance) and their linkage with the MCTP. At the same time, she emphasized that many policies or initiatives look at the corporate world as a homogeneous set; since it is really very diverse, they end up satisfying the needs of a specific sector or business, but they are ineffective beyond those. ‘Building a macro-system is a call that will require the contribution of many, and this is difficult because of a culture of individualism,’ said a representative of CPC in an in-person interview. A second factor that discourages collaboration between higher education and corporations is what she called ‘the Tower of Babel issue’, that is the lack of understanding of the respective languages (acronyms in education, or anglicisms in the corporate world), which in itself is also a question of different cultures. The issue of timing is also important, as is that of confidentiality. The business sector needs results or answers quickly, education deals in longer periods of time. Outcomes in higher education, especially at the research level, are public or at least published. Business wants their developments private, to prevent competition. Dialogue becomes difficult, and sectors grow increasingly insular, although both know that they need each other.

An issue that has not been discussed, but that will need to be addressed is that of the **financial structure of higher education institutions**. For most of them, their most significant income source student fees. In the absence, or insufficiency, of other sources (mainly public funds and, for some institutions, fees for services), student fees have steadily increased over the years, to cover institutional needs (research, management). The financial contribution the government makes to cover free tuition is insufficient for many HEIs (especially the larger or more complex ones), since it does not take these other costs into consideration. From the point of view of students, the issue lies in the fact that, in most cases, fees are charged on a full time, yearly basis, and student aid is calculated and allocated also on that basis. This is becoming unsustainable for an important portion of students who, while formally enrolled as full-time students, are unable to manage a full-time

workload. It also has an impact on retention, and on the possibilities of re-entry for many students. As the official dealing with universities at the MoE stated, ‘Funding and the annual fees are a strong disincentive for part-time students’ (MoE, official dealing with universities, in-person interview). Re-thinking the structure of fees would be advisable, but institutions would have to change their business plans significantly, which in the current scenario seems almost impossible.

3.7. Conclusions and future challenges

Reviewing the national context, it is important to highlight tensions that are increasingly evident:

- The strain that derives from the need and tradition of institutional autonomy, especially for universities, the demand for increasing involvement of the government (which began with student manifestations in 2007, was repeated in 2011 and emerged very strongly during the protests in late 2019), and the way in which this involvement is understood in the legislation. Universities in Latin America have been extremely autonomous, even though governments provide most of the funding public universities need to operate. This was the case in Chile until 1981, when institutions enjoyed the ‘privileged autonomy’ of receiving resources from the state, without any interference in their administrative, financial, or academic organization. Starting in 1981, the government significantly reduced its contribution, demanding that HEIs became ‘self-funding’, mostly through student fees. This, in a way, strengthened institutional autonomy, since the government did not set national goals, or systematic policies except through the provision of special funds, as incentives for specific actions (e.g. quality assurance, competency-based curricula, improvement of teacher training).
- Student unrest focused on the high level of fees, and the indebtedness resulting from the use of loans, especially since they did not have confidence in the quality of programmes offered. The response from the government was twofold: it offered free tuition to low-income students, and increased regulation to control quality. Both measures impact on the autonomous operation of HEIs: free tuition covers fees determined by the government, which are lower than the institutional fees, especially in the more complex universities. Regulation (especially accreditation and the operation of the Superintendence) is translated into rigid criteria that prevent HEIs from making some decisions they consider appropriate. As one of the interviewees said, ‘accreditation is paralysing’, at least for some HEIs.
- The 2018 reform also gave the MoE more authority over issues that had been traditionally the responsibility of universities, such as the national admissions system or the approval of

QA standards. It remains, however, to be seen how HEIs will react to the way in which these mechanisms are put in place, and whether the MoE will be able to attend to them in a timely and participatory way, both aspects essential for their legitimacy and effectiveness.

- Higher education in Chile has been strongly marketized since 1981. HEIs compete for students, qualified academic staff, and resources for specific projects, and do not receive any steering from the government, beyond the special funding mentioned above. The government intends to introduce stronger steering, but in the absence of a mid- or long-term plan for higher education, or the development of strategies to develop some collaborative effort among HEIs, it will be challenging to implement sound and effective steering mechanisms.
- Both these aspects make it difficult to steer the higher education system in a clear direction. There are tensions even within the government about the priorities that should be identified and promoted, and, therefore, decisions end up being in the hands of the institutions themselves. The system is highly fragmented, and led by the most prestigious HEIs, both at the university and the professional and vocational levels. Here there is a constant tension between the more traditional institutions and their need to adjust to new needs and demands. These institutions are constrained not only because of their culture, but also because of administrative rigidities, which make it difficult to innovate, especially, but not only, in the field of teaching and learning.

Navigating these tensions is a challenging task, which the government and the institutional leaders will have to face in the near future. This makes it difficult to think about the future at this stage. It can be expected that, in 2020, there will be continuing unrest as well as disruptions caused by the sanitary emergency. However, there are some issues that will have to be taken into consideration, as they are mandated by law; others should be considered priorities, in order to align higher education with the current needs of students and society. Political priorities have been re-defined as the result of public protests, and the social distancing and confinement that the Coronavirus has imposed will have an inevitable impact on many aspects, on financing, teaching, and learning and research activities.

Reflecting on the future, therefore, comes with a great deal of uncertainty. ‘Future projections are complex, as we cannot be sure of what will happen’ said the representative of CPC, the employers’ association, referring to the social unrest that began in October 2019, which would afterwards get even more complicated with the COVID-19 crisis.

Interviewees limited their views to stating what would be significant priorities. In most cases, they just referred to the need to work towards increasing flexibility and articulation, with little expectations that this would happen soon.

In the following section, the main issues to emerge from the interviews are summarized, although there are no significant quotations beyond those already highlighted in this report.

3.7.1. Legal mandates

Establishing a national, centralized admission system

The current PSU must be changed, in order to reduce its identified biases, and the current admissions system must also be revised. At present, the scores obtained in the admissions system are used for many different objectives, which distorts the system and discriminates against the students that need aid the most. The new system will include mechanisms for admission not only to universities but also to vocational and professional institutions, and therefore must take into consideration a much wider range of skills and talents. Options being discussed include a set of tests or instruments that can be applied more than once a year, the recognition of previous experience, and an improvement of the information system, so that potential students can make better decisions. One of the issues the new admission system will have to face is the way in which it will manage to select which students will be successful at completing their programmes and benefit the most from higher education – and which will make greater contributions to society after obtaining a degree, especially since it will address candidates for a wide range of HEIs. Currently, the scores obtained in the admissions system are used as a basis for granting scholarships and other types of student aid, but this not only distorts the results, but also reinforces the inequality of the educational system, since it tends to reproduce the social structure education is supposed to alter.

Developing new criteria for institutional accreditation

The 2018 law requires the accrediting commission to define a set of criteria that include five dimensions: management, teaching and learning, research, links with the external environment, and internal quality assurance. This last dimension is new and, if it is well defined, it might help institutions take a responsibility for their quality, instead of relying on their compliance with external criteria. However, the accrediting commission is probably the only public agency that has the possibility and authority to set guidelines for higher education on a middle- or long-term basis. Institutions have learned to comply with its requirements and, therefore, if QA highlights the need for flexibility, articulation, and recognition, they would quickly define policies and instruments to

make them possible. The risk is that criteria will follow the usual rationale, based on the work of the more traditional HEIs, and making expensive demands that are not necessarily related to quality, such as having a high number of full-time academic staff, hiring only lecturers with doctoral or master's degrees, or providing evidence that they carry out disciplinary research activities, even in universities that are more focused on teaching professional programmes.

Re-enforcing and monitoring the work of the new public vocational training centres

CNED must continue to monitor vocational training centres in the exercise of its supervisory role, but it would be interesting if it would also systematize the lessons these new institutions learn, and disseminate good practice, not only to the institutions under their purview, but also to policy-makers and other stakeholders in the higher education sector.

3.7.2. Other important issues

Expanding and improving the current qualifications framework

In order to include primary and secondary education and higher education up to ISCED level 8, there is a need to expand and improve the current qualifications framework. Monitoring the implementation of the vocational qualification framework could provide important lessons for an improved and general national qualifications framework, which would link all levels of study and not limit qualifications to labour skills, which is the focus of the current MCTP. A qualifications framework that does not include the rest of higher education sets a limit to vocational education, which is then isolated with higher levels of professional education, set apart from academic degrees.

Recognition of prior learning

The vocational sector has developed some of these mechanisms, with the support of selected enterprises, but there is no equivalent at the professional or university level. This was highlighted, especially with regard to the vocational sector, but some institutions have applied what has been called 'exams of relevant knowledge' to recognize previous studies, or mechanisms for homologation or validation that show that, even with different names, recognition is possible and even more present than is expected. It would be necessary to work with HEIs to find out what practices they are using and their effects in the progression of students.

Improving the information system

There is a need to improve the information system and develop friendly platforms for prospective student. This should also reach secondary school teachers, who, in many cases, are the only persons

with a higher education degree in the student's environment. Flexible pathways are an unregulated issue and undefined for the higher education system and, therefore, they are not an area specifically covered by the information system. The officials working at SIES highlighted the importance of adapting the information system to the needs of different population groups (such as students, parents, or teachers), but recognized the difficulty of finding adequate indicators to show the opportunities for flexibility and articulation.

Putting flexibility and articulation in the national agenda for discussion

This project and the interviews carried out during its development showed that the issue of flexible pathways and articulation, while not an explicit part of public debate, is considered essential by a wide range of stakeholders. Putting it on the table and showing policy-makers and institutional leaders the available options, drawing on what is actually happening in many HEIs in Chile, and good practice elsewhere, would contribute at least to opening a debate on the subject, and maybe lead to some effective action.

Chapter 4. Flexible learning pathways in practice: An in-depth study of three HEIs

Having described the system-level initiatives in flexible learning pathways and the conditions for their promotion, this chapter assesses practices in FLPs from an institutional perspective. Three quite different types of institution were selected as case studies. They comprise a traditional university of a major city (PUCV) that enrolls over 16,000 students; a recently created state-owned vocational training centre in the south of Chile (CFTLL) with less than 50 students; and a large nation-wide private holding, Santo Tomás Corporation (CST) which operates the three types of HEIs recognized by Chilean legislation – University Santo Tomás (UST), the Professional Institute of Santo Tomás (IPST) and the Vocational Centre Santo Tomás (CFTST) – for a total of almost 100,000 students. Selecting one of each of the three recognized types of HEI in Chile implies a wide diversity in terms of institutional reality, geographical location, level of selectivity, and age level of the institution. This variation in type of HEI allows us to study access to different FLP initiatives within different contexts. The specific HEIs were selected because of their accessibility and availability for participation. The following table provides an overview of the main features of each of the institutions considered in the study.

Table 14. Statistical profile of HEIs selected for case studies, 2019

| Institution | PUCV | CFTLL | UST | IPST | CFTST |
|---|--------|-------|---------|--------|--------|
| Total enrolment | 16,214 | 49 | 27,393 | 24,926 | 37,320 |
| First year enrolment | 3,886 | 28 | 5,822 | 9,307 | 15,307 |
| Areas of study covered | 10 | 1 | 9 | 6 | 8 |
| Regions covered | 1 | 1 | 12 | 15 | 15 |
| Vocational programmes (*) | n/a | n/a | 206 | 375 | 380 |
| Undergraduate programmes | 66 | n/a | 59 | n/a | n/a |
| Master's programmes | 37 | n/a | 76 | n/a | n/a |
| Doctoral programmes | 16 | n/a | 1 | n/a | n/a |
| Lecturers full-time equivalent (**) | 665.1 | 9.3 | 1,199.3 | 555.9 | 832.2 |
| Institutional accreditation years (***) | 6 | n/a | 3 | 3 | 5 |
| First year retention | 82.5% | n/a | 77.1% | 69.2% | 69.8% |

Source: Elaborated by authors. *Programmes with at least one student; ** SIES ('Full-Time Equivalent (Jornada Completa Equivalente, JCE)'); ***CNA Chile.

PUCV's programme covers all the broad ISCED fields of study, has six out of a maximum of seven years of institutional accreditation, shows the best retention rates, and has a strong focus on graduate studies and research. HEIs of Santo Tomás Corporation are present in most of the regions of Chile, cover almost all areas of knowledge with their programmes, show a medium level of

accreditation, and have a strong focus on undergraduate teaching. No information is available on drop-out rates for the vocational training centre of Los Lagos (CFTLL) as it is very new. The institution is also not yet eligible to participate in accreditation processes.

4.1. Methodology

The institutional case studies were based primarily on a qualitative methodology through interviews (in person and by phone) and focus groups. The fieldwork with the three participating institutions began with an interview with their academic authorities (rector or vice-rector). They then referred us to different actors within the organizational structures of the institution. The interviews were carried out following the research guidelines proposed by IIEP and conducted, for the most part, by two members of the team simultaneously. Systematic notes were taken of all interviews.

In the case of CFTLL, after the Rector was interviewed in Santiago, two team members travelled to the city of Llanquihue to conduct the remaining interviews and focus groups, where notes were systematically taken by both team members.

The research team had difficulty in finding students, due to two events. The first, of a local nature, was the social uprising that occurred in October 2019 and which had a series of effects on the normal functioning of the country, in general, and of higher education institutions, in particular. A national state of emergency was established, and face-to-face classes were suspended, making it difficult to reach both authorities and students during those months (October 2019 to January 2020).

The second event, of a global nature, was the advent of COVID-19 in Chile. As a result, a state of emergency was again imposed, with mandatory quarantines in several areas of the country (mainly the Santiago metropolitan area), nationwide school closures, and a decrease in economic activity, among other impacts. In this context, universities have had to redirect all their efforts to organizing online teaching, and this affected the search for new testimonies, mainly from students and alumni.

As can be seen in Table 15, PUCV and CFTLL students and alumni could be contacted and interviewed, but we were unable to do so for the CST. Interviews with PUCV students and alumni were conducted by telephone and recorded, following IIEP research guidelines. At CFTLL, since the number of students and alumni was very small, two focus groups were conducted. Literal testimonies were transcribed and arranged in a matrix.

Table 15. Fieldwork on institutional level

| Institution | PUCV | CFTLL | CST |
|-------------|------|-------|-----|
|-------------|------|-------|-----|

| | | | |
|---|---|---|---|
| Interviews with institutional authorities | 4 | 2 | 5 |
| Students focus group (alternative entry routes) | 1 | 1 | 0 |
| Students interviews | 2 | 0 | 0 |
| Alumni focus group | 0 | 1 | 0 |
| Alumni interviews | 3 | 0 | 0 |
| Professors focus group | 0 | 2 | 0 |

Source: Elaborated by authors.

All study informants were advised of the confidential treatment of their identities and the information that emerged from the interviews. The analysis of all the qualitative material produced was carried out following the IIEP research guidelines, from institutional policies to tools and practices related to flexible learning paths. The experiences of students and alumni were triangulated with the testimonies of authorities and staff members of the participating institutions.

4.2. Pontificia Universidad Católica de Valparaíso

The Pontificia Universidad Católica de Valparaíso (PUCV) is a traditional and private university in Chile, founded in 1928, belonging to the CRUCH, to the *Agrupación de Universidades Regionales de Chile*, a group of Chilean regional universities, and to the *Red Universitaria G9*, a group of traditional private universities that receive public funding. It is also a pontifical Catholic university, that is, it depends on the Holy See and the Bishopric of Valparaíso.

Its main campus is in Valparaíso and it has different branches located in the historical area of the city and in other places in the region of Valparaíso (Placilla, Viña del Mar, Quilpué, and Quillota).

In 2015, it was accredited by the CNA for a period of six years (out of a maximum of seven). This accreditation means that the institution has high quality standards in the mandatory areas of academic, administrative and financial management, and undergraduate teaching, and in the elective areas of research, postgraduate teaching, and outreach (third mission).

PUCV is a complex and comprehensive university. It has academic offerings in all areas of knowledge and at the undergraduate, master's and doctoral levels. It also occupies a prominent place in the national panorama for its scientific production. In 2019, PUCV had a total enrolment of 17,450 students: more than 16,000 in undergraduate programmes; and 1,231 in graduate programmes, of which about three-quarters are master's students and one-quarter PhD students.

The university has made an explicit decision to promote flexibility and contribute to the development of its students. It normally admits students from public schools, with relatively high scores in the national admissions test. It has implemented several policies and instruments to support flexibility, which will be described below.

4.2.1. Fieldwork

Between November 2019 and January 2020, interviews were conducted with the directors of four key units of the institution. In addition, a focus group was held with students who had used alternative admission routes. Deans were not interviewed, as the researchers were informed that they did not have any direct responsibility for admissions, or for the design or implementation of flexible learning pathways.

The focus group involved seven students who used alternative pathways of admission to the PUCV: four students from the BETA programme (*Programa Educacional para Talentos Académicos*), which is specific to PUCV, and three from the Propaedeutic Programme, which is offered by central government.

In addition, during May 2020, we were able to interview two students who participated in the PACE programme (*Programa de Acompañamiento y Acceso Efectivo a la Educación Superior*) and three alumni who participated in the BETA programme. All students entering the university via the BETA programme take a cognitive skills test (students must be in the 75th percentile on the evaluation scale) to be admitted.

Table 16 summarizes the field work done:

Table 16. Fieldwork on PUCV

| Structure/Unit | Date | No. | Role of the interviewee | Type of interview |
|----------------------------------|----------|-----|---|---------------------|
| Members of university management | Nov 2019 | 1 | University leader responsible for academic affairs | In-person interview |
| | Jan 2020 | 1 | Member of Students Affairs Department | In-person interview |
| | Jan 2020 | 1 | Member of Gender Unit | In-person interview |
| | Jan 2020 | 1 | Expert from Institutional Analysis and Strategic Development Department | In-person interview |
| Students | Jan 2020 | 1 | Alternative admission students | In-person interview |
| | May 2020 | 2 | Alternative admission students | In-person interview |
| Alumni | May 2020 | 3 | Alternative admission students | In-person interview |

Source: Elaborated by authors

4.2.2. Institutional policies

The main institutional policies in place refer to alternative admissions pathways, mechanisms to support those students entering through these alternative pathways, some means to facilitate transfers between programmes within the university, and guidance and support systems for students. The university has a Technical Training Centre in the Valparaíso region (UCEVALPO),

with which PUCV has an admissions agreement that allows graduates to complete courses at the university (e.g. in engineering).

The initial driver for these policies was the need to increase enrolment in programmes with low levels of demand, but it evolved into the improvement of equity in access to higher education.

Alternative admissions pathways

PUCV implements three admissions programmes as alternatives to the traditional PSU test, all with the support of the Ministry of Education: the PACE programme, the Propaedeutic Programme and the BETA programme, which is specific to PUCV.

Currently, the Inclusion and Gender Unit oversees these alternative admissions programmes. The establishment of the Inclusion and Gender Unit initially focused on the three programmes mentioned above. In 2018, due to women-led organized protests in most universities, the gender issue was added to its mandate²⁷. Additionally, the unit provides support to students with disabilities.

These programmes, which were described in the chapter on national policies, are central to the institutional policies of PUCV, even though together they represent only 4 per cent of first-year undergraduate enrolments in 2019 (see Table 17).

Table 17. Enrolments through PUCV alternative admission programmes, 2008–2020

| Programme | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| BETA | 14 | 12 | 21 | 14 | 15 | 9 | 23 | 15 | 11 | 23 | 20 | 8 | n/a | 185 |
| PACE | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 69 | 86 | 94 | 107 | 356 |
| Propaedeutic | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 18 | 27 | 36 | 31 | 34 | 146 |
| Total | 14 | 12 | 21 | 14 | 15 | 9 | 23 | 15 | 29 | 119 | 142 | 133 | 141 | 687 |

Source: PUCV

BETA programme

²⁷ The year 2018 was marked by several feminist takeovers of universities across the country and a large number of marches against sexism in education and gender violence. The movement began with a series of complaints of sexual harassment in different universities and gradually increased its scope to question the political, social, and economic structures that privilege men and male sexual preferences and identities. The movement was also nourished by feminist demands from other countries (#NiUnaMenos from Argentina, #MeToo from the United States) and began to move beyond its university character to a broader dimension. As a result of these mobilizations, sexual harassment protocols, gender violence prevention plans, and gender and sexual diversity units were created in the universities.

The oldest of the three alternative admission modalities is the BETA programme, which has been in operation for 13 years at PUCV (which inherited it from the Catholic University in Santiago). It is an extracurricular enrichment programme that emerged in 2005, parallel and complementary to formal education, which aims to strengthen the potential of students with high capacity, from Grade 7 to Grade 12, mainly from municipal establishments, who come from the most vulnerable contexts. Through special classes at PUCV, participating students have the option of developing their knowledge and skills in a high-quality educational environment and expanding both their possibilities of achievement and their contribution to the community. The objective of the programme is to offer high-quality educational opportunities for talented children in the Valparaíso region, who come mainly from public schools, to help them enter a university.

The university conducts an active search for these students in different schools in the region, with which it has a special agreement. The process is led by the Inclusion and Gender Unit and includes a series of tests that are explained in this way by its director:

We work with students in whom some type of talent is detected, regardless of whether it is disciplinary, artistic or in specific areas. When these students are selected, they must take a standardized test and meet certain scores, and once all the criteria are met, they can enter the programme. (Director of Inclusion and Gender Unit, in-person interview)

For these students, a varied academic offer is provided (humanities, sciences, political science, engineering, geography, robotics, etc.) which last all year, and run parallel to their school education in after-school programmes and during a summer term. During 2019, the programme had about 280 students, from Grade 7 to Grade 12.

The BETA programme includes students with scholarships and others who pay fees; it works with the municipal education corporations and is co-financed by the university and the municipal corporations. As the director of the programme explains, one of the biggest difficulties is securing public funding on time, which has forced the university to commit to the programme with its own funding to guarantee its continuity over time:

And the eternal problem with this type of programme is that since there is no institutional financing, it's very unsustainable, and several times it is questionable whether it is worth continuing in financial terms, because you always end up with red numbers. But there is an institutional decision to maintain it. (Director of Inclusion and Gender Unit, in-person interview)

In this sense, the programme ensured in 2018 that each undergraduate programme had a special BETA quota. Students who complete the programme and obtain at least 500 points in the PSU (which is a significantly lower score requirement than the regular PSU admission, which would average about 600 points) are offered a place in the programme of their choice.

In the words of the person in charge of the BETA programme, in the current climate of questioning the Chilean education system as a whole, this type of programme represents an effective complement to selection through the PSU, which largely reproduces the inequalities that are at the root of the school system:

These programmes are the future, because I don't see much future for the PSU, and other types of access are going to start to emerge, and how do you ensure that a student is ready to enter university? Well, if they have participated in these university programmes. (Director, Inclusion and Gender Unit, in-person interview)

The student participants in the focus group rated their time in the BETA programme positively, mainly on the basis of two elements. First, they pointed out that it is more than an academic development programme, it is one that also facilitates integration into university life:

BETA was not so much focused on academic development but on social development. BETA is more social, it's like meeting each other. The main thing is integration. I was there for seven years, so they know you and how you are, you feel supported. (Undergraduate student, focus group)

Second, during their participation in the programme, which for some can be up to six years, the exposure to different academic stimuli makes it easier for students to make a career decision for the future: 'Since the classes at BETA encouraged me to study pedagogy, I focused a lot on what I am doing now' (undergraduate student, focus group).

From an alumni perspective, the BETA programme was key to their university aspirations, insofar as it opened other possibilities for academic development that they did not see in their schools:

For me it was a total change in my life. I studied in a technical school, I did not consider the university within my options, I thought that was very distant for the reality that I lived, and for the base that I had of the school where I studied... then it was not going to favour me for the university. (BETA alum, phone interview)

One of the most valuable issues that alumni point out is the work on self-esteem and confidence through the programme that allowed them to know better their possibilities and to define their vocation:

It helped me to define that I could continue studying, that I could enter university. It helped us to believe the story, because there they talk about certain skills that you have, and they taught us that there are different kinds of intelligence and skills, and that not always having good grades is what guided you, what defined you, that you were not intelligent just because you had good grades, so there were many artistic things. Each of us helped to enhance what we each wanted, what we liked. (BETA alum, phone interview)

The good thing is that it allows you to try out many areas, I participated in science activities, humanities, I participated in music areas. And there I realized that I had certain abilities for certain areas and that there were areas that I liked more than others. (BETA alum, phone interview)

PACE programme

The PACE programme has two components. The first focuses on the last two years of high school and seeks to develop cross-curricular skills in students through workshops and classes that take place in schools but also in HEIs. This component seeks to facilitate access to higher education for students coming from disadvantaged socio-educational backgrounds, shortening the knowledge gap of these students.²⁸

The second component is developed during the first year of university. Programme participants are accompanied, and they receive academic and psychosocial monitoring, which are organized by teams from the higher education institutions themselves. The aim of this component is to prevent drop-out and improve students' academic progress.

One of the students interviewed, who lived in a different region than the university, highlighted that the programme helped him 'get into university and adapt, which is the hardest thing' (PACE student, phone interview).

Tutoring during the first year of university was recognized as positive by the students interviewed, with one of them pointing out: 'Tutoring helped me a lot during that first year. The psychological support and the tutor, who listened to me because sometimes you don't have a family, or you don't know the city well' (PACE student, phone interview).

²⁸ Research by the MoE revealed that the high school curriculum worked on in 2011 reached a coverage declared by the teachers surveyed of 81 per cent of the minimum obligatory contents for language and 73 per cent for mathematics. An analysis by curriculum experts (based on textbook records) indicated that this coverage was in fact 50 per cent and 43 per cent, respectively. However, the difference detected between public and private schools in relation to knowledge coverage was an average of 10 per cent (MINEDUC, 2013).

Despite this positive evaluation of PACE, the students interviewed reflected critically on some characteristics of the programme that ran contrary to its objectives. For example, the excessive focus on academic performance over the individual effort of each student:

I had many classmates who were very consistent but sometimes did not have good grades. That's another thing they could change, the focus. The important thing is consistency and not just that you do well. And it's focused on the best students, and they come through PSU. (PACE student, phone interview)

I feel that PACE is like a sieve, just like PSU, because they select only the best, and there are many students who really want to enter university and don't have the possibility, or the schools where the teaching comes from are very precarious... PACE should go to other schools that also need help. (PACE student, phone interview)

Other criticisms focus on the lack of resources, as many students stopped attending the programme during their school years because they did not have the resources to attend the workshops offered by the university every two weekends. One PACE student interviewed put it this way:

Many were left on the road and I'm sure they would be very capable of studying in a university, and they didn't do it just because they didn't have the resources to go every two weekends to the university, or because they didn't have such good grades sometimes. (PACE student, phone interview)

Propaedeutic Programme

The Propaedeutic Programme started in 2015 and seeks to strengthen the academic experience of high-performing students (who are in the top 10 per cent of their school's performance) from public, subsidized, and private schools. It is a selective programme, since the university requests the list of students from the schools, calculates the ranking, the grade point average (GPA), and all those in the top 10 per cent are offered the programme. As it is a major effort by the university, the programme director says that they select students who not only meet the requirements but are also committed to enrolling at PUCV: 'And that's where the selection process begins, with the student assuring us that he or she will enrol in the PUCV in first preference' (Director, Inclusion and Gender Unit, in-person interview).

The programme focuses on the development of competencies and skills needed to perform in the university, through three main axes: understanding and production of academic texts; mathematical and scientific thought; and self-effectiveness. This student academic support plan used to last one semester (16 weeks at PUCV), but now takes a full year and runs parallel to the

students' last year of school. In addition to educational support, the programme includes psychological tutoring, support in the university application process and guidance, and workshops for families through parents' meetings in order to prepare them for the needs their children will have in college, such as a home study environment or time management skills.

Unlike the BETA programme, which can be extended for six years, the Propaedeutic Programme is an intensive programme focused primarily on acquiring the skills and competencies necessary for students to access and remain in their chosen career through PUCV. In order to be admitted to the university, students must attend and pass all the courses and obtain at least 500 weighted points in the PSU test. If the conditions are met, they can transfer to another programme (but only once and during the first six semesters at PUCV).

One of the benefits for the students is that if they pass the Propaedeutic maths course, their grade is recognized in the programme they enter.

From the students' perspective, as with the BETA programme, the Propaedeutic Programme is valued positively with respect to academic-vocational preparation and the preparation that the programme gives them for their future insertion into university life, mainly in relation to the change from school life (with greater parental supervision) to university life (where autonomy and self-management is key):

I have realized that the most important thing is the ability to adapt to changes, to difficulties, and this is something I was able to learn in the Propaedeutic [Programme]. More than entering university, the most difficult thing is to remain there. The most difficult thing is the freedom that one has... and that is the most difficult thing to manage. Being in the programme one feels more accompanied, that you don't enter the university alone, that you actually exist... (Undergraduate student, focus group)

From an academic point of view, students value the Propaedeutic Programme for its capacity to encourage entry to the university and to make the decision of which career to pursue through their studies, and, at the same time, have the confidence that they will be able to meet their academic requirements:

I wouldn't have entered the university if I hadn't done the programme... and the most important subject is self-effectiveness, that helped me a lot in the university. I felt much more prepared in the first year. The programme helped me in that, whatever decision I make, you can always change, it's not a failure. When you go to the programme you leave

with confidence, it takes away your fear. On the other hand, PSU scares you.
(Undergraduate students focus group)

In 2019, the university started a pilot project for teacher training programmes, which seeks to attract and provide access to high school students interested in a teaching career so that they can enter the PUCV teacher training courses. In 2019 it was designed for Grade 12 students, and in 2020 it will begin with Grade 11 students. This programme:

Also seeks to develop some of the students' disciplinary skills, according to the interest of the students, so they can choose subjects related to the area of science, humanities, or mathematics. It is also attractive, because we offer them training in English; if they pass the course, it is recognized as part of their curriculum at the university. (Director, Inclusion and Gender Unit, in-person interview)

One of the great challenges of this programme is that it has the mission of working with municipal and subsidized schools, where it must seek and convince students and their families that a teaching career is professionally attractive. During the military dictatorship (1973–1990), teachers from public schools lost their public service positions, had their salaries reduced, and were systematically accused of being politically active. Since the return to democracy in the 1990s, Chile has implemented a series of public policies to restore prestige to the teaching profession. This was implemented through the professionalization of training, improvement of salaries, establishment of a teaching career, improvement of working conditions, among other interventions (OECD, 2004; Ávalos, 2014). However, the teaching profession remains in a second-choice position compared to other more attractive professions (e.g. medicine, law, engineering).

Other alternative access pathways

The university has other alternative entry routes to the traditional PSU. There is a limited number of places for students who:

- already have a higher education degree;
- have completed at least two semesters in another programme or HEI;
- have done all or part of their secondary education abroad;
- can show outstanding performance in science, humanities, or the arts, or who have excelled in the design or implementation of projects in areas such as community service, technology, or entrepreneurship;
- can show outstanding performance in sports;

- come from HEIs with inter-institutional double-degree agreements;
- belong to the Rapa Nui (Easter Island) community.

In a way, this process involves recognition that previous experience can demonstrate a significant potential that the university can enhance. But it does not mean homologation or recognition of studies or of experience in terms of reducing their academic load.

The university has certain quotas per career for these cases, which complement regular enrolment; applicants must apply stating that the desired programme is their first preference. The Director of the Inclusion and Gender Unit explains:

These complementary quotas have to do with leadership, sports talent, students who studied abroad or took university entrance exams abroad. These students apply by presenting their academic and social background and must have obtained a minimum of 500 points in the PSU. (Director of Inclusion and Gender Unit, in person interview)

Opportunities for transfer and flexible study

The university has different ways to facilitate the transfer of students between careers within the institution and from other institutions.

Homologation or validation of studies

Homologation consists of the recognition of one or more subjects approved at the PUCV within the last 10 years. A student can homologate up to 50 per cent of the compulsory subjects of the career he or she is going to take. In these transfers within the university the process is led by the academic units.

Validation is the recognition of one or more approved subjects in other HEIs within the last 10 years. A student can validate up to 50 per cent of the subjects of the career he or she is going to take.

Recognition of prior learning

Another way is through *examination of relevant knowledge*, which is the recognition of subjects from the curriculum based on competency in the subject, demonstrated by the applicant by passing a special exam. Students can validate subjects in this way up to 10 per cent of all subjects for the chosen career. Exceptionally, those who can prove significant work experience in the area of the career can raise this limit to 50 per cent. This recognition process occurs in careers with a strong component of practical training, such as commerce, business administration, or teaching.

Recognition of fundamental courses

All students at PUCV must complete a set of fundamental courses, which are meant to develop generic competencies for all professionals and to promote distinctive qualities in all PUCV graduates. These have been organized in three areas: values and ethics, academic and cognitive development, and personal and interpersonal development. These are automatically recognized when transferring within the university.

Although these alternative entry mechanisms have been in place for a long time, there is still some reluctance both from the academic staff and from other students to accept students from these alternative entry mechanisms. This is especially the case if they entered through the PACE programme. The Director of the Inclusion and Gender Unit explained:

When they had to receive PACE students, there was a lot of prejudice, a stigma as they are usually from poorer background and did not obtain the higher score in the PSU needed to be admitted in a regular way. (Director of Inclusion and Gender Unit, in person interview)

There were also more open voices against receiving students from non-traditional backgrounds, which has weakened, especially among department heads: ‘This has changed in recent years due to the centralization of decisions about enrolment and the changing perception of decision makers’ (Vice-Rector for Academic Affairs, in-person interview).

In relation to the flexibility of studies, several of the fundamental training courses that students must take are in blended-learning mode (b-learning). In the current context of mobilization and social and student demands, the institution has already started virtual developments, with the aim of offering more courses in e-learning or b-learning modalities. This, of course, has been intensified with the advent of COVID-19.

Likewise, the university has implemented initiatives that seek to facilitate the academic progress of students who are mothers, fathers, or have a disability, facilitating flexibility in the corresponding academic units. The aim is to ensure that academic requirements do not diminish while facilitating their development in a flexible manner, considering the different realities of these students. This is done by informing the academic units of the students who are in this situation; each unit then implements support strategies, such as academic tutoring, advising, and coaching.

Monitoring and supporting academic progress

Once students enter the university, the Department of Student Affairs (DAE), through the Student Learning Support Unit, builds up an academic profile of each student from a series of tests and

reports undertaken during the first week of classes: performance tests in reading comprehension, logical-mathematical thinking; and tests that measure certain skills and abilities (e.g. the Schmeck test of learning styles, test of general self-esteem and academic self-esteem, English test). This process allows the university to identify initial skills and competencies, and thus visualize who might be at academic risk.

This information is grouped and combined with other variables (socioeconomic, PSU score, among others) and academic risk rankings are constructed, which allow students to be referred to the different levelling and support programmes that the university offers.

Once the students with certain academic deficiencies have been identified, they are called to the academic levelling programmes. These programmes are divided into different types of academic tutoring and a levelling programme in basic sciences. The DAE director explains that the academic levelling efforts for new students are focused on the basic science subjects, because it is these that present the greatest difficulties during the first year: ‘And why basic sciences? Because they have the highest failure rates in the university, and we realized that this is the cause of dropout and even elimination of students’ (Head of Student Affairs, in-person interview).

Tutoring extends throughout the first year of college, although there are also students, especially those who entered via PACE, who require assistance for a longer period. Tutoring is personalized (one tutor for every five students).

Regarding the basic science levelling, the university began by offering maths reinforcement sessions before each test, that is, four reinforcements for each maths course. But the DAE realized that there was a component of motivation and responsibility among the students who did attend and that they were not reaching out to those who needed more help: ‘... we realized that the students who participated the most were those who did best, because of a responsibility issue. Then we realized that we weren’t having any impact on the indicators with that strategy’ (Head of Student Affairs, in-person interview). So, the university changed the strategy to a basic science (mathematics, physics, and chemistry) levelling towards those students at risk (low score in maths PSU, bad Lawson’s test, high failure rates), in small groups. The DAE Director explained that with this approach they had had better results: ‘the groups are of maximum 10, because we have learned that with this format the teacher has the opportunity to know the students’ learning styles and intervene in a meaningful way’ (Head of Student Affairs, in-person interview).

As a result of this change in strategy, university drop-out has decreased: ‘We have lowered the first year's dropout indicator quite a bit, like five points, we had it at 25 per cent, I think we are at

19–20 per cent, which is quite good’ (Head of Student Affairs, in-person interview). Students admitted via PACE and students selected through the traditional PSU process can participate in the levelling programme, as in both groups some students can have problems adapting to the academic pressure in the first year of university, although special-entry students are more likely to fail.

In parallel to these initiatives of academic tutoring to students at risk, the university offers a programme of psycho-educational support, which integrates mentoring, and individual and group support, and which can be developed in a combined way. The DAE Director explained the programme in this way:

The student always leaves with an evaluation made by a psychologist, which we call an entrance interview. And the psychologist makes decisions according to the model, whether the student is going to need an individual or group intervention. The individual services are psychiatrists, psychologists, special educators, and career counsellors, with one-on-one services. (Head of Student Affairs, in-person interview)

These interventions can be given throughout the course of the degree but are much more intense in the first two years; these are the most critical from the point of view not only of the students’ academic adaptation but also of their social adaptation. About 40 per cent of the students come from other places in the country, which can be quite challenging for them. For this reason, in the second semester of 2019, the university began to develop a line of group work, coaching to develop skills and workshops that will train students in some areas: workshop on anxiety management, emotional management, and autonomy.

In general, the evaluation of these tutoring initiatives is positive. The indicators of retention and academic progression have been improved in those students who participate in the whole network of academic and psychosocial care. Some of the interviewees mentioned their positive experiences with tutoring:

I had trouble understanding maths, there were classmates who knew things that I had never done in school... the tutoring is very good, the pre-maths is very good. I valued it very much. It was difficult for me and thanks to that, I was able to overcome it. (PACE student, phone interview)

One alum from the BETA programme added: ‘The good thing about the PUCV was that if you needed help, you got it. In the first year we had help in practically all areas’ (BETA alum, phone interview).

Another problem is that participants in these programmes tend to be those students who are more motivated, and among these the academic indicators improve notably, reaching the institutional averages. But the programme has not been as successful in reaching those less motivated students who need help the most. In the words of the DAE director, the university ‘has failed to install an authority figure, of some entity or opportunity or an incentive, that motivates the student to participate’ (Head of Student Affairs, in-person interview).

4.2.3. Role of national policies and instruments in supporting FLPs

The impact of national policies on higher education has been mixed. On the one hand, there have been policies that have increased participation in higher education and have allocated valuable resources to institutions (e.g. free-tuition policy, loans, and alternative access programmes, among others). Other policies have had a significant impact on the quality, rationality, and transparency of the system (quality assurance and quality-improvement programmes, i.e. the Improving Quality and Equity in Tertiary Education Programme or MECESUP, for its initials in Spanish).

But some of these policies have also had a negative impact on the possibilities of developing flexible learning pathways. For example, the free tuition policy is based on a traditional concept of the student who does not undertake paid work while studying and disadvantages those students who fail subjects or want to change careers more than once. In fact, free tuition is only granted once, and only one career change is accepted. In addition, the benefit is extended during the nominal duration of the chosen career, so that those students who fail courses lose the funding once they exceed the number of semesters the course is expected to last. In this context, the academic office takes care to ensure that these students are identified and supported through different instruments:

There is a segment of young people who study and work. We have learned that they need to be given a lot of support in their academic decisions (less academic load for example) in order to fit in with available time. Regarding the free tuition policy, it does not consider a student who studies and works. If they exceed the period covered by free tuition, they can however ask for a solidarity loan. (Vice-Rector for Academic Affairs, in-person interview)

In relation to accreditation, ‘the definitions of QA processes do not include an orientation that favours FLPs’ (Vice-Rector for Academic Affairs, in-person interview). There is an excessive focus on indicators, such as retention – ‘the public policy of encouraging retention through financing has permeated the entire institution’ (Head of Institutional Research, in-person

interview) – and on conceiving training paths as watertight and tubular compartments, without intermediate exits or possibilities of horizontal or vertical articulation.

There are other instruments, which could have been useful, but either do not work properly, or are used in a partial way. Such is the case with the academic Credit Transfer System (SCT), which is used at PUCV to define the academic load of students and avoid curricular overloads that negatively affect retention, but it is not used for recognition of learning or transfer.

The National Qualifications Framework for Higher Education is another instrument that could have been valuable in promoting flexibility, but after a period of development it was not approved. However, even if it is not official, PUCV uses the National Qualifications Framework for Higher Education to ‘define curricula, especially in terms of length of study’ (Vice-Rector for Academic Affairs, in-person interview), but not for improving flexibility or the recognition of prior learning.

4.2.4. Evaluation of effectiveness, enablers, and inhibiting factors in implementation of FLPs

The units interviewed evaluated positively the alternative access programmes described above (the PACE, BETA and Propaedeutic programmes). The academic leadership appreciates national efforts to promote access and ensure the retention of students with fewer possibilities: ‘There are national policies that have helped a lot, because they bring in income to cover the costs [PACE, Propaedeutic, Beta, talented students]. The general policy frameworks have helped to generate things that would have been difficult to legitimize in the academic world’ (Vice-Rector for Academic Affairs, in-person interview).

The academic leadership highlights the importance of the change of focus, from a psycho-pedagogical and clinical one (with individual interventions for students) to a socio-cultural one (where the student’s environment is mediated with group strategies) and the efforts developed by the university to level and support these students who come from vulnerable contexts.

Most of the levelling programmes emerged from inexperience, copying programmes from other universities or from policies. They had a psycho-pedagogical and clinical focus; they tended to be individual, slow, and very expensive. There was a change from a clinical model to a socio-cultural one, especially in support programmes, and with emphasis on volunteer programmes with students. (Vice-Rector for Academic Affairs, in-person interview)

With regard to the students who enter through the PACE programme, there is still a certain prejudice within the university, especially in those careers considered traditional (e.g. medicine, law), that they are students with lower skills, which can lower the quality standards of the career

and negatively impact the indicators by which they will later be evaluated. Regular students also tend to look at students entering through PACE as intruders, who did not deserve entry because of their lower scores.

Expanding the concept of the student is key both in the design of public policies and within the academic cultures in the institutions themselves, with the aim of integrating and promoting the diversity of possible training paths in higher education.

In general, however, public policies tend to hinder flexibility, as they target a more traditional type of student, or discourage horizontal or vertical articulation, as is the case with the definitions of quality assurance. Academic leaders exemplify this through the concept of drop-out:

For universities, as the focus is on results, it is more practical to follow tube-based training processes, rather than flexibility. It is a contradiction and nonsense that if a student changes careers, he or she is considered a drop-out. You look at the tube. It would be more viable to have a retention indicator in the university rather than in the programme, it would be much better. (Vice-Rector for Academic Affairs, in-person interview)

4.2.5. Challenges for the future

In PUCV, two major challenges are identified. First, to move towards training by cycles, where there are groups of careers by disciplinary area that have common courses and where students can choose certain disciplinary paths and change between them without losing the credits already taken. This change would make it possible to ‘recognize and facilitate the right of students to change their vocation, change their career or change their institution’ (Vice-Rector for Academic Affairs, in-person interview).

Second, to move towards a system of preventive care for those students who need academic and psychosocial support. At the beginning of the 2020 school year, the university planned the implementation a pilot programme to specifically identify key aspects for each career that facilitate the achievement of learning. To this end, quantitative data on access and the socio-cultural contexts of the students was to be analysed, while, through qualitative techniques, the perception that students have of their own career would be investigated, alongside the interpersonal relations between students, teachers and professors; the skills that students must have in order to practice their profession; and the areas of greatest complexity in the development of the career. With this information the university can intervene more efficiently not only with students but also with the teachers themselves and in the improvement of their skills to interact with this type of students.

This also includes the teachers, because the teachers don't know how to deal with these students, some don't have the tools to relate to them... That's the new thing we're doing from the most preventive point of view. And we're going to apply the pilot in the first semester of 2020. I have a high expectation about what it will leave us, because we have never intervened in a preventive way. (Vice-Rector for Academic Affairs, in-person interview)

4.3. Corporación Santo Tomás

Corporación Santo Tomás is a private holding that manages a university, a professional institute, and a vocational training centre, plus several schools. It operates in over 20 branches across the country, some of which include the three institutions, others only the professional and vocational institutions. Over 80 per cent of the students come from public schools.

The university was established in 1988, the other institutions a few years earlier. Both the university and the professional institute are accredited, the latter for five years, until 2026. The vocational training centre also accredited for five years, until 2024. The university offers a wide range of programmes in its 14 branches, in different cities, and enrolls 28,000 students; the other institutions are present in 22 different places, with an enrolment of about 24,000 students.

Most of the students belong to the first generation in their families to attend higher education; 60 per cent are women. The professional institute and the vocational training centre only require the secondary education certificate (which is a legal requirement); most of the university students enter with a score of 500–520 points in the PSU (500 being the average in the standardized test).

The university has central authorities (rector, vice-rectors, deans, programme directors), who oversee institutional policies in their respective fields, and who coordinate the work of the branches to ensure transferability from one branch to another, or to programmes in the same field. In addition, each branch has a rector who oversees the work of the institutions operating in that city.

4.3.1. Fieldwork

The fieldwork included the following interviews:

Table 18. Fieldwork on UST

| Structure/Unit | Date | No. | Role of the interviewee | Type of interview |
|----------------------------------|----------|-----|--|---------------------|
| Members of university management | Nov 2019 | 2 | Institutional leaders (university, IP and CFT) | In-person interview |
| | | 2 | Leaders responsible for teaching and learning (university, IP and CFT) | In-person interview |
| Sport sciences area | Jan 2020 | 1 | Director of University Sport Sciences Institute | In-person interview |

| | | | | |
|--|--|---|---|---------------------|
| | | 1 | National Director of the IP/CFT Physical Activity and Sport Area | In-person interview |
|--|--|---|---|---------------------|

Source: Elaborated by authors

Due to the political problems and student unrest in the country, it was impossible to meet with students.

4.3.2. Institutional policies

The current strategic plan of the Santo Tomás system has, as one of its main components, the articulation of vocational programmes with professional and university programmes. The design and re-design of programmes has this goal as one of its main guidelines.

The vocational training centre (CFT) has formal articulation agreements with vocational secondary schools (evaluated by the Quality Agency in the high-performance category) and, through the MoE, with ‘Bicentennial Secondary Schools’, which are high-performance public schools. The articulation agreement implies the recognition of at least three subjects studied in vocational secondary education in technical careers offered by the CFT and IP in different areas: administration, engineering, computer science, education, natural resources, tourism and gastronomy, and health.

The Santo Tomás system worked on the development of continuity programmes in some areas (engineering, management, agronomy, amongst others), which are incorporated in the academic structure in the new strategic planning. These programmes allow IP students to earn a bachelor’s degree at the university, as explained by the Rector’s Office:

Students who graduate from the IP do not have a bachelor’s (*licenciatura*) degree; if they want to obtain one, they can enter the university on a continuity programme, which is a closed course, with a special plan, lasting one and a half years. They are students who do not mix with the regular course; it applies to social work, engineering, commercial engineering and sports. Today they are only for our IP graduates, but could be extended to students from other institutions. We have more demand for continuity plans than we can cover. (UST institutional leader, in-person interview)

Also, there was an initiative to develop intermediate certifications, for students who leave an institution before the end of their course. These intermediate exits could be a viable option for students who, for academic, economic, or personal reasons, cannot continue their studies, obtaining a vocational or technical certification in a professional career, for example. This allows students not to lose what they have already achieved on a programme and to enter the job market

with a certification, or to continue their studies later in the same or another institution. Although current statistics about their operation are not yet available, indicators about them are included in the new strategic planning.

In the area of vocational training the CFT and IP work with the MCTP and with ELEVA,²⁹ in the case of mining, which has contributed to developing closer links with employers and with the needs of labour. They are now working with the experts and a final assessment visit will determine whether the quality label the mining council grants to programmes which meet their requirements can be awarded. There has been important work on teaching and curriculum. In the case of the MCTP, work is underway to align the programme of Industrial Maintenance with the pilot application of the qualification's framework.

4.3.3. Instruments for the implementation of institutional policies

Alternative admission pathways

The university enrolls students through the national alternative admissions strategies (PACE and Propaedeutic programmes) that reduce the minimum PSU score requirements. However, the experience has not been successful, since the funding provided by the government is not enough to cover the costs associated with the necessary academic support process. Over 80 per cent of these students leave the university for failing academically, and those who survive require very comprehensive support and levelling actions. That is why, as explained by the Rector's Office, special admission corresponds to a very small group in the university:

Students who enter the university by this route need training in basic sciences, which in secondary schools is of very poor quality, and this is aggravated by the political situation [high schools with more than two months of shutdown]. This requires too much effort for them and for the university. Eighty per cent of students who enter through this route drop out because of performance problems [too much effort]. Those who survive, abandon in a short time, and it is only possible to rescue a minimal fraction of them. (CST institutional leader, in-person interview)

Although the university offers a summer school for students in secondary schools, as a way of approaching the institution, and without demanding from them a commitment to enrol in any of the ST institutions, the university puts its efforts in levelling out those students who are already enrolled. As pointed out by the Rector's Office, 'other universities offer pre-entry levelling programmes, but here the main effort is to

²⁹ ELEVA is a public-private partnership initiative, which seeks to contribute to boosting the mining industry of the future, raising people's skills and opportunities, and promoting relevant and quality technical and professional training at all levels.

close the gap after admission. Students who enter have large knowledge gaps' (UST institutional leader, in-person interview).

The professional institute has a special admissions system for candidates with a vocational degree. It has formal mechanisms to assess competencies and to allow for internal recognition of studies, both for students from ST and for students coming from other HEIs. The recognition process is centralized. A process of reviewing the offer, the titles, and the competences in the CFT and IP is carried out. Then the students go through a process of formal validation of contents and competences. In these processes, they use the academic Credit Transfer System as a reference and the accreditation system to assess the quality of the education students received.

Flexibility: Teaching and curricular organization

In order to make teaching and learning more flexible, the institutions offer programmes in different formats (evening classes, face-to-face programmes supported by ICT, b-learning) and recognize prior learning in some cases. This has allowed for flexibility and adaptation to different student profiles, either day students, evening students or students who already have a degree. There are opportunities for flexibility, including a reduction of the academic workload.

In the special admission processes, the RPL is very low, in particular because of the pressure of the accreditation processes. Accreditation is perceived by the highest authorities as an obstacle to innovation and change, due to the rigidity of quality assessment:

Accreditation processes are most of the times paralyzing. The possibility of innovating when there is little time until the next quality assurance process is low, and flexible itineraries require a long-term view and changes in some fundamental aspects of our processes. Thus, there seems to be a contradiction between innovation and accreditation.
(CST institutional leader, in-person interview)

An interesting example is sports science, which has a clear articulation mechanism from the vocational level to graduate programmes. This could provide a good model for other programmes in the organization (see 4.3.4. *A case study within a case study: Sports Sciences Institute*).

Despite these efforts, the curriculum is still quite rigid, even though, in some areas, students share basic courses, and the curriculum includes elective courses. There is a pilot programme with seven health programmes, where some of the common courses will be offered to all students enrolled in those programmes, thus enabling them to postpone the need to choose a professional degree on entering the institution. The university is currently working on an agreement with two other universities in one of the cities (Temuco) to develop shared elective courses, which would be

recognized by the three institutions involved in the agreement. This agreement is a new initiative in the Chilean higher education system and, at least in its initial stages, has been successful, as recognized by the Rector's Office:

We have successfully filled the vacancies in a Mandarin Chinese course with outside students using the SCT system. This took work in coordinating but has proven to be a successful story. For UST students it has been more difficult to enrol in courses at other universities since they cannot extend classes to Summer months, as it usually happens, because some of them work as seasonal workers in agriculture. (UST institutional leader, in-person interview)

Levelling courses

The learning gaps of secondary education graduates demand a strong dedication to providing levelling courses, which, of course, lengthens the curriculum. In addition, secondary school graduates have a low level of autonomy and this must be addressed during the first semesters, as highlighted by academic leaders at the IP and CFT:

The levelling issue is critical in careers [40 per cent of the first semester is levelling and then you must keep moving forward]. This is complex because in two-year technical careers you need to generate employability quickly, in less time than in university careers. (IPST/CFTST institutional leader for teaching and learning, in-person interview)

Where the needs for levelling are evident is in the field of sciences. One of the efforts in this area is the Bachelor of Science Program, where students can spend two years. The program is articulated with other science programs; in the first year they have general levelling, in the second year they have disciplinary courses and they are recognized for the courses in the destination careers. As recognized by the vice-chancellor's office, the performance of these students is equal to those who enter directly to their preference: 'It has been possible to demonstrate that the performance is equivalent to the students who enter the programme with higher scores' (UST institutional leader for teaching and learning, in-person interview).

Transfer

Students can transfer internally, between programmes or branches. They must go through a formal process, but in general there are no obstacles to transfer within each of the organization (CFT, IP and university). The transfer between branches is possible because of a new policy wherein the curriculum for all programmes is centralized, led by a national dean and a national director for each programme:

Today there is a national dean, a national discipline director, and a student who moves is still in his school, with a director and a dean. Discipline became the pivot, which facilitates the transfer. (UST institutional leader, in-person interview)

Transfer also may operate downwards. Students who enter the university, or the IP, and then find that they cannot follow the curriculum, can have relevant courses recognized in the IP or the CFT, thus enabling them to gain either a professional or vocational degree.

A competency-based curriculum, applied in all institutions, makes it easier to process transfer applications. In addition, the IP and the CFT use the MCTP and have their competencies certified by an external body (Chile Califica). This certification, which is an MoE programme, mostly used for adult education programmes, is recognized at the vocational level by some HEIs and by employers.

Equity groups

The university has a commitment to supporting vulnerable students, insofar as, as its highest authorities point out, most of its students come from vulnerable socio-educational contexts:

Santo Tomás is defined as an organization that aims to provide opportunities for access to HE. In the IP and CFT there are no selection mechanisms, only a secondary school certificate is required, no matter how old. This is a legal requirement. More than 80 per cent of the students come from municipal or subsidized schools, and 70 per cent are first generation in higher education. (UST institutional leader, in-person interview)

There are several initiatives, such as an introductory week at the beginning of each academic year, several courses in basic abilities to strengthen secondary education contents, levelling courses in special programmes, and learning centres which provide specific tutoring. As pointed out by one of the leaders at the university, one of the main problems they must deal with is the lack of autonomy of the students:

Because of the profile of the students we receive, it is also difficult because it requires a higher level of autonomy in the decisions of the students, who need help at the beginning to manage time, and plan this would make it hard for them to manage their own curriculum. Vulnerable students find it more difficult to do this. (UST institutional leader for teaching and learning, in-person interview)

However, experience shows that students who go to the Learning Centres have much better results. They also have an Early Alert System to identify students at risk, that will support the identification of students with probability of dropping out.

4.3.4. Case study within a case study: Sports Sciences

One interesting case of intra institutional articulation is the Sports Sciences Institute at Santo Tomás Corporation, as it is an example of autonomous development of Flexible Learning Pathways. The Institute is being successful in articulating academic programmes of different levels and has involved collaboration with stakeholders in competitive sports, as well as with the state and private companies.

The origins of the Olympic Training Centre

The National Olympic Committee (COCH, for its acronym in Spanish) needed support for sports associations, and a space for high-performance sports training and accommodation for regional delegations visiting Chile for internships and training. A high level of academic expertise would be needed to operate with highly trained, professionalized human resources, not just in sports but also in teaching. Thus, they decided to join forces with a university, and UST was selected for partnership. The intersectoral project was funded by private organizations (60 per cent, including Corporación Santo Tomás and a bank loan) and public funds (40 per cent coming from the state agency, the National Institute for Sports). The university established the Sports Sciences Institute and sports federations started operating at the Olympic Training Centre, that now hosts 28 of the 54 federations of the country. There is also a cable TV channel that promotes competitions in different sports areas, as well as public engagement activities of the university.

The development of articulation schemes

Initially the institute only focused on university-level programmes, with no plans for articulation. These courses were: physical education teacher training, physiotherapy, and sports sciences. Later they added a master's programme in sports sciences, and two diploma courses, with no links to any of the professional programmes. The CFT offered programmes with links to specific sports federations, but with no relationship among them. Towards 2014, a few years after the creation of the sports science undergraduate degree or *licenciatura*, things began to change. The institute took on a coordinating role, with a board that included representatives of the university, the vocational training centre, representatives of the sports area within the university, and representatives of the Olympic Committee. This board decided to re-design programmes, allowing students to include in their curriculum courses offered by the sports federations, which are then recognized both in the sports world and in the education. Now, students graduating from the vocational programmes can continue their studies in the university, at the professional, master's, or diploma levels.

This project was based on two types of articulation: horizontal articulation with the National Olympic Committee and vertical articulation between the vocational training centre and the university. As the institute's management points out, this case was one of the first experiences of collaborative work between the university and technical levels:

Before, there was not much cooperation culture between the university and the CFT, and this was the first career they articulated. The Santo Tomás educational system represents the vertical articulation and with the Olympic Committee it represents the horizontal one. This joint work did not exist before 2014. (Director, sports area, in-person interview)

Recognition of prior learning

Prior learning recognition is at the base of the sports science articulation scheme. Students holding certifications in the National Olympic Committee courses will have a full semester recognized when pursuing the sports vocational programme. Vocational graduates will have the same benefit when pursuing the undergraduate programme, as will those who decide to follow the master's-level programme. This recognition of prior learning is only possible with high levels of vertical trust between the vocational and university levels, as well as horizontal coordination with the sports federation that allowed much of the curricular design to be developed jointly with representatives of the different sports organizations operating in the centre.

From vocational to undergraduate and graduate articulation and internationalization

Besides linking the programmes in coaching and physical training into the sports science degree, there is also credit recognition to continue studies at the graduate level on the Master of Sports Science programme, which has a focus on research and has a double degree with the University of Poitiers, France. Students from vocational programmes, as well graduates of sports science undergraduate degrees can opt for non-degree continuous education programmes offered by the university, some of which are joint programmes with FIFA (Federation Internationale de Football Association) and other international organizations. This full vocational-to-graduate articulation scheme with an international dimension corresponds to the requirements of the international nature of the global world of sports. Certifications, therefore, need to be international and some international Olympic committees offer scholarships, even at the vocational level. In the words of the Director of the Sports Sciences Institute, 'this project allows a student who took a short course at the Olympic Committee to end up doing research in European labs' (Director, sports area, in-person interview).

Student support mechanisms

Most of the students attending Corporación Santo Tomás institutions come from vulnerable socioeconomic backgrounds and, of course, are interested in their eligibility for free tuition. The university aims to be a national referent in vulnerable student support, in both the academic and financial dimensions, both of which are critical in implementing flexible learning pathways in the institution's perspective. It combines institution-wide initiatives as a week of introductory activities and levelling courses for entering students to catch-up, with specific programmes for sports science students. These include academic help in courses with low passing rates, teaching assistantships, and mentoring.

The experience of students transferring from vocational to professional programmes or pursuing the master's programme, shows that they can successfully graduate if they receive proper support. Students who transfer from lower to higher levels of education must strengthen their knowledge in areas that are treated more lightly in vocational programmes (biomechanics and physiology, for instance). They have had good results, which has changed the initial prejudice that vocational students as less capable of learning at a university level, as noted by the director of the institute

The initial prejudices that students articulating from the CFT would not be of the same quality have been broken. 115 students have participated, and the gaps detected are minor. The university has done its work to support their progress. (Director, sports area, in-person interview)

Barriers, difficulties, and other problems

Far from promoting articulation alternatives, quality-assurance mechanisms seem to deter the flexible pathways development, as some previous experiences in other universities provide negative examples when linked to physical education pedagogy (mandatory accreditation). In the words of the institute's director, 'There are regulatory rigidities that prevent this type of more flexible project from being developed' (Director, sports area, in-person interview). Still, accreditation has not been a problem to the sports science degree, as they conduct internal self-evaluation processes and receive feedback from external reviewers.

Other problems that sports science articulation faced were the initial deficit of trust and the lack of a culture of interdepartmental collaboration, prejudice, and the difficulty of working with non-academic organizations such as sports federations. Although they experienced failure with some initiatives intended to coordinate academic management with specific sports federations, they are learning from these experiences and trying new ways to promote articulation alternatives and

clearer links with the sport industry. A key factor is the commitment, conviction, and compatibility of the people involved.

Evaluation initiatives and improvement challenges

In 2019, a thorough curricular diagnosis was conducted, including the different elements of the articulation scheme. As a result, during 2020, the institution prepared a re-design the curriculum to improve flexibility and include the option of moving from the university to the vocational training centre for an intermediate exit (technical title). Besides this curricular innovation initiative, there are several important overall results that should be highlighted regarding this experience:

- This is the first instance of coordination between the vocational training centre and the university, which could serve as a model for other areas.
- It has helped change the idea that students from the vocational level are different, less able, or incapable of following university-level studies.
- It has linked the academic world with the world of sports, which is highly regulated internationally. Now students graduate not only with a higher education degree, but also with competencies certified by some of the sports federations, with international validity.
- The institute has helped improve flexibility in two directions: the higher education institution provides vertical flexibility; its links with the Olympic Committee and the sports federations offer horizontal flexibility.

For the future, besides intermediate exits, the challenge is to incorporate non-traditional delivery modalities as e-learning or b-learning, to address the needs of different types of students who would benefit from education alternatives compatible with work and family life.

4.3.5. Evaluation of effectiveness

As mentioned above, admission through alternative pathways is still rare and a difficult process at the university level. Students require a lot of support and, even then, the attrition rate is very high. Other initiatives have not been formally evaluated. The ST system is now developing a set of key performance indicators in order to monitor the success of the new strategic plan. However, at this stage, the evaluation is still based on personal opinions rather than a systematic mechanism.

Academic Vice rectors have a positive view. They consider that students who use articulation and transfer instruments do well in the programs that receive them: By following up on CFT and IP

students in articulation, they do well in college and it seems important to make progress in articulation to support progression' (IPST/CFTST institutional leader for teaching and learning, in-person interview). Furthermore, the results of the levelling courses are promising, and participation in the learning centres has proved successful in improving the performance of attending students:

There are several projects, including the Week of Initiation to University Life, transversal subjects [e.g. logical-mathematical reasoning] that reinforce secondary education content, levelling subjects at the career level, learning centres that provide specific tutoring, etc. Evidence indicates that students who go to the learning centre more often have better results than those who do not. (UST institutional leader, in-person interview)

4.3.6. National policies

Enabling factors

The IP and CFT recognize and value the approval and dissemination of the MCTP, as well as the support the MoE has provided to a competency-based model for teaching and learning. Both have contributed to added flexibility, even though it is still necessary to go beyond what is traditional in curriculum design. The academic authorities of the CFT and IP value the usefulness of the MCTP and see it as a tool for future development: 'The MCTP does relate more to articulation, but not much progress has been made, and even less so in the university world. But the MCTP is seen as one of the most promising opportunities' (IPST/CFTST institutional leader for teaching and learning, in-person interview).

Inhibiting factors

As mentioned above, the alternative entry pathways have not been effective at the level of the university. The university considers that the cost of including students through PACE and the Propaedeutic Programme is too high and that it does not cover the significant actions that must be undertaken to help those students remain in the university, especially considering that tuition fees may not be covered by scholarships and that there is a lower consideration in Quality Assurance if indicators show slower improvement.

The university is interested in becoming eligible for the free-tuition programme. Currently, it cannot because it was accredited for three years, and free tuition is available only for institutions accredited for four years or more. This is linked to a strong criticism of the accreditation system and its criteria. 'Accreditation is paralyzing,' said the rector of the university, adding:

There is a fear to innovate or make changes. Having lecturers that work in more than one

program or in the university and the IP or CFT is considered a bad practice by peers. Flexible pathways are seen as non-acceptable and the university cannot run the risk of not receiving a good evaluation: we need at least four year to be eligible for the free-tuition programme. (UST institutional leader, in-person interview)

The academic vice rectors endorsed this view, with one saying: ‘The accreditation system is not related to articulation; the MCTP is much more related, but it is still in its initial stages. The issue is one of trust among institutions’ (IPST/CFTST institutional leader for teaching and learning, in-person interview).

They added that another obstacle to flexible pathways results from funding mechanisms. These not only do not provide incentives to flexibility for students or for HEIs, but in many cases, make flexible pathways impossible, due to the rigidities of their design, since they incorporate change as an exception and not as a possibility within a professional and academic development route.

At the institutional level, academic vice-rectors stated that changing the curriculum to improve flexibility is a bigger effort because it may involve re-organizing the institutional structure. This is especially difficult because increased flexibility would require an intense one-on-one follow up scheme, and the diversity of modes makes it harder to ensure that competencies have been achieved:

To change the curriculum of a career, you must change the whole structure of all the careers. Therefore, this requires a complete reorganization of the institutional structure. People must be convinced that this is desirable. The other thing is that the less flexible it is, the more controllable it is. When there is openness, it is more difficult to make sure that the diversity of forms will allow you to achieve the competences you committed to at the exit profile. This is a major challenge. (UST institutional leader, in-person interview)

While moving towards a competency model has been a good experience, it is still incomplete. It is difficult to agree on certain levels to be achieved, and the focus is still on contents rather than competencies, as noted by the academic authority of CFT and IP:

We still have more of a career outlook rather than discipline, yet the common plans are not very clear and are not articulated with the university. There is still a need for more work to trace the routes and the different certifications. (IPST/CFTST institutional leader for teaching and learning, in-person interview)

Another inhibiting factor has to do with relationships of trust between institutions. In a deregulated system, trust is key to promoting collaboration with the aim of facilitating transfers between

institutions. As pointed out by the university's academic authority, building trust between institutions goes beyond the implementation of policies and instruments:

There is a lack of trust between the institutions. One can enact the use of the Transferable Academic Credit System, but it requires that we all recognize them and accommodate to different backgrounds and levels with tailored support. (UST institutional leader, in-person interview)

4.3.7. Challenges for the future

The rectors emphasized that the university is committed to the transformation of students and to encouraging lifelong learning, including among its graduates. However, the big restriction is that 2020 is the year for accreditation, and everything is paralyzed. 'Our plans are that elective courses are open to any programme, and that they can be mixed ... but only in 2021. The current reality is much poorer than what it could be' (UST institutional leader, in-person interview). This was before the pandemic obliged on-line teaching.

A significant priority for the year 2020 was to progress in the assessment of the effectiveness of the different initiatives. This means improving the information system and the development of useful and relevant indicators.

After that, Santo Tomás intends to work towards increasing flexibility, both at the curricular level and at the organizational level, making it easier to transfer upwards, downwards, and sideways.

Santo Tomás has been operating the vocational level for many years and has built a sound reputation at that level. However, the professional and university level are still a work in progress, in part because it used to be identified with HEIs, which were more focused on absorbing an unmet demand than on providing a quality education, and ST has not yet managed to overcome this perception. While this may be unfair, it poses a big challenge for the current leadership, which is working hard to develop ways of addressing the needs of a student population with low qualifications and mixed expectations. Its interesting potential, arising from the fact that the three higher education levels are under a common leadership, is looked at with mistrust by the quality-assurance body, which tends to consider articulation and flexibility as a strategy to reduce expenses and increase income, at the expense of quality. Its commitment to increasing flexibility is important, but it will proceed with care during 2020, as its current priority is to show that the work it is doing is sound and reliable, in order to achieve a level of accreditation that would enable it to take part in the free-tuition programme.

The articulation mechanisms in place, and the initial good results they can show are an important step towards increased flexibility, as is the experience of the sports centre. The main remaining issues have to do with the need for the development of competency-based programmes, which, as ST recognizes, is yet in its initial stages.

4.4. Los Lagos vocational training centre

In 2016, a law was passed approving the establishment of 15 state-owned vocational training centres (CFTs); until that moment, all CFTs were private, including some that were organized under the umbrella of a public university. These centres offer short-cycle vocational degrees (ISCED 5) and have as their main goals the improvement of the quality of vocational training and the employability of their graduates. They must operate in close contact with the productive sector in the regions where they are located and focus not only on the technical aspects of the training process, but also on the development of personal and social abilities.

The CFT Estatal Los Lagos (CFTLL) operates in the Región de Los Lagos, located in the south of the country, which has a population of about 900,000 inhabitants. The regional capital is the city of Puerto Montt and has four provinces: Chiloé, Osorno, Palena, and Llanquihue. The centre is located in Llanquihue. The regional economy is concentrated in agricultural-livestock activities, forestry, aquaculture, and fishing, in which industrialization processes are integrated. The most important activities are specialized in dairy farming, canning (mainly seafood), seaweed farming, salmon farming, the maritime industry (shipyards and shipping companies), extensive cereal agriculture and forest exploitation.

CFTLL began operations at the end of 2018, by designing an admissions process centred on the recognition of competencies for students who would be expected to complete a two-year programme in one year. There are two admission routes: a regular route, for those students who will attend the entire programme from the beginning, for whom only a certificate of secondary education is required; and a route through RPL, in which work experience in the area of the course is also required.

CFTLL started its activities with two careers in mind: industrial assembly (*montaje industrial*), with 21 enrolments; and industrial maintenance (*mantenimiento industrial*), with 28 enrolments, four of them women. In January 2020, it opened the application process for two more careers: construction (*edificación*) and logistical operations (*operaciones logísticas*). In December 2019, it graduated 17 students out of its first cohort of 21 students in industrial assembly.

4.4.1. Fieldwork

Two interviews and four focus groups were conducted between December 2019 and January 2020.

Table 19. Fieldwork on CFTLL

| Structure/Unit | Date | No. | Role of the interviewee | Type interview |
|-----------------------------|----------|-----|--|---------------------|
| Members of CFTLL management | Dec 2019 | 1 | Rector of the CFTLL | In-person interview |
| | Feb 2019 | 1 | CFTLL leader responsible for teaching and learning | In-person interview |
| Professors | Feb2019 | 1 | Industrial assembly (IA) career teachers | Focus group |
| | | 1 | Industrial maintenance (IM) career teachers | Focus group |
| Students | Feb 2019 | 1 | Industrial maintenance career students | Focus group |
| Alumni | Feb2019 | 1 | Industrial assembly Career Alumni | Focus group |

Source: Elaborated by authors

4.4.2. Institutional policies

The Rector explained that the institution was governed by an academic bylaw which is based on four guiding principles (Rector, in-person interview):

- Productive validity: It will focus its training portfolio on programmes and profiles which are strongly linked to the world of work, at the ISCED 5 level.
- Relevance: The set of competencies its graduates must achieve comes from the appropriate productive field. This first set is then translated into knowledge, abilities, and attitudes that must be learned in an integrated way. This is then checked again with representatives of potential employers, and only then it is transformed in an explicit curriculum.
- Standardization: This is an external parameter, set by the employers, with the requirement that it must be 100 per cent met.
- Focus on learning: This demands constant checking of the effectiveness of teaching objectives, resources, and strategies, in order to fix any problem that may be detected during the process.

4.4.3. Teaching and learning

As part of a state project, a public university in the region provided CFTLL with the curriculum design for the technical careers that the CFT was to implement. But this design was mainly based on an academic approach, as pointed out by the academic management of CFTLL, to train ‘small engineers’ rather than technicians (Vice-Rector, in-person interview). In order to adapt this curriculum to the training needs of the region’s productive sector, CFTLL has established links

with productive guilds (aquaculture, salmon farming, construction) and companies in the region, so that they can explain what job profiles they need for their operations.

With these inputs from the productive sector and taking as a general framework the MCTP and ChileValora's occupational profiles, CFTLL adjusted the skills required for certain occupations and designed a pertinent curriculum. This curricular design, with the competencies it intended to train, was then validated by those actors in the productive sector that had been consulted at first. As a result of this process, the curricular design of CFTLL careers has the advantage that it is created with the productive sector and for the productive sector.

Teaching is organized in modules, which are based on a competency area; they are multi-themed, with several teachers working together. Teachers are entitled to adjust the sequence or the activities, but they must meet the expected competency outcome determined for each module. The evaluation of the competencies and learning expected for each module has a sequence of review by the group of teachers. Each student must follow a three-stage learning implementation route: prepare, perform, and verify.

Evaluation is done during the module and at the end. Students must be able to show that they have achieved the expected competencies of the module at a 100 per cent level. There are no grades for the achievement of the module goals, only a check that says 'achieved' or 'not yet achieved'. When students get the 'achieved' result, they are graded with a 5 (out of a maximum of 7); this is complemented with the judgment of the teachers of the module, on the basis of the student's degree of achievement of general or transferable competencies, and can be upgraded to a 6 or 7. Thus, the system ensures that all students that pass the module are sufficiently competent in their respective area. Should a student get a 'not yet achieved' result, whatever competencies s/he has acquired during the module are recognized when they repeat the module.

This assessment strategy provides assurance both to the worker and to the employer, since both know that the competence has been 100 per cent achieved, thus reducing the 'risk factor' linked to the probability of mistakes (which is normally passed on to the worker in the guise of lower salaries). The 100 per cent requirement applies both to each module, and to the full set of modules included in the curriculum.

The centre has an innovative teaching methodology, as the classes are given jointly by a group of teachers with different knowledge and backgrounds, who are constantly giving feedback to the students in their areas of expertise (e.g. safety, welding, physics, environment, regulations). Teachers value the fact that, as a group, they can give feedback from various points of view and at

the same time: ‘Wherever the student looks they will find the answer they are looking for ... what we are looking for is that the student knows how to solve problems’ (IA teacher, focus group). For their part, students appreciate teaching organized under the supervision of several teachers, as it brings different perspectives to problem-solving. One of the industrial maintenance students said that ‘It helped a lot to have several teachers, with different knowledge, available during the training’ (IM student, focus group).

The teaching dynamics are focused on practical knowledge and complemented by an emphasis on the knowledge and attitudes necessary and valued for performance in the workplace. The teaching model encourages a comprehensive look at the technical skills and competencies needed in the workplace, such as caring for safety in the work environment, so the student is not only able to do a good job but also to lead it. About this, an alum of the industrial assembly programme said: ‘Our profile is to be a supervisor, to lead a job, a team’ (IA alum, focus group).

One of the teaching methodologies is the recording of exercises for comprehensive feedback by the group of teachers. At first, the students found it hard to get used to this way of teaching, but they quickly found positive results, as one of the industrial maintenance students pointed out: ‘It was different, it was difficult, but you recognized what you were wrong about’ (IM student, focus group). And an alum of the industrial assembly programme said that ‘the methodology was good, it gave us quite a headache, but we learned...’ (IA alum, focus group).

To facilitate the compatibility of studies and work, classes are held in the evening (from 17:00 to 21:00). In addition, students have facilities to complete evaluations that they did not pass or were not part of the RPL process, coordinating with the group of teachers.

Recognition of prior learning

This is a very important component in the organization of the CFT. The first year of operation it only admitted students with some prior experience in industrial assembly, in order to ensure that they would be able to graduate in one year. As pointed out by CFTLL management, the aim was to train quality technicians for the region as soon as possible: ‘We don’t want the students to stay, but to leave as soon as possible’ (Rector, in-person interview).

The RPL process began with an interview and self-evaluation by the candidates in relation to the competencies defined by the graduation profile of each career. Then they were evaluated in a theoretical and practical way in what they declared to be their expertise by the Centre for Evaluation and Certification of Labour Competencies of ChileValora.

One of the advantages of RPL is that it contributes to saving money. The resources spent in assessing prior learning save the institution a year of training, which has a much higher cost, as stated by the CFTELL directorate: ‘In this system not only the students focus on the standard but also the teachers. Public funds are dedicated to closing the learning gaps and not to teaching those who already know’ (Rector, in-person interview). In addition, it brings to the institution knowledge and experience it could not possibly train (for example, the 10-year experience of a welder).

From the students’ perspective, the RPL process gave them the opportunity to be recognized for what they had done over many years of experience, identify weaknesses in their training, and see themselves progressing as workers. One of the alumni mentioned: ‘I was recognized as being smart’ (IA alum, focus group).

Admissions pathways

There are two main admissions pathways:

- For workers, with RPL. This was the method used the first year of operation, and it applies only if the student can be expected to graduate in one year. This depends on the level of knowledge and skills that were recognized as part of his/her work experience.
- General admission, which is just first come, first served. Students may ask to have some of their prior learning recognized, but only it will only count if they can provide evidence of their actual learning.

There are some places reserved for women in both pathways.

Articulation

With secondary education: The CFT is working with vocational secondary schools to help them align their technical curriculum with updated contents and abilities, and to encourage them to focus on the assessment of competencies.

With employers and trades: It recognizes ChileValora’s certifications and works with SENCE offering training to workers in the fields they cover.

With other HEI: In order to facilitate articulation with other HEIs, they have developed a document similar to the degree supplement, which describes the competencies achieved by their students, either in specific modules or in a whole programme.

4.4.4. Links with national policies

There are national policies focused on the professionalization of labour and on the promotion of training for workers. These have been implemented through useful instruments, such as the following:

- The MCTP, which makes it easier to organize levels of proficiency in different fields.
- ChileValora, which has a large experience in the certification of competencies and has helped develop a culture of openness and promotion of these certificates.
- The work of several ministries, which have designed frameworks for specific areas (tourism, energy, logistics).
- SENCE, which provides opportunities for further study.

While all these policy instruments are useful, they are not necessarily compatible. In many cases, the main goal is to keep people in the system, as long as there is stable funding, and not to prepare better-qualified workers for the productive sector. These concerns are pointed out by the CFT management in this way:

There are perverse effects of the system, which must be changed. Do we have to encourage everyone to approve? No, we must be strict about compliance with the standard. Be precise, do it well. And give those who don't pass the opportunities to learn. (Rector, in- person interview)

There is also pressure to get all participants in training courses, regardless of whether they managed to acquire all the competencies and skills required for the workplace. This poses a risk to workers, because such knowledge deficits can initially translate into lower wages.

4.4.5. Evaluation of effectiveness

It is still too early to have an evaluation beyond the results of their first cohort of students. Of 21 students enrolled in their first year, 17 graduated with 100 per cent of the required competencies, and two will take the missing modules this year.

The articulation between the CFTLL and its environment allows the design, development, and updating of careers according to the needs of the region's productive sector. The associations were asked to make it explicit what type of competencies and skills they required; ChileValora competency profiles and the MCTP were used as a reference framework; and the competencies and skills were validated by the employers.

The competency-based pedagogical model and the teaching methodology with which it is developed, puts the focus on student learning and on students' integral performance at work. The

group of teachers, a mixture of technicians and professionals, can teach hard technical content and soft skills in the same practical situation.

The strong requirement posed by the evaluation system ('achieved' or 'not yet achieved') enables the CFT to train workers who perform to high-quality standards in their jobs, and in an integral way, not just in main technical aspects but also in other relevant aspects such as safety, hygiene, or environment. The high standards are well appreciated by students, one of whom noted: 'the strict requirements are positive, they help us to strengthen our weaknesses and take advantage of what we already knew' (IM student, focus group). Having such knowledge and skills allows students and graduates to be recognized for their new skills, as well as expanding their field of work. In fact, all the students improved their working conditions, and in some cases, their salaries.

Enabling factors

The Rector's leadership can be said to be the most relevant factor that led CFTLL to design and implement the model described above. His leadership allowed for a break with the traditional academic paradigm of theoretical classes and knowledge evaluation; for the development of an RPL process that was unprecedented in Chile; and for the creation of careers linked to the productive reality of the centre's environment.

A second factor is the close relationship with the productive sector, which is actively engaged in curricular design and revision, in the strategies for the recognition of prior learning and in a continuing dialogue with the institution.

Inhibiting factors

One of the inhibiting factors of the experience of CFTLL was the culture of both business and academia, which comprise expectations, languages, timing, ways of doing things, and so on. The CFTLL team had to deal with that and 'translate' the model they wanted to implement into both sectors. The person responsible for teaching and learning says that, in overall terms, the difficulties come from the 'business culture... understanding that we're all part of the solution' (Vice-Rector, in-person interview).

The Vice-Rector of CFTLL mentioned that teachers must relate horizontally to each other (for example, there is no career director) to define different learning routes, methodologies, assessments, monitoring, etc., in a situation where many of them 'do not have necessarily a pedagogical formation...' (Vice-Rector, in-person interview). This has been a factor that has slowed down institutional development.

4.4.6. Challenges for the future

This institution is all about challenges. It is just beginning, and its goal is to continue expanding opportunities for the people in its region. The challenges that it will have to face include:

- Maintaining the level of training and achievement with larger groups of students, and especially with the assessment requirement of 100 per cent to approve a module, and 100 per cent approval of all modules to get a degree.
- Training teachers in their mode of work. Having teachers working jointly in a module is something quite alien to the culture of teachers and of specialists in the areas they cover.
- Working with secondary schools and HEIs to promote articulation.
- Create a learning resource centre as a tool for students and alumni.

CFTLL is a remarkable institution, especially because it has been allowed to break with organizational, curricular, and pedagogical tradition. The focus on a curricular design based in competencies defined by the employers, and the organization of the teaching and learning process managed by a non-hierarchical team of teachers are different from the experience of higher education, even at the vocational level.

It would be interesting to see how the CFT manages to address the scaling issue (things that are possible with 50 students may be hard to maintain with 300). If they do, as is highly desirable, the issue of replicability becomes important for this experience to be exported. It will become necessary to explore the factors that will make it possible to replicate similar experiences, both in vocational and professional levels.

Chapter 5. Comparative analysis of policies and practices for FLPs, conclusions and recommendations

The information gathered for this report shows that flexibility and articulation have not been taken explicitly into consideration in policy decisions. Nevertheless, the review of different institutional experiences has also made it clear that mechanisms designed with other objectives in view have allowed institutions to design and implement different strategies for improving the access and progression of different groups of students, for transfer and for the recognition of previous study or experience. These are still few, and are not yet recognized as regular practices, but it is important to highlight them. At the same time, the study has served to identify certain areas where flexibility could be enhanced, even within the current policy framework and legislation.

5.1. National and institutional policies

The promotion of FLPs is not only a matter of institutional innovation and adaptation, but of the policy schemes, governance structures, and cultural contexts of the higher education system in which universities, professional institutes, and vocational training centres are located. This chapter aims to shed light in the overall context that can enable or obstruct the development of articulation and flexibility initiatives at the institutional level.

5.1.1. Policy environment

The higher education system in Chile is highly fragmented. There are public (state-owned) universities and vocational training centres; private universities with public funding; private universities without public funding; private professional institutes; and private vocational training centres. Some institutions are accredited, for 4–7 years or 2–3 years, others are not accredited.

Higher education institutions, especially universities, traditionally enjoy a very high level of autonomy, and strongly resist any interference from government. In addition, the governance structure of the higher education system does not include any body in charge of medium- or long-term policy design for higher education. The main authority in higher education was, until 2019, a third level officer at the Ministry of Education, who decided what the priorities were. Since the minister's appointment was linked to the current governmental arrangement, his position did not last more than four years and, in many cases, less than that. The recent reform strengthened the position of state-owned universities. In particular, the establishment of an Undersecretary for Higher Education raised higher education's status at the MoE but did not address the issue of medium- or long-term policy-making.

Policies tend to reinforce this fragmentation, through funding provisions, access to public services or programmes, the fragmentation of responsibilities for vocational and higher education (evident in the approval of a qualifications framework only for the professional and vocational level), or other policies more concerned with paying attention to the relative negotiating power of specific groups than with the higher education system as a whole.

Higher education policy is limited to the provision of special funding (regular funding to public HEIs and private ones with public funding is determined by law) and by regulatory norms. All this results in a weak policy environment, mostly led by the relative power of the institutional groupings rather than by a national and serious discussion about the role and priorities of a system that currently enrolls a very large portion of the university-age population.

Quality assurance, an important factor in determining institutional behaviour, is in the hands of an independent commission, with weak links with governmental priorities. The establishment of SINACES, the coordinating unit for the main public bodies in charge of higher education policy and quality assurance, may develop as a useful tool for aligning QA decisions with public priorities, but it is still too soon to tell. Quality assurance in Chile has been dominated in the last decade by a very traditional approach to higher education, and a profound mistrust of attempts at innovation, which is usually seen as an opportunity for irresponsible behaviour. Change is suspect, and if it is recent, and cannot show rapidly good results, it tends to be a justification for non-accreditation. As a result, HEIs try not to make any changes when the time for accreditation or re-accreditation is near, thus making change and adaptation to changing circumstances difficult. Nevertheless, quality assurance could play a significant role because it is the only instrument that applies to all higher education institutions, across the system. Experience shows that QA criteria and procedures have a strong influence on the behaviour of HEIs. They respond immediately to whatever these criteria highlight as a priority or a requirement, either with compliance or with a genuine concern for quality.

Having said that, there have been occasions when the government has been able to promote certain actions. Quality assurance was developed thanks to a World Bank³⁰ loan and operated successfully in its initial years. Another long-term programme, initially also funded by the World Bank, contributed to the development of competency-based curricula and established several competitive

³⁰ In 1999, the government developed a comprehensive programme, jointly funded by a loan from the World Bank and the government, to improve the quality and equity of higher education. This programme has been developed in four stages and is still active. It contributed to the development of QA, support for vocational education, and the improvement of teaching.

funds which are open to HEIs in any field they want. Increasing access to higher education, especially for the lower income groups, has been a clear and stable priority, supported by a large proportion of the funding allocated to higher education.

Quality has also been on the agenda, but the reform law of 2018 translated this concern into increased regulation, both by making institutional accreditation mandatory and by the establishment of the Superintendence for Higher Education. Responsibility for the evaluation and accreditation of quality has been allocated to the CNA. In general, government policy tends to limit itself to using accreditation results as an indication of quality, and to allocate some benefits (eligibility for scholarships and especially to the-free tuition programme) based on these results. A consequence of this policy has been that accreditation is becoming an end rather than a means to increased quality, and HEIs will do whatever they think is necessary to gain at least a four-year accreditation.

Links between national and institutional policies

Improving access has been the national policy impacting on flexibility most frequently mentioned in the interviews. Programmes such as PACE, Propaedeutic and the different initiatives addressed at talented students in public schools were considered a useful and effective incentive to attract lower-income students, and to help them navigate the first year in the university. Their main goal is to compensate for the unequal quality of secondary education, and the different socio-cultural backgrounds of students. Some, as with PACE, focus on all secondary school students from vulnerable schools, and reserve places at the university for those students graduating in the top 15 per cent of the programme (even if they do not achieve enough scores in the admission test). Others help students improve their scores, thus making it possible for them to apply to HEIs which would have been inaccessible for them without the extra support they received during their last years in secondary education. The government provides a significant part of the resources needed to operate these programmes, which include preparatory courses and support during their first year at the university. Some universities (such as PUCV, starting from 2020) have decided to provide support also during the second year, with their own resources.

Further discussion could be conducted about the relation of these programmes to the traditional PSU entry system. Although these alternative pathways have enabled access of those from less-fortunate backgrounds, they could be still somehow supporting a traditional admissions model, since, in addition to attending courses in one of these programmes, students have to take the PSU exam and, in most cases, have a score equivalent to the mean score (500 points).

The results of these programmes are mixed. At PUCV, 76 per cent of beneficiaries of these programmes who entered the university with scores below 450 points, enrolled in the second year. However, for other HEIs (as reported by UST) the cost of enrolling students through these programmes is much higher than the funding received from the government, probably in terms of the support these students need when entering the university. As a result, most of them leave the university during the first year.

The provision of information to students was also mentioned several times, both in a positive and a negative way. On the positive side, initiatives such as *Mi Futuro* and *Elige Carrera*, developed respectively by the MoE and CNED, were considered useful tools for many students, to help them learn about the opportunities in place, funding aid, employability, and even salary levels. On the negative side, these tools tend to be useful to potential students who already have a fair understanding of the higher education system. Searches must be done based on a programme or an institution, and they are not really user-friendly for students unfamiliar with many of the higher education terms and concepts. In general, secondary education teachers and counsellors have a limited understanding of the higher education scenario, especially in schools outside metropolitan areas or that enrol more vulnerable students.

A second drawback of the information systems is that they follow traditional guidelines for the collection and publication of data. As reported by the officials responsible for the design and operation of the national information system for higher education, they have not defined indicators for flexible learning pathways, and no information is gathered about the success rate of equity groups. The only measure of attrition is the number of students who enrol in a second year, either in the same HEI or in another. This is especially unfortunate in a country where every person has an individual ID number that could be easily used to trace his/her trajectory in higher education, or, in fact, in any other undertaking.

Regulations give way to mixed feelings. Many respondents, and general opinion, consider that QA is a good thing. It has contributed to putting some order into a system which was completely deregulated, has helped define and operationalize quality in many cases, and has contributed to eliminating bad providers from the system. At the same time, it is considered rigid and overly traditional, averse to innovation and more focused on formal criteria than on substantive processes or outcomes. Some institutions consider it ‘paralyzing’ and postpone any significant actions until after the external review visit. If the institution is accredited for the shorter period (two or three years) this means not making any changes at all.

Institutions are also ambivalent about funding policies. Without governmental support, policies such as alternative admission pathways would not exist. Competitive funds help HEIs develop programmes they could not achieve on their own. Free tuition has expanded the enrolment, and since HEIs depend on fees for most of the income, for some of them this is very important. On the other hand, free tuition means a reduction in the amount the institution receives per student, since the government pays a regulated fee that is significantly lower than the fees institutions charge to non-free-tuition students.³¹ Most student aid is limited to the more traditional students, excluding part-time students, those in evening classes, or in b-learning or e-learning mode. The way in which fees are calculated and charged, and the rules about free tuition operate against part-time students or students with lower qualifications. Fees are charged on a yearly basis, and students who cannot meet a full workload take longer in completing their studies. Tuition is free only for the theoretical duration of a programme, in a system where only a small fraction of students meet that requirement.

Currently, the government is faced with the task of implementing the new laws and regulations of the 2018 reform for higher education. This includes setting up a new admissions system to replace the current PSU, making the Superintendence role work, establishing and taking on the new tasks defined for the Undersecretary of Higher Education, and, last but not least, facing the insistent unrest and manifestations that marked the end of 2019 and probably will re-appear as soon as the sanitary confinement is relaxed. The Coronavirus pandemic has not helped matters, since HEIs have been closed for most (if not all) the first semester, and it is highly likely that many students will refuse to pay their fees.

The MoE does not feel that they have the authority to set priority guidelines for universities, given their high degree of autonomy. In fact, as one official at the MoE stated, ‘HEI have not raised this issue. MoE’s priorities are set by the institutions, and currently there are too many changes’ (MoE official dealing with universities, in-person interview). They emphasized that the current priority is quality. But when asked whether flexibility could be considered a significant factor of quality, in a context where the student population had diversified, they argued that there were other, more important issues to be addressed, and that, in any case, it would be necessary to determine ‘what kind of flexibility is needed, and whether it is possible’ (MoE official dealing with universities, in-person interview).

³¹ These impacts most on the more complex, research-oriented private universities, since undergraduate fees have been raised to cover deficits in other university functions.

However, even in a situation where flexibility is not a priority, the MoE offers HEIs a set of competitive programmes, which provide funding to carry out any institutional policies or instruments they consider important. There are few, if any, proposals addressing issues linked to flexibility, new types of programmes, recognition of prior learning, or other similar actions, which suggests that these do not appear high in the list of institutional priorities.

During the previous government, the MoE funded and led a programme to develop a national qualifications framework for higher education, from ISCED levels 5 to 8. Work went on for two years, with wide international and national consultation, but, in the end, the same government decided against it and approved and set up only a qualifications framework for vocational education, mostly linked to the labour market. Again, this points in two opposite directions: the willingness to advance to greater flexibility in the vocational sector and, at the same time, the risk of isolating the vocational sector from the upper degrees in higher education.

Most of the respondents in this study seemed to associate flexibility only with vocational education. It is not seen as either possible or even desirable for higher education.

Institutions need to enrol students, since most of their income comes from their fees. Therefore, they embrace and work with those national policies that help them increase their enrolment, mainly alternative admissions pathways, student aid, and the free-tuition policy.

At the same time, change is difficult, not only (and probably, not even mainly) because of accreditation restrictions, but because of organizational and administrative rigidity, academic conservatism, financial restrictions, and the risk of making some academic staff redundant. Changing the curriculum, admission requirements, and the structure of study plans, meets significant difficulties, which tend to make institutions more prepared to endure the problems they already have rather than risk confronting those of which they know nothing.

Private higher education institutions have been more open to innovation, but this has been hampered for different reasons. One of them has to do with the accreditation processes, which tend to favour well-proven practices or more traditional approaches. Another reason is the marketization of higher education, which tends to promote a certain degree of convergence between HEIs, in order to be seen as similar to the more prestigious institutions.

Universities are the most reluctant to change, especially the more prestigious ones. Flexibility threatens their income: they would have to adjust their fees, and the fee structure, to students working part-time, or re-entering higher education with part of their studies recognized. It also

means that they would have to revise and re-design their curricula, to be able to teach a wide diversity of students, many of whom cannot dedicate five or eight years of their lives to study. They would have to re-train their academic staff to work on competency-based curricula. But currently they cover their places with regular students who pay their fees or have them paid by the state. They live in a comfort zone, which is difficult to change, even if they know it is becoming important. At the public universities, all leaders down to the level of programme chair are elected. Introducing changes is not popular, and this certainly inhibits even innovative and well-meaning academics from promoting changes not seen as urgent.

Therefore, the experience of CFT Los Lagos makes an interesting example. It is a new institution, not hindered by a conservative academic tradition, focused on vocational education, with the support of the government and of the regulating authority (currently, CNED). Their experience may not be replicated in full in other institutions, but it shows what can be done, especially, but not only, at the vocational level. The way in which they work, and the principles on which they base their decisions are sound, and have been successful, even if it is a very recent experience. It remains to be seen whether it is sustainable as they grow and increase the number of programmes they offer, and if their experience can be transferred to other HEIs.

The experience of PUCV is also interesting. This is a traditional, prestigious university, established in 1925. It has made inclusiveness one of its priority areas, and has set up several policies, for alternative admission pathways, and transfer from the vocational level to the university, between programmes and with agreements for transfer with other universities. It shows a strong commitment to the students it admits, by developing mechanisms to diagnose, monitor, and support them during their first years in higher education.

Corporación Santo Tomas is in a different situation. It is recognized as a strong institution at the vocational level but is looked at with mistrust at the professional and university level, probably because they are institutions created during the de-regulated stage and are seen as ‘demand absorbing’ HEI. They have clear policies and instruments for flexibility in the IP and the CFT, but the university is trying to strengthen its independence from those institutions and show its reliability in order to achieve higher accreditation. At the same time, since its accreditation expires this year, it does not want to run any risks, and will postpone any changes until after the review visit. One of its leaders said, ‘Accreditation makes us feel as a battered child. We are frightened’” (UST leader, in-person interview).

For all the institutions considered in the case study, flexibility, and the ability to respond to the needs of the actual students they receive, is a high priority. This stimulates them to design and implement institutional mechanisms and instruments for increasing the effectiveness and efficiency of their teaching and learning processes and to provide opportunities for part-time students, for workers, or students with families they must care for. The conditions, however, in which these institutions operate are quite different:

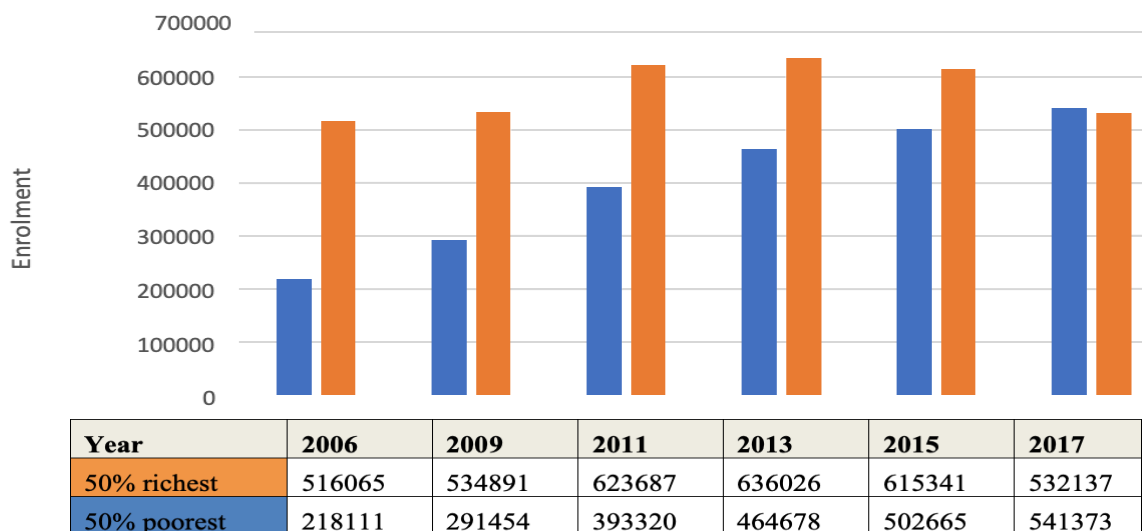
- PUCV has in its favour its experience and the prestige associated with a traditional university, and the fact that it was one of the leaders in a higher education reform in the 1960s, which legitimizes even now its ability to change and innovate.
- CFTLL is new, with no traditions to uphold, enjoys the strong leadership of an innovative rector and has the support of its regulatory body. Its geographical situation provides it with very good links with the productive sector and makes it easier to continue teaching and learning activities despite the current pandemic.
- The IP and CFT at CST are recognized as effective professional and vocational HEI, but this same fact makes it harder for the university to be accepted as a ‘real’ university. Its current leadership is committed to making changes but was, at time of writing, constrained by a forthcoming accreditation review visit scheduled for the end of 2020. It will probably be one of the hardest hit by the closure of face-to-face lessons this year, as a result of the quarantine imposed in response to COVID-19, since it depends on student fees and they may stop or at least reduce or postpone payments during the year;
- Some issues seem to be cross-institutional, while others are more specific to each type of institution. The PUCV considers QA processes in general as a positive contribution, but Santo Tomás Corporation sees them much more strongly as obstacles to innovation. Both consider that the SCT-Chile credit system is not working as an articulation tool. CFTLL faces different kinds of challenges, mostly related to linking their programmes to the productive environment, and offer recognition of prior learning. The vocational NQF is perceived as an enabler by all institutions, while a greater culture of collaboration is among the factors lacking, as identified by all institutions.

5.1.2. Effectiveness of policies, and impact on equity groups

There is aggregated evidence that policies for alternative admissions pathways and the provision of student aid have reduced inequity in access to higher education. Figure 9 shows that, in 2006,

about 30 per cent of students in higher education belonged to families in the first five income deciles; in 2017, this percentage had increased to 51 per cent (Salas and Jara, 2019).

Figure 9. Distribution of enrolment by level of income



Source: Salas and Jara, 2019

This is mostly the result of the above-mentioned policies, but there is also a demographic reason. The population aged 18-24 has been steadily decreasing in the 4 and 5 quintiles, while the same cohort in the first two quintiles has remained stable between 2006 and 2017.

Enrolment is not equally distributed, as the highest-paid occupations (all for university graduates) enrol mostly students from private schools, both funded by the state, and paid by families. The lowest-paid occupations recruit vocational, short-cycle graduates, coming almost exclusively from public schools (municipal and private funded by the state) (Salas and Jara, 2019).

There are no statistics to show the success or failure rates of equity groups, although there are some approximations that could be useful.

According to the information provided by the MoE, students who benefit from some type of student aid (free tuition, scholarships, subsidized loans) tend to have a higher retention rate than students with no benefits. If receiving student aid can be considered a proxy for lower income students, this shows that they tend to do well.

Research by Francisco Gil (Villaruel and Gil, 2019) points out that students from low-income secondary schools that have had systematically good positions among their peers during secondary education, and therefore receive a bonus in entrance scores to the university, have equal or better success rates than students without a bonus.

Among the academic staff interviewed for this study, most recognized that, with the appropriate support, students who transfer from the vocational level to professional or university studies do as well as those admitted in the first place. Perceptions about the success of students entering the university through alternative admission mechanisms are mixed. At PUCV, they do well, while at UST they tend to drop out soon. While there is no easy explanation for this, it may be related to the quality and depth of the support offered to entering students. PUCV has a longer experience in this area, and probably better financial shoulders to provide a range of supporting mechanisms (psychological, academic, social) than UST, which probably can only offer mainly remedial or bridging lessons.

An institutional policy that should be looked at closely and followed in the next years is that of the required evidence of 100 per cent completion of the competencies in each module at CFT Los Lagos. This may be a way to regain the confidence of employers, who can then be sure their workers will meet the needed requirements and do the job well. The issue is whether this is possible with a student population entering with no special qualifications, other than their secondary school certificate. If the CFT can manage to do that, it would be a significant step towards increasing trust and empowering graduates.

5.2. Policy implications and recommendations

Although this research aimed to provide an initial overview on flexible learning pathways in Chilean higher education, some general policy implications and recommendations can be drawn from the analysis, in order to promote its development towards the future. The following wide-ranging recommendations could serve to ignite an exchange of ideas and experiences to promote flexible learning pathways in Chile:

- *Consolidate students' learning at the centre of the higher education system:* This implies transforming strategies, programmes and practices considering students not only as one part of the multiple processes of higher education management, but as the core from and to which all policy and institutional activities are built. Putting the voice and needs of students at the centre of attention is key to conceiving, designing and implementing non-traditional modalities, diverse entry and exit points, as well as lifelong learning options, all aiming to better respond to students' needs. In other words, this means organizing higher education to adjust to a wide range of students, with different characteristics, needs, and demands, rather than forcing students to adjust to a traditional higher education system, which is still designed for the past.

There are some examples from the case studies that could be looked at more closely. The experience of PUCV and its concern with the continuing support of its students; the way in which CFTLL works with its students to help them not only learn about competencies, but also to help discover that ‘they are smart’ and that what they can offer is valuable. The fact that a graduate from a vocational programme in the sports programme of CST can end up earning a master’s degree, shows that a strong concern for students is a valid and effective approach.

- *Re-engage in the design of a **comprehensive national qualifications’ framework (NQF)*** that takes into consideration the labour market requirements but also promotes flexibility and articulation between the vocational level and higher education, thus improving opportunities for all students. This could promote a national dialogue on the need for flexibility and the creation, maintenance, and consolidation of intra- and inter-sectoral discussion spaces for mutual understanding, to foster awareness, and build transversal consensus regarding the relevance of advancing towards more flexible learning pathways. A nation-wide dialogue may increase stakeholder awareness on the importance of flexible trajectories, promote a culture of collaboration, and stimulate discussion of the different roles of policy-makers, tertiary institutions, employers, and representatives from the business world.
- *Encourage **quality assurance criteria** that facilitate articulation and flexibility.* Besides understanding flexible learning pathways as a constitutive dimension of higher education quality, the new legislation offers the country a relevant opportunity to promote an accreditation process that is not only respectful of the autonomy of HEIs to innovate and develop more flexible alternatives, but actually rewards these initiatives when they promote more and better options for different types of student to obtain a high-quality education. Articulation should be encouraged at the vertical and horizontal levels: between secondary education and higher education and between levels in higher education; between programmes in the same HEI or between higher education institutions, in the same or other programmes; between higher education at all levels (and not only at the vocational level) and the productive and service sectors; and between undergraduate higher education and academic learning and graduate studies. This would certainly work towards making lifelong learning a real opportunity for citizens of all ages and levels of qualification. The active participation of CNA in the discussion and design of an NQF could help both the

commissioners and other stakeholders to work towards a more permanent link between qualifications' requirements and QA standards. A good articulation between NQF levels and their alignment with QA standards for programmes would make programme accreditation much more relevant and provide students and employers with clear information about the level of performance that can be expected of accredited programmes.

- *Identify, systematize, and **share good practices on flexible trajectories***: Although flexible learning pathways policies and practices seem to be currently few and far apart in Chile, incipient and even more consolidated initiatives are present in several kinds of institution. To promote collective learning on the matter, extensive and intensive research should be conducted to map and assess the effectiveness of pilot experiences and ongoing programmes, for them to be translated into transferable good practices on flexible learning routes. The case studies analysed in this project showed that there are significant, and largely ignored, initiatives that should be disseminated and used as good practices to be exchanged among higher education institutions.
- *Favour **coordination with the school system at the secondary level***. Transit from secondary to higher education is in general a traumatic event. A more regular dialogue between higher education institutions and secondary education establishments would make this transition less painful. Higher education institutions should consider what they can realistically expect from secondary school graduates and adjust their curricula to actual incoming qualifications. This is particularly important at the vocational level; aligning the curriculum of secondary education with the requirements of higher education and improving the development of general skills would make it easier to connect higher education with previous formation; recognition of some courses could speed up vertical articulation.
- *Engage stakeholders of the **private sector for horizontal articulation***: Employability depends on how strongly linked different types of knowledge, skills, and competences acquired in higher education are to the requirements of the labour market. Intersectoral dialogue between companies and higher education institutions is thus critical to ensure pertinence and coordination between education and industry. A close relationship between tertiary institutions and companies will also help to design work experiences during training, dual formation and training courses for workers returning to higher education. The involvement of employers and other representatives from the productive sector in the design of the NQF would also be an important element for their engagement.

- *Revise the **collection and provision of information** on higher education:* The improvement of the information system poses two main challenges: The first has to do with the development of more sophisticated information systems that better serve the need of different users, including higher education institutions' managers, prospective students, academic researchers, quality assurance agencies, and policy-makers. This probably means using different modes, using social networks, and developing different types of information. The second refers specifically to the reporting of flexible learning pathways or articulation opportunities. This is difficult, since flexible learning pathways, precisely because they are diverse, require new indicators, but it would be interesting to explore ways of helping prospective students – young and adult – to understand their options through providing them with information more specially tailored to tackling the expected growth of flexible options, higher mobility, and non-traditional modalities.

For these recommendations to be feasible, an effort should be made to change the academic and financial structure of higher education. The 'tubular' or 'tunnel' organization of programmes, the requirement that students decide the profession they want to follow when leaving secondary education, the rigidity of the curriculum, the length of the programmes, and the requirement that all programmes are organized in one or two terms per year (year-long or two semesters), pose serious challenges to a more flexible higher education system. The financial structure follows the same pattern: students enrol and must pay for a full year, or at least a full semester, even if they can only take a smaller number of courses because they must work. Since most HEIs depend on student fees for their funding, this structure is very difficult to change.

The challenge is great, and change will probably operate mostly from the bottom up. The needs of current and future students, the requirements from the labour market, and the influence of international policy-making will push for needed reforms. COVID-19 has shown HEIs that change is difficult, but possible, and most of them have been able to rise to the challenge.

The necessary changes may take time, but they are unavoidable if the higher education system is to be aligned with the social and development conditions of the twenty-first century.

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