6 System-wide co-ordination of higher education provision

This chapter examines the policies governments use to co-ordinate and shape higher education systems. The size and form of the network of higher education institutions within a given higher education system have a fundamental impact on the way resources can be allocated and deployed. The number of institutions and their location, legal status, size, mission, subject focus and research intensity are all components of the basic landscape of higher education systems, within which higher education policies operate. Sometimes, however, public authorities use policy to reshape the landscape or architecture of higher education. This has most often involved either encouraging the expansion or diversification of higher education provision, or promoting co-operation and concentration of higher education activities to build critical mass, promote excellence or achieve efficiency savings. The chapter examines policies from OECD jurisdictions aimed at achieving both of these broad objectives.

6.1. System-wide co-ordination in higher education: diversification and concentration

The previous sections of this analytical framework have focused on policies to mobilise and allocate financial resources to students and higher education institutions, and policies that affect the allocation and deployment of human resources within and by higher education providers. These policies focus primarily on regulating and steering financial and human resources within the existing landscape of higher education, rather than seeking to alter this landscape in a substantial way.

However, the size and form of the network of higher education institutions within a given higher education system have a fundamental impact on the way resources can be allocated and deployed. The number of institutions and their location, legal status, size, mission, subject focus and research intensity are all components of the basic landscape – or architecture – of higher education systems with which higher education policies have to contend. In addition to these "hard" features of the landscape come the "softer", cultural aspects, such as policy and institutional traditions, discussed in Chapters 1 and 2.

In some circumstances, however, public authorities use policy to reshape the landscape or architecture of higher education. Historically, one of two main goals has driven such reshaping policies:

1. Governments wish to encourage an **expansion and/or diversification of higher education provision** to cater to more students and different kinds of student.
2. Governments wish to **concentrate higher education activities** – or some types of higher education activity – in a smaller number of institutions or in specific institutions to build critical mass, promote excellence or achieve efficiency savings.

Diversification policies have often unleashed centrifugal forces in the higher education system through increasing the number of institutions, establishing institutions in places where they did not previously exist, creating new types of institution or altering the profiles of established institutions. Over the course of the 20th and early 21st centuries, many OECD countries have established institutions of higher education distinct from long-established institutional models (such as the comprehensive research university or the elite professional school). The result has been a more differentiated landscape of higher education providers, styles of provision and programme types. Today, while examples of fundamental reforms to the institutional landscape in higher education are rare, governments across OECD jurisdictions are concerned with ensuring adequate diversity of provision to meet evolving demand for advanced learning opportunities.

In contrast to diversification policies, policies to promote concentration or specialisation in higher education seek to create centripetal forces, through which existing activities, or activities in specific fields, are concentrated in fewer places. In some cases, such policies may address a real or perceived need to contract a higher education system in the face of declining student numbers. In such cases, a primary driver is nearly always a desire to achieve cost savings by maintaining economies of scale as numbers reduce. More frequently, concentration and institutional profiling policies have been motivated by a desire to promote specialisation and excellence in particular areas of teaching, research or innovation, by bringing scarce human and physical resources together or focusing activities in particular domains. Such policies often reflect the assumption that academic excellence requires critical mass in terms of staff, student numbers and skills, and that institutions and departments perform best when they focus on what they are good at, rather than trying to do everything. In some cases, institutional profiling, building critical mass and efficiency are all identified as objectives of reform policies.

In practice, concentration policies of different types – whether these involve consolidation, alliances, mergers or more pronounced institutional profiling – tend to increase diversity and differentiation in higher education systems. A network of institutions that becomes more specialised in terms of profile, mission, disciplinary or regional focus will necessarily be more differentiated.

6.2. Diversifying higher education provision to serve multiple needs

As demand for higher education increased over the course of the 20th century, governments across the world had to find solutions to accommodate increased numbers of students from a more diverse range of backgrounds (Teichler, 2015[1]; Reimer and Jacob, 2011[2]; Teichler, 2004[3]). In OECD and partner countries, the response to this core challenge of expanding demand for higher education has varied, but in addition to allowing established institutions to expand, has often involved one of more of the following approaches:

1. Creating more public research universities replicating long-established institutions, either by creating new campuses or by "upgrading" existing non-university institutions. In the United States, a good example of this approach is Virginia's now largest public university, George Mason University, which was initially established in the 1950s as a branch campus of the University of Virginia (itself established in 1819) and which became independent in 1972. Examples of this approach from other countries include universities founded or re-founded in the 1960s, such as the Universities of Warwick or East Anglia in the United Kingdom; the Universities of Bielefeld or Duisburg in Germany; or the Universities of Nanterre or Rennes in France. The development of new campuses of France's *grandes écoles* would also fit into this pattern of "replication" of existing institutional models.
2. Creating new forms of public higher education institution, usually to provide advanced education in applied or professional fields. At different times, examples included the establishment of polytechnics in the United Kingdom, Finland or Portugal; Colleges of Advanced Education (CAEs) in Australia; *fachhochschulen* in Germany and Austria; or *hogescholen* or *hautes écoles* in the Netherlands and Belgium. More recent examples include the development of polytechnic universities in Mexico (created in 2002) or the *Istituti Tecnici Superiori* (ITS) in Italy (created in 2010). In many cases, such institutions were not created from scratch, but rather developed out of existing professional institutions (technical colleges, mining schools, teacher training colleges, etc.), and "reclassified". In a number of countries, particularly in Europe, these developments led to the establishment of binary systems of higher education with distinct academic and professional pathways, many of which survive to this day.
3. Creating new forms of higher education qualification to provide education better tailored to the needs and aspirations of the new populations of students entering higher education. A major trend in this respect has been the creation of short-cycle degree programmes, often lasting two years, to complement more established qualifications such as bachelor's or master's degrees. The United States was a pioneer in this regard, with the creation of the two-year associate degrees in the early 20th century, later accompanied by the progressive development of (two-year) community colleges. In the United States, two-year degrees can be both stand-alone credentials and "transfer" qualifications allowing access to the third year of bachelor's programmes in partner universities. Many other OECD countries have also introduced various forms of short-cycle qualification in higher education. In many cases, these qualifications are provided primarily or exclusively in universities of applied sciences or further education colleges, although exceptions exist, such as France's *Instituts universitaires de technologie* (IUTs), which provide two-year programmes within larger university institutions. More recently, the emergence of "alternative" credentials, such as certificates and "badges", has raised the question for policy makers of whether and how to include these in the landscape of formally recognised higher education qualifications.
4. Permitting or encouraging the expansion of private sector provision to absorb student demand. Governments in many countries have allowed the expansion of private sector higher education providers to create capacity for more students. Sometimes, as in many central and eastern European countries in the period after 1989, in some countries in southern Europe in the 1980s-90s, or in Mexico or Brazil to this day, this approach has primarily been a pragmatic response to

the inability of the state to increase public provision (Teixeira, 2009[4]). In other countries, such as the United States and, more recently, the United Kingdom (Hunt and Boliver, 2019[5]; NAO, 2017[6]), some policy makers have argued that private higher education providers are able to respond effectively to the needs of specific groups of learners and provide welcome competition for established public (or private non-profit) higher education institutions.

These four approaches to expanding and diversifying the higher education focus on expanding the range of providers and the range of higher education qualifications. Cutting across these approaches are two further considerations, which have been important in discussions relating to diversity of provision:

- First, distance and online learning have been developed and promoted, thus increasing *diversity in modes of learning* in higher education. While distance and online learning is provided by all types of higher education institution, including public open universities in countries such as the United Kingdom or Spain, the more recent global expansion of these models of learning has been driven by private providers.
- Second, the expansion of physical and distance provision of higher education has a *spatial dimension*, as it has made higher education more accessible to the populations of more remote regions. Historically, expansion of the physical network of higher education institutions has been driven by governments' desire to improve the regional "coverage" of higher education. The expansion of online and distance learning is sometimes presented by policy and law makers as a means of reaching underserved student populations, including those in more remote regional locations.

The extent to which the policies and policy priorities above are pursued in a given jurisdiction tends to be related to the rate of expansion in student numbers. The creation of new public institutions and new programme types; the expansion of the private sector and online provision; and the development of regional campuses have usually gone hand in hand with increases in demand for higher education.

In more stable systems, such as those in much of Europe, North America, Australasia or Japan, policies in recent years have typically focused on management and fine-tuning of existing patterns of higher education provision and diversity, rather than fundamental reform. This might include, for example, refining the roles of different institutional types within a binary system, rather than creating a binary system in the first place.

The sections below review key drivers and challenges relating to the different approaches noted above to expanding and diversifying higher education provision.

Promoting diversity through distinct institutional types

The rationale for creating and maintaining distinct categories of institution

As noted, governments have frequently responded to growing demand for higher education by supporting growth of traditional universities or creating new universities, modelled closely on existing academically oriented institutions. In practice, such expansion methods often lead to greater diversity in the institutional landscape, as newly established universities have distinct profiles, reputations and performance, despite their nominally identical legal status to older institutions. This increased diversity often – but not always – takes the form of greater "vertical" differentiation between universities, with older institutions frequently maintaining greater prestige and resources than their younger peers. However, fostering "vertical" differentiation has rarely been a primary – or even an explicit – policy goal of governments when creating new public universities (Teichler, 2004[3]).

In contrast, the creation of new and distinct types of institution, such as universities of applied science, has nearly always resulted from an explicit desire to introduce greater diversity into higher education provision.

The advocates of such policies have often argued – with varying degrees of success – that new institutional forms can create "horizontal" rather than "vertical" differentiation, whereby the new institutions have a distinct, but equal, status to universities within the higher education landscape (Kyvik, 2009[7]; Kyvik, 2004[8]).

Government decisions to create or formalise the status of new institutional categories in higher education have historically been justified by different objectives, often in combination. These include:

- *promoting social equity*: creating alternative opportunities to pursue tertiary education for populations – including, in some systems, students from vocational tracks of secondary education – who may be less willing or less able to pursue highly academic programmes in university;
- *satisfying skills demand*: responding to growing demand for skilled professionals in the labour market, including in occupations where tertiary qualifications had not previously been required and for which appropriate educational pathways are not widely provided in traditional universities;
- *limiting costs*: expanding access to higher education through institutions that are less costly to establish and operate than research universities.

These considerations played a role in the creation of professionally oriented higher education institutions in OECD countries, particularly during the large-scale expansion efforts of the 1960s and 70s. They remain relevant issues as policy and law makers seek to manage, maintain or reform higher education systems in which distinct institutional categories coexist.

Policy questions and challenges linked to binary differentiation

A number of key questions and challenges arise for policy makers in developing, managing or reforming horizontal differentiation between higher education institutions in their systems.

A first challenge might be summarised as achieving the *right balance between useful differentiation and harmful fragmentation*. In differentiated higher education systems with a formal distinction between different categories of institution, policy makers may vary the specific legal characteristics of each institutional category. While most jurisdictions with such systems distinguish institution types by their mission and programmatic focus (often in terms of professional orientation as opposed to academic), in some systems, each category of institution has distinct funding arrangements, governance models, quality assurance procedures and degree-awarding powers.

While differential conditions may be desirable to reflect the distinct missions of different institution types, they also bring with them the risk of fragmentation in the system. Although it may be appropriate to use differentiated criteria to judge the quality of professional and academic programmes, for example, the existence of separate quality assurance systems for professionally oriented institutions can be interpreted by observers as a sign of poorer quality in the institutions. In theory, the greater the formal differences between institutions, the greater the risk of fragmentation between different sub-sectors, which can undermine the goal of a single, coherent and permeable higher education "system".

Among the other challenges that arise from strict horizontal differentiation is the potential for barriers to student and staff mobility between sub-systems, as well as certain forms of co-operation, such as joint programmes. For example, a formal distinction between the degree titles awarded by universities and universities of applied science can create additional barriers for students wishing to transfer between institutions in different sub-systems. In Flanders, the Netherlands or Denmark, for instance, university colleges (respectively *hogescholen* and *professionshøjskoler*) award professional bachelor's degrees, distinct from the bachelor's awarded by universities. This contrasts with the situation in Germany, where *fachhochschulen* award bachelor's degrees that are directly equivalent to those awarded by universities.

Whereas in Germany and Denmark, direct transfer between a bachelor's in an applied science university and a master's in a university is possible (albeit not guaranteed), holders of a professional bachelor's in Flanders and the Netherlands are always required to follow a one or two-year bridging programme (Flemish Government, 2019[9]). This difference reflects different approaches to university entrance. However, in such cases, questions arise about whether requirements for bridging programmes represent an excessive barrier to permeability (Inspectie van het Onderwijs, 2019[10]). More generally, the existence of distinct types of bachelor's degree may be poorly understood in other countries without this practice, creating barriers to international mobility for holders of professional bachelor's degrees in particular.

Another recurrent challenge has been *creating parity of esteem* between professionally and academically oriented institutions of higher education. Mirroring, to a large extent, issues seen in vocational tracks in many secondary education systems, professionally oriented institutions have historically suffered from more limited prestige than universities in many OECD countries. Although the narrative that universities and non-university higher education institutions are distinct but equal has been used in many countries by governments and by institutional leaders, this has not always been the perception in society at large. Professionally oriented higher education institutions tend to attract students from less advantaged backgrounds, including those who are the first in their families to attend higher education. This may be because such institutions offer more direct routes to the labour market, or (in some countries) shorter, and thus more affordable, programmes. As a result, while professionally oriented institutions can play a role in widening access to higher education, questions arise as to their role in reproducing existing inequalities (Reimer and Jacob, 2011[2]; Triventi, 2013[11]). While social stratification may be particularly evident in some binary or formally differentiated higher education systems, it is also present in nominally unitary, but informally stratified systems, such as those in the United Kingdom and Australia (Raffe and Croxford, 2015[12]; Jerrim, Chmielewski and Parker, 2015[13]).

While avoiding unwanted fragmentation and segregation between distinct higher education sub-systems is a challenge for many binary higher education systems, so too is the *tendency for institutions in distinct subsystems to converge* in terms of missions, activities and profiles. Analysts in many OECD countries have observed a tendency for higher education institutions in binary systems to push the boundaries of their formal roles in the system. Professionally oriented institutions in many OECD countries (such as the Netherlands and Portugal) have sought to expand their activities in applied research and researcher training, moving towards the traditional "territory" of universities (VSNU, 2019[14]; OECD, 2019[15]). Some authors argue that universities have also tended to "professionalise" programmes, as the public focus on labour market relevance in higher education has increased – a trend they identify as "professional drift", in contrast to the "academic drift" they believe has occurred in professionally oriented institutions (Codling and Meek, 2006[16]).

The difficulty with these arguments is that even if "academic" and "professional drift" could be measured – which is difficult given their vague definitions – it is far from proven that these trends are problematic. In a number of OECD countries, governments have either removed binary divides entirely, as in the United Kingdom and Australia in the 1990s, or reduced the level of differentiation between universities and universities of applied science by loosening rules and encouraging greater research activity in professionally oriented institutions, as in Sweden, Norway and the Netherlands. Some analysts question whether binary systems are relevant in modern higher education systems, arguing that strict enforcement of rules relating to a binary divide can hinder valuable diversification at institutional level (van Vught, 2008[17]). Others argue for more differentiated "ecosystems" of institutions, rather than simple binary distinctions (Parker, Dempster and Warburton, 2018[18]).

New types of qualification in higher education

The rationale for creating new types of undergraduate qualification

In recent decades, many OECD countries have reformed their systems of professionally oriented post-secondary qualifications, in some cases, creating new forms of qualification in the "space" between the end of secondary education and traditional models of higher education. In most cases, governments have sought to expand the range of study options available to support widened access to education and training, and respond to growing demand for skills.

In Europe from the late 1990s, the Bologna reforms (bringing a common three-cycle qualification system – bachelor's, master's, doctorate – and the development of national qualification frameworks) have spurred education authorities to rethink their qualification systems and the linkages between vocational and higher education. Two common developments have included:

- In binary higher education systems, such as the Netherlands or Germany, the conversion of the first-level diplomas awarded by universities of applied science into *bachelor's degrees* (sometimes explicitly "professional" bachelor's, sometimes without a formal distinction compared to academic bachelor's degrees).
- In binary and non-binary systems, the introduction, reform or further development of *two-year, professionally oriented qualifications* at level five in the European Qualifications Framework (usually corresponding to International Standard Classification of Education, or ISCED, Level 5), sometimes allowing students to obtain a bachelor's qualification with one or two years additional study in a higher education institution. In some cases, such programmes are formally considered part of the higher education system, while in other jurisdictions, they are considered to be part of the post-secondary training system outside of higher education.

In some countries outside Europe, short tertiary qualifications, such as the associate degree, have existed for many years and are well-established elements in the higher education landscape. In the United States, associate degree programmes, mostly provided in public community colleges, exist in applied professional fields (similar to short-cycle programmes seen in many European countries) and as general education programmes designed to allow students to transfer into the third year of a four-year bachelor's degree. This role of associate degrees as transfer programmes counting towards academic (as opposed to professional) degrees is a distinct feature of the United States' education system. As in Europe, however, discussions continue in the United States and other parts of the OECD regarding the role of short-cycle programmes in the higher education system and their value for students entering the labour market (Kim and Tamborini, 2019[19]).

In some OECD countries, short-cycle programmes play a major role in the tertiary education landscape; while in others, they do not exist. In 2018, over 20% of the population aged 25-34 in Canada and Korea held a short-cycle tertiary qualification as their highest level of qualification. The equivalent figure was 10% or more in Austria, France, Sweden and the United States (OECD, 2019[20]). In contrast, in countries such as Germany, Italy or Finland, short-cycle tertiary programmes are non-existent. As we discuss below, the wide variation in the definition, legal status and forms of short-cycle qualifications in place means international data relating to this level of education and training must be interpreted with care.

Box 6.1. Examples of short-cycle programmes in the OECD

England and Wales

Two main forms of short-cycle tertiary qualification exist in England and Wales. *Higher National Diplomas* (HND) are long-established, professionally oriented qualifications taking two years full-time study to complete. They are generally offered by Further Education Colleges (which also provide a range of other vocational and upper secondary qualifications). Primarily classroom-based programmes, HNDs are offered in a wide range of fields, with a large proportion of students in business, engineering and computing. A completed HND is usually considered as equivalent to one year of a bachelor's degree, and students can often transfer to bachelor's programmes in related fields in the second year after completing an HND.

Foundation degrees were formally launched in 2001 in universities, as well as colleges, as an alternative two-year qualification aimed at students with work experience looking to upgrade their skills through combining study and work-based learning. Unlike for HNDs, there are no formal academic entry requirements for foundation degrees, but transfer to bachelor's programmes is often possible. In 2018, foundation degrees accounted for around 2% of undergraduate enrolment in England and Wales, with HNDs representing less than 1% of enrolled students (HESA, 2019[21]).

The Netherlands

Unlike England and Wales, the Netherlands has maintained a strictly differentiated system of secondary and post-secondary education, with distinct academically and professionally oriented streams. Until recently, the only option for students completing the two main upper secondary professional streams to pursue higher education was to embark on a four-year professional bachelor's programme (*hoger beroepsonderwijs* – HBO) at a university of applied science. Following earlier pilots, in 2013, the Netherlands formally introduced the "associate degree" (Ad) qualification into its legislative framework, as a two-year programme based on the content of the first two years of HBO bachelor's degrees. Since January 2018, these training programmes have been accredited as self-standing qualifications. This has been a factor in a steep increase in enrolment observed in the academic year 2018-19. The most recent data show around 11 000 students enrolled in associate degree programmes – this compares with a total of around 455 000 students in the whole higher professional education (HBO) sector (Onderwijs in Cijfers, 2019[22]).

Policy questions and challenges linked to introducing new tertiary qualifications

Two closely related questions or challenges for policy makers emerge regularly in systems with short-cycle qualifications at the tertiary level.

First, technical and legal questions frequently arise about how *best to position short-cycle qualifications*, which lie at the boundary between vocational and higher education, in qualifications frameworks. Even if there is widespread agreement in Europe, for example, about positioning short-cycle programmes at Level 5 of the European Qualifications Framework (EQF), similar programmes in different countries are classified as post-secondary, non-tertiary programmes, outside the scope of higher or tertiary education (as in Germany); as qualifications fully integrated in the higher education system (as in France or the United Kingdom); or even "tertiary" but not "higher" education (as in Austria). Austria recently "upgraded" the status of the final years in professional high schools (*Berufsbildende höhere Schulen* – BHS) to qualify as tertiary education. While they are a reflection of distinct educational traditions, such differences in status and classification can be a source of confusion for students and employers, potentially reducing the

signalling value of short-cycle qualifications – particularly in increasingly internationalised labour markets such as those in the European Union.

Second, on a more fundamental level, students, institutions and policy makers may be concerned about *the value of short-cycle programmes in the labour market*. In some educational systems, this question is not currently a major concern, as short-cycle programmes are well established, flexible and demonstrably effective. In France, for example, the two-year *Diplôme universitaire de technologie* (DUT) is highly valued by employers, with graduates achieving high rates of employment or – in many cases – subsequent progression to bachelor's programmes in related fields (Guiomard, 2017[23]). In the United States, with its distinct system of transfer-oriented "associate of arts" and professionally oriented applied associate degrees, the picture may be more variable. In particular, many students in associate of arts degrees do not go on to transfer to bachelor's programmes, raising questions about the value of their generalist two-year qualifications in the labour market (Schneider and Sigelman, 2018[24]). At the same time, while graduates from applied associate degrees tend to achieve good earnings levels when they initially enter the labour market, their earnings growth is slower than that of graduates with traditional bachelor's degrees, meaning that a gap opens up over time. This raises questions about the durability of the skills they acquire in such programmes, and is a concern shared in many OECD countries.

Promoting and controlling private provision

The rationale for expanding private provision of higher education

Until the last decade, governments had tended to encourage or permit the expansion of private higher education provision in their systems for one of two main reasons:

1. To respond to increased demand for higher education that outstrips public authorities' ability to supply higher education opportunities in the public sector. In such cases, expanding private provision allows some or all of this excess demand to be "absorbed", although, as discussed below, in countries where such approaches have been implemented (or allowed to develop) concerns have often arisen about the quality of the educational offer added to the system.
2. From a more ideological starting point, to (attempt to) increase competition, widen student choice and increase institutional responsiveness in the higher education system – ultimately with a view to improving effectiveness, efficiency and cost-effectiveness.

In OECD and partner countries, examples of the first pattern have historically been more frequent than the latter, particularly in central and eastern Europe after the fall of communism, in some southern European member countries and in much of Latin America from the 1990s onwards. In some cases, such as Poland or (to a lesser extent) Portugal, the private sector has since declined in terms of enrolment. In other systems, the private sector has continued to expand, as in Mexico and Brazil, where the private sector accounts for, respectively, one-third and three-quarters of undergraduate enrolment (ANUIES, 2018[25]; INEP, 2017[26]).

Policies to introduce free market principles into higher education with the explicit objective of increasing competition and enhancing performance have been comparatively rare. In Chile, for example, some of the expansion of private sector higher education in the 1990s took place in a wider context of radical neo-liberal policies. However, the country faces many of the same issues as other Latin American nations, where governments would simply have been unable to finance large-scale expansion of the public higher education sector in light of other pressures on public spending. The expansion of the private sector in mainstream, campus-based higher education in the United States has been comparatively small in terms of total enrolment in the United States (NCES, 2019[27]) and negligible in the United Kingdom, despite attempts to develop a higher education "market" (NAO, 2017[6]). In New Zealand, public funding of private post-secondary education began in the mid-1990s as a trial. It grew rapidly in the late 1990s, with some

providers catering for underserved groups. However, while more than 200 private providers are eligible for public funding, they collectively represent only around 13% of domestic enrolments (but 18% among students who are Māori or of Pacific descent – two groups who have been under-represented at degree level and above). In much of continental Europe, private higher education providers continue to play a limited role in the higher education landscape.

In contrast, the last decade has seen the expansion and emergence of alternative higher education providers and platforms such as Coursera, providing online programmes, sometimes in collaboration with established higher education institutions. The scale of these providers in terms of number of enrolled students is difficult to measure, as they often fall outside the framework of data reporting for official statistics.

Policy questions and challenges linked to managing private provision

Two recurring challenges facing policy makers in jurisdictions with large and rapidly expanding private provision of higher education are ensuring the quality and relevance of provision, and supporting wider access to higher education in institutions that invariably charge fees.

In countries such as Italy, Mexico and Brazil, many private, non-profit higher education institutions enjoy excellent reputations for the quality of their teaching and research. In the United States, private, non-profit universities count among the nation's – and the world's – most prestigious institutions of higher education. In contrast, many of the private institutions that have developed rapidly to respond to growing demand in different countries, at different points in time, have had generally poor reputations for quality. Such situations have developed, for example, in Poland, Portugal, Mexico, Brazil and – on an arguably smaller scale – in the United States in the for-profit sector.

The response in all the example cases noted above – and in other countries – has been to implement (or at least propose to implement) different forms of external regulation, accreditation and quality assurance. In Poland and Portugal, the implementation of stricter accreditation rules, notably relating to requirements for teaching staff, led to a reduction in the number of programmes and higher education providers in the private sector (Teixeira, 2009[4]; OECD, 2019[15]). In Brazil, the federal Ministry of Education has overseen the implementation of a comprehensive system of regulation and quality evaluation covering all private higher education institutions in the country. While the system struggles to promote quality improvement, it has undoubtedly done much to eliminate the least scrupulous providers and protect students (OECD, 2018[28]). In the United States, the Obama administration proposed the "gainful employment" regulation to remove eligibility for federal student funding for programmes whose graduates failed to achieve specific threshold earnings post-graduation, although the proposal was not implemented in full. In Mexico, the federal authorities have struggled to develop any satisfactory regulation and quality assurance in the private sector, creating ongoing risks of poor provision for students (OECD, 2018[29]).

OECD member and partner countries have adopted radically different approaches to supporting widened access to higher education through the private sector. In the United States and Brazil, federal authorities provide needs-based financial aid to students studying at private institutions, provided these institutions meet mandated accreditation standards. Indeed, the Brazilian *Programa Universidade para Todos* (Prouni) was introduced in 2005 with the explicit aim of boosting participation in higher education in the private sector by providing additional needs-based grants covering tuition fees (MEC, 2019[30]; IDados, 2016[31]). In contrast, in countries without or with only limited systems of student financial aid, students wishing to study in private sector institutions, or for whom private institutions are the only option, have gone unsupported. In systems such as Mexico and many states in Central and Eastern Europe, this has led to the paradoxical situation where students from wealthier backgrounds tend to study in selective, but free, public universities, while those from less well-off backgrounds pay to study in the private sector.

Distance and online learning: promoting new modes of provision

The rationale for policy relating to new modes of providing higher education

The expansion of online post-secondary learning opportunities in OECD member and partner countries in recent years has been driven by two trends in particular:

1. The development of *online, credit-bearing degree programmes*, including fully online bachelor's and master's qualifications, as well as "blended" programmes combining online and campus-based study. These programmes are provided by accredited higher education institutions, including open universities in countries where these exist (including Germany, Mexico, Spain and the United Kingdom).
2. The emergence of *shorter, non-credit bearing online courses* such as such as Massive Open Online Courses (MOOCs) and certificate-based workforce credentials. Many of these learning programmes are offered by non-traditional education and training providers, such as coding academies or digital learning platforms (e.g. EdX or Coursera), or by higher education institutions working in collaboration with those platforms in the design and delivery of instruction and assessment of learning.

Official data for 2017 suggest that around 15% of the 20 million students enrolled post-secondary education in the United States were enrolled in exclusively online programmes, and a further 18% were enrolled in some online courses. The proportion of students enrolled in exclusively online programmes varied from around 11% in public universities and community colleges (which account for almost three-quarters of total student enrolment in the United Sates) to 19% in non-profit private institutions and almost 50% in the (much smaller) for-profit private higher education sector (Lederman, 2018[32]; NCES, 2019[33]). In the United Kingdom, in 2016–17, online learning accounted for 8% of enrolment at UK higher education institutions, with the Open University accounting for 65% of all online learning (Universities UK, 2018[34]). Available data on enrolment in online learning in higher education typically capture only enrolment in accredited programmes, where providers are obliged to report information to official statistics bodies. They do not provide an accurate picture of the numbers of individuals following non-credit-bearing online programmes.

The rapid development of technology and the emergence of alternative providers of online non-credit-bearing courses have increased the diversity of the higher education offer and opened up a wide range of new learning opportunities. Policy makers in OECD and partner countries have, in some cases, reacted to these trends by adapting their regulatory, licensing and quality assurance regimes, but have rarely sought to play a major role in steering the development of online provision. A recent survey of digital education policies in Europe found a considerable number of initiatives targeting school education, but relatively few in higher education (Conrads et al., 2017[35]). This reflects the primary responsibility of higher education institutions for making decisions about modes of provision and the emergence of private sector actors, but equally the weaker role of public policy in promoting online learning compared to the other forms of system-wide diversification discussed above.

Policy questions and challenges linked to new modes of provision

In most OECD and partner countries, the most prominent policy discussions relating to online and distance learning have revolved around programme accreditation, quality assurance and the related topic of the eligibility of students following non-credit-bearing online programmes for public student aid. In addition, there are some examples of government initiatives to promote online learning in the public higher education sector.

Governments and quality assurance bodies in some systems have adopted specific regulatory and accreditation frameworks for credit-bearing online programmes and their providers. Where this has been

the case, authorities have tended to adapt the same basic guidelines and principles applied to classroom-based programmes to account for the online environment. Some existing models of quality assurance frameworks for online provision, such as that in Brazil, include specific guidance relating to tutoring and student access to mentoring, and support or require a proportion of learning to happen in physical distance-learning "poles" (OECD, 2018[28]).

In the United States, regional accrediting bodies have adopted specific policies for distance education, while the Distance Education Accrediting Commission (DEAC) is a national accreditor specialising accreditation of online providers and programmes (DEAC, 2019[36]). The United States federal government has recently adapted the federal regulations that apply to accreditation of higher education providers, including provisions that make it easier for online providers to operate across state boundaries. The same regulations aim to facilitate accreditation of non-credit-bearing programmes and make students in such programmes eligible for some types of federal student aid (U.S. Department of Education, 2019[37]).

In many other OECD countries, little attention has thus far been paid to online education within higher education quality assurance frameworks, even for credit-bearing programmes leading to established academic qualifications. A recent report from the European Association for Quality Assurance in Higher Education (ENQA) identifies accreditation of online provision as a major gap in the European quality assurance landscape. The report proposes ways in which the European Standards and Guidelines (ESG) for quality assurance – which make no reference to online provision – can be implemented for e-learning providers (ENQA, 2018[38]).

As noted, examples of proactive public policies to promote online learning in higher education have been rare. A notable exception has been the *France université numérique* (FUN) initiative, through which the French Ministry of Higher Education and Research funds a national platform for MOOCs to promote uptake of online learning and encourage (public) higher education institutions to make greater use of digital content (FUN MOOC, 2019[39]).

6.3. Concentration and specialisation for critical mass, quality and efficiency

In contrast to diversification policies, policies aiming to promote concentration or specialisation in higher education seek to bring together existing activities in fewer places or concentrate the development of particular activities in specific locations. This section considers the two most frequent approaches to concentration and specialisation in higher education observed in OECD jurisdictions:

- *complementary specialisation* – a process through which individual higher education institutions specialise in their missions and capacities, taking into account the specialisation of other institutions in the system to ensure maximum complementarity;
- *concentration of investment and capacity in higher education* – a process whereby public investment for specific objectives is directed to a limited number of institutions, or teaching and research capacities are brought together (pooled) through collaboration, alliances and mergers.

Complementary specialisation of higher education institutions

The rationale for complementary specialisation

Specialisation in the missions and capacities of higher education institutions – *complementary specialisation* – can yield substantial benefits for higher education systems. It permits them to function more efficiently, and at a higher level of quality, as they profit from a division of labour and task specialisation.

Responsibility for the development of a network of higher education institutions marked by a suitable level of complementary specialisation rests jointly with institutions themselves and with higher education steering bodies.

In well-functioning higher education systems, higher education institutions develop and refine their own institutional profiles, identifying the distinctive features and commitments of their own institution, taking into account the wider network or ecosystem of institutions with which they compete and collaborate. These profiles will often include an account of:

- *teaching and learning profile*: the fields of teaching and the student profiles that are areas of priority for the institution; how the programmes are linked to critical local, national or international needs; how the institution contributes to and draws upon the teaching and learning capacities of other higher education institutions; and the institution's distinctive pedagogical commitments;
- *research profile*: the institution's balance between theoretically-led and applied research; its priority research areas; the relationship between these areas and its teaching mission; and how the institution plans to perform to a high level in its priority areas;
- *external impact and engagement profile*: how the research and teaching activities of the institution are linked to regional and national needs; how teaching and research support the business, public, and voluntary sectors in their endeavours and draw upon their capabilities in institutional activities;
- *internationalisation*: what internationalisation strategy is appropriate to the institution's profile, and in what ways the institution wishes to be internationally engaged.

While higher education institutions bear responsibility for developing their own profiles, governments may choose to support and reward specialisation through the adoption of a higher education legal framework and strategic planning processes that establish a responsibility for institutional specialisation; through the system's funding methodologies for teaching and research; through the development of performance plans that elicit specialised profiles; and through the adoption of public consultation processes that stimulate debate and support consensus-building about institutional specialisation.

Notwithstanding the potential benefits of specialisation, many higher education systems operate with low levels of specialisation – to the detriment of their collective performance in teaching, research and innovation. Where specialisation is weakly developed, the teaching, research and engagement activities in departments, faculties and institutions are planned and implemented in isolation from one another. In this process, there is no reference to the goals of the institution as a whole, to the activities of other institutions in the system or to national priorities. For example, with respect to the education mission of higher education institutions, the absence of effective specialisation risks leading to duplication of costly study programmes and missed opportunities for collaboration that can improve the quality of teaching; regional or disciplinary gaps in the offer of programmes; and insufficient diversification in modes of provision and pedagogies.

With weakly differentiated and co-ordinated educational profiles, the system is less transparent for students looking to choose an institution or programme, and for institutions looking to partner with others. Low specialisation is often manifested in doctoral training and research by the multiplication of doctoral training programmes across a wide range of institutions; with each programme operating at a small scale and with overlapping research profiles; and low levels of collaboration in postgraduate training, low levels of resource and little research output.

Policy questions and challenges related to complementary specialisation

Low levels of specialisation among institutions within a higher education system result from internal constraints facing institutional leaders, and from public authorities who have little capacity or incentive to use the steering tools of government to promote it.

In Portugal, for example, relatively low levels of institutional specialisation result from institutional core funding for instruction and infrastructure that is provided on an historical basis, without directly taking into account the specific missions and potentially differentiated needs and objectives of different institutions; and from the absence of continuing funding streams provided by the Ministry of Science, Technology, and Higher Education that encourage specialisation among institutions (OECD, 2019[15]).

The limited autonomy of Portuguese higher education institutions with respect to human resource management further hinders the development of specialisation. Apart from the limited scope of autonomy achieved in "foundation universities," national legislation governs the structure of careers, staff workload, and staff compensation, setting sharp limits on the ability of leaders to reallocate resources in light of a new profile. If profiling is to raise the effectiveness and efficiency of the higher education system, institutions must have the capacity to implement their own institutional strategies, reallocating human and financial resources against the profiles they have set (OECD, 2019[15]).

In Finland, by way of contrast, universities operate with a wide capacity to manage human resources against institutional profiles and specialisations, and operate with a regime of research funding and performance-based instructional funding that stimulate specialisation. When national authorities became convinced that specialisation had not advanced sufficiently to achieve research excellence at current funding levels, they moved vigorously to support further specialisation of universities into distinct areas of strength. The Ministry of Education and Culture and the Academy of Finland collaborated in developing a plan by which core funds were reduced and reallocated to a competitive funding pool in support of specialisation. Institutions were tasked with developing plans for a specialised profile, and these plans were reviewed by external panels convened by government. Profiling plans were required to commit to areas of research strength by targeting and reallocating the institution's own resources, and to promote collaboration and division of work between universities, research institutes and universities of applied sciences. Universities applied for competitive profiling funding by submitting institutional plans for high-quality/high-impact research, outlining which steps they would take and when, and identifying how they would reallocate institutional resources to achieve their profile. This system of funding remains in place (Academy of Finland, 2020[40]).

Concentration of investment and capacity in higher education

The rationale for concentration of investment and capacity in higher education

Declining student numbers, growing fiscal pressures and intensified international competition for prestige, research talent and funding have increasingly led governments to seek the concentration of higher education institutions and their research and teaching capacities.

This concentration may be achieved through the concentration of public investment – most typically in research funding – and through the concentration of institutions and their capabilities, by supporting (or, requiring) institutional collaborations, alliances and mergers.

Collaborations, alliances and mergers among higher education institutions may aim for concentration that enhances the quality of teaching and learning, achieves economic efficiencies, or combines research capacities into agglomerations that more effectively compete for international research funding, research talent, scientific prominence and standing in global rankings.

These three strategies for concentrating institutional capabilities may be usefully distinguished as shown in Table 6.1.

Table 6.1. Collaborations, alliances and mergers in higher education

	Collaborations	Alliances	Mergers
What is it?	Arrangements between institutions (rather than individuals), embedded in formal agreements or partnerships	A more extensive form of collaboration that covers a wider range of operations	At least one institution ceases to exist as a legal entity through incorporation within an existing or new institution
What does it involve?	May involve sharing of legal rights and privileges, human resources, physical space, equipment and technology, or information	Partners share a wide scope of capacities, but retain separate identities and legal statuses, and agreements are revocable.	The original components of the merged entity may retain distinct names, brands, governance and operations to varying degrees.
Examples	The Hamburg Open Online University (HOOU, 2020[41])	The Barcelona Knowledge Campus (Universitat de Barcelona, 2020[42])	The University of Manchester Merger (Georghiou, 2015[43])

Source: Adapted from Williams (2017[44]), "Collaboration, alliance, and merger among higher education institutions", https://dx.doi.org/10.1787/cf14d4b5-en.

A recent OECD examination of concentration through collaborations, alliances and mergers among higher education institutions found that each of the 19 OECD or EU jurisdictions selected for study was currently pursuing an investment of institutional concentration initiative, or had done so recently (Williams, 2017[44]).

Policy questions and challenges related to concentration

Higher education institutions may *voluntarily* choose to undertake institutional concentration initiatives, since it can be advantageous to do so. For example, institutions faced with falling enrolments may voluntarily choose to enter into alliances or mergers in order to continue operations. On balance, voluntary initiatives that concentrate institutional capacities have occurred more frequently among private, independent institutions than among public institutions; and less often in teaching than in the research, engagement, support services or administrative operations of higher education institutions. When institutions choose to engage in concentration initiatives, they typically opt for the least disruptive and most revocable options – for example, to alliances that permit them to share capacities in preference to mergers (Williams, 2017[44]).

Left to their own choices, the leaders of higher education institutions may choose to do what is optimal for them, their academic staff or local stakeholders – but this could yield poor results for the higher education system and the wider society. For example, in Lithuania, demographic decline led to sharp enrolment declines commencing from the academic year 2008-9 onward. Falling student numbers led to an unusually large number of higher education institutions relative to the size of Lithuania's population and enrolments, to declining student-to-teacher ratios in its public institutions, and to forecasts from the government's research and education analysis centre (MOSTA) that five of the nation's universities would have no entering students by 2020. Nonetheless, the network of public higher education institutions remained largely unchanged, putting at risk the quality of educational offering and instruction, and creating the "fragmentation, duplication, and inefficient use of resources in research" (OECD, 2017[45]).

Because the uncoordinated decisions of higher education institutions about the scale and co-ordination of their operations may not lead to socially optimal results, public authorities often make the concentration of higher education institutions and their capabilities – and the concentration of public investment – a policy priority. Governments have chosen to pursue concentration within higher education systems by altering the underlying legal bases within which institutions operate; for example, by authorising research and applied science universities to enter into alliances or mergers. Recurring funding instruments for teaching

and research may be used deliberately to induce concentration; for example, by changing research funding methodologies to concentrate a larger share of public spending in a small number of institutions with a preponderance of high impact publications. This happened in Australia in the late 1980s, for example (Croucher et al., 2013[46]). Most frequently, however, governments have chosen to adopt episodic and targeted policy initiatives to steer systems towards greater concentration, providing additional resources – including additional study places, new hiring lines for academics, one-time increases to base operating budgets, additional capital investments, or lifting caps on international student enrolments (Williams, 2017[44]).

When governments attempt to adopt and implement concentrating initiatives, they encounter three broad types of constraints:

- First, some governments find it difficult to marshal strong evidence that low levels of concentration have harmful effects on the research, teaching and learning performance of their system – most especially the latter.
- Second, the benefits of additional concentration may take some years to be fully realised, and the promise of offsetting government support may depend upon future budgets and parliaments.
- Finally, where trust is low, agreements that yield concentration can be difficult to achieve. The relatively intense and sustained pace of concentration initiatives in Nordic higher education systems reflects, in part, the advantageous analytical capacities of government, and especially the foundation of trust and consultation that are conducive to concentration initiatives (Williams, 2017[44]).

Ministries or other higher education steering bodies are also constrained by the legal and political framework within which they operate: institutions or faculties may have a statutory or constitutional basis that makes reorganisation leading to concentration infeasible; academic staff may have a legal basis of employment, such as civil service status, that prevents the reorganisation of work; and stakeholder groups may wield sufficient influence in public debates and parliamentary deliberations to block moves towards greater concentration of investments or institutions. Where macroeconomic or fiscal conditions impose spending neutrality – or declining real spending levels – concentration initiatives will be painfully redistributive, and prove especially difficult to undertake.

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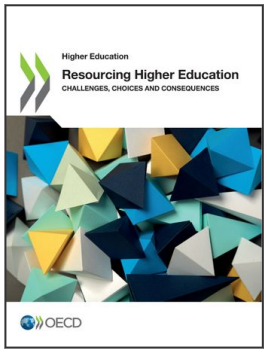

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