



3

Policies towards improving young people's education and skills

All levels of education – from pre-primary to tertiary – and all modes of education – from learning on the job to massive open online courses – can help to prepare young people for the world of work. This chapter focuses on how governments, policy makers and educators can ensure that all young people leave school well-equipped to enter – and succeed in – the labour market.



Young people need to be better prepared for the world of work. This requires building more responsive education systems. Education systems have to be responsive to children and students' backgrounds, history and specific needs to ensure that nobody is left behind. They should also be responsive to labour market needs and help students acquire strong employability skills. Governments have a leading role to play in reforming their education systems so as to improve young people's skills. However, efforts will be undermined if they are not supported by the whole community. Governments have to work closely with other stakeholders including parents, social institutions and employers.

ENSURING THAT ALL YOUTH LEAVE EDUCATION WITH ADEQUATE SKILLS

A holistic approach to skills

As a wide range of skills is needed to be successful in all facets of life, education systems can develop employability skills through different levels and types of education – schools, vocational programmes and universities. Parents and local communities, including employers, trade unions, voluntary organisations, cultural institutions and social services can also contribute to this goal since these skills are often acquired both inside and outside the education system. Given that the demand for skills is changing rapidly, parents, educators and other stakeholders should help young people build a capacity for lifelong learning so that they can adapt to changing demands.

Empirical evidence based on randomised experiments (mainly in the United States) shows that some intervention programmes, particularly early childhood programmes, have been consistently successful in improving social and emotional skills (Heckman and Kautz, 2013). Programmes targeting adolescents and young adults have been less effective in this respect. This evidence points to the importance of acquiring and developing skills early in life and of the role of parents in the process. Successful programmes typically include pre-school activities and meetings between parents and teachers. Successful intervention programmes for adolescents generally have a mentoring component as part of a work-based activity.

Policy makers in OECD countries are increasingly paying attention to social and emotional skills, after concentrating efforts to increase student achievement in the past decades (OECD, 2015a). Empirical evidence shows that these skills can be developed through both routine education practices and extracurricular activities, such as sports and arts. The skills most often targeted in national curricula include autonomy, responsibility, tolerance, critical thinking and intercultural understanding. Most national curricula include subjects that specifically target students' social and emotional skills, such as physical and health education, civic and citizenship education, and moral or religious education. Some countries also incorporate the development of social and emotional skills in the core curriculum. In addition, many OECD students participate in school governance and classroom management as alternative forms of extracurricular activities. These activities help students to develop the skills necessary for living in democratic societies, such as negotiating, teamwork and taking responsibility.

Most schools may not have the capacity to introduce major innovations to develop different types of social and emotional skills; however, they can adapt existing practices and introduce innovative new ones to foster the development of these skills. Over the past decade, many countries have developed a more holistic approach to education by integrating the development of these skills specifically into school curricula, fostering co-operation between schools and local communities, and introducing major reforms to education (Box 3.1).

Workplaces are learning environments as well. Firms are often better-equipped with the newest technologies – and ideally with the people who know how to use them and guide the learning – than educational institutions, and thus better-suited to provide practical training. At the same time, many cognitive skills, especially problem solving, and social and emotional skills – such as communication and conflict management – may be more effectively taught and learned in workplaces than in classrooms.



Box 3.1 **How some education systems are taking a more holistic approach to skills: Country examples**

In recent years, some countries have adopted a more holistic approach to education. They have made the goal of developing social and emotional skills explicit by including it in their curricula and by introducing concrete actions to achieve it. The OECD publication, *Skills for Social Progress*, describes some of these actions (OECD, 2015a).

In Korea, school curricula and the ways in which students are tested emphasise learning facts over creative thinking (Jones, 2013). To address this issue, the curriculum was revised in 2009 to include direct and indirect methods for developing creativity and innovation and the academic content of the curriculum was reduced by 20%. The curriculum now includes “creative experiential learning activities” – essentially, extracurricular activities that allow for the learning of the core subjects.

In June 2013, the government of Denmark introduced a comprehensive reform of compulsory education to raise its quality and outcomes. The reform includes the development of a more varied school day to promote curiosity, innovation and entrepreneurship. The national framework sets the number of hours for each discipline, but school leaders have the responsibility of organising school days, including extracurricular activities. Short periods of physical activity have to be included in every school day, and more music lessons are offered. School leaders are asked to be more open to, and to co-operate with, local community organisations, such as sport clubs, cultural centres and other associations.

In addition to including extracurricular activities, the Danish government encourages the development of new forms of teaching to promote social and emotional skills. For example, schools can co-operate with local sports clubs to teach English or maths through physical exercise. In 2014, the government allocated funding to 15 schools, for the academic year 2015/16, to experiment with outdoor education and demonstrate how it could work.

Immigrant students are often unaware that words can have more than one meaning, and have trouble understanding abstract concepts and phrases. In 2014, the Danish government developed a booklet on the “grey zone” of language that can be used by volunteers working in homework cafés, a well-developed system of places, often libraries, where students can go after school to receive help on their homework.

In France, the government introduced in 2014 a new school schedule over four-and-a-half days instead of four days while shortening the school day. The objectives are both to better distribute learning time over the week, with main lessons given in the morning, and to develop extracurricular activities organised by municipalities. These changes aim to develop equal access to extracurricular activities and to move towards a more holistic approach to education.

Sources:

Danish Ministry of Education website, <http://eng.uvm.dk/>.

French Ministry of Education website, www.education.gouv.fr/pid29074/la-nouvelle-organisation-du-temps-scolaire-a-l-ecole.html.

Jones, R. S. (2013), “Education Reform in Korea”, *OECD Economics Department Working Papers*, No. 1067, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5k43nxs1t9vh-en>.

Korean National Curriculum Information Center website, <http://ncic.kice.re.kr/english.kri.org.inventoryList.do>.

OECD (2015a), *Skills for Social Progress: The Power of Social and Emotional Skills*, OECD Skills Studies, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264226159-en>.

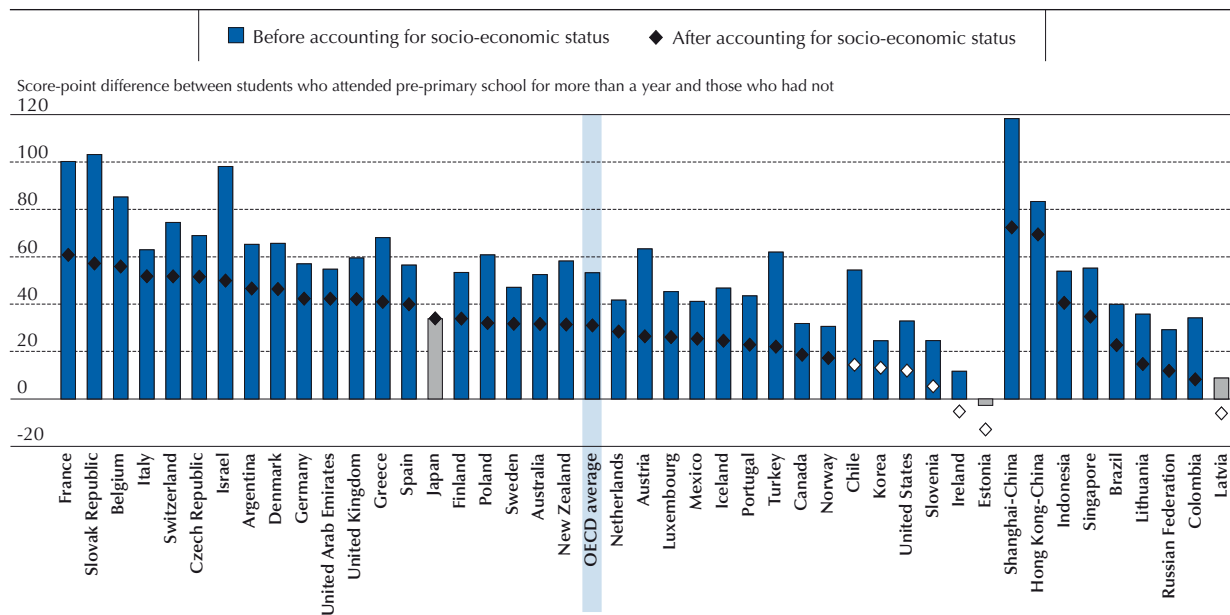
High-quality pre-primary education for all

Educational failure can start early in the education process and disparities often emerge early on. PISA shows that students who attended pre-primary school tend to outperform those who did not, at the age of 15, even after accounting for the students’ socio-economic status (Figure 3.1). Furthermore, enrolment in high-quality, pre-primary education for all children, regardless of their socio-economic status, can help mitigate inherited disparities (Carneiro and Heckman, 2003; Machin, 2006; d’Addio, 2007; OECD, 2006) and improve cognitive skills in a lasting way (Heckman and Kautz, 2013). The benefits are significant for disadvantaged pupils (e.g. Blau and Currie, 2006). According to PISA, native-born children of immigrants who attended pre-primary school are a full year ahead of their peers who stayed at home, in terms of reading skills. Recognising this, the provision of cost-effective and quality childhood education and care has been on the government’s agenda in many OECD countries (Box 3.2). These efforts can be continued.

Figure 3.1

Difference in mathematics performance, by attendance at pre-primary school

15-year-olds, 2012



Notes: Score-point differences that are statistically significant are marked in a darker tone. Countries and economies are ranked in descending order of the score-point difference in mathematics performance between students who reported that they had attended pre-primary school (ISCED 0) for more than one year and those who had not attended pre-primary school, after accounting for socio-economic status.

Source: OECD (2013), "PISA: Programme for International Student Assessment", *OECD Education Statistics* (database), <http://dx.doi.org/10.1787/data-00365-en>.

StatLink <http://dx.doi.org/10.1787/888933214583>

Box 3.2 Enhancing quality in early childhood education and care: Country examples

Integrating the provision of early childhood education and care (ECEC) from birth to compulsory education is considered a key factor for achieving inclusive education. Only a few OECD countries, notably New Zealand, Norway and Sweden have established such an integrated ECEC system under one lead ministry which provides continuous development for pre-school children.

Prior to 1986 in New Zealand, responsibility for funding and administration of early childhood care and education services was split among the Departments of Education, Social Welfare, and Maori Affairs. The integration of care and education under the Ministry of Education influenced the style of curriculum that was developed. In 1996 the final version of Te Whaariki, the New Zealand national curriculum for children up to age 5, was launched following a wide consultation process between the curriculum developers, early childhood practitioners, and representatives of the Maori community.

The curriculum includes overall principles and goals for all early childhood education and care programmes putting the child and play at the centre of the curriculum and focusing on experience and meaning rather than mere knowledge acquisition. It has four overall principles: empowerment, holistic development, family and community, and relationships. Five strands shape the outcomes for children: belonging, well-being, exploration, communication and contribution. The curriculum addresses culture and customs in a way that seeks to embrace the diversity of its population. Each curriculum strand is linked with the learning areas and skills in the primary school curriculum. These links clearly describe what children are expected to do in primary school, how this relates to the experiences in ECEC and what activities staff can implement to facilitate transition.

New Zealand uses child assessment practices as a method for reflecting upon curriculum design and implementation. For this purpose, staff and children describe children's experiences in a Learning Story Framework, which focuses on assessment in a narrative form as a story. The desired outcome is that children leave the ECEC setting for further education with the inclination, knowledge and skills to be learners.



Similarly, Sweden took a consultative approach to lay the ground for a common organisation of ECEC in the seventies. The Pre-school Act came into force in 1975. In 1996, the goals of early childhood education were re-defined and its responsibility was shifted from the Ministry of Health and Social Affairs to the Ministry of Education and Science. The Curriculum for Pre-school was passed by the Swedish Parliament in 1998. The curriculum explicitly identifies early childhood education as a systemic and integrated approach to children's needs, a family model of pre-school centres and an interest in the holistic development and well-being of children. The curriculum for pre-school education emphasises the importance of learning and play, democratic values, equity and a child-centered pre-school environment based on co-operation between the children's home and the pre-school.

In 2011, Sweden implemented a reform with the aim to further improve quality by making the ECEC more instructive and giving teachers more responsibility. The pedagogical tasks have been strengthened by clarifying the goals for language and communication, mathematics, natural science and technology. The follow up, evaluation and development components were strengthened as well as the responsibility of the head of the pre-school.

ECEC quality in Sweden is regularly and systematically documented, followed up on and evaluated, with the perspective of the child being given an important role. Children and parents can participate in evaluation, and their views are to be given prominence. Additionally, self-evaluation kits have been developed so that professionals can evaluate their knowledge and implementation of the curriculum framework.

Sources:

Meare, M. and V. Podmore (2002), "Early Childhood Education Policy Co-ordination under the Auspices of the Department/Ministry of Education: A Case Study of New Zealand", *UNESCO Early Childhood and Family Policy Series N°1*, March 2002, UNESCO.

O'Dowd, M. (2013), "Early childhood education in Sweden: The market curriculum 2000-2013?", *Revista Española de Educación Comparada*, 21, pp. 85-118.

Taguma, M., I. Litjens and K. Makowiecki (2013), *Quality Matters in Early Childhood Education and Care: Sweden 2013*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264176744-en>.

Taguma, M., I. Litjens and K. Makowiecki (2012), *Quality Matters in Early Childhood Education and Care: New Zealand 2012*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264176690-en>.

Prevention of low skills outcomes and school dropout

Identifying students with the lowest skills and those at risk of dropping out of school is crucial in order to prevent these failures. This requires a comprehensive approach that includes specific support at schools, help from social institutions to address social and behavioural aspects, and the involvement of schools, students and family. Reliable data on the dropout challenge itself and the underlying risk factors should be collected and transferred between school levels to guarantee early preventive measures and selective interventions. Some countries have been successful in identifying students who face difficulties at an early stage (Box 3.3).

Box 3.3 Identifying youth with low skills and at risk of dropping out: Country examples

Youth with low skills are more likely to drop out of education and to struggle to integrate into the labour market. Increasingly, OECD countries are making efforts to identify the groups most at risk and reach them quickly.

In the Netherlands, policies to prevent school dropout focus on prevention, keeping students in school, smoothing transition into work, and increasing the provision of work-based learning. As part of this package, the government implemented the so-called qualification requirement for all youth aged 16-23: those youth without a degree from secondary education are obliged to attend school until graduation. Thirty-nine regional report and co-ordination centres (RMCs) have been established to support youth in continuing their education and guiding their school-to-work transition. In addition, the Ministry of Education, Culture and Science allocated funding for better guidance for students in their study and career choice; intensified collaboration between secondary, vocational and adult education schools; and stronger co-operation between a wide range of stakeholders, including local authorities, schools, trade unions and industry, social services and justice departments. The implementation of these policies has coincided with a decline in dropout rates from 5.5% in 2002 to 2.1% in 2013 (although some measurement issues may have contributed, as well).



In parallel, a personal identification number (PGN) has been issued to every child in the Netherlands over the age of three and a half. Similar to a social insurance number, the PGN follows students from school to school as they progress through the education system, enabling the system to monitor their school careers, school attendance and dropout risk. These data are linked to socio-economic information (including immigrant background, employment status and entitlement to social benefits). This monitoring process enables the authorities to assess what works, and consequently, to disseminate good practices. The PGN offers complete and reliable figures from national to municipal levels, and all schools in secondary education are expected to register absenteeism, disengagement and dropping out. A monthly report is available to municipalities and schools to allow them to reach those at risk. An RMC contacts the absentees and summons them back to school once these students have missed classes for a number of days.

Similar initiatives have been established in Estonia and Luxembourg, among other countries. The Estonian Educational Information System (EIS) is a national register that consolidates information on the education system, including information on educational institutions, pupils, teachers, graduation documents and curricula. Local governments can use EIS to access information on the pupils living in their territory, and on those who have moved to a school located in the territory of another local government. Educational institutions are obliged to enter information into the EIS and to check and amend the entered information for accuracy. Pupils and teachers can view the education-related information held on them. The register tracks each student's education career. The register also shows if a student has dropped out of school and if he/she has continued in an evening school, vocational school, etc. In Luxembourg, a digital national pupil register and a systematic procedure developed by the Ministry of Education with the services of Local Action for Youth (Action Locale pour Jeunes, ALJ) identifies young people leaving school without a diploma. Monthly lists are produced, which are then used by ALJ to reach early school leavers.

Other programmes worth mentioning are: the URBACT project in several European cities that targets early school leavers with parental involvement; the Glasgow City Education Department Strategy with a comprehensive approach and high commitment on the part of social advisors; and Plug-innovation in Sweden that compiles different strategies to prevent youth from dropping out, one of which is in Gottenburg and has a comprehensive approach including pre-emptive, preventive and remedial interventions.

Sources:

Akkerman, Y. et al. (2011), "Overcoming school failure, policies that work: Background report for the Netherlands", Ministry of Education, Culture and Science, Den Haag.

European Commission (2013), *Preventing Early School Leaving in Europe: Lessons Learned from Second Chance Education*, http://ec.europa.eu/education/library/study/2013/second-chance_en.pdf.

Ministry of Education, Culture and Science (2014), *Kamerbrief nieuwe cijfers over terugdringen voortijdig schoolverlaten 15 Januari 2014*, Ministry of Education, Culture and Science, Den Haag.

Ministry of Education, Culture and Science (2011), *Schooluitval voorkomen in Nederland: Speerpunten huidige aanpak en doorkijk naar vervolgbesluit; Resultaat schooljaar 2009-2010*, (Preventing School Dropout in the Netherlands: Priorities of the Current Approach and Perspective on Follow-up Policy; Results for School Year 2009/10), Ministry of Education, Culture and Science, Den Haag.

<http://urbact.eu/urbact-glance>.

<http://pluginnovation.se>.

Preventing students from dropping out of education may, in the short term, limit the difficulties faced by youth in the labour market in times of high unemployment, but also raise their employability in the long term. Institutions would ideally encourage young people to stay in the education system, or to reconnect rapidly with education if they have dropped out, as limiting the duration of disengagement has proven the most effective way of re-engaging early school leavers (Polidano, Tabasso and Tseng, 2012). Countries have developed various strategies to address dropouts in which school leavers are encouraged to resume education immediately, most of the time in work-study programmes (OECD, 2010a gives an overview of initiatives in OECD countries; see Box 3.4). The European Youth Guarantee Framework also goes in this direction (see Chapter 5).

Youth who have left the education system without strong skills for a relatively long period of time should be given a second chance to develop a balanced set of employability skills. A number of factors contribute to the efficiency of second-chance schemes which help youth return to education and potentially integrate into the mainstream education system (European Commission, 2013). Programmes using flexible structures that are not schools and appealing activities such as music or sports, applying innovative curricula and pedagogic approaches, and providing specialised support (e.g. psychological and financial support), counselling and career guidance have been most effective in this respect. Some countries (e.g. European countries) have introduced second-chance schemes (Chapter 5), but the impact of many of these programmes on youth skills and transitions into the labour market still need to be carefully evaluated.



Box 3.4 **Combatting dropout in a preventive way:
Regent Park “Pathways to Education” Programme in Toronto, Canada**

In partnership with parents, community agencies, volunteers, local school boards and secondary schools, the “Pathways to Education Program” in Canada provides four main types of support for students in Regent Park, one of Toronto’s most disadvantaged communities: academic tutoring, group and career mentoring, advocacy and financial support. Tutoring sessions focus on homework and study assignments, as well as prepared exercises and other learning activities to help students develop as competent learners, while boosting literacy, numeracy and general knowledge. Group mentoring is provided for Grade 9 and 10 students, while specialty and career mentoring is provided for Grade 11 and 12 students. The overall goal of group mentoring is to provide positive experiences where youth can further develop age-appropriate social skills, including problem solving, team building, communication and negotiation. Career mentoring is designed to support students in pursuing their post-secondary goals, including through formal connections with the high school graduates for two years after high school. Each student is assigned a Student-Parent Support Worker (SPSW), who monitors school attendance, academic progress and programme participation while helping the student build stable relationships with parents, teachers and other students. Pathways’ financial aid, such as bus tickets and lunch vouchers, was designed to remove financial barriers that hinder school participation.

Overall, from 2001, when the first cohort of Regent Park students entered Grade 9, until 2010, the programme has helped reduce dropout rates from 56% (which was double the rate for the City of Toronto) to less than 11.7%, for the first five cohorts in Regent Park. Evaluation studies reveal that the programme has been successful in helping participants to achieve their high school credits. As a result, pathways students average more earned credits than the general student population at all three grade levels. In parallel, absenteeism rates continue to decline. Pathways students are consistently more likely to be represented in the academic stream than non-pathways students. Students in the Regent Park Pathways Program in Grades 11 and 12 are continuing to perform well, as both graduation rates and participation rates in post-secondary education remain high.

In 2011-2012, 75% of Ontario’s Pathways graduates (approximately 1 170 graduates) had enrolled in post-secondary education compared to the Toronto District School Board’s rate of 61% transition. The Canadian Federal Government provided support to expand the Pathways Program in 2013. The programme is now working in 12 additional communities, including with Aboriginal groups in North Winnipeg.

Sources:

Government of Canada, <http://actionplan.gc.ca/en/initiative/pathways-education-canada>.

Pathways to Education (2010), “Pathways to Education: Program Introduction and Overview”, www.pathwaystoeducation.ca/sites/default/files/pdf/Overview%2021_10_10_0.pdf.

Pathways to Education (2013), “2012 Results Summary: Pathways to Education 2011-2012 Program Results”, www.pathwaystoeducation.ca/sites/default/files/pdf/Results%20summary,%202011%20-%202012%20FINAL.pdf.

In emerging economies, the high opportunity costs of school education may contribute to early school leaving. When households have difficulties in meeting their basic needs, children can be taken out of school to save on costs and sent to work. Children can work in the labour market, in home-based enterprises, or as substitutes for parents in doing household chores. Children who leave school temporarily may be less likely to return to school. Hence, shocks that induce parents to take their children out of school may have long-term effects on their children’s human capital development and future earnings. Conditional cash transfer programmes, such as “Oportunidades” in Mexico, and others around the world (Morley and Coady, 2003) have been used to induce poor parents to send their children to school and care more for their health. These programmes have proven to be effective in raising educational attainment (Schultz, 2004), not only because they get children to school who would not have gone otherwise, but also because the programmes prevent children exposed to shocks from dropping out (De Janvry et al., 2006).

Multiple and flexible pathways to success

An increasing share of the skills needed for the future labour market is likely to be developed beyond upper secondary school, but university is not the only route to pursue further education. In addition, some youth may disengage from education and re-engage at a later stage.

Multiple pathways within the education system provide greater opportunities for all youth to succeed. A diversity of education programmes gives more chances to students to find the types of programmes that correspond to their needs, expectations and skills, and to continue education. But establishing bridges between the different pathways is essential for allowing youth to change career directions while building on their earlier skills investment (Box 3.5). In this respect,



it is also important to certify the training component of programmes through a system of nationally or internationally recognised qualifications and competencies, as in the case of some OECD countries (Box 3.6).

Box 3.5 **Providing multiple pathways to enable a smooth transition among learning tracks: Country examples**

Many youth are struggling within education systems because of their inflexibility. Some OECD countries have made efforts to diversify the learning paths for youth, but challenges remain.

In Australia, initial and continuing education are jointly steered and provided with large flexibility to accommodate the specific needs of students of all ages. The system gives second chance opportunities to individuals who did not gain a first qualification or who want to upgrade their skills or change their career pathways (Hoeckel et al., 2008).

The Australian VET system is also flexible and able to satisfy many different needs at many different points in people's lives, whether they are preparing for a first career, seeking additional skills to assist in their work, pursuing learning outside their work needs or catching up on educational attainment. The majority of VET students study part-time and the age range is wide. VET programmes can lead to a single module or unit of competency, or to advanced diplomas. The types of training range from formal classroom learning to workplace-based learning and may include flexible, self-paced learning, or online training. VET takes place in both private and public registered training organisations, in schools, universities or other higher education providers, adult or community education, and various cultural, religious or other bodies providing specific training. However, cross-state differences with regard to skills recognition can reduce the responsiveness of VET to changing needs by impeding labour mobility, since for many occupations a license acquired in one state does not entitle an individual to work in another. Furthermore, there is a lack of streamlined regulatory and governance frameworks between tertiary education institutions (including both VET and higher education), which also creates duplication and inconsistency.

The Austrian VET system aims at providing flexible pathways in and out of the system. Currently, 27% of upper-secondary students enrol in a vocational college, where after five years they can acquire both a vocational diploma and the upper secondary school leaving certificate giving access to university. After several years of professional experience, graduates from technical and agricultural vocational colleges can be granted the title "engineer". The vocational colleges are also accessible for graduates from other upper secondary programmes. Increasingly, vocational colleges provide an important route into tertiary education: one in four university students, and almost one in two students at universities of applied sciences, are now vocational college graduates. However, since the Austrian vocational college programmes combine elements of upper secondary and post-secondary education, they have few international parallels.

In Switzerland, dual diplomas (combining a VET qualification with a university entrance qualification) facilitate access to higher education (Musset et al., 2013).

In Germany, too, access to university for VET graduates was formally enhanced in 2009 and is strongly supported by government campaigns. The new regulations permit those with an advanced vocational qualification general access to academic higher education and holders of other vocational qualifications a subject-specific access to higher education. To support those pursuing this pathway a range of measures have been piloted or rolled out nationally and initiated locally such as advancement scholarships or bilateral credit transfer systems between individual vocational colleges and universities of applied science. Yet, implementation remains a challenge, as it crucially hinges upon the collaboration between individual institutions (Fazekas and Field, 2013).

In the Netherlands, the schooling system is characterised by a high degree of early streaming. However, the different learning routes – including vocational programmes – are structured in such a way that young people have the possibility to go up a step within the track they have chosen, and reach the equivalent of tertiary level education (ISCED 5 level). Possibilities for upstream transfers also exist between vocational and university education (OECD, 2008a).

Sources:

Fazekas, M. and S. Field (2013), *A Skills beyond School Review of Switzerland*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264062665-en>.

Hoeckel, K., et al. (2008), *OECD Reviews of Vocational Education and Training: A Learning for Jobs Review of Australia 2008*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264113596-en>.

Musset, P., et al. (2013), *A Skills beyond School Review of Austria*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264200418-en>.

OECD (2014a), *OECD Economic Surveys Australia*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-aus-2014-en.

OECD (2008a), *Jobs for Youth/Des emplois pour les jeunes: Netherlands 2008*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264041295-en>.



Box 3.6 **Towards a better formal recognition of skills through “Skills Passport” systems: Country examples**

In Japan, the Job Card is a document that records the individual's education, training and employment history, and can be used for further training and job searching. The Job Card system, established in 2009, provides on-the-job training in combination with classroom education (officially labelled as a programme to develop vocational ability). At the end of their training, education, and work placements, the skills and knowledge of participants are formally and objectively evaluated and recorded on the Job Cards. Participants in the programme also receive career guidance to facilitate their transition from training to employment.

The European Commission developed the European Skills Passport, an electronic portfolio which documents all the skills and qualifications citizens have acquired, including those learnt during apprenticeships. The idea is to facilitate the validation of employability skills across European countries and fields of work, and to help graduates and students find a job or training.

In Australia, the government has re-introduced legislation to support the introduction of the Unique Student Identifier (USI), which began on 1 January 2015. The USI allows all of an individual's training records, entered in the national VET data collection, to be linked. It will make it easier for students to find, collate and authenticate their VET achievements into a single transcript. It will also ensure that students' VET records are not lost. The USI will stay with the student for life and be recorded with any nationally recognised VET course that is undertaken from when the USI came into effect.

Sources:

Ministry of Health, Labour and Welfare of Japan (2009), *“The ‘Job-Card System’ in Japan”*, Tokyo.

OECD (2014b), “Background paper prepared by the OECD”, paper prepared for the G20-OECD-EC Conference on Quality Apprenticeships for Giving Youth a Better Start in the Labour Market, www.oecd.org/els/emp/G20-OECD-EC%20Apprenticeship%20Conference_Issues%20Paper.pdf.

OECD (2010b), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264087460-en>.

<https://europass.cedefop.europa.eu/en/documents/european-skills-passport>.

www.innovation.gov.au/SKILLS/NATIONAL/UNIQUESTUDENTIDENTIFIERFORVET/Pages/default.aspx.

Countries that have a school curriculum which is broadly comprehensive with few vocational programmes at the upper secondary level need to offer a wide range of post-secondary programmes with both vocational and academic orientation. Countries with a developed upper secondary VET system should provide options to return to general education and to continue into post-secondary and tertiary programmes. Likewise, students in post-secondary VET should be able to enter university. Raising the quality of VET systems, especially by ensuring that they equip students with strong cognitive skills, would ease transitions into further education.

Above all, admission criteria at all educational levels can become more flexible so that skills and credits acquired through VET programmes and other educational and training paths be better recognised. The learning outcomes from students' professional qualifications would ideally be recognised through access and course exemptions – for example, by permitting students to enter directly into the second or third year of a bachelor programme. Options to gain credits in advance of the next education year, or to retake exams corresponding to the previous year in case of partial failure, can help students with difficulties in given areas to continue their education, while building on their strengths in other areas. Often the problem is a lack of transparency in terms of how different programmes relate to one another, but it may also reflect inadequate incentives for universities, in particular, to offer course exemptions (OECD, 2014c). Some countries have, however, successfully introduced multiple transition pathways (see Box 3.5).

RENDERING THE EDUCATION SYSTEM MORE RESPONSIVE TO LABOUR MARKET NEEDS

Quality work-based learning programmes

Developing work-based learning programmes across different levels and types of education is critical to better integrating students into the labour market. Several countries have made internships compulsory to validate some university qualifications (France, for instance) and many UK universities have integrated work-based training into their curricula along with other initiatives to enhance their graduates' employability (Box 3.7, as well as Chapter 5). Other countries, like Germany and Switzerland, require workplace training to validate an upper secondary or post-secondary VET qualification.



Box 3.7 **Employability skills initiatives in UK universities**

UK universities have been under intense pressure to equip graduates with more than just the academic skills traditionally represented by a subject discipline or a type of degree. A number of reports issued by employers' associations and higher education organisations have urged universities to make more explicit efforts to develop the skills needed to enhance graduate employability (e.g. Council for Industry and Higher Education, 1996).

University responses to this agenda typically include modifications to existing course content (sometimes in response to employer suggestions), the introduction of new courses and teaching methods, and provision of work-based training – all intended to enhance the development of employability skills and/or to ensure that the acquisition of such skills is integrated into the curriculum. In some cases, university departments have sought to embed the desired skills within courses; in other departments, students are offered stand-alone skills courses.

A recent evaluation study suggests that well-integrated work experience has clear positive effects on the ability of graduates to find employment within six months of graduation and to secure employment in graduate-level jobs. The latter job-quality measure is also positively and significantly associated with employer involvement in degree course design and delivery. These results suggest that exposing students to workplace training and decision making during their studies has positive effects on the future matches between graduates and their initial employers following graduation. In contrast, there is no evidence that the emphasis given by university departments to the teaching, learning and assessment of employability skills has a significant effect on either of the labour market outcomes considered.

Sources:

Council for Industry and Higher Education (CIHE) (1996), "Helping students towards success at work: Declaration of intent", CIHE, London.

Mason, G., G. Williams and S. Cranmer (2009), "Employability skills initiatives in higher education: what effects do they have on graduate labour market outcomes?", *Education Economics* 17(1), pp. 1-30.

The OECD report *Skills Beyond School* recommends that all vocational education and training programmes should include a strong quality-assured work-based training component, which is well integrated into the curriculum and not too narrowly focused as a condition of receiving government funding (OECD, 2014c). Introducing such requirements would more strongly engage employers in the education system and could streamline many programmes, as those which are of little interest to employers may not be able to fulfil the requirement (Box 3.8).

Box 3.8 **Fostering co-operation between education providers, employers and other stakeholders to align VET with labour market needs: Country examples**

Social partners can engage with the various levels of the VET system, from secondary to higher education, to improve the quality of the VET system by ensuring the system's alignment with market requirements.

In Switzerland, the involvement of professional organisations (trade and employer organisations and trade unions) in VET policy making is required by law. Professional organisations draft the core curricula and have the leading role in the examination process of both secondary and post-secondary programmes. The role of Swiss authorities (at Confederation level) is to approve the curricula and examination rules, supervise examinations and issue federal diplomas. When new federal diploma qualifications are approved, they are industry-led, but the federal authorities check that the proposed qualification has the support of the whole industry sector, not just some enterprises. This ensures that the whole industry sector can be engaged in the updating of the qualification in response to changes in technology or industry organisation.

In Germany, social partners are closely engaged in the development and updating of training plans for each qualification, which are formally issued by the thematically involved federal ministry (e.g. economy, health) in accordance with the Ministry of Education. Such training plans regulate the duration of the workplace training, describe the profile of the profession, and set out final exam requirements. Apprenticeship salaries are determined through collective wage negotiations. The chambers of commerce advise participating companies, register apprenticeship contracts, examine the suitability of training firms and trainers, and set up and grade final exams.



Similarly, in Denmark social partners are strongly involved at the secondary and post-secondary levels of the VET system. With school associations and other institutions, they are part of advisory bodies that monitor labour market needs and make recommendations on the need to create new VET qualifications and to adapt existing ones, or to merge or re-organise programmes. In addition, they fund the trade committees that advise on the content, structure and evaluation of VET programmes at the sector level. Social partners also sit on the boards of vocational schools and post-secondary VET colleges and academies. When new needs emerge in areas not covered by trade committees, the Ministry of Education can appoint development committees to investigate whether new programmes are required.

As far as post-secondary VET is concerned, the United Kingdom government recently implemented a drastic reform to reduce qualification numbers for higher VET programmes from thousands to hundreds, following recommendations from OECD reviews and Whitehead (2013). Now each course/programme needs to provide five support letters from diverse employers. This gives employers more influence over the mix of training provisions and can ensure better alignment of these programmes with labour market needs.

While social partners in Sweden have had limited influence over secondary VET programmes so far, they play a prominent role at the post-secondary level. Each post-secondary VET programme in each institution has a steering group including employers, who provide training to students and advise on provision and programme content. To launch a programme, an education provider has to show that there is a demand among employers for skills associated with a specific qualification and that it has a framework to engage employers. The National Agency for Higher VET is responsible for the sector, and the social partners are part of a council that advises the agency on the future demand for skills and on how this might be met.

Sources:

Field, S., et al. (2012), *A Skills beyond School Review of Denmark*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264173668-en>.

Kuczera, M. (2013), "A skills beyond school commentary on Scotland", www.oecd.org/edu/skills-beyond-school/ASkillsBeyondSchoolCommentaryOnScotland.pdf.

OECD (2014c), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264214682-en>.

OECD (2010b), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264087460-en>.

Whitehead, N. (2013), "Review of adult vocational qualifications in the UK", UK Commission for Employment and Skills.

The portability of occupation-specific skills to various firms or sectors is a common concern about any occupation-specific training in VET. Firm-based apprenticeship training, as opposed to school-based systems, can limit mobility and adaptability at older ages, as occupation and job-specific skills can become obsolete at a faster rate than cognitive and social and emotional skills (Hanushek, Woessmann and Zhang, 2011).¹ However, research using German data shows that the skills taught in German apprenticeship training are often general (Geel and Gelner, 2009; Geel, Mure and Backes-Gellner, 2011; Clark and Fahr, 2001; Goggel and Zwick, 2012). Furthermore, countries with a long tradition of apprenticeships and stakeholder engagement exhibit a smoother transition from school to work, lower NEET rates and youth unemployment, and below average repeated unemployment spells than countries with a school-based system (Quintini and Manfredi, 2009).

While building occupation-specific skills, VET schemes, in particular, need to ensure that solid cognitive and social and emotional skills are enhanced, so that human capital acquired in these schemes is neither too general nor too specific or narrow. Students need both a set of practical occupation-specific skills that will make them immediately employable and productive, and thus facilitate their entry into the labour market, as well as a set of broader transferable skills, including numeracy, literacy, problem solving, teamwork, communication skills, flexibility and the capacity to learn new skills (OECD, 2014c). These skills are important as many VET graduates working as professionals and technicians are likely to be confronted with complex job tasks.

Weak cognitive skills among some VET students suggest that some programmes may not be selective enough, possibly because they have been maintained despite a lack of interest on the side of employers. Concerning entrance into apprenticeship programmes, many OECD countries do not specify any educational and skills requirements, while others aim to ensure high skill levels among participants (OECD, 2014b). However, the issue of selection criteria in VET programmes cannot be disconnected from the question of raising the quality of these programmes. When programmes have proved to lead to positive labour market outcomes and a work-based element is included, they automatically become selective, due to higher demand and the difficulties finding training places.



Support for work-based learning

The funding of training places influences the number of workplaces provided by employers, and thereby, the development of VET systems and other education programmes with a well-integrated work-based learning component. The workplace training salary should not be a barrier for employers but at the same time it should not generate risks of abuse (see also Chapter 5). In countries that have successfully developed apprenticeship systems, the workplace training salary is often negotiated through collective bargaining and depends on the experience of students. In these countries, employers know the benefits of providing training places and do not need financial incentives. However, employers will be less likely to provide work-based training in times of low labour demand or for some specific groups of youth. Hence temporary measures to foster the provision of workplaces or to acquire work-based learning outside the business sector might be needed in times of prolonged economic downturns. In countries with co-ordination problems in the labour market and poaching externalities (Pischke, 2005; Stevens, 1994), as well as no history of stakeholder engagement, government incentives may also be necessary (Box 3.9). These financial incentives have to be well targeted in time and on students and firms.

Box 3.9 Encouraging the development and provision of work-based training through the funding system: Country examples

Varying mixes of tax breaks, direct subsidies, student grants and levies are often available to encourage the participation of employers and students in work-based training.

Corporate tax deductibility of training costs is widespread across OECD countries, some (e.g. Austria) even allowing deductions greater than the costs incurred (OECD, 2014d). Such schemes help to shift the incentive balance towards training rather than recruiting skills externally. Small and young firms generally benefit little from tax breaks, but careful design of the tax arrangements can also create incentives for this group of companies. The Netherlands, for example, recently experimented with an extra deduction from taxable profits on training expenditures, plus an additional deduction for firms spending less than a specified amount. In targeting firms with low absolute levels of training expenditure, the incentive automatically targeted small firms while minimising deadweight losses (Stone, 2010). However, although targeting can lower deadweight expenditure, it may exacerbate bureaucracy or lead to unintended substitutions.

Direct subsidies, in the form of grants or training vouchers may facilitate targeting specific groups of enterprises and thereby may be more effective than tax incentives. That way, it might be easier to reduce deadweight effects. In general, subsidies need to be subject to comprehensive eligibility criteria and approval processes in order to alleviate potential moral hazard and adverse selection problems. Evidence from Switzerland suggests that subsidies can be an effective support mechanism for firms not yet involved in workplace training (Mühlemann et al., 2007), but they have limited effect on those firms that already provide training (Wacker, 2007). In addition to grants for enterprises, in many countries young trainees also qualify for grants complementing their wage income.

Many countries, especially in Europe, use levies – a compulsory form of collective assistance and cost sharing. Such schemes can result in higher levels of employer-based training, while addressing poaching, by requiring all firms to contribute to training expenditures. They also offer considerable scope for facilitating training among small employers through earmarking funds. Some schemes are criticised, however, for encouraging inefficient and inappropriate training, and favouring larger employers. Therefore, levies should ideally be set in a larger context beyond their function as a financial instrument (Iller and Moraal, 2013).

In Germany, the responsibility for funding vocational schools lies with the Länder and local authorities, while companies bear the costs of training in the workplace. In some sectors, there is a general fund to which all companies pay contributions and through which the costs for the apprenticing institutions are covered, while in other sectors each company bears its own costs.

Sources:

Iller, C. and D. Moraal (2013), "Kollektive Vereinbarungen in der Steuerung betrieblicher Weiterbildung. Beispiele aus den Niederlanden und Deutschland", *Magazin erwachsenenbildung.at Das Fachmedium für Forschung, Praxis und Diskurs*, No. 18, Vienna.

Mühlemann, S. et al. (2007), "An empirical analysis of the decision to train apprentices", *Labour: Review of Labour Economics and Industrial Relations*, Vol. 21, No. 3, pp. 419-42.

OECD (2014b), "Background paper prepared by the OECD", paper prepared for the G20-OECD-EC Conference on Quality Apprenticeships for Giving Youth a Better Start in the Labour Market, www.oecd.org/els/emp/G20-OECD-EC%20Apprenticeship%20Conference_Issues%20Paper.pdf.

OECD (2014d), "Designing skill-friendly tax policies", *OECD Skills Strategy Spotlight*, No. 6, <http://skills.oecd.org/developskills/documents/designing-skill-friendly-tax-policies.html>.

Stone, I. (2010), *Encouraging Small Firms to Invest in Training: Learning from Overseas*, UK Commission for Employment and Skills, No. 5, June.

Wacker, J. (2007), *Teure neue Lehrstelle: Eine Untersuchung zur Effizienz des BlumBonus*, NÖ Arbeiterkammer (NOAK), Vienna.



Additional arrangements might be necessary to encourage the provision of workplace training among small and medium-sized enterprises (SMEs), as they are less likely to invest in skills development than large companies for several reasons (e.g. Black and Lynch, 2001; Leuven and Oosterbeek, 1999; Bassanini et al., 2005; Lillard and Tan, 1986; and Almeida and Aterido, 2010, for developing countries). First, SMEs are more likely to lack the financial resources to invest, in spite of the possibly large expected returns on investment. Second, in spite of possibly large average returns, SMEs have worse access to information, face greater uncertainty regarding the returns on investment or have larger co-ordination problems with their workers than larger firms. Last but not least, many small firms tend to have limited or no corporate tax liability to benefit from tax subsidies.

Encouraging co-operation between SMEs to organise workplace training, to share expenses for training and its administration, and to take advantage of economies of scale can enable them to overcome the barriers their limited scale implies. Time and resources spent by one employer, e.g. on engaging with education institutions to develop curricula and test design, or to consult the local authorities, can thus be made available to other employers in the same sector. Big employers possessing very advanced training facilities and well-established contacts with education providers can also facilitate training in smaller companies that are part of their supply chain since they should have an interest in the quality of the products they receive from suppliers.

Some evidence, though not conclusive, suggests that employers might be more likely to engage in training if they are supported by an external intermediary (OECD, 2010b). Such intermediaries offering brokerage services can help employers establish the skills and related training needs, figure out which providers offer adequate education programmes that respond to their needs and engage them in the design of the training programme. Online platforms pooling information sources can also help decrease the burden of identifying the right training to employers. This may make training more accessible and affordable for employers. It can also ensure that investments are worthwhile, because the impact of training on the development of necessary skills is high.

The role of funding in higher education

The funding system can also play an important role in linking post-compulsory education to current and future labour market needs and more generally improving its quality. To achieve these objectives, direct public transfers to higher education institutions (HEIs) can be linked to their performance. Experiences in countries suggest that, to minimise unintended impacts, such as the narrowing of universities' missions, in particular, performance funding programmes need to use broad and good performance indicators (Dougherty and Reddy, 2011). These indicators can include both intermediate achievement (such as for instance retention rate and the share of students who reach certain credit thresholds) and final outcome (such as the number of students graduating and their labour market performance). As labour market needs are volatile and difficult to anticipate, there are limits to the extent to which tertiary education should respond to changes in labour market needs. For short professional programmes, the link between funding and labour outcomes can be relatively narrow while other types of performance indicators should play a bigger role for longer programmes with uncertainty on their future demand.

However, if public funding to HEIs is increasingly based on performance, there could be disincentives for them to enrol socio-economically disadvantaged students. This can be addressed by making performance targets vary with the characteristics of students (Dougherty and Reddy, 2011). There could also be direct incentives to admit students from disadvantaged backgrounds. More generally, co-operation between HEIs and the government can help define indicators of performance that minimise the unintended consequences of performance based funding.

Tuition fees may improve quality by intensifying competition between HEIs for attracting students; they may also prompt youth to choose programmes on the basis of expected labour market outcomes, especially in a system in which students have to borrow to finance education. For socio-economically disadvantaged youth, cost sharing of higher education provision needs to be accompanied by measures which remove financial barriers to undertaking higher education in the first place (Johnstone, 2004; Johnstone and Marcucci, 2010). For instance, there is evidence that the growing imbalance in access to higher education by family background, as higher education expanded in the United Kingdom, is partly driving the decline in intergenerational mobility in the country (Blanden, Gregg and Macmillan, 2007). To counteract such trends, tuition fees have to be accompanied with mean-tested student grants and income-contingent loans to finance tuition fees (Dearden, Fitzsimons and Wyness, 2011 for the United Kingdom; Box 3.10). Open education can also help to expand access to tertiary education while saving costs without compromising quality (Mangeol, 2014 and Box. 3.11).



Box 3.10 **Designing a funding system for universities that ensures equal access and strong labour market outcomes: Country examples**

In all countries, providing sufficient and stable resources to tertiary education while ensuring equal access and strong outcomes is a central objective. Countries differ widely in terms of funding systems for tertiary education but many have made substantial reforms to move towards this objective.

In the United States, states have a large experience with public performance-based funding. In the first wave of funding, grants were mainly allocated according to indicators of final outcomes with labour market outcomes playing a large role (Dougherty and Reddy, 2011). The role of labour market outcomes in funding has been downplayed in the second wave of funding systems due to the impact of the economic downturn. In Ohio for instance, public funding is now only allocated according to the number of courses and degrees completed by students. The allocation of grants also attempts to ease access of students from disadvantaged backgrounds. In Tennessee for instance, institutions are eligible to a 40% bonus for completion of low-income and adult students.

Around half of US university funding comes from tuition fees. Tuitions fees have been increasing since 1990 to reach the current high levels. Overall public and private expenditure per student in tertiary education was in 2012 the highest in the OECD, which may have contributed to the high quality of some US universities. Government-sponsored student loans have enabled students from disadvantaged backgrounds to finance tertiary education (Becker, 2012). However, this funding system has led to increasing, and now substantial, student debt as well as to loan defaults with the economic downturn. These trends have had consequences for public finances as the government provides guarantees and in some cases pays interest for less advantaged students. Furthermore, contrary to other loans, student loans are not dischargeable through personal bankruptcy, which leads to the long-lasting effects of student indebtedness. Government guarantees of student loans may have encouraged universities to raise tuition fees, which, in turn, have exacerbated public and private debt. To limit the impact of student debt on public debt, the government introduced income-contingent loans in 1993 but the intake of these loans has been low so far. The government has also developed a College Scorecard, which provides information on study costs, graduation rates, loan default rates, median borrowing and employment outcomes by college.

In France, two *Grandes Écoles*, Sciences-Po Paris and Université Paris Dauphine, have introduced tuition fees tied to the student's parental income or the student's own income, if he/she is independent from his/her parents (Mangeol, 2014). The purpose of the approach is to increase resources and ensure social equity. For example, in Sciences-Po, the 2014/15 fees for an undergraduate degree range from zero for students from lower socio-economic backgrounds to EUR 9 940 for those from upper socio-economic families, with 11 different brackets. This approach remains highly contentious in France. It could lead to the polarisation of universities between affluent and constrained institutions, since the resources generated highly depend on the socio-economic composition of the student body).

In 2012-2013, the United Kingdom implemented reforms to deregulate the university sector. The government removed student number caps, allowed universities to increase tuition fees and developed access to publically funded loans. The government also improved the website that gathers information on programmes and institutions in terms of various outcomes. The objective of these reforms was to face increasing demand for tertiary education and deliver a high-quality university sector that is more responsive to the needs of students. It is too early to apprehend all the results of the reforms. According to the first round of assessments, the number of undergraduate applications fell in 2012/13 but increased in 2013/14 (Higher Education Funding Council for England, 2013). However, there has been a decline in part-time students. At this stage, evidence suggests that the reforms have not made young people from disadvantaged backgrounds less likely to study full-time. Indeed, the Government has developed financial support for these students. There are signs that some universities are building employability more firmly into their strategies as a response to the change in the funding system. The impacts of the reforms will have to be monitored closely.

In the second half of 2014, Australia introduced a reform to improve the quality and competitiveness of its HEIs by deregulating tuition fees while at the same time reducing government funding to Australian universities by as much as 20%. The expectation is that universities will then increase tuition fees to whatever levels domestic and international education markets can bear in order to offset the shortfall in government funding. At the same time, student grants can be received for most higher education programmes while they used to be available for only a group of them. It is too early to tell what the implications of this reform will be, but it has raised concerns that higher tuition fees may limit access to higher education.



In Denmark, higher education (as other levels of education) is mostly publically funded through grants determined by the so-called “taximeter” system and there is no tuition fee. In addition, students receive student grants to cover their living costs. Taximeter “rates” are applied to the activity of institutions, with activity being measured by the number of students who have completed the programme. Taximeter rates are set by the government according to various criteria, including the field of education, political priorities, teachers’ salaries and building and administrative costs. Ex post however, institutions are free to allocate the grant as they wish and can move funds from one area to another. The system gives institutions incentives to adjust their capacity to demand and to raise efficiency, and it ensures that resources are automatically transferred from programmes with declining activity to those with rising activity. However, this funding system can also lead universities to lower the standards and manipulate outcomes in order to achieve the expected performance. In addition, the system does not provide incentives to students to choose an education programme or a field of study according to its labour market outcomes.

In order to strengthen the quality of higher education, the Danish government set up an independent expert committee that published a first set of recommendations in April 2014. Following these recommendations, in September 2014, the government decided to try to limit the intake of education programmes that have led to relatively bad labour market outcomes. If, over the last 10 years, a group of related education programmes has had an unemployment rate for graduates (after two years) that is more than 2 percentage points above the average unemployment rate for graduates in at least seven of the years, the student intake of programmes in the group will be adjusted. The number of places in this group of programmes will be lowered by 10 to 30% depending on the size of the unemployment gap for graduates. Universities are then free to allocate the reduction in places among programmes.

Sources:

Australian Government, Department of Education, www.education.gov.au/public-universities.

Becker G. (2012), “Is student debt too great?”, 28 May 2012, www.becker-posner-blog.com/2012/05/is-student-debt-too-great-becker.html.

Dougherty, K. and V. Reddy (2011), “The impacts of state performance funding systems on higher education institutions: Research literature review and policy recommendations”, *CCRC Working Paper No. 37*, Community College Research Center, Teachers College, Columbia University, New York, December.

Higher Education Funding Council for England (2013), *Financial Health of the Higher Education Sector: 2012-13 to 2015-16 Forecasts*, Issues Paper, 29 October 2013, www.hefce.ac.uk/media/hefce/content/pubs/2013/201329/HEFCE_2013_29.pdf.

Mangeol, P. (2014), “Chapter 2 : Strengthening business models in higher education institutions: An overview of innovative concepts and practices”, in OECD (2014), *The State of Higher Education 2014*, OECD, Paris, www.oecd.org/fr/sites/eduimhe/stateofhighereducation2014.htm.

OECD (2015b), *Education Policy Outlook 2015: Making Reforms Happen*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264225442-en>.

Box 3.11 **Ensuring equal access and responding to labour market needs through open education**

Massive open online courses (MOOCs) have developed in recent years. They offer opportunities to anyone at any age willing to take a course via the web. The MOOCs can help young people deepen their skills or acquire new ones through online courses from top universities, the business sector and independent experts at little to no cost. They can shorten programme completion by allowing secondary school students to start attending introductory-level higher education courses while still in high school (Bowen 2013).

MOOCs can make the education sector more responsive to the labour market demands of employers. The American telecommunication firm AT&T, for instance, has recently launched the first MOOC Master’s degree in Computer Science in a joint initiative with Georgia Tech and Udacity. Not only has the firm co-designed the curriculum of the course, but it also envisages offering up to 100 paid internships to excelling students of this degree. Such initiatives serve multiple goals. First, employers determine to a large extent the learning contents of the course with respect to their immediate and future skills requirements and train future workers to use and engage in problem-solving with new technologies. Second, by making the course available to students worldwide, employers enlarge their pool of potential recruits. Third, education providers experiment with new learning and teaching practices which can trigger improvements in pedagogical models and bring learning contents closer to the industry also in traditional education programmes. Fourth, learners can access, update and upgrade knowledge and skills throughout their working lives and expand intellectual, professional and personal networks around the world.



MOOCs can improve access to higher education across socio-economic groups and reduce inequalities. In principle, most MOOCs are offered for free or at a very low cost. For instance, the degree of AT&T and Georgia Tech, discussed above, can be obtained for USD 7 000, while the average tuition fees for undergraduates amount to USD 19 339. New technologies also enable people from rural and isolated areas, as well as disadvantaged groups, to enrol and participate in higher education. Finally, MOOCs introduce more flexibility in teaching and learning practices, thus facilitating participation of different segments of the population (e.g. part-time workers and elderly persons).

Despite the potential virtues of MOOCs, they face various challenges. First, students need to have a computer with Internet access in order to participate in a MOOC, which means that students from disadvantaged backgrounds may be penalised. Second, students need to possess the skills to learn on their own and to find the time to follow the class. HarvardX and MITx released an analysis after one year of edX, which provides some socio-demographic information about the learners. This analysis covers seventeen MOOCs from Harvard and MIT and 841 687 registrants (with 292 852 (35%) registrants who never engaged with the online content). Knowing that the median age is 26 years old and that 66% have a bachelor's degree or above, for now, it is mainly the highly educated and motivated who benefit from MOOCs. Third, most MOOCs do not grant credits or degrees and as result, may have little signalling power on the labour market. Finally, MOOCs are not able to successfully recreate a number of aspects of the face-to-face, on-campus university experience that are very relevant to the educational experience.

Sources:

Bowen, W.G. (2013), *Higher Education in the Digital Age*, Princeton University Press;

Ho, A.D. et al. (2014), "HarvardX and MITx: The first year of open online courses", *HarvardX and MITx Working Paper No. 1*.

OECD (2014e), *E-Learning in Higher Education in Latin America*, Development Centre Studies, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264209992-en>.

In systems that combine high tuition fees and high student indebtedness, student loan default has become a problem with consequences for public finances if some of these loans are guaranteed by the government (Mangeol, 2014). This partly reflects the effect of the economic downturn but also illustrate that students choose their education pathways according to a range of factors, with labour market outcome being only one of them. To help students make better education choices in a system with tuition fees, allocating grants and income contingent repayment loans can be made conditional on the outcomes of the particular programme and HEI.

Career guidance

Better career guidance and improved information about likely job prospects can help youth make informed decisions about the field of study they might like to specialise in, and the best education institution for them to attend. The high level of non-completion of tertiary programmes (Figure 3.2) reflects failures in the guidance process from compulsory to higher education, as well as poor programme quality and financial cost of education (OECD, 2008b).

To reach all youth, career guidance services need to be provided at all educational levels and types of institutions (European Lifelong Guidance Policy Network, 2014). In schools, good-quality guidance can contribute to increasing students' engagement and success in school, and support their transition from school to further education or work, as well as the acquisition of career management skills. Career guidance should provide a full picture of the various pathways in the education system, covering notably the vocational education option. Guidance in vocational education and training has an important role to play in supporting individuals to identify how they can best use the skills they have developed through their course of education and training in order to build fulfilling careers. Career guidance in universities can support effective transitions to the workplace by involving employers (including through career fairs and employer workshops) to provide work-related learning opportunities, and can help to ensure that graduates' skills are well used.

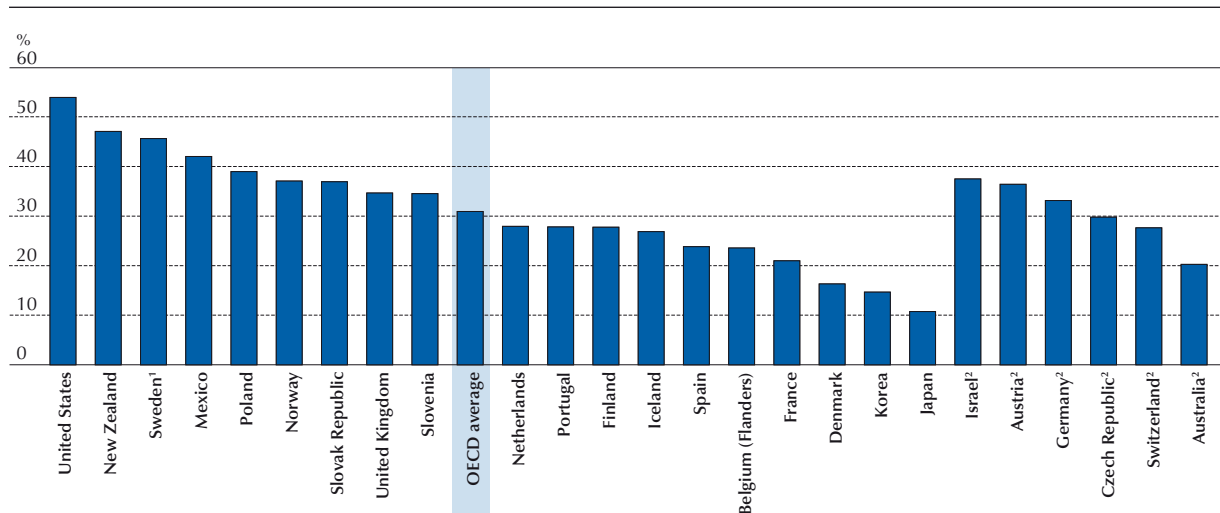
More efforts can be dedicated to providing individuals and families with timely, relevant information on the market returns of various career paths, and on appropriate education and training programmes that have been monitored to ensure quality. Some countries are raising the relevancy of career guidance services by developing indicators of labour market outcomes of alumni by institutions and programmes (Box 3.12). These indicators have to be of good quality and easy to understand. To ensure transparency, they should exist at institution and programme levels. Furthermore, they need to account for labour outcome over a sufficiently long period of time. These indicators have to be disseminated to students but with other types of information such as major trends in labour market needs and the risk of bottleneck to help students make informed choices. Other countries, notably Scotland, are enhancing the quality of advisors by recognising career guidance as a "distinct, defined and specialist profession" and providing a comprehensive view (OECD, 2014c).



Figure 3.2

Proportion of students that start tertiary education and leave without a degree

2008




1. Includes students entering single courses who may never intend to study all courses needed for a degree.

2. Tertiary-type A only.

Notes: Countries are ranked in descending order of the proportion of students who leave tertiary education without obtaining a degree. Some of the students who have not graduated may still be enrolled, or may have finished their education at a different institution, as in the United States.

Source: OECD (2010c), *Education at a Glance 2010: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2010-en>.

StatLink  <http://dx.doi.org/10.1787/888933214592>

Box 3.12 Developing labour market information as a tool for career guidance: Country examples

One of the major characteristics of good quality career guidance is the timely and accurate provision of labour market information about different education paths, programmes and institutions. Many OECD countries have made efforts recently to start a systematic and comprehensive data collection process.

In Italy, since 1994, Universities have joined together in a Consortium – the *Almaurea Consortium* – which has developed a student and graduate tracking survey aiming to collect information on the profile of graduates and on their performance when entering the labour market. After 20 years, the Consortium now tracks 80% of the graduates from Italian institutions and the results (published and accessible online at www.almaurea.it) are returned to higher education institutions to help them further develop and fine-tune their provision of programmes.

Since September 2012 in the United Kingdom, would-be students have had access to information on the universities they are considering. For the first time, students can get additional help choosing a university as they can access detailed sets of information and make comparisons between institutions using Key Information Sets (KIS) published on the Unistats site. The KIS cover 17 aspects of full- and part-time undergraduate courses, including student satisfaction, employment and earnings outcomes/salary data, learning and teaching activities, assessment methods, tuition fees and student finance, accommodation, and professional accreditation. The data are regularly updated (www.thecompleteuniversityguide.co.uk). Moreover, higher education institutions publish their employability statements. These statements set out what universities and colleges offer to their students to support their employability and transition into employment and beyond (<http://www.hefce.ac.uk/>).

In 2010, the Swedish Government tasked the National Agency for Higher Education to develop a new quality evaluation system for first and second-cycle courses based on government directives. The evaluation system essentially focuses on measuring the extent to which intended learning outcomes are achieved in terms of three major concepts: i) knowledge and comprehension; ii) competency and skills; and iii) judgment. The description of learning outcomes and professional qualifications emerge in close co-operation with professional associations. In the new quality evaluation system, labour market aspects are quite prominent, which is manifested in the increasing importance of alumni surveys and the composition of (external) assessment panels (*Högskoleverket*, 2011).



In addition, international benchmarking of academic institutions could be a valuable tool for career guidance if the rankings were to include some labour market criteria. For instance, the **Times Higher-QS World University** ranking adopts graduate employability as one of the indicators; however this accounts for only 10% of the overall ranking, an impact which is negligible compared to the high weight given to research quality (De Weert, 2011).

Sources:

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High-quality career guidance can help fill the skills gap in the economy by providing information about what types of jobs are available and the skills needed for them. The perception that the demand for skills is rapidly changing across OECD countries has spurred attempts to predict which sectors and occupations are most likely to expand in the years to come. Rising demand for high-skilled workers is expected to continue, but there are considerable uncertainties on the levels and kinds of skills in future demand (Handel, 2012). Current projections from the OECD suggest a continuing increase in employer demand for a highly skilled workforce, with a shift from manufacturing to service-based economies. Although the demand for low-skilled jobs may globally decrease, it may still continue to grow in some sectors. For instance, with the ageing of populations, demand for long-term care services will increase as well as other types of personal services (Ono, Lafortune and Schoenstein, 2013). The demand for non-routine occupation-specific skills will remain high in many sectors and countries. In addition, local labour markets can differ in their skill requirements.

Better anticipating skills needs will help make better use of youth skills in the future. Most countries have projections of future skills needs from independent or public institutions. International organisations also undertake these types of analyses, but few countries use this information to evolve their education systems. Large uncertainties surrounding these estimates, as well as the fact that skills needs may be affected by various shocks, suggest prudence in using such information. Still, trying to better anticipate skills needs and to use this information to adapt education systems are areas in which more work is needed.

KEY POINTS FOR POLICY

High-quality education institutions and strong co-operation with employers and other stakeholders are needed to ensure that youth are well prepared for the labour market and life. When leaving the education system, young people should have developed a broad range of skills and ideally acquired initial labour market experience.

Ensuring that all youth leave education systems with sufficient skills

- Take a holistic approach to skills and aim to develop the whole set of skills for employability.
- Offer high-quality, pre-primary education for all to mitigate inherited disparities between children.
- Reach out to students with low skills and those at risk of dropping out. Develop a system to monitor and validate the development of students' skills along the various tracks of education and training.
- Give disengaged youth a second chance to reintegrate into the education system. Carefully evaluate the impact of second chance schemes on education attainment and labour market outcomes and allocate funding to the most effective ones.
- Provide multiple pathways within the education system to enable smooth transitions into further education or the labour market.

Rendering the education system more responsive to labour market needs

- Develop work-based learning programmes across different types of education, including universities. Engage employers and other stakeholders in the education system at all levels.



- Review vocational education and training (VET) programmes to raise their quality. Integrate high-quality work-based learning components into these programmes. In parallel, ensure that these programmes also well develop cognitive and social and emotional skills.
- Develop a funding system of universities that better links education to current and future labour market needs, and provides incentives to enhance quality.
- Improve career guidance by ensuring that these services are provided at all education levels and information is based on relevant assessment of the market returns of various career paths.

Note

1. Lerman (2013) confronts the argument of Hanushek, Woessmann and Zhang (2011) that the erosion of gain at older ages is most pronounced in countries that emphasise apprenticeship, such as Denmark, Germany and Switzerland. The author claims that according to several estimates in Hanushek's paper, the advantage in employment rates linked to VET in the apprenticeship countries remains through approximately age 60. Moreover, in the apprenticeship countries, the advantage in employment rates is sizeable, providing men with VET a 9 percentage point higher employment rate at age 40 and a 4-point advantage at age 50.

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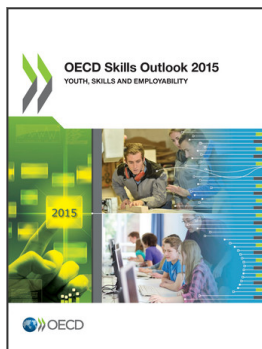
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