

**OECD Reviews of Vocational
Education and Training**

A SKILLS BEYOND SCHOOL COMMENTARY ON SCOTLAND

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Summary: Strengths and challenges of postsecondary vocational education and training in Scotland

Scottish postsecondary vocational education and training (VET) includes a wide range of provision for populations with various needs, including school leavers, disadvantaged young people, the older unemployed and those in the middle of their career who wish to upgrade their competencies. Among the main postsecondary vocational programmes are Modern Apprenticeships (industry designed programmes which support employees to acquire certificated competencies required to deliver their job role through work-based learning and or off-the-job training), and Higher National Certificates (HNC) and Higher National Diplomas (HND) provided mainly in colleges (job-related courses offering a mix of practical skills and theoretical knowledge also allowing progression onto a degree programme).

Strengths

- Recent reforms aim to increase the effectiveness and accountability of postsecondary VET through better co-ordination between agencies and services, more accountable colleges, more consistent quality frameworks for evaluating provision of education and training and better data on student transition to the labour market.
- The structure of career guidance delivery is a strength in Scotland compared with other OECD countries where advice is often more fragmented. In Scotland Skills Development Scotland is the key provider of career services and collaborates with other agencies involved in career guidance including schools, colleges and local authorities. Multiple institutions where career guidance is available and different channels of provision allow the system to reach out to a large number of individuals who might benefit from guidance, including young people transferring to a higher education level and the unemployed. Contrary to many other OECD countries Scotland recognises that career guidance is a distinct and specialist profession. The development of labour market data could further reinforce the career guidance system.
- The national qualification framework facilitates articulation within the system. Scotland has also launched specific initiatives to promote transitions, such as regional articulation hubs which facilitate the transition from schools and colleges to university by building on local partnerships between institutions.¹

- Assessors and college teachers are well prepared. Teachers in colleges are required to have relevant professional experience as well as training as teachers and to maintain and update their skills through continuous professional development. Assessors evaluating the skills and knowledge of individuals who wish to obtain a Scottish Vocational Qualification (SVQ) also require special training and need to be certified. SVQs are competence-based qualifications that are delivered and assessed in the workplace. This contrasts with many other countries where a separate profession of assessors does not exist.
- The Scottish HNC and HND are strong brands with a long history and are well regarded by employers and students. Students following these programmes represent 15% of all higher education students. The Scottish Modern Apprenticeships (MA) also have strengths: they are highly valued by both participating apprentices and employers; satisfaction levels are high; evaluation data suggests employment outcomes are good six months after completing an MA.

Challenges

- While workplace training is built into some postsecondary programmes such as Modern Apprenticeships, its use is highly variable in other parts of the VET system. Provision of workplace training depends on the qualification, programme and individual provider.
- While Scottish Modern Apprenticeship has many strengths it also faces challenges related to the provision of generic skills to apprentices, funding arrangements for those aged over 25 who have few qualifications and no relevant work experience, and provision of training to incumbent workers.
- While quality assurance in postsecondary VET is strong overall, current arrangements for the self-evaluation and external scrutiny of quality might potentially lead to variation in quality among providers.
- The focus on labour market relevance in quality assurance of VET could be reinforced. Some aspects of vocational provision ensuring its connections with the labour market are already examined - such as whether teachers have relevant professional experience and if institutions have links with local employers. But the vocational focus could be further reinforced by looking at workplace training opportunities and labour market outcomes as indicators of quality in vocational provision.

- Data on the labour market outcomes of postsecondary VET graduates are limited, in particular on labour market outcomes of college graduates. Consequently it is very hard to evaluate how well colleges are doing in preparing their students for jobs. Decreasing public expenditure increases the need for better data and information so that scarce resources can be used to most effect. College regionalisation should focus college provision more on local labour market needs. In addition, a college leaver destination survey is being piloted and in future this may address some of the gap in information.

The commentary on Scotland and its place in the wider OECD study

This commentary is one of a series of country reports on postsecondary vocational education and training prepared as part of an OECD study (see Box 1). The series includes *reviews*, involving an in-depth analysis of a country system leading to a set of policy recommendations backed by analysis. In addition there are *commentaries* (such as this one). These simpler exercises include an assessment of strengths and challenges in the country system. The commentaries are designed to be of value as free-standing reports, but are also prepared so that they can become the first phase of a full review, should a country so wish.

Box 1 Skills beyond School: The OECD study of postsecondary vocational education and training

Increasingly countries look beyond secondary school to more advanced qualifications to provide the skills needed in many of the fastest growing technical and professional jobs in OECD countries. The OECD study, *Skills beyond School*, is addressing the range of policy questions arising, including funding and governance, matching supply and demand, quality assurance and equity and access. The study builds on the success of the previous OECD study of vocational education and training *Learning for Jobs* which examined policy through 17 country reviews and a comparative report. The study also forms part of the horizontal OECD *Skills Strategy*.

Full country policy reviews are being conducted in Austria, Denmark, Israel, Germany, Kazakhstan, Korea, Netherlands, Switzerland, the United Kingdom (England), and the United States. Abbreviated exercises leading to a OECD country commentary will be undertaken in Belgium (Flanders), Canada, Egypt, Iceland, Northern Ireland, Romania, Spain and Sweden. Background reports will be prepared in all these countries, and in France and Hungary.

See: www.oecd.org/education/vet

This commentary outlines the main features of the Scottish postsecondary vocational education and training system. It then provides a brief assessment of the main strengths of the system and the policy challenges which need to be addressed by Scotland in the future. When possible, this assessment is supported by international comparisons that illustrate how other countries have dealt with similar challenges.

This commentary was prepared using a standard methodology. Authorities in Scotland provided a background report (The Scottish Government, 2013a) following which an OECD team made a visit to Glasgow and Edinburgh on 19-21 June 2013, where the team discussed issues arising with a range of policy makers, stakeholders and staff in training institutions.

Postsecondary VET in Scotland: A snapshot

Postsecondary vocational education and training includes both programmes providing initial preparation for a job and those offering progression in a given job or occupation.

Scottish postsecondary VET includes a wide range of provision for populations with various needs, including school leavers, disadvantaged young people, the unemployed and those in the middle of their career who wish to upgrade their competencies. The bulk of post-16 vocational education provision takes place within colleges. The main postsecondary vocational qualifications are Higher National Certificates (HNC) and Higher National Diplomas (HND), National Certificates and National Progressions Awards, Professional Development Awards and Modern Apprenticeship frameworks (which typically include as the main qualification a Scottish Vocational Qualification).

Postsecondary vocational programmes are provided by a wide range of institutions including Scotland's colleges, private training providers, employers, local authorities and voluntary sector organisations. Universities and secondary schools can also offer programmes leading to postsecondary vocational qualifications but this provision is not included in the scope of this commentary.

The postsecondary level typically spans Scottish Credit Qualifications Framework level 4 to 11, which corresponds to SVQ level 1 to 5 (see Scottish Qualification Authority, 2013a). Scotland's qualifications can be described in terms of the level of qualification (indicating how difficult the qualification is) and the number of credit points indicating how long it takes to complete (The Scottish Government, 2013a). Scottish Vocational Qualifications (SVQs) are a distinct type of competence qualification which

is developed from industry standards and delivered and assessed in the workplace.

SVQs cannot be awarded unless the candidate demonstrates competence through formal assessment in a real work environment. SVQs are designed to benchmark skills against the national standards of competence that describe a candidate's ability to work in real conditions by recognising the job-related skills and knowledge people need in work. The National Occupational Standards are developed by Sector Skills Councils on behalf of business and industry so that having an SVQ should be a guarantee that a candidate is competent to the standards which business and industry require. Along with each set of National Occupational Standards there is a qualification structure and an assessment strategy.

The Scottish government is responsible for education at schools, colleges, universities and for vocational education and training while the UK Government's Department for Work and Pensions has the responsibility for employment policy, including welfare payments and the JobCenter Plus network providing employment services and programmes for the long-term unemployed (The Scottish Government, 2013a).

Modern Apprenticeship (MA)

The Scottish Modern Apprenticeship is designed to help employees acquire certificated competencies required on the job. This is achieved through work-based learning and/or off-the-job training. The Work-based learning part of MA is based on the SVQ.

MA is designed by industry based on National Occupational Standards (NOS). Sector Skill Councils (SSC), independent employer-led UK-wide organisations, develop and update the content of MA frameworks. The Scottish Modern Apprenticeship Group, which is constituted by the Scottish Government and includes representatives of employers, labour and the government, approves all the frameworks. In 2011/2012 there were 96 programmes (frameworks) across 18 occupational groups. The construction sector followed by the hospitality sector recorded the highest number of new entrants between 2008/2009 – 2011/2012. MAs contain a relevant SVQ, HNC, HND or an appropriate competence-based qualification as well as training on core skills and industry specific training (The Scottish Government, 2013a).

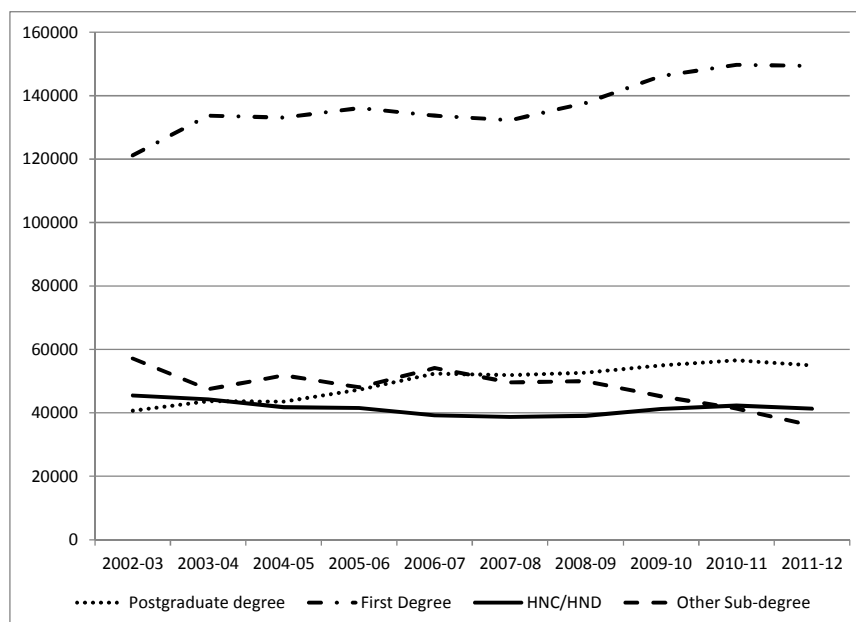
MA is part-funded by the government through contributions to training and assessment costs and employers who provide a job with training and pay wages to apprentices. Skills Development Scotland (SDS) contracts with training providers who manage the apprenticeship on behalf of employers and in some instances directly with employers. Training providers handle

administrative work, ensure the programme meets the standards and take responsibility for the assessment of knowledge and skills of apprentices. Training providers include colleges, private and third sector training organisations, and local authorities.

MAAs are demand-led, in the sense that there has to be an employer who is willing to offer a job with training or wishes to train an existing member of staff. MAAs are open to all ages. It aims to achieve and demonstrate occupational competence according to the pace of the learner and the capacity of the business rather than through set periods of learning.

Higher National Certificates and Diplomas

90% of students in Higher National Certificates (HNC) and Higher National Diplomas (HND) programmes study in colleges and 10% in universities. Over time enrolment in HNCs and HNDs has slightly declined while an increase was observed in first and postgraduate degrees (see Figure 1). Enrolment in HNC and HND currently represents 15% of all higher education enrolment (Scottish Funding Council, 2013b). One in five higher education graduates had a HND or HNC degree in 2008-09 (The Scottish Government, 2013b). Some Modern Apprenticeship frameworks, e.g. engineering, also contain HNCs and HNDs. HNCs and HNDs allow progression onto degree courses and can lead directly to employment.

Figure 1 Students in higher education by level of studies, 2002/03-2011/12

Source: Scottish Funding Council (2013b), *An Official Statistics Publication for Scotland, Higher Education Students and Qualifiers at Scottish Institutions 2011 -12*, 22 March 2013, [www.sfc.ac.uk/web/FILES/ReportsandPublications/HE Students and Qualifiers publication 11-12.pdf](http://www.sfc.ac.uk/web/FILES/ReportsandPublications/HE_Students_and_Qualifiers_publication_11-12.pdf)

Note: “Sub-degrees include: Diploma of Higher Education (DipHE), Certificate of Higher Education (CertHE), professional qualification at undergraduate level, foundation courses at HE level, HND, HNC, NVQ/SVQ levels 5 and 4, diplomas and certificates” (Scottish Funding Council, 2013b, p. 10).

The majority of postsecondary college students are enrolled in HNC and HND programmes and around 10% are enrolled in other sub-degrees. Over time the number of part-time students in colleges has declined sharply and currently 66% of students study full-time (Scottish Funding Council, 2013b). While full-time provision is mainly free, part-time programmes involve tuition fees. But part-time students receiving certain benefits, those on low incomes or who have disabilities, may be eligible for free tuition (The Scottish Government, 2013a).

National Certificates and National Progression Awards

National Certificates and National Progression Awards are designed to prepare for employment but also for progression to more advanced HNC/HND qualifications.

Other national training programmes

These included employability programmes such as “Get Ready for Work” for disadvantaged young people and “Training for Work” for unemployed adults. From April 2013 these programmes were discontinued and a new programme – known as the Employability Fund - was developed. This seeks to align employability provision to individual need and the employment opportunities in the local area.

Quality assurance

The Scottish system of quality assurance separately covers the provider, the qualifications and learning, teaching and training provision. The process of development, accreditation and review of qualifications is an important element in quality assurance and in ensuring fair competition among providers (see Scottish Qualification Authority, 2013b).

The Scottish Qualifications Authority is the national body for Scotland with responsibility for school and vocational qualifications. It has two distinct but complementary functions. Both functions are overseen by the same Chief Executive and Board of Management.

- SQA Awarding develops, validates, quality assures and awards national qualifications for schools, and national postsecondary qualifications (other than degrees) in Scotland. This includes Higher National Certificates and Higher National Diplomas. SQA Awarding approves the providers that will deliver these qualifications and conducts on-going quality assurance to ensure they continue to meet the standards for these qualifications. SQA Awarding has a self-regulation role for the majority of the qualifications it offers. SQA Awarding is also the largest Scottish Vocational Qualifications awarding body. However, SQA Awarding must seek accreditation from SQA Accreditation to offer these qualifications and a small range of similar qualifications.
- SQA Accreditation has responsibility for accrediting qualifications (other than degrees). Some qualifications need to be accredited by SQA Accreditation before an awarding body can offer them. For example, SVQs can only be awarded by awarding bodies which have sought accreditation for them, as do a range of licence to practice qualifications (including qualifications in the licencing and security sectors).

36 awarding bodies have been approved by SQA Accreditation. Once approved, awarding bodies are required to seek accreditation for any qualification which has mandatory accreditation and they may also, on a voluntary basis, submit any other qualification for accreditation. Awarding Bodies will in turn approve institutions to deliver the qualifications they have accredited. SQA Accreditation ensures awarding bodies continue to meet the standards, mainly through audits and monitoring. Audits can be full or scoped. Full audits examine whether the awarding body complies with all the requirements. These may be carried out through visits to awarding bodies or by a desk-based audit. Scoped audits are designed to look at specific areas of the awarding body's activity, but in much greater detail than would be possible during a full audit. Audits are supplemented by regular monitoring of the awarding body, which may also involve both paper checks and visits to the awarding body's premises. Audit and monitoring reports are agreed with awarding bodies before being published (SQA, 2013d). The frequency of audit activity depends on the performance of awarding bodies, with those showing lower performance audited more often. The quality of SVQs is assured by SQA Accreditation. Each qualification defines the practical and theoretical skills the student should develop on the programme and how the assessment of these skills should be carried out.

SDS assesses all SDS-funded providers of the Employability Fund and Modern Apprenticeships. Education Scotland evaluates and supports vocational training in colleges through a range of activities, including scrutiny through external review, annual monitoring, specific thematic reports and visits to colleges.

All SDS-funded National Training Programme (NTP) learning providers are required to meet SDS Quality Standards and to demonstrate how they are enhancing the quality of services for learners and employers. The Standards have a clear focus on the learner, the support provided to them and the outcomes achieved. For example, the Standards cover how well learners are progressing, what outcomes they are achieving and how well learner and employer needs are being met (SDS, 2013d). SDS use qualified Quality Assessors to assess learning providers against the SDS Standards. Education Scotland, will provide assurance on those colleges that contract with SDS to deliver NTPs through their own quality assurance programme of visits. SDS Quality Assessors provide feedback to providers on their strengths and areas for improvement and SDS Skills Investment Advisors (Contract Managers) monitor progress in implementing agreed improvement actions (SDS, 2012).

Education Scotland ensures quality and quality improvement in colleges, scrutinises the learning and teaching process and learner outcomes. For example, it explores how well learners are progressing and the outcomes they are achieving, the effectiveness of the college's learning and teaching processes, how well learners are engaged in their own learning and their contribution to the work and life of the college, and how well the college is led and enhancing the quality of its services for learners and other stakeholders (Education Scotland, 2012). Through its range of evaluative activities, Education Scotland provides quality assurance and quality improvement assurances (or otherwise) on all colleges to the Scottish Funding Council enabling it to fulfil its statutory duty.

Both SDS and Education Scotland look at how the providers co-operate with employers and how well they serve local and national employers.

Labour market context

After a fall in employment following the economic crisis the number of people in employment is now rising again and unemployment is falling. The Scottish unemployment rate is 7.5%, below the UK average of 7.8% (Office for National Statistics, 2013). Unemployment has also been falling among young people. Young populations have been particularly hit by the crisis and in many OECD countries youth unemployment rates remain stubbornly high. In Scotland more than 13% of 16-19 year-olds remained outside employment, education or training (NEET) in 2011, one of the highest levels in the UK (The Poverty Site, 2011).

To tackle youth unemployment the government has launched initiatives including the Post-16 Education Reform and a Youth Employment Strategy that aims to improve the co-ordination of youth services and training opportunities. It is based on an all-government approach, more support for young people and stronger engagement with employers (The Scottish Government, 2013a).

Previous OECD analysis and recommendations

While most elements of employment policy are UK-wide, education and training is devolved to Scotland. A review of quality and equity of schooling in Scotland (OECD, 2008a) looked at the Scottish school system. Recent relevant OECD work has largely been undertaken within the UK context, including the OECD Economic Survey of the UK (OECD, 2013) and the UK review of Jobs for Youth (OECD, 2008b).

Currently, alongside this commentary on Scotland, a full review of England has been published (Musset and Field, 2013) and a commentary on Northern Ireland is to be published in early 2014 – both funded by the UKCES.

The OECD review of quality and equity of schooling in Scotland (OECD, 2008a) praised Scotland for good results on PISA assessments and for one of the most equitable school systems among the OECD countries. But it notes that too many young people leave school with minimal qualifications and that a comparatively high proportion of school leavers experience precarious transitions. The OECD Economic Survey of the UK (OECD, 2013) argues that central and local governments should enhance co-operation with employers on VET and apprenticeship programmes. It recommends: *i)* raising awareness of government programmes to support youth employment; *ii)* simplifying training and apprenticeship systems; and *iii)* enhancing co-operation between local authorities, schools and enterprises in integrating graduates into the labour market (OECD, 2013).

The OECD Jobs for Youth Review of the UK (OECD, 2008b) recommends simplification of the academic and vocational qualifications framework, less gender segregation in apprenticeship training and more participation by ethnic minorities. On apprenticeship it recommends guidelines on the minimum number of hours of training; the involvement of Group Training Associations; targets to favour jobless candidates and action to raise completion rates. It also encourages employer provided off-the-job training (OECD, 2008b).

The importance of postsecondary VET across OECD countries

Substantial and growing provision of postsecondary VET across many OECD countries corresponds to growing demand for mid-level professional qualifications. A forecast of employment change in the 27 EU countries between 2010 and 2020 implied that nearly two-thirds of overall employment growth would be concentrated in the “technicians and associate professionals” category - the category (one of nine) most closely linked to postsecondary VET. The same category currently represents only 15% of EU employment (CEDEFOP, 2012). Similarly in the United States, a recent forecasting exercise (Carnevale, Smith and Strohl, 2010) predicts that in the decade to 2018, nearly one-third of the vacancies will require some postsecondary qualification but less than a four-year degree – in most cases a postsecondary vocational qualification.

The implication is that OECD countries need a significant and probably growing amount of postsecondary vocational provision below bachelor’s level. Common sense tells us that some occupations involve more than

upper secondary qualifications but less than a bachelor's degree, and the skills systems of many OECD countries reflect this fact. Strong postsecondary VET in Scotland including HNC and HND qualifications in particular and also higher level apprenticeships are therefore very much to be welcomed.

Strengths and challenges in Scotland

Strengths

Recent reforms aim to increase effectiveness and accountability

Across OECD countries, managing multiple vocational institutions and programmes to deliver strategic coherence without damaging diversity and innovation is a major challenge. Institutional autonomy, while promoting local innovation, can add to the challenge of coherence and co-ordination.

Some countries take advantage of synergies between different institutions, and economies of scale by merging some institutions. Such mergers are always difficult to handle but typically fruitful, and the successful realisation of these mergers is a real strength (see Box 2). Northern Ireland provides a recent example: FE colleges were organised into six regional bodies by merging smaller colleges and training institutions (Alvarez-Galvan, forthcoming).

Box 2 Reorganisations through institutional mergers

In Finland, schools of higher vocational education were established in the 1990s mainly by merging existing technical and business colleges, plus other institutions formerly at secondary level.

In Denmark, until the late 1960s, the VET system was composed of professional schools (covering areas such as engineering, business studies, veterinary science and dentistry) and many smaller specialised schools and colleges, and it was highly fragmented. Many schools were small and thus vulnerable to fluctuations in budgets, staff and student intake. In 2000, the act on medium-cycle higher education created a common framework for all of these programmes and institutions. Postsecondary vocational education was redesigned in two sectors: nine academies of professional higher education, providing two-year degrees, and seven university colleges, providing three-year bachelors' programmes. 25 standard programmes replaced the previously existing 70 short-cycle programmes of varying content and length (Danish Agency for Higher Education and Educational Support, 2012). Their creation was surrounded by much controversy as professional groups and local interests feared for the independence of "their" educational institutions, but now the majority of the stakeholders seem to be satisfied with the new system (Rasmussen, 2004).

In the Netherlands, mergers between research intensive universities and universities of applied science (*hogescholen*) have become a chief mechanism for creating flexibility and sustaining growth.

Kyvik (2002) discusses the merger of 98 vocationally-oriented colleges into 26 state colleges in Norway. The mergers, which took place in 1994, have in many ways proved to be a successful reform. The colleges now have more competent administration and professional leadership, and they have become far more visible and have acquired a higher status.

Source: Danish Agency for Higher Education and Educational Support (2012), *Skills beyond School: OECD Review of Post-Secondary Vocational Education and Training – National Background Report for Denmark*, <http://en.fivu.dk/publications/2012/oecd-review-skills-beyond-school/oecd-review-skills-beyond-school-denmark.pdf>; Kyvik, S. (2002), "The merger of non-university colleges in Norway", *Higher Education*, Vol. 44, No.1; Rasmussen P. (2004), "Towards flexible differentiation in higher education? Recent changes in Danish higher education" in Fägerlind I. and G Strömqvist (eds.) (2004), *Reforming Higher Education in the Nordic Countries – Studies of Change in Denmark, Finland, Iceland, Norway and Sweden*, Institute for Educational Planning, Paris.

In Scotland the government has launched many reforms with a strategic focus on skills, employability and especially employment among young people. Many of these initiatives have a direct impact on postsecondary VET, and some of them might be helpful in addressing challenges identified in this report.

Recent changes aim to achieve:

- *Better co-ordination between agencies and services:* A Joint Skills Committee between the Scottish Funding Council and Skills Development Scotland was established in 2009 to provide strategic advice to the respective boards of those agencies. This advisory committee has a wide range of expertise from a cross section of stakeholders including the Scottish Qualifications Authority, representatives of employers, trade unions, universities and colleges (The Scottish Government, 2013a). Working in partnership, the Joint Skills Committee aims to create a learning system that is accessible to all, enhances the employability of learners and increases the demand for skills among employers and individuals. In addition, Skills Development Scotland and the Department of Work and Pensions have a partnership agreement which sets out joint actions to maximise the outcomes of the services from both agencies and prevent duplication. At the local level local partners are encouraged to set up outcome agreements in which they define educational and employment objectives and how to reach them.
- *More accountable colleges:* Colleges will be held more accountable for their work and will be part of regional partnerships setting up local outcome agreements. More information will also be collected on college graduates and their labour market outcomes. With the merger of colleges and their regional reorganisation, funding will be channelled to the regions and based on demographics (rather than going directly to colleges). An admissions process devolved to colleges may be replaced by a common application process that will measure demand more precisely.
- *Better data on student transition to the labour market:* There are plans to improve the tracking of labour market outcomes of those leaving the system. Currently there are surveys of school leavers and Modern Apprentices but very limited information is available on college graduates.

Strong career guidance

Across OECD countries, more complex careers, with more options in both work and learning, are expanding opportunities. But they are also making decisions harder as people face a sequence of complex choices over a lifetime of learning and work. Often career guidance is weak: too often those offering guidance are inadequately acquainted with labour market issues, with career guidance sometimes playing a subsidiary role to psychological counselling; guidance services can be fragmented, under-resourced and reactive, so that those who need guidance most may fail to obtain it; relevant labour market information is not always available or readily digestible and comprehensible (see OECD, 2010).

In Denmark, guidance is a key tool used to tackle high dropout rates in upper-secondary and postsecondary education. Education institutions must, by law, refer students that wish to drop out or change programmes to regional guidance centres (Danish Agency for Higher Education and Educational Support, 2012). Municipalities are legally obliged to make contact with, and offer guidance to, young people that are not working and not enrolled in education at least twice a year up to the age of 19; some municipalities extend the system beyond this (OECD, 2004). The quality of guidance is underpinned by linkages between guidance services and all relevant stakeholders, making it relevant for both education institutions and the labour market (Danish Agency for Higher Education and Educational Support, 2012; OECD, 2004). A decentralised and flexible structure produced a diversity of practice and exchange of experiences, knowledge and best practice, with strong local ownership by the different stakeholders – including youth education and higher education institutions, and the social partners in industry and commerce (Danish Ministry of Education, 2004).

Scotland has a well-developed system of career guidance. Guidance and labour market information is offered in various institutions such as schools, colleges, local authorities and JobCenters catering to diverse populations. To adapt best to individual needs, career guidance is provided through a new website, telephone contacts, face-to-face contacts and tailored support. Multiple institutions involved in career guidance and different channels of provision allow the system to reach out to different groups, including young people seeking out further and higher education and unemployed persons. Many young people met during the visit by the OECD team reported having received helpful and constructive career guidance. Co-ordination of services can be a challenge in a system involving many providers, but in Scotland Skills Development Scotland acts as the strategic leader, collaborating closely with schools, colleges, local authorities and other bodies and organisations such as employer representatives (The Scottish Government, 2011).

Contrary to many other OECD countries where there is no specific profession of career advisors (career guidance often being provided by school teachers and psychologists), Scotland recognises that “career guidance is a distinct, defined and specialist profession which demands a unique set of core skills and expect all career guidance practitioners to be professionally qualified” (The Scottish Government, 2011, pp. 10). This is commendable and in line with OECD recommendations (OECD, 2010). Career advisors are also given an opportunity to update and improve their career advisor skills while on the job (The Scottish Government, 2013a).

The Scottish approach to career management involves helping individuals to understand their strengths, the objectives that they wish to set for themselves and the networks and resources that will help them reach these objectives. The aim is therefore to help individuals to plan their career independently by equipping them with relevant tools and knowledge. Career services also include support from Career Coaches who engage with young people through talks, group sessions and individual coaching. Young people who need support to make a successful transition into employment receive one-to-one sessions, as does any young person who needs additional advice.

Reliable data on labour market outcomes of individuals with various qualifications and degrees inform student choice and are a key element of a strong career guidance system. This element is currently lacking in Scotland as labour market data are not available for all VET programmes. This issue is being currently addressed by the Scottish government and data development is among its priorities.

Well-articulated pathways

Partly because of increasing labour market demand for high level skills, and partly because increasing numbers of young people aspire to university education, vocational programmes need to allow for progression to academic tertiary education. But students in OECD countries often find it difficult. 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 higher level institutions to offer course exemptions. The effect can be multiple inefficiencies: for the students because they have to repeat course material, for funding bodies that pay for such repetition and for institutions that often have to laboriously negotiate articulation agreements on a programme by programme and institution by institution basis.

A separate challenge arises for those seeking to transition from work into further and higher education. Many OECD countries have been seeking to encourage the recognition of prior informal learning and work experience,

but have often been disappointed by the obstacles to its full realisation. Education institutions and teachers are often unwilling to accept that competences can be acquired in different learning contexts, and even informally. Employers are sometimes reluctant to make the skills of their own employees too transparent for fear of poaching.

Box 3 International experience of credit transfer and articulation

In Austria, graduates of vocational colleges can, in principle, start a bachelor's degree in a relevant study programme in the second or third semester (Prokopp and Luomi-Messerer, 2009), but the level of recognition depends on individual agreements between institutions and is sometimes absent. In response, many vocational colleges have developed partnerships with academic postsecondary institutions outside Austria, allowing their graduates to earn a professional bachelor's degree within around one year, a much swifter route than any available in Austria (Musset and Field, 2013).

In Canada, articulation policies vary from a systematic, province-wide credit transfer process in British Columbia to credit transfer negotiated bilaterally by institutions in Ontario (Junor and Usher, 2008).

In Germany, postsecondary career and technical education (CTE) institutions (*Fachschule*) follow standards set up by provincial authorities (Land) (Hippach-Schneider et al., 2012). This ensures comparability of programmes at the provincial level and allows students to transfer across postsecondary CTE institutions. But transition from postsecondary CTE to academic institutions remains a substantial challenge (see Fazekas and Field, 2013a).

In Scotland articulation across qualifications including transition to a higher level qualification is promoted by the Scottish Credit and Qualifications Framework which, by describing every qualification and placing them on particular levels, highlights connections between qualifications and indicates progression routes. Additionally, SVQs are developed with actual progression routes to support the well-articulated pathways. Articulation is further facilitated by articulation agreements between colleges and universities which help learners move between different levels of further and higher education. Learners are therefore able to make the best use of their credits and avoid repetition of learning (The Scottish Government, 2013a).

Scottish postsecondary VET offers many options in terms of programmes, qualifications and providers, but despite the qualification framework, navigation through the system might be confusing for users. A map of the system identifying pathways and connections between its various elements could facilitate its comprehension. Such maps have been used in

many countries to provide a commonly owned picture of the system to inform all those who use it (see for example Skolverket, 2013 for an example from Sweden).

To facilitate articulation from college to university the government funds regional articulation hubs (currently there are six).² They work with local colleges to enhance articulation opportunities for students pursuing HNDs and HNCs. Graduates with these qualifications can then directly enter either the second or third year of identified degree programmes at universities (Scottish Funding Council, 2010). Articulation programmes are also offered to MA graduates.

School and college provision is also well articulated. Some partnerships between schools and colleges provide an opportunity for school students to study “Skills for Work” courses.³

As part of the broadening of the curriculum, the ability to deliver units or modules that are included in HNCs and HNDs in schools will start to happen under the senior phase of the Curriculum for Excellence and therefore accelerate the completion of these programmes. Similar initiatives of dual enrolment are common in the United States but are rather rare in most other countries.

Assessors and college teachers are well prepared

Across OECD countries as in general education, the quality of the teaching and training profession is critical to effective learning in vocational programmes (OECD, 2010). A number of OECD countries are facing challenges in recruiting and retaining teachers who meet the demanding twin requirements of pedagogical skills, and practical professional expertise. While most countries require teachers to have pedagogical preparation, and usually practical experience in their specialism, keeping that practical knowledge of the workplace up-to-date is often more of a challenge. This challenge is typically addressed in two ways. First, part-time working arrangements, with practitioners continuing to work in their field while also working as trainee teachers, has obvious advantages. Second, directly recruiting practitioners from industry in mid-career is useful. Both strategies require a suitably flexible framework of pedagogical preparation suitable to persons in this position, rather than one merely adapted to younger entrants to the profession (see Box 4).

Box 4 Teacher and trainer training in Switzerland

Teachers and trainers in professional colleges are well-prepared both in their profession and pedagogically. The Swiss Federal Institute for Vocational Education and Training, SFIVET (*Eidgenössisches Hochschulinstitut für Berufsbildung*, EHB) provides basic and continuing training to examiners and college teachers. They are required to have a professional college degree, or a higher education degree or an equivalent qualification in their chosen field and both full- and part-time teachers are required to pursue a vocational pedagogy programme (OPET, 2011). The supply of well-trained teachers and trainers is underpinned by the high prestige of teaching in a professional college and flexible arrangements to blend work in the profession with teaching. Such part-time teaching arrangements not only allow teachers to keep their job in industry, but also ensures that professional colleges' curricula reflect up-to-date industry requirements (individual teachers typically develop their own curricula within the framework of the certified curriculum of their college).

In Scotland, teachers in colleges are required to have relevant professional experience as well as pedagogical training. A person with relevant occupational skills can start on a job without special training for teachers but those who wish to remain in the teaching profession have to eventually complete the training. Training lasts one year if full-time or two years in part-time mode. Teachers are also required to maintain their skills up-to-date through continuous professional development.

Relevant occupational experience is typically required by bodies awarding vocational qualifications and thus applies to all postsecondary vocational programmes leading to a SVQ regardless of whether they are provided by colleges or other providers. The difference between colleges and other providers lies in the pedagogical preparation of teachers, as teacher training is not systematically required by providers other than colleges. This could potentially represent a challenge.

Assessors evaluating the skills and knowledge of individuals who wish to obtain a SVQ also require special training and need to be certified. This is a clear strength as it allows an independent and objective assessment of student competences and ensures the qualification is of high quality. In some other countries, where a separate profession of assessors does not exist, this is carried out by individuals who might not be familiar with assessment procedures. In the United States Ray and McCoy (2000) argue that the absence of unbiased, neutral groups for determining examination content and sanctioning examiners may undermine the value of certifications. This can be because bodies running them lack relevant expertise or because they

might lower standards to increase pass rates and make the certification more attractive – a “race to the bottom”.

Positive outcomes from Modern Apprenticeship and a strong HNC and HND sector

Across OECD countries professional bachelor degrees are common. Less visibly, substantial numbers of people pursue professional qualifications through shorter programmes of study (see Box 5). In some countries such as the United States, Canada and France such programmes are well established, but in England there are ten times as many students enrolled in bachelor programmes as in two-year foundation degrees (and foundation degrees are sometimes no more than academic and stepping stone to bachelor’s degrees). Other postsecondary programmes in England such as higher national certificates and diplomas are a very small and declining element of postsecondary education (Musset and Field, 2013).

Box 5 How many students are in shorter vocational degrees?

In the United States around 12% of the labour force have a postsecondary “certificate” (typically a one-year degree) as their highest qualification – and certificate graduation rates are burgeoning – tripling in recent years. A further 10% have an associate degree (two-year degree), many of which will be vocational (Kuczera and Field, 2013).

Similarly in Canada, around one-quarter of the cohort gains a (typically professional) associate degree as their highest qualification (Department of Human Resources and Skills Development Canada, 2012).

In the very different circumstances of Switzerland around 15% of the cohort graduate through the professional education and training system, through professional colleges and industry-led federal exams (Fazekas and Field, 2013b). In some other countries, while postsecondary VET is smaller in scale, it is rapidly growing.

In Colombia, between 2002 and 2010 postsecondary enrolments in technological and professional technical institutions trebled, while bachelor’s degree enrolments grew by just 40%, so that by 2010, enrolments in these programmes represented one-third of all undergraduate enrolments (see Table 1.4 OECD/International Bank for Reconstruction and Development/The World Bank, 2013).

Many countries also use apprenticeship to train the labour force as good quality apprenticeship provides many benefits to employers and apprentices including smoother transition to the labour market. The design of apprenticeship varies across countries. In Ireland, Canada and the United

States apprentices are already outside formal schooling and have employee status (Kis, 2010, Kuczera and Field, 2013). In these countries apprenticeship tends to be concentrated in traditional blue collar occupations, such as construction. In the United States apprenticeship as a way of training the labour force remains marginal. In countries such as Switzerland, Germany and Norway apprenticeship is part of formal schooling, typically at upper secondary level.

In Scotland, shorter postsecondary qualifications such as the Scottish HNC and the HND have a long history and are well regarded by employers and students (The Scottish Government, 2013a). Students following these programmes represent 15% of all higher education students with a further 13% enrolled in other sub-degrees.⁴ Shorter degrees therefore account for 28% of all higher education enrolments (Scottish Funding Council, 2013b). And given that these are short programmes, they form a much higher proportion of all higher education graduates. In addition, some Modern Apprenticeship frameworks, such as engineering, also contain HNCs and HNDs.

As in Ireland, Canada and the United States, Scottish apprenticeship is provided at postsecondary level and apprentices have a status of employees. Surveys of employers and apprentices carried out in 2012 (SDS 2013a, 2013b) shows that the majority of participants and employers are satisfied with the quality, relevance and arrangements for training. Participants also pointed to other benefits in terms of increased job responsibility, pay and promotion, whilst employers highlighted the improved skills of qualified apprentices.

Challenges

Challenges in Modern Apprenticeship

Across OECD countries, apprenticeships combine education and training in schools or other VET institutions with workplace training.

The blend of school and workplace learning offered by apprenticeships is a powerful and effective method of preparing young people for jobs and careers. They are very effective at securing smooth initial transitions into the labour market particularly (but not only) where labour markets are relatively regulated. The design is highly variable: on-the-job and off-the-job components are alternated within a week (e.g. Austria, Belgium-Flanders, Germany, Austria) or in blocks of several weeks (e.g. Ireland, Canada). In Norway, two years of off-the-job training are followed by two years on-the-job training. Quintini and Manfredi (2009) discuss different transition patterns from school to work across OECD countries. They note

that in countries with regulated labour markets and strong apprenticeship systems, such as Germany, about 80% of school leavers succeed in rapidly integrating into the labour market. In some OECD countries, apprenticeships are used not only in the traditional trades, but are also extended to sectors such as the civil service, and tourism. Apprenticeships are also increasingly used to train for technical areas, such as laboratory and hospital technicians. In Norway, apprentices are found in public administration. In Switzerland, a new “IT engineer” occupation was designated in the 1990s with an associated apprenticeship. In Germany for example, dual vocational programmes are offered in 349 trades and have variable length (between two and three and a half years) according to the field and technical difficulty. The powerful structures of the dual system have been applied successfully to higher level technical trades which would involve tertiary education in other countries.

One distinctive feature of some apprenticeship systems – notably in some of the dual system countries - is a legislative framework and a distinct apprenticeship contract that is different from a normal employment contract. Such a contract typically defines the conditions under which either apprentice or employer may terminate the arrangement. It also allows the employer to pay the apprentice an agreed (and incrementally increasing) proportion of the standard wage for a skilled worker during the standard period of an apprenticeship. Such contracts, while strongly binding the employer to retain the apprentice during the apprenticeship period (save in exceptional circumstances) leave the employer under no obligation to recruit the apprentice when their training is complete. This classical structure means that the apprenticeship structure is only really suitable for new recruits, and is not normally suitable for incumbent workers, who would have to abandon their normal employment contract to be recruited as an apprentice under an apprenticeship contract.

While Scottish Modern Apprenticeship has many strengths, as described earlier, it also faces some issues and challenges related to the provision of generic skills to apprentices, funding arrangements for those aged over 25 who have few qualifications and no relevant work experience, and provision of training to incumbent workers.

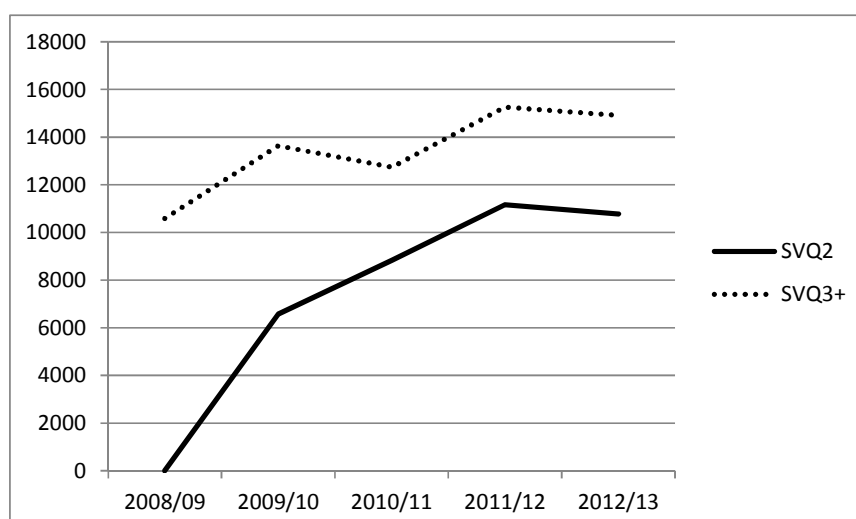
Basic skills in level 2 apprenticeship

In Scotland, while Modern Apprenticeships can lead to SCQF level 5 to 11, 42% of apprentices start in programmes corresponding with SCQF level 5 / SVQ level 2. Among 16-19 year-olds the share of those in level 2 apprenticeships reaches 45%. MA at SVQ level 2 was introduced in response to industry demand in 2009 and also recorded the highest growth over the last four years (see Figure 2). At the same time apprenticeship at

the higher levels has been expanding. The Scottish Government has recently introduced the Technical and Professional Apprenticeship that can include higher level qualifications such as the Higher National Diploma. It is possible to progress from a level 2 Modern Apprenticeship to higher levels, but few apprentices pursue this pathway. Just over 750 individuals progressed from level 2 to level 3 in 2012/13 (SDS, 2013c), compared to around 11 000 apprentices who started at level 2 in 2011/2012 (The Scottish Government, 2013a).

Figure 2 Growing numbers of apprentices particularly at lower levels

Annual number of new entrants to Modern Apprenticeship



Source: The Scottish Government (2013a), *Skills beyond School, OECD Review of Vocational Education and Training, Background Report from Scotland*.
www.oecd.org/education/vet

Depending on the occupation, a Scottish MA level 2 takes from 7 to 20 months to complete. 25% of level two apprentices have SVQ1 (or equivalent) as the highest qualification (SDS, 2013a Table 3.1). Those individuals are more likely to perform poorly in generic skills as educational attainment is closely associated with basic competences. It is not clear how much of generic skills is provided to apprentices, and in particular to level 2 apprentices who might need them most, given the relatively short duration of level 2 modern apprenticeships and the fact that 24% of employers do not offer off-the-job training to apprentices (SDS, 2013b, pp. 20).

Employers are overall satisfied with the duration of apprenticeship and with basic skills of apprentices (SDS, 2013b pp.19 and 29). But development of generic skills in employees is not always in the interest of the employer, as these skills are easily transferable to another firm.

The model for MAs in Scotland is based on developing competence and there is no set duration for the length of the apprenticeship. Without changing the principles of the current model it could be explored whether it gives enough weight to basic skills and whether apprentices, and in particular those in level 2 MA, have a genuine opportunity to develop these skills during their training.

In Norway the standard model for apprenticeship is two years in school followed by two years of apprenticeship in a company (Kuczera et al., 2008). Students who are disengaged from school and at high risk of not completing their upper secondary education can enter a Certificate of Practice, two-year training programme during which participants work in a company four days a week and attended school one day a week to study general subjects (CEDEFOP, 2011). Similarly in Switzerland, a typical apprenticeship lasts three or four years and combines training in a company with learning in school. Alternatively, students facing academic challenges can opt for two-year basic course leading to a recognised professional qualification (Organisation of the Swiss Abroad (OSA), 2013).

Some apprentices might already have relevant work experience when starting their MA

MA rules require that all apprentices must be employed. So even if an employer takes on recruits with the intention to train them as apprentices, there is a time lag before that is realised. The short delay may provide benefits to both employer and employee: the employer can assess that the employee is capable of progressing in their industry and the employee has time to become familiarised with the employer and wider industry - both these benefits may help to reduce non-completion. Other issues such as timings dictated by the start of training (i.e. training delivered in colleges will be tied to the college term) can also cause a delay to the start of MA training.

38% of Modern Apprentices were either employed for one year or longer before starting their apprenticeship or not specifically recruited for MA (SDS 2013a, pp.8). More than one-third of all apprentices might thus have had relevant job experience when starting on a MA. Those with some relevant work experience are likely to develop fewer additional skills during their Modern Apprenticeship than apprentices with no such experience. The

training of incumbent workers can be very valuable, but it can be questioned whether the funding should be the same as for apprentices new to the job.

Age threshold

The funding contributions received by providers of MA depend on various criteria such as the age of the apprentice, the level of qualification and the occupational framework. In line with the Scottish Youth Employment Strategy the funding contribution is higher for those under 25; for example in automotive apprenticeship training a provider receives twice as much for a young apprentice as for one aged 25 or older. In addition, the higher rate for younger people reflects in part the longer time it takes for many young people to build skills to the SVQ and core skills assessment level required for completion of the MA.

This is consistent with government policy, which gives priority to reduction of youth unemployment and facilitating transition to the labour market of young people who did not have time to gain valuable work experience, and with the principle of fairness in terms of funding. In Scotland postsecondary education in schools, colleges and universities is heavily subsidised by the state, yielding a strong argument that apprenticeship as an alternative route of education and training for young people should also receive public support. At the same time the age threshold might create an obstacle to apprenticeship training for those over 25 but with low qualifications and with no relevant work experience. For example in Norway, a right to upper secondary education is guaranteed by law and there is no discrimination by age in access to this level of qualification. This arrangement removes barriers related to insufficient provision and the cost of participation in education and training (Kuczera, 2011).

Outside apprenticeship, patchy provision of work-based learning

Across the OECD some countries use workplace learning very effectively. Workplaces provide a strong learning environment in which to develop hard skills on modern equipment, and soft skills through real world experience of teamwork, communication and negotiation; workplace training facilitates recruitment by allowing employers and potential employees to get to know each other, while trainees contribute to the output of the training firm. Workplace learning opportunities are also a direct expression of employer needs, as employers will be keenest to offer those opportunities in areas of skills shortage.

There are particular strengths in having mandatory requirements for workplace training built into vocational programmes, and linked to

government funding, as it provides a strong incentive for partnership between training providers and employers. Training providers understand that it is a condition of public funding that they pursue such partnerships, while employers for their part appreciate that if they do not offer training places, then the publicly funded training from which they benefit will be diverted to other parts of the country, or other sectors of industry. This principle not only supports workplace training with all the benefits that follow, it also has the power to foster local partnerships between vocational programmes and employers. Such partnerships yield all sorts of spinoff benefits – for example in sustaining the familiarity of the teaching profession with the needs of modern industry, in informing curriculum development, and catalysing applied research exercises. For these reasons OECD reviews have encouraged countries to make patchy and voluntary workplace training arrangements systematic and mandatory – for example in the OECD reviews of Korea (Kis and Park, 2012) and England (Musset and Field, 2013).

Other countries often pursue this approach. For example in Belgium Flanders a “reasonable” amount of workplace training is required in all two-year associate degrees; in Denmark short cycle academy programmes include a mandatory internship of at least three months, while the professional bachelor programmes include a mandatory internship of at least six months (Field et al., 2012); in Sweden workplace training is obligatory in two-year postsecondary vocational programmes (“higher vocational education”) and takes one-quarter of the programme’s duration. This structure also builds partnerships with employers into the design of the system, since it is only possible to seek funding for a programme when a partnership with employers willing to offer the workplace training is already in place. At professional bachelor’s level, mandatory workplace training is less common, but is a mandatory element in Denmark and the Netherlands.

A mandatory arrangement is sometimes initially difficult, as employers and vocational training institutions adjust. Making work experience an integral part of the programme recognised with credits provides incentives to institutions and students to engage in training. Courses designed primarily for part-time students who are in work often make less formal use of workplace training, since it is often assumed that students are already gaining relevant experience through their ordinary work.

The benefits of work-based learning depend on its quality. In the absence of quality control, workplace training opportunities for young people can degenerate into cheap labour, or involve very narrow and firm-specific skills (OECD, 2010). To increase the benefits of training the time of provision and its duration can be organised in a flexible way to fit requirements in specific occupations and the needs of the learner. Some

occupations require substantial theoretical and practical training before a student is able to do meaningful work. Similarly, some types of learners might benefit from more time spent in school workshops before being transferred to a real work environment.

In Scotland while work-based learning is built into some postsecondary programmes (other than apprenticeship) its use is highly variable depending heavily on the programme and individual provider. Colleges enjoy a lot of autonomy and are free to provide work placements to students (in programmes where such placements are not mandatory). The OECD team was informed during the visit that relationships between local employers and colleges vary substantially, and affect the availability of work placements. The availability of work placements can also be affected by the nature of the labour market close to the provider or college. The current reform of the college system provides an opportunity to build into the system stronger incentives or requirements for colleges to offer training with employers as an integral part of their programmes.

Consistency issues in quality assurance

Across the OECD, while some countries apply similar quality standards across all postsecondary VET others have different rules depending on characteristics of the provider. Often standards and rules depend on funding arrangements, with stricter quality controls applying to providers relying on public funding (see Box 6).

Box 6 Quality assurance in the United States and Denmark

In the United States institutions providing postsecondary VET can choose “their” accrediting body from a set of regional and national accrediting agencies. The vast majority of institutions accredited by regional agencies are degree-granting and not-for-profit institutions, while for-profit institutions are much more likely to be accredited by a national accrediting body (Skinner, 2007). Since institutions have some flexibility in choosing their accrediting body, they are in a position to evade requirements which they find particularly irksome, undermining accountability (Kuczera and Field, 2013).

Denmark applies the same rules to all providers of postsecondary VET. Accreditation in the postsecondary sector is divided into two strands: accreditation of degrees at and above bachelor level provided at universities, and accreditation of all postsecondary VET and other professionally oriented postsecondary degrees. Postsecondary VET accreditation is carried out by The Danish Evaluation Institute (EVA), an independent institution under the auspices of the Danish Ministry of Education. Accreditation is carried out at the programme level every six years, involving an institutional self-evaluation and a site-visit to the institution. Formal accreditation status is awarded by the Ministry based on the EVA assessment (Danish Evaluation Institute, 2010).

In Scotland quality assurance in postsecondary VET is strong overall. But in current arrangements for the self-evaluation and external scrutiny different expectations apply to institutions offering similar programmes.

As explained earlier, Skills Development Scotland assesses providers of Employability Fund programmes and MA while Education Scotland is responsible for quality in colleges. SDS can also contract with colleges to deliver MA and training under the Employability Fund. In this case an element of quality assurance is carried out by Education Scotland and according to Education Scotland rules, with the results being shared with SDS (SDS, 2013d). Since the Education Scotland framework for quality assurance is not exactly the same as that established by SDS (for example requirements for teachers and trainers in colleges differ from requirements for teachers and trainers in other providers) this may lead to a variation in quality depending on the provider and the framework of quality assurance applying to it.

Labour market relevance in quality assurance

Across OECD countries quality is a challenge in education and training, because it is so difficult to measure, and therefore to assure. It is a particular challenge in countries such as the United States, England and Australia characterised by diversity, choice and a relatively substantial role for private providers; and alongside public subsidy, significant fees for many types of provision. This market framework puts a premium on quality assurance and clear information, since the choices of students as consumers play a large role in driving the nature of provision. While strengthened assessment instruments have become available for core academic skills such as mathematics, the assessment of quality in VET is much harder, because career-specific skills involve a complex blend of hard-to-measure competences.

At the same time, a number of generic characteristics of good quality vocational programmes are evident from the literature, including the OECD's *Learning for Jobs* review (OECD, 2010) and the current *Skills beyond School* review. On this basis, a good quality vocational programme should have:

- Curricula reflecting the immediate requirements of employers, but also involving sufficient general and transferable skills to support career development; qualifications with clear labour market recognition in the relevant industry sector.
- Teachers and trainers who are well prepared, both in respect of pedagogical skills and in terms of up-to-date knowledge and experience of relevant industry practice.
- Substantial and good quality workplace training effectively integrated into the programme.
- Good and readily available data on labour market outcomes, indicating that the programme helps students to get good jobs.
- Arrangements to recognise prior learning, both in respect of formal credit transfer and the recognition of informal learning.
- Arrangements designed to provide targeted help to students who can benefit from the programme but have particular needs – such as numeracy and literacy weaknesses.
- Articulation arrangements facilitating the transition of graduates from the programme to further and higher education qualifications.

From the list above, the criterion most commonly applied in the quality assurance process is that of labour market relevance (see Box 7).

Box 7 Ensuring labour market relevance in the accreditation process

Austria

Fachhochschule (university of applied science) programmes offer vocational training at the higher education level. When applying for accreditation, applicant institutions must provide an analysis to prove that the programme is needed by the labour market.

For the accreditation of a new programme the analysis must be conducted by an independent institution. The analysis has to assess labour market demand based on macro-economic data (e.g. sectoral employment, unemployment rates); and employment opportunities for graduates (e.g. using interviews with HR managers in relevant companies). In addition, the analysis must show that the programme will attract enough students by setting out the geographical areas from which the programme might attract students.

Box 7 Ensuring labour market relevance in the accreditation process (continued)

For re-accreditation of existing programmes the applicant institution may conduct the analysis itself. The analysis of labour market demand must examine the employment outcomes of graduates, contain information on the relevance of their studies to the jobs held by graduates, include an assessment of the course contents by the graduates with regard to their current employment situation, and institutions must collect feedback from companies and organisations that employ graduates. Finally, institutions must provide information on the number of applicants and enrolled students, as well as updated information on related postsecondary programmes.

Source: FH Council (2010), Guidelines of the Fachhochschule Council for the Accreditation of Bachelor's, Master's and Diploma Degree Programmes, www.fhr.ac.at/fhr_inhalt_en/00_documents/AR_08102010_Version1.1.-en.pdf, accessed 8 March 2013.

Denmark

Re-accreditation criteria for existing postsecondary career and technical education (CTE) programmes include indicators of labour market relevance. First, the programme must demonstrate that there is a need for graduates of the study programme in the labour market, and that local provision is based on dialogue with employers and other relevant stakeholders concerning current labour market needs and expected trends. Second, there should be enough relevant work experience placements for all students (such placements being mandatory).

Source: Danish Evaluation Institute (EVA) (2010), Self-evaluation. External Review of EVA 2010, <http://english.eva.dk/higher-education/about-eva/external-review-of-eva-2010-1/Self%20evaluation%20EVA%20102010.pdf>

In Scotland quality assurance processes pay attention to some aspects of vocational provision ensuring its connections with the labour market, such as whether teachers have relevant professional experience and whether institutions have links with local employers. But the vocational focus could be further reinforced. Relevant indicators of quality in vocational programmes could include workplace training opportunities and labour market outcomes (and the availability of regularly collected data on these indicators).

Limited data on labour market outcomes

Across OECD countries, information underpins the link between vocational education and training and the labour market. Knowledge of job prospects allows students to make informed choices about training programmes, and policy makers to see whether graduates are obtaining relevant work; clear information about learning outcomes helps employers to understand what qualified recruits have learnt. Better data can be provided either through one-off surveys of those leaving vocational programmes, or by tracking cohorts of individuals through vocational programmes into employment. Such data need to be supported by the institutional capacity to analyse and make use of the data (see Box 8).

Box 8 Collection of data in two US states

Florida data system

Florida has an impressive data system, collecting data three times a year and allowing students to be tracked from kindergarten to employment (Florida Education and Training Placement Information Program). Student records can be linked across databases including high school transcripts, high school attendance and enrolment records, student demographics, college credentials, and quarterly wage records from the Florida unemployment insurance system (Jacobson and Mokher, 2009).

Data development in Maryland

Maryland is developing a Longitudinal Data System to track student data from all levels of education and into the state's workforce. The system will include the following student performance data: state and national assessments; course-taking and completion; grade point average; remediation; retention; degree, diploma or credential attainment; enrolment and demographic data. This is a major initiative designed to increase accountability and to facilitate the attainment of the state goals, including the improvement of college enrolment and completion (Kuczera and Field, 2013).

Scotland already collects data on school leavers through annual surveys, evaluates the impact of Modern Apprenticeships on individuals and employers and carries out some analysis of labour market outcomes associated with different levels of qualifications, but in some areas data and evaluation are still lacking. Very limited information is available on the labour market outcomes of college graduates and it is therefore very hard to evaluate how well colleges are doing in preparing their students for jobs. Decreasing public expenditure increases the need for better data so that scarce resources can be invested cost-effectively.

The collection of data, alongside better monitoring and research are priorities of the Scottish government. The aim of the Joint Skills Committee of SDS and the Scottish Funding Council is to support investment in skills with economic and labour market evidence that is robust and high in quality (The Scottish Government, 2013a). The reform of colleges, which is underway, also places more emphasis on accountability which will not be possible without better labour market data. Better data will also inform career providers and students, reinforcing the current career guidance system.

Like Scotland, Northern Ireland also suffers from insufficient information about the labour market outcomes of vocational programmes. This challenge is well-recognised, and in response, the government plans to launch a study tracking leavers from the further education and training sectors - a survey similar to the existing Destinations of Leavers from Higher Education (DLHE). Such a survey should yield labour market information on leavers from all of its key areas of sponsored provision. This project has been initiated and is progressing (Alvarez-Galvan, forthcoming).

Notes

1. See for example, Scottish Funding Council (2013a).
2. See for example, Scottish Funding Council (2013a).
3. These courses are available to school age pupils as part of their normal school timetable and offer an opportunity to gain a valuable qualification whilst experiencing a different learning experience. “Skills for Work” courses have been designed by the SQA to enable school age pupils to develop knowledge and skills which will help to prepare them for the world of work. Skills for Work courses are different from other vocational provision because they focus on generic employability skills needed for success in the workplace. The courses offer opportunities for learners to acquire these critical generic employability skills through a variety of practical experiences that are linked to a particular vocational area such as construction, hairdressing, hospitality, etc.
4. “Sub-degrees include: Diploma of Higher Education (DipHE), Certificate of Higher Education (CertHE), professional qualification at undergraduate level, foundation courses at HE level, HND, HNC, NVQ/SVQ levels 5 and 4, diplomas and certificates” (Scottish Funding Council, 2013b, p. 10).

References

- Alvarez-Galvan, J-L. (forthcoming), *A Skills beyond School Commentary on Northern Ireland*, OECD Reviews of Vocational Education and Training, OECD.
- Carnevale, A., N. Smith and J. Strohl (2010), *Help Wanted: Projections of Jobs and Education Requirements Through 2018*, Georgetown University Center on Education and the Workforce.
<http://cew.georgetown.edu/jobs2018/>
- CEDEFOP (2012), “Future skills supply and demand in Europe: forecast 2012”, research paper No. 26,
www.cedefop.europa.eu/EN/Files/5526_en.pdf
- CEDEFOP (2011), “Norway - certificate of practice pilot project produces good results, ReferNet Norway”,
www.cedefop.europa.eu/EN/articles/19198.aspx
- Danish Agency for Higher Education and Educational Support (2012), *Skills beyond School: OECD Review of Post-Secondary Vocational Education and Training – National Background Report for Denmark*,
<http://en.fivu.dk/publications/2012/oecd-review-skills-beyond-school/oecd-review-skills-beyond-school-denmark.pdf>
- Danish Evaluation Institute (EVA) (2010), Self-evaluation. External Review of EVA 2010, <http://english.eva.dk/higher-education/about-eva/external-review-of-eva-2010-1/Self%20evaluation%20EVA%20102010.pdf>
- Danish Ministry of Education (2004), *Guidance in Education - A New Guidance System in Denmark*, <http://pub.uvm.dk/2004/guidance/hel.pdf>
- Department of Human Resources and Skills Development Canada (2012), *Skills Beyond School: Vocational Education and Training in Canada Background Report*, Draft Version.

- Education Scotland (2012), *External Quality Arrangements for Scotland's Colleges*, updated August 2012, http://www.educationscotland.gov.uk/Images/External%20quality%20arrangements%201%20August%202012_tcm4-727408.pdf (accessed 19 August, 2013)
- Fazekas, M. and S. Field (2013a), *A Skills beyond School Review of Germany*, OECD Reviews of Vocational Education and Training, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264202146-en>
- Fazekas, M. and S. Field (2013b), *A Skills beyond School Review of Switzerland*, OECD Reviews of Vocational Education and Training, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264062665-en>.
- FH Council (2010), *Guidelines of the Fachhochschule Council for the Accreditation of Bachelor's, Master's and Diploma Degree Programmes*, www.fhr.ac.at/fhr_inhalt_en/00_documents/AR_08102010_Version1.1.-en.pdf (accessed 8 March 2013).
- Field, S., et al. (2012), *A Skills beyond School Review of Denmark*, OECD Reviews of Vocational Education and Training, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264173668-en>
- Hippach-Schneider, U., et al. (2012) (eds.), *Getting Ahead though Advanced Vocational Training. German Background Report on the OECD study "Skills beyond School"*, BMBF, Bonn. www.bmbf.de/pub/getting_ahead_through_advanced_vocational_training.pdf
- Jacobson, L. and C. Mokher (2009), *Pathways to Boosting the Earnings of Low-Income Students by Increasing Their Educational Attainment*, Prepared for the Bill & Melinda Gates Foundation by the Hudson Institute and CAN.
- Junor, S. and A. Usher (2008), "Student Mobility and Credit Transfer. A National and Global Survey", Educational Policy Institute.
- Kis, V. and E. Park (2012), *A Skills beyond School Review of Korea*, OECD Reviews of Vocational Education and Training, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264179806-en>
- Kis, V. (2010), *OECD Reviews of Vocational Education and Training: A Learning for Jobs Review of Ireland 2010*, OECD Reviews of Vocational Education and Training, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264113848-en>

- Kuczera, M. and S. Field (2013), *A Skills beyond School Review of the United States*, OECD Reviews of Vocational Education and Training, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264202153-en>
- Kuczera, M. (2011), *OECD Reviews of Vocational Education and Training: A Learning for Jobs Review of the United States, South Carolina 2011*, OECD Reviews of Vocational Education and Training, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264114012-en>
- Kuczera, M., et al. (2008), *OECD Reviews of Vocational Education and Training: A Learning for Jobs Review of Norway 2008*, OECD Reviews of Vocational Education and Training, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264113947-en>
- Kyvik, S. (2002), “The merger of non-university colleges in Norway”, *Higher Education*, Vol. 44, No.1
- Musset, P., and Field, S. (2013), *A Skills beyond School Review of England*, OECD Reviews of Vocational Education and Training, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264203594-en>
- OECD (2013), *OECD Economic Surveys: United Kingdom 2013*, OECD Publishing. http://dx.doi.org/10.1787/eco_surveys-gbr-2013-en
- OECD (2010), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264087460-en>
- OECD (2008a), *Reviews of National Policies for Education: Scotland 2007: Quality and Equity of Schooling in Scotland*, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264041004-en>
- OECD (2008b), *Jobs for Youth/Des emplois pour les jeunes: United Kingdom 2008*, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264046474-en>
- OECD (2004), *Career Guidance and Public Policy: Bridging the Gap*, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264105669-en>
- OECD/International Bank for Reconstruction and Development/The World Bank (2013), *Reviews of National Policies for Education: Tertiary Education in Colombia 2012*, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264180697-en>
- Office for National Statistics, (2013), “Labour market statistics, July 2013”, *Statistical Bulletin*, www.ons.gov.uk/ons/dcp171778_315111.pdf

OPET (Federal Office for Professional Education and Technology) (2011), *Skills beyond School. The OECD Policy Review of Post-Secondary Vocational Education and Training. Swiss Background Report*, OPET, Bern.

Organisation of the Swiss Abroad (OSA), *Apprenticeship*, <http://aso.ch/en/consultation/education-in-switzerland/education-and-training/secondary-level-2/apprenticeship>

Prokopp, M. and K. Luomi-Messerer (2009), “Permeability between vocational education and training and higher education in Austria – experiences, good practices and perspectives” in Tutschner R., W. Wittig and J. Rami (eds.), *Accreditation of Vocational Learning Outcomes European Approaches to Enhance Permeability between Vocational and Higher Education*, Nationale Agentur Bildung für Europa beim Bundesinstitut für Berufsbildung.

Rasmussen, P. (2004), “Towards flexible differentiation in higher education? Recent changes in Danish higher education” in Fägerlind I. and G Strömqvist (eds.) (2004), *Reforming Higher Education in the Nordic Countries – Studies of Change in Denmark, Finland, Iceland, Norway and Sweden*, Institute for Educational Planning, Paris.

Ray, C. and R. McCoy (2000), “Invited editorial. Why certification in information systems?”, *Information Technology, Learning and Performance Journal*, Vol.18, No.1, Spring 2000.

Richard, D. (2012), *Richard Review, Apprenticeship*, www.gov.uk/government/uploads/system/uploads/attachment_data/file/34708/richard-review-full.pdf

Scottish Funding Council (2013a), The Edinburgh, Lothians, Fife and Borders Regional Articulation Hub website, www.elrah.ac.uk/ (accessed June 2013).

Scottish Funding Council (2013b), *An Official Statistics Publication for Scotland, Higher Education Students and Qualifiers at Scottish Institutions 201, 22 March 2013*, www.sfc.ac.uk/web/FILES/ReportsandPublications/HE_Students_and_Qualifiers_publication_11-12.pdf

Scottish Funding Council (2010), “Changes to consolidation figures to support articulating students”, Circular, 9 July 2010.

Scottish Qualification Authority (SQA) (2013a), *SQA Qualifications in the Scottish Credit and Qualifications Framework*, www.sqa.org.uk/sqa/files_ccc/readyreckoner.html (accessed June 2013).

- SQA (2013b), “Qualification development cycle”,
www.sqa.org.uk/sqa/files_ccc/1Qualdevcycleillustration.pdf
- SQA (2013c), *Quarterly Statistics Report. Report on Accredited Qualifications, January-March 2013*.
- SQA (2013d), “Quality assurance”, www.sqa.org.uk/sqa/42386.2732.html (accessed November 2013).
- SDS (Skills Development Scotland) (2013a), *Modern Apprenticeship Outcomes 2012*, SDS Evaluation and Research.
- SDS (2013b), *Modern Apprenticeship Employer Survey - 2012*, SDS Evaluation and Research.
- SDS (2013c), personal communication from Skills Development Scotland, October 2013.
- SDS (2013d), *Quality Assurance Framework and Standards*, www.providercentral.org.uk/OurServices/QualityAssuranceFrameworkandStandards/QualityAssuranceFrameworkandStandards.aspx (accessed 19 August 2013).
- SDS (2012), *Quality Assurance Newsletter, September 2012*, www.providercentral.org.uk/OurServices/QualityAssuranceFrameworkandStandards/QualityAssuranceFrameworkandStandards.aspx (accessed 19 August 2013).
- SDS (2011), *School Leaver Destinations Initial Follow up 2010/2011*.
- Skinner, R. (2007), *Institutional Eligibility for Participation in Title IV Students Aid Programs Under the Higher Education Act: Background and Reauthorization Issues*.
- Skolverket (2013), “An overview of the Swedish education system”, www.skolverket.se/om-skolverket/andra-sprak-och-lattlast/in-english/the-swedish-education-system
- Strömqvist, G. (Eds.) *Reforming Higher Education in the Nordic Countries –Studies of Change in Denmark, Finland, Iceland, Norway and Sweden*, International Institute for Educational Planning, UNESCO, 2004.
- The Poverty Site (2011), “Not in education, employment or training”, www.poverty.org.uk/32/index.shtml (accessed June 2013).
- The Scottish Government (2013a), *Skills beyond School, OECD Review of Vocational Education and Training, Background Report from Scotland*.
www.oecd.org/education/vet

The Scottish Government (2013b), *Lifelong Learning Series: Attainment in Higher Education and Destinations of Qualifiers 2008-09*, Table 1: Qualifiers from higher education courses at Scottish institutions by institution type, level of qualification obtained and academic year: 1999-00 to 2008-09,
www.scotland.gov.uk/Publications/2010/09/28110151/4

The Scottish Government (2011), *Career Information, Advice and Guidance in Scotland. A Framework for Service Redesign and Improvement*.

Quintini, G. and T. Manfredi (2009), “Going Separate Ways? School-to-Work Transitions in the United States and Europe”, *OECD Social, Employment and Migration Working Papers*, No. 90, OECD Publishing.
<http://dx.doi.org/10.1787/221717700447>.

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Further reading

OECD (2010), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing.
See also www.oecd.org/education/vet.

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