



Paper 8/1 – skills and education background

For information

1. Purpose

1.1 This paper provides Commissioners with a high-level overview of the skills and education system in Scotland.

2. Background

2.1 The paper briefly outlines some key institutions relating to skills and education in Scotland, in addition to summarising some recent published statistics relating to the skills and the labour market. Finally, some projected long-term trends in the demand for skills are outlined.

2.2 This paper does not attempt to take into account the impact COVID-19 will have on the skills and education system in Scotland.

1. Policy Context

1.1 Scotland's Economic Strategy in 2015¹ envisages skills development helping to drive two high-level strategic objectives:

- Increasing productivity and sustainable economic growth.
- Increasing labour market participation and reducing inequalities, to make this growth as inclusive as possible.

1.2 The Scottish Government's 2016 Labour Market Strategy² set out five key labour market outcomes. Skills development has a key role in 3 of these - promoting a skilled and productive workforce, high employment and low unemployment, and Fair Work.

1.3 The Scottish Government has a strong policy emphasis on higher education, supported by a no fees policy for Scottish and EU students. Scotland has one of the highest proportion of working age tertiary graduates across the OECD.

1.4 Scotland has a distinctive college system where students can be studying for either further or higher education qualifications, and where well-established pathways exist for college students to articulate with higher education in university. Additionally, a major programme of college mergers was instituted in 2013 to create a system capable of meeting more effectively both the aspirations of and outcomes for learners, and the needs of employers and the economy more generally.

1.5 There is a strong commitment to increased investment in apprenticeships. The core offering is Modern Apprenticeships (MAs), but Foundation and Graduate Apprenticeships have also been introduced. All MAs involve paid jobs with employers, with additional off the job training provided by colleges, training providers and others.

2. Current Position: Skills Development Landscape

Skills Agencies

2.1 The two key skill's agencies are the Scottish Funding Council (SFC) and Skills Development Scotland (SDS).

2.2 SFC is the body through with Scottish Government funding flows to Scotland's colleges and universities. Outcome Agreements are established with each college and university, which align the contributions of these institutions with key Scottish policy imperatives, National Outcomes and SFC's Strategic Plan. SFC then monitors the performance of the institutions in relation to the Outcome Agreements. SFC also has a significant role in funding research and innovation across the skill system.

2.3 SDS has a mix of commissioning, technical support and service functions:

¹ <https://www.gov.scot/publications/scotlands-economic-strategy/>

² <https://www.gov.scot/publications/scotlands-labour-market-strategy/>

- It is responsible for the management of the apprenticeship programme, which is delivered by a range of public, private and third sector contactors appointed and monitored by SDS.
- It is the principal agency involved in careers education, information, advice and guidance.
- It has developed capability in the area of skills investment planning which is now being deployed for key sectors of the Scottish economy as well regions across Scotland.
- It is the operational lead for Scotland's redundancy response service - Promoting Action for Continuing Employment (PACE).

2.4 Each year the agencies have received detailed guidance through a ministerial letter covering what is expected of them for the year ahead by the Scottish Government. However, following the 2016 Enterprise and Skills Review, the Scottish Government introduced in 2018 a new Enterprise and Skills Strategic Board with a remit to 'through collective responsibility, ensure hard alignment between agencies to drive improvement in Scottish productivity and better support business and users of the skills system'. Specifically in relation to skills, the Board's Strategic Plan sets out to:

- Use funding to provide more agile support for employees and employers to upskill and reskill.
- Integrate and expand existing upskilling and reskilling interventions.
- Create a flexible and sustainable funding model to meet the future expansion of demand for work-based and work-integrated learning.
- Accelerate the implementation of the Learner Journey Review recommendations, particularly around duplication and speeding up of articulation routes through school, college and university - and with apprenticeships.

2.5 A key mechanism for achieving much greater alignment is through much more structured and focused joint working between SDS and SFC.

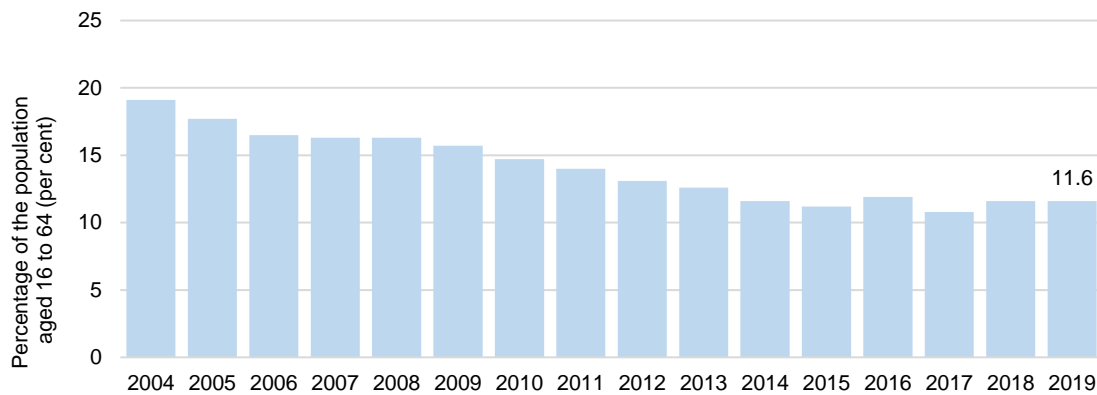
The Evidence Base: Current Position

2.6 This section reviews the current skills position, based on the recently published Annual Population Survey statistics³:

- The percentage of Scotland's working age population with low or no qualifications was 11.6% in 2019, and has been around this level for the last five years.

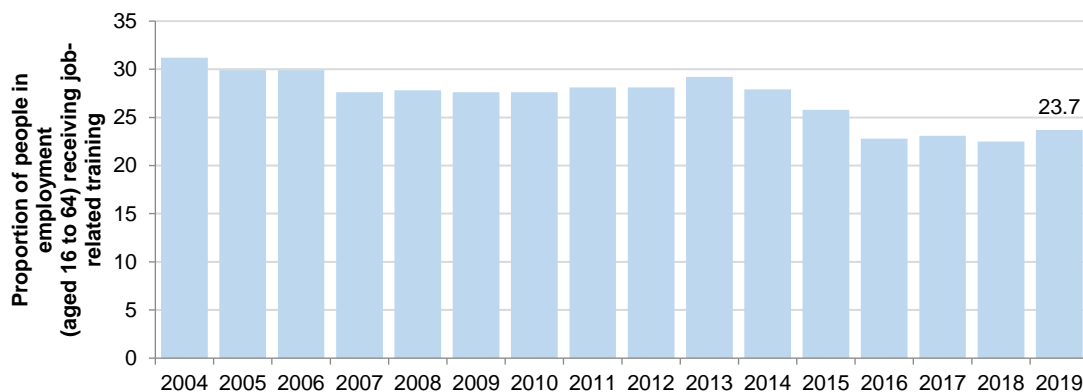
³ Scotland's Labour Market: People Places and Regions: <https://www.gov.scot/publications/scotlands-labour-market-people-places-regions-statistics-annual-population-survey-2019/>

Figure 1: proportion of population aged 16-64 with low or no qualifications



- There is regional variation in the proportion of the population with low or no qualifications, however. The highest levels are seen in Glasgow City (18.1%), Falkirk (18.1%) and West Dunbartonshire (16.3%).
- The percentage of employees who reported receiving job related training in the last 3 months has been decreasing over time. In 2009, slightly over a quarter of workers (27.6 per cent) received job related training in the last 3 months, decreasing to 23.7 per cent in 2019.

Figure 2: Proportion of people in employment (aged 16-64) receiving job-related training



- The percentages of people aged 25-64 who were graduates increased from 33.2% in 2014 to 37.2% in 2019.
- The percentage of school leavers moving into positive follow-up destinations rose to 95% in 2018/19, the highest level since 2009/10.⁴
- The percentage of school leavers with qualifications at Scottish Credit and Qualifications Framework (SCQF) Level 6 (Higher or equivalent) or better fell from 62% to 60.5%, and with SCQF Level 7 (Advanced Higher) or better from 20.2% to 19.1%.

2.7 On the demand for skills, broken down by broad skills levels, it is estimated that:

⁴ Summary Statistics for Attainment and Initial Leaver Destinations: <https://www.gov.scot/publications/summary-statistics-attainment-initial-leaver-destinations-no-2-2020-edition/> positive destination includes higher education, further education, training, employment, voluntary work, Personal Skills Development and (between 2010/11 and 2017/18) Activity Agreements.

- In 2019, 27.6% were employed in jobs requiring high level skills, 27.7% medium-high skills, 33.9% medium-low skills and 10.8% low level skills.
- The corresponding percentages in 2014 were 25.2%, 27.8%, 35.5% and 11.5%.

2.8 This indicates a modest shift towards higher skills over the period, a continuation of long-term trends. The figures are at odds with the so-called hollowing out of the labour market, but it is still the case that the UK, Germany and the USA have the highest percentage of low skilled jobs in the developed world.

2.9 Another key issue for the employment and skills system is the persistently high level of under-utilisation of graduate skills. The 2017 figure for graduate skills under-utilisation ranges from 42.2 of graduates (5 or more years after graduating) working in non-graduate roles based on the Annual Population Survey, compared to 28% of first degree leavers entering 'non-professional' roles based on Higher Education Statistics Agency surveys.⁵

2.10 A persistent feature of the school, college, and university and apprenticeship systems is the highly gendered nature of study for subjects relevant to digital skills specifically and STEM subjects more generally. Currently only 23% of jobs requiring digital skills are held by women.⁶ Unless this situation changes, substantial and persistent digital skills shortages are likely to develop.

2.11 There are some concerns that the output of university and college graduates, apprentices, and others in digitally relevant courses and training is not keeping pace with the growth in demand for digital skills.⁷ SDS has identified key skill challenges across sectors, stemming from the fact that growth in demand for digital skills is effectively a given, which include:

- Recruiting and people with the right skills who are STEM proficient.
- Keeping up with the pace of change in technical competences, including software, content development and coding.

3. Long-term trends

3.1 While highly uncertain, a number of attempts have been made, largely by consulting with experts and testing scenarios, to speculate on the skills that will be increasingly valued in the future.

Skills Development Scotland

3.2 SDS work⁸ – Skills 4.0 – involved an extensive literature review, consultations with leading experts on the future of work and skills and an assessment of the existing literature on how to measure emerging skills. The study predicts the growth in importance of meta-skills. These are essentially the soft skills identified in many previous studies, but the work by SDS has

⁵ Scotland's future skills action plan: <https://economicactionplan.mygov.scot/future-skills/>

⁶ Scotland's digital technologies: summary report 2019: <https://www.scotlandis.com/wp-content/uploads/2019/12/scotlands-digital-technologies-summary-report.pdf>

⁷ Scotland Technology Industry Survey: <https://www.scotlandis.com/scottishtechsurvey/>

⁸ Skills 4.0. A Skills Model to Drive Scotland's Future: https://www.skillsdevelopmentscotland.co.uk/media/44684/skills-40_a-skills-model.pdf

concentrated on defining the skills more precisely, and indicating why they will be of increasing importance over time.

3.3 A key driver behind the growing need for meta-skills is expected to be the accelerating digitalisation of the economy, with additional drivers including the ageing of and reduction in the size of the workforce, and increased demands for caring professions. The three main broad types of meta-skills likely to be increasingly in high demand are:

- Self-management: 'Manage the now'.
- Social intelligence: 'Connect with the world'.
- Innovation: 'Create our own change'.

3.4 What is less well articulated is the mechanism by which these skills can be generated in an effective manner – and who should do this. The report recognises that this poses major challenges for the skills system, and suggests that the blending of academic and work-based learning is likely to be the key way forward.

3.5 Additionally, SDS argues that there will remain a strong requirement for 'universal' skills, more commonly referred to as 'core' skills – literacy, numeracy and digital intelligence.

National Endowment for Science, Technology and Arts (NESTA)

3.6 NESTA is well respected independent organisation whose central focus is on innovation. Their analysis generate some conclusions on changes in the nature of demand in terms of sectors and occupations. They also devised techniques for surfacing 'hypothetical occupations'.

3.7 Their contribution is in relation to skillsets which will become much more important in the future. They argue that the demand for skills will change, with a stronger emphasis on:

- Interpersonal skills, such as social perceptiveness and coordination, and negotiation skills.
- Higher-order cognitive skills, such as originality, fluency of ideas and active learning.
- Systems skills, such as judgement and decision-making, systems analysis and evaluation.

3.8 A significant challenge with this work is how to create these skills. NESTA argue it is likely that these skills will need to be developed in the earlier years of a person's life, and will require significant investment in re-designing approaches to learning at the pre-school and school stages.

3.9 Clearly work to create these skillsets likely to be in greater demand will need to be carried out all levels, not least because digitalisation (along with other drivers such as climate change) will create redundancies as well as opportunities. Skills and other packages will be needed to redeploy people into the emerging occupational areas. Compared to many of our international competitors, investment by UK employers in skilling and re-skilling their workforces is low and has been declining.⁹ However, it will be difficult and expensive for the post-school education and skills system – and employers - to carry out the necessary remedial work in the absence of a major skills investment in the early years to the develop the behaviours and skills that will become increasingly important over time.

⁹ McKinsey & Co. (2017). *Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation*.