Education, Children and Young People Committee

12th Meeting, 2021 (Session 6), Wednesday 8 December

Skills: Alignment with Business Needs

Introduction

The Committee agreed, at its business planning day, to take evidence on the alignment of skills provision via the education system with the needs of businesses and the outcomes that are delivered for both individuals and businesses. The Committee, at this meeting, will take evidence on the alignment of skills policy with business needs.

Committee meeting

The Committee will take evidence from—

Panel One: Industry bodies

- Leon Thompson, Executive Director, Scotland, UK Hospitality;

- Paul Mitchell, Head of Employment Affairs, Scottish Building Federation;

Panel 2: Digital Skills

- Professor Mark Logan, Professor in Practice, School of Computing Science, Glasgow University;

- Dr Natalie Coull, Head of Cyber Security, School of Design and Informatics, Abertay University;

- Karen Meechan, Chief Executive Officer and Nicola Taylor, Head of Operations and Skills, ScotlandIS.

Supporting Information

Written submissions have been provided by ScotlandIS, Scottish Chamber of Commerce Network and Scottish Retail Consortium. These are provided at **Annexe A** to this paper.A SPICe briefing to support this evidence session is at **Annexe B.**

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Jane Davidson
Committee Assistant
Education, Children and Young People Committee
3 December 2021

Skills: Alignment with Business Needs submission pack.

This paper provides the written submissions from one of the witness organisations and from two other organisations who were unable to attend the meeting on 8Th December 2021 but wished to contribute.

- [ScotlandIS](#)
- [Scottish Chamber of Commerce Network](#)
- [Scottish Retail Consortium](#)

ScotlandIS

Digital as we know it has accelerated to the very forefront of our society in the last year. Scotland is home to a thriving tech ecosystem with over 1,500 companies that contributed £4.9bn Gross Value Added (GVA) to Scotland's economy in 2019, accounting for 3.5% of total GVA. GVA per head for the tech sector is 40% higher than for the economy, making it a considerable contributor to Scotland's economy. However, we cannot be complacent, we must remain competitive and innovative to compete with other countries across the globe who are utilising technologies at pace to enhance economic and social prosperity. Scotland is uniquely placed, small enough to be agile, big enough to make a difference, however as a nation we must ensure we invest in our people as we build towards a digitally inclusive and leading country. The first step of such investment should take place in our primary schools.

In 2020, approximately 11,240 digital technologies businesses were registered in Scotland, accounting for 6.3% of the Scottish business base. Over 97,000 people were in employment in the sector, which equates to 3.7% of Scotland's total employment. Year on year this figure is expected to increase and as such it is imperative that we act now in order to prevent further skills shortages.

Scotland's economy will only flourish if we are able to develop, attract and retain employees who are qualified and able to fulfil the jobs of the future. That future will be built around digital skills. We must invest now to ensure we grasp the opportunity or risk being left behind by competitors across the globe.

The Scottish Government's recognition of digital is to be commended, we're on an upwards trajectory, evolving as a digital nation and our new Digital Strategy puts user needs and our citizens at the heart of everything we do. Scottish Government have committed spend to grow the digital industries through the tech scaler programme, funding ecosystem building events and to harness digital education, all outputs of the Scottish Technology Ecosystem Review, and created new Cyber and AI strategies, all of which is welcomed by industry.

However, as a representative body for the digital industries we have to query if the funding goes far enough, or if there has to be a digital shift in our education and skills thinking and more wide-ranging reforms are needed. We suggested an approach to a digital shift in Education to the Advisory Group on Economic Recovery on 24th June 2020 and if members of the committee are interested, they can view the paper here.

The Covid19 crisis has exposed challenges in education in Scotland from primary to tertiary. It has highlighted issues with equality of access, quality of learning materials and the disparity in infrastructure, approach, and delivery across the 32 local authority areas, 13 College regions and the Universities.

The world has changed, Scotland can lead this change if we capitalise on the potential of doing things differently and seize the potential to harness digital learning and the expertise within our education system.

Our schools grow our future talent, they feed into colleges and universities and then, into the workforce. However, there is no systemic approach to Lifelong Learning post 25 years for those in work, seeking to re-join the labour market or upskill to meet the needs of the workplace. If we fail to transform our education system in line with the accelerated global changes, we fail the educators and the workforce of the future. Covid19 brings an accelerated need to fully understand the whole online learning environment.

Our schools are the fundamental access point to grow our future talent, they feed into colleges and universities and then, into the workforce. The pandemic has created a real opportunity for us to look at how we can begin to digitally transform the nation, whilst we want to ensure that our sector continues to grow post pandemic, we equally need to ensure that those sectors out with the core tech services are also given the skills and opportunities to digitally transform in order to ensure they too can recover post pandemic.

We must highlight and build awareness of the fact that digital literacy is embedded in almost every role in every sector and as such must be included in every aspect of education.

ScotlandIS have developed an innovative and responsive new project in collaboration with DYW Glasgow. This project will provide every secondary school in Glasgow, North and South Lanarkshire, West Glasgow with a senior tech expert at their disposal – called a Digital Critical Friend.   and in partnership with SDS we will role this out in South of Scotland also.

The aim of this legacy building project is to make sure the curriculum is industry relevant; teachers are upskilled, supported and sector savvy and young people have an increased awareness of digital career opportunities and what is required to get the jobs within the digital tech sector. A large part of the reason the skills gap in this industry exists is because of the drop off rates throughout school of children and young people taking the subject or having the opportunity to.

The tech industry today promises creative, flexible, and highly rewarding career pathways, and it is estimated that around 80% of future jobs will require STEM skills. Only 27% of young women say they would consider a career in technology, and only 3% would say it is their first choice of career. (PwC UK, Women in Tech Report). Analysis done by SDS has shown the number of women in tech in Scotland has risen from 18% to 23.4% in the last 2 years.

Following the pandemic there is a higher expectancy for everyday use of tech to be the norm in many workplaces. Young people must have the skills and knowledge to compete and succeed post pandemic. 13,000 digital tech job opportunities are created every year and a vast number of those go unfilled and this number is set to rise.

The Digital Critical Friend fits with two current drivers to develop opportunities and market led career paths for young people in response to recommendations of both Scottish Government publications. In 2020, the STER Review looked at the Scottish technology sector and concluded that computing science should be treated as a core school subject in the same way as maths and physics.

The programme although in its infancy is already producing success stories, with one Glasgow school currently without a dedicated Computing Science teacher has chosen to utilise their digital critical friend to focus on a second year business education class, the digital critical friend ran a series of sessions on software development, testing and careers and opportunities in IT. The pupils enjoyed the sessions, particularly a Q&A session with some of their colleagues and one where they got to do some testing and find bugs and this schools has reported a number of pupils are now looking to progress their skills and knowledge in computing science and selecting this in S3. Our mantra for the programme is "you can't be what you can't see". It also allows teachers to access industry mentors and exposing our future talent pipeline to our positive industry role models.

Young people are the future talent who will fill the Digital Sector vacancies, so we must get it right at an early stage.

The Digital Critical Friend will let teachers and pupils know what is happening in the sector, where the new technologies are, share emerging career opportunities and how to access them, help teachers advocate to the school SMT's for more or better funding for their department, and encourage young people into the subject.

In addition to Digital Critical Friends, ScotlandIS aims to provide CPD workshops for teachers across the network, including subjects; Cyber Security/Ethical Hacking, Python Coding, SQL, HTML, JavaScript, CSS, Pseudocode

The aim is to shape the curriculum for future jobs, and that young people are informed of the employment opportunities in digital tech when making subject choices, applying for jobs and further study.

We must ensure our curriculum is fit for purpose and will create the future talent pipeline. Our educators need support from industry to ensure the right skillsets are being taught and brought to the forefront.

Recent research by Education Scotland noted that 301 of the 356 high schools in Scotland who engaged, 30 schools did not have a dedicated computing science teacher. Of those 30, 20 schools have confirmed they deliver the subject in S1 and S2, some as a combined digital course.

In our S1 and S2 classes, limited coding is taught. Computing Science includes various Microsoft office modules. We must stop portraying this as computing science. We're misleading our children and young people that this is what they should expect should they look to the tech sector as a career path.

Scotland has been impacted by the well documented skills shortage currently experienced across the UK, Europe and the US. Firms are struggling to recruit the staff needed to build and deliver their products and services and salary levels are rapidly increasing, disadvantaging smaller companies and particularly our SME (small to medium enterprise) community.

This situation is being made more acute by the growing demand for specialist digital skills from non-technology businesses as digital increasingly pervades all aspects of the economy.

The jobs of the future and the skills required will evolve at pace in the coming years. There is an expectation that there will be a rising demand in areas such as low carbon energy, data science, data analytics, artificial intelligence, including machine learning and robotics, material science, remote operations, and cyber security. In the last few years demand for cloud computing skills in particular has increased steadily according to our annual survey analysis.

We need to embed digital thinking from a young age in our schools, and we need to give our teachers the access to resources and ability to teach our children the skills they need for a digital future.

We are failing our young people and their digital future by making access to a digital curriculum difficult for them. The most recent teacher census shows the number of computing science teachers in Scotland has dropped by almost a quarter over the past 13 years, plummeting from 766 in 2008 to 595 in 2020.

In 2001 there were just over 28,000 pupils who picked Computing Science and over 9800 of them were females.

As of 2020 just over 9800 pupils picked Computing Science and just over 1800 of them female.

We need to ensure we have enough homegrown digital professionals in the years to come. Increased spend and commitment to digital technology skills education, both upskilling those already in the workforce and giving young people the ability to thrive in the digital world, would help addressing the skills gap which is holding the digital technologies industry back. To seize this opportunity fully, adequate government funding and policy reforms are required to incentivise investments and commitment by both the public and private sectors.

Scotland must accelerate our progress towards a diverse and inclusive workforce to enhance our chronic productivity issues. This must be tackled at the outset in our schools.

Just 20% of our school pupils studying computing science Level 5 are girls, and only 16% of students pursuing computing degrees at university are women. Current female participation in the tech sector sits at 23%, yet research suggests firms with higher levels of gender diversity are 15% more likely to outperform rivals. Over the years, Women in Tech has been one example where significant progress has been made in terms of improving the gender balance. However, diversity comes in many different forms.

ScotlandIS consider it vital to focus on gender alongside the rest of these protected characteristics such as age, ethnicity, sexual orientation, disability and religious beliefs. To have a truly diverse and inclusive digital and tech workforce in Scotland, it is essential that we are representative of everybody in society.

To this end, In July 2020, ScotlandIS set up our Diversity and Inclusion committee with representation from all aspects of the 2010 protected characteristics Equalities Act which we hope will drive awareness and change towards a truly diverse digital and

tech workforce across all of Scotland. We also work closely with SDS and are part of their Neurodiversity in Tech workstream.

ScotlandIS has worked with Skills Development Scotland (SDS) on the Skills Investment Plan and its outputs for several years, and the various opportunities available through the Digital Start Fund and will continue to do so. We are part of the SDS Digital Economy Skills Group and will also work with them to develop the digital economy skills action plan.

The creation of Digital Xtra Fund (by ScotlandIS in partnership with SDS in 2016) has enabled initiatives aimed at children and young people to be funded and capture their imagination at an early age, while CodeClan (again created by ScotlandIS in partnership with SDS and industry in 2015) is retraining and upskilling many new people into the sector.

In December 2020 ScotlandIS created our first Strategic Skills board aimed at tackling the country's digital skills gap and includes representatives from across private and public sector and educational institutions. As a nation, we require increased collaboration from both business and government with a much stronger focus on promoting and delivering digital skills training across industry, academia, and schools.

To bridge the gap between academia and Industry, we need to focus on placement programmes which equip students for the world of work.

The digital skills partnership, run by ScotlandIS, has brought industry and academia closer together enabling industry to influence and support the teaching in Further and Higher education without having to overhaul the full system. Colleges are a key source of providing these shorter, sharper skills interventions to upskill and reskill individuals in data mining and data analytics.

Recruitment of university graduates has remained high with 71% of responding businesses reporting they are likely to recruit this type of talent in the next 12 months, slightly down from last year's 80% figure.

Demand for college graduates has decreased slightly, from 46% to 44%.

Just over half of respondents (53%) said they are likely to take on students for work placements. Graduate apprentices are the most sought after again this year, with 33% of respondents reporting they are likely to recruit someone for a Graduate Apprenticeship (down from 44% in 2020).

Interest in modern apprentices decreased (from 28% to 22%) as well as foundation apprentices (from 14% to 12%).

However, 44% of respondents are likely to recruit someone who underwent retraining only down 1% from the previous year.

Scotland's economy will only flourish if we are able to develop, attract and retain employees who are qualified and able to fulfil the jobs of the future. That future will be built around digital skills. We must invest now to ensure we grasp the opportunity or risk being left behind by competitors across the globe.

Scottish Chambers of Commerce Network

Introduction

The Scottish Chambers of Commerce Network welcome the work of the Education, Children and Young People Committee into examining the link between skills development in Scotlandand how this aligns with business needs.

People are at the heart of our businesses and ensuring that we up-skill and re-skills Scotland'sworkforce to meet the needs of business is crucial in driving forward Scotland's economic growth and recovery from the twin challenges of Brexit and the COVID-19 pandemic.

Businesses need access to the best talent to drive business growth and SCC would welcomethe development of a clear plan from the Scottish Government to upskill and reskill our workforce at all levels.

Productivity growth is the sustainable way to secure effective growth in quality jobs and increase our output. Whilst successive governments have struggled to make a meaningful improvement, our view is that the single most important contributing factor is education, trainingand upskilling of the Scottish workforce at all levels.

Expanding the scope of education beyond our youngest is vital if we are to navigate businessrecovery and business growth, which will necessitate the reskilling of huge sectors of our workforce.

The pandemic has brought to the fore the skills challenges that existed pre-pandemic as well asbringing to light new challenges that business and government will have to address jointly.

There were many challenges facing Scotland's economy even before the pandemic including skills gaps; issues around the availability of talent; barriers to equality of opportunity and careerprogression; a need for greater investment in training and development; and difficulties in overcoming Scotland's ageing workforce and ability to manage inward migration.

Now as a result of the pandemic, these issues have been exacerbated as well as introducingnew challenges to manage including new patterns of working; industry and skills transitions; skills and talent gaps to support recovery; and tailored reskilling and upskilling interventions.

The Scottish Chambers of Commerce Network is instrumental in delivering the Developing theYoung Workforce (DYW) programme, which is the Scottish Government's Youth Employment strategy to better prepare young people for the world of work.

SCC supports this employer-led strategy which connects employers directly with Scotland'seducation system.

Additionally, since the start of the pandemic recovery, the SCC Network has also supported the UK Government's Kickstart Scheme which provides funding to create new jobs for 16- to 24- year-olds on Universal Credit who are at risk of long-term unemployment, which we also believe is a key intervention from government that connects employers with the young workforce.

This response sets out SCC's views on what steps the Scottish Government could take to enhance the alignment between skills and employer need in Scotland and invites the Committee to consider our key recommendations for improvement.

SCC remain available to discuss this response with the Committee in more detail to help inform members on the views of Scottish business.

Key recommendations:

1. Provide a decade long guarantee of support and investment into the Developing the Young Workforce initiative to bolster the link between education and business.

2. Protect and grow Foundation, Modern and Graduate Apprenticeship routes in Scotland as part of a rebalanced model that aligns investment with industry need.

3. Make further and higher education more responsive to the needs of industry by expanding Graduate Apprenticeships and developing shorter degree programmes.

4. Drive up investment in Scotland's digital skills which should be treated equitably alongside investment in digital infrastructure to keep Scotland internationally competitive in new and emerging digital sectors.

5. Support a training revolution with targeted employment incentive grants and support for specific businesses to retain, retrain and reskill employees at all ages and levels.

SCC Response to the Committee Call for Views:

Scotland's Workforce and Skills

The Scottish Chambers of Commerce believe that there are a number of immediate actions that the Scottish Government could take to support Scotland's employers and enhance the skills of the Scottish workforce, whilst also protecting jobs and securing a just transition for employees moving sectors.

Scottish Jobs Protection and Transition Scheme

SCC believe that the Scottish Government should make available tailored financial support for the hardest-hit sectors such as tourism, hospitality, retail and the

supply chain, which are still struggling to recover from the impact of the COVID-19 pandemic and the continuation of economic deterrents such as international travel restrictions and domestic vaccine certification.

In addition to this there should be the introduction of an "on-standby" Scottish Jobs Protection and Transition Scheme should it be required in future lockdowns to support both businesses and employees.

Training Revolution

The Scottish Government should seek to introduce a retraining scheme to support individuals who have left employment for a range of reasons over the past 20 months to enter back into the workplace, with targeted employment incentive grants and support for specific businesses to retain, retrain and reskill employees.

A workforce-wide funded 'Skills and Training Passport' could also be introduced to empower workers to reskill or upskill at any stage of their career.

Scotland's Virtual Learning Centre

Many businesses and employees find navigating how to access training and development opportunities challenging.

Therefore, the introduction of a single-entry point for access to virtual training and development qualifications, available for all workers which could provide opportunities to upskill, retrain and adapt to technological advancements in the workplace would boost Scotland's skills alignment with business need.

Developing the Young Workforce

Developing the Young Workforce (DYW), Scotland's Youth Employment Strategy; asks business to be more involved in informing, inspiring and hiring youth talent.

Educators and businesses working together as co-investors to create a skilled workforce for Scotland's future is vital to ensuring the availability of skills in Scotland that match business need.

The Scottish Government should continue to build on DYW to create better and more engagement between business and education. Scotland can do more to develop skills and to ensure business better understands what our educators are doing; and what business can do to support them.

SCC want to see the Scottish Government maintain a long-term, 10-year commitment to 'DYW', which has successfully improved the relationship between young people and employers.

The North-East and Moray [DYW Positive Futures Survey](#), published on the 23rd November 2021, provides a snapshot of the continued need for the scheme which found that 43% of the young people surveyed said they felt they faced barriers to entering the world of work, with only one in five saying they didn't face any.

Nearly a quarter (24%) of the young people said that confidence and anxiety-

related concernsheld them back, while more than 11% cited discrimination as a factor.

Nearly two-thirds of employers are satisfied with how they connect with young people and three-quarters believe they are inspiring young people to gain skills for the world of work.

SCC firmly believe that DYW works to connect employers with education.

It bridges that gap to provide young people with more opportunities to develop their employability skills and help them find fulfilling careers and must continue to play a vital part inScotland's skills development mix.

Further and Higher Education that is Responsive to Industry

There are several routes to make Scotland's skills base better suited to the needs of businessand this cuts across the tertiary, further and higher education sectors.

The SCC network believes that expanding degree-level qualifications to be developed in a timescale responsive to industry for example, expanding Graduate Apprenticeships and developing shorter degree programmes, could provide Scotland with a significant skill boost ina shorter time frame and better link studies with the needs of industry.

Apprenticeships

Scotland's businesses value apprenticeships and want to see them protected as a vital route into work for young people that enables businesses to provide on the job training and develop aworkforce with skills aligned as closely as possible to business needs.

SCC believe that the Scottish Government should seek to grow Foundation, Modern and Graduate Apprenticeships in Scotland as part of a rebalanced model that aligns investment withindustry need.

Flexible Workforce Development Fund

The Scottish Government should continue to build on the Flexible Workforce Development Fundconcept, bolstering the funding element for independent training providers to support firms who need specialist training.

Workplace Transition Fund

To help employers adapt to changing working models, a Workplace Transition Fund should be made available to support employees adapt to emerging work patterns through training packages, financial support for employers with transition costs and health and wellbeing supportfor employees, this should seek to support:

- Expanding and funding private sector B2B led peer-to-peer support networks to focus onbusiness growth, business resilience and mental health and wellbeing support for SME business owners.

- Development of a "New Work Model" Strategy which maximises economic opportunitiesfor cities and towns recovery, facilitates the shift to different modes of working and supports employee wellbeing.
- Increases the capacity of private sector led initiatives which focus on providing a skilledtalent pipeline and increases the skills for managers and business owners and leaders,such as CGI's Digital BootCamps.
- Triples the funding of DigitalBoost to increase the digital capacity, expertise and knowledge within SMEs and bridge the digital skills divide by developing new digitalskills programmes for workers of all ages. Digital skills should be treated equitably alongside investment in digital infrastructure.
- Funding a B2B-led long-term Business Recovery and Growth Unit to provide locally- driven, direct, on-the-ground, practical support to SMEs through the Scottish Chambersof Commerce Network's B2B infrastructure.

Tertiary Education and Funding of Skills interventions

A new approach to funding is required for colleges and universities, reflecting the global economic environment, as well as looking at appropriate structural changes across institutionswhere it is right to do so on deliverables, targets and outcomes.

The tertiary education sector is best placed to support the rapid reskilling and upskilling of theworkforce including school leavers and those seeking work. The approach should be laser focused on meeting the immediate requirements of the post-pandemic economy with a focus on digital training and skills.

About SCC**:** The Scottish Chambers of Commerce Network sits at the heart of local businesscommunities, representing over 12,000 businesses in Scotland. With 30 local Chambers rootedin communities across Scotland, the Chamber Network provides practical advice and support toScottish companies through unrivalled expert leadership, business-to-business connections, mentoring/coaching, business support services and international trade support.

Scottish Retail Consortium

SRC Response to the Education, Children, and Young People Committee Inquiry into Skills - Alignment with Business Needs

About SRC

1. The SRC's purpose is to make a positive difference to the retail industry and the customers it serves, today and in the future.

2. Retail is an exciting, dynamic and diverse industry which is going through a period of profound change. Technology is transforming how people shop; costs are increasing; and growth in consumer spending is slow.

3. The SRC is committed to ensuring the industry thrives through this period of transformation. We tell the story of retail, work with our members to drive positive change and use our expertise and influence to create an economic and policy environment that enables retail businesses to thrive and consumers to benefit. Our membership here in Scotland and across the UK comprises businesses delivering £180bn of retail sales and employing over one and half million employees.

4. In addition to publishing leading indicators on Scottish retail sales, footfall and shop vacancies, our policy positions are informed by our membership and determined by the SRC's Board. We also provide a suite of training and development course for retailers and their staff, covering leadership development, specialised programmes and certified learning, details of which are available at: https://www.brclearning.org.uk/ . We also support the Young Person's Guarantee.

General Comments on Skills and Apprenticeships

5. Retail is Scotland's largest private sector employer, and the industry has a strong record on improving skills. Retail invests the equivalent of £1,100 in training each employee every year, and developing our workforce is a vital part of the industry's evolution. from on-the-job training and mentoring, right through to apprenticeships and formal qualifications. The industry is dynamic and changing, and new jobs are being created in retail such as digital artworkers, online merchandisers and app development, customer loyalty programmes, logistics and warehousing, even personal stylists and event management. The sector is meritocratic and provides great opportunities to progress and rise through the ranks.

6. Current policy is hindering rather than facilitating that essential investment. Scottish retailers have contributed around £50 million into the UK

Government's Apprenticeship Levy in the last Parliament but have received little tangible support in return.

7. The last five years have seen a 44% fall in retail modern apprenticeships[1]. Few retailers have been able to access the Flexible Workforce Development Fund due to the restrictions put in place by the Scottish Government. Indeed, a recent Parliamentary question[2] found retailers had only accessed £294,630.75 from the fund in 2020-21 out of a total of £13,245,135.48 – that's just two percent.

8. Furthermore, retailers are required to devote more and more of their training budgets towards training staff to implement public policy, most recently with the changes to the covid-19 regulations but also in recent years in relation to regulations on the selling of alcohol, knives and tobacco etc.

9. We believe there are a number of steps the Scottish Government could take to improve the status quo, and highlighted this in our February 2021 retail manifesto for the Holyrood election:
   a. Scottish Government should publish transparent figures each year at the Budget which show how the Scottish revenues of the Apprenticeship Levy have been spent.

   b. Provide practical support to encourage greater digital skills in the economy
      i. This should include engaging retailers and suppliers with specialised skills such as data science, but also look to increase the overall digital literacy across the workforce as the economy evolves.

   c. Reform the Flexible Workplace Development Fund so businesses are able to access a much higher portion of their Apprenticeship Levy contributions through the fund, rather than just the £20,000 cap that currently applies. Businesses should be able to access support through the fund for multiple sites rather than the current single site restriction.
      i. Ministers should consider using the fund to subsidise training for retailers who are implementing Scottish Government public policy initiatives

10. We also believe there is a need to make the Retail Modern Apprenticeship Frameworks more flexible and to ensure they stay relevant to a fast-moving retail environment. Funding should be available for older workers who would benefit from Apprenticeship Training.

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[1] https://www.skillsdevelopmentscotland.co.uk/media/46765/modern-apprenticeship-statistics-quarter-4-2
[2] https://www.parliament.scot/chamber-and-committees/written-questions-and-answers/question?ref=S6W-03511

Specific Responses to the Committee's work on the alignment of skills provision between the education system and the needs of businesses

11. Retail remains a significant employer of young people straight out of education as a sector which can offer employment at a large number of levels dependent upon the skills and abilities of the worker.

12. It's worth noting many of the attributes to be successful in the industry are not directly academically skills based. Core employability skills such as the ability to work with customers, to deal with a wide variety of tasks, and to be prepared to constantly adapt in a fast-moving environment are absolutely as important as previous skills training to retailers. Of course, these are skills which can be honed both before and during employment, but there are rarely metrics which can provide insight to that before employment.

13. There is currently no skills pathway for academically less successful pupils when entering into retail. Those young people who have achieved the right qualifications can enter onto retail Modern Apprenticeships, but there are no foundation MA's in Scotland.

14. We would also note that the current retail MAs have struggled to keep pace with the changes within the industry, especially as omni-channel retail in store becomes more crucial. We would also note the significant rise in demand for workers in the logistics and distribution elements of the industry – as the recent travails in recruiting HGV drivers demonstrate.

Scottish Retail Consortium – December 2021

Education, Children and Young People Committee

12th Meeting, 2021 (Session 6), Wednesday, 8 December

Skills policy in Scotland: Alignment with business needs

Introduction

At its business planning day in August the Committee agreed to carry out a short, focused inquiry on how Scotland's skills system meets the needs of businesses in Scotland, with a view to informing future work in this area.

The Committee will be hearing from three panels over two weeks, with the first two panels taking place on 8 December.

Panel 1:

UK Hospitality and

Scottish Building Federation.

This panel is intended to explore the views of industry bodies in terms of how engaged they feel with the skills planning system in Scotland, and how much it delivers against the needs of their members.

Panel 2:

Professor Mark Logan,

Dr Natalie Coull

Scotland IS

This panel is more focused on digital skills in Scotland, where skills gaps have been consistently identified and an area of focus for the Scottish Government. Professor Mark Logan was commissioned to conduct a review in how Scotland's technology

sector can contribute to the country's economic recovery from the COVID-19 pandemic. This review published its report in August 2020, and in March 2021 Professor Logan was appointed to oversee implementation of the review's findings. Dr Natalie Coull is the Head of Division of Cyber Security at Abertay University. Abertay University were recently awarded funding by Education Scotland to upskill Scottish computing science teachers in ethical hacking.

Next week the Committee will hear from Skills Development Scotland, the Scottish Apprenticeship Advisory Board and the Scottish Funding Council.

This paper will set out some background on Scotland's skills system, recent policy developments and activity in the Parliament.

Background

Skills Development Scotland (SDS) is the national body with the main responsibility for delivering skills policy and conducting skills planning – which is anticipating the future needs the economy. This planning is undertaken through several mechanisms:

Skills Investment Plans focus on particular sectors, and have recently expanded this approach to include Regional Skills Investment plans. So far, regional plans have been produced for Edinburgh and South East Scotland, Highlands and Islands, and Aberdeen City and Shire.

Regional Skills Assessments (RSAs) aim to provide an evidence base on which to base future investment in skills, built up from existing datasets. RSAs focus mainly on demand side evidence, highlighting economic and labour market data, and trends/ forecasts at both regional and local authority level. RSAs are developed by SDS and its partners including: Highlands and Islands Enterprise, Scottish Enterprise, the Scottish Funding Council and the Scottish Local Authorities Economic Development Group.

A core part of SDS role is using the Skills Planning Model, which sets out how SDS aims to improve the responses of education, training and careers services to the needs of industry. The model sets out how SDS will use data it gathers to better understand employers and employees in Scotland and their needs, and link this to education and training providers to ensure that the skills system in Scotland is responsive to trends in industry. On 30 November SDS launched an open call for input to their strategic plan for 2022-25, closing on 15 December 2021.

The Scottish Government Future Skills Action Plan (September 2019) notes that "skills gaps tend to be more prevalent in Scotland than the rest of the UK". Since 2019 this has not changed; the Open University Business Barometer 2021, published in October 2021, found that there is a skill shortage in 63% of businesses in Scotland compared to 61% of UK businesses. 59% of Scottish businesses say they have struggled due to these skills shortages. Jobs below senior manager are the hardest to recruit for according to 71% of Scottish businesses.

Data on skills gaps by sector is collected as part of the [Scottish Employer Skills Survey](#) (SESS). Looking at the 2017 and 2020 publications, the percentage of vacancies which cannot be filled due to skills gaps rose from 0% to 9% of vacancies in education, from 1% to 6% in health and social work, and to 10% in public administration (the number of hard to fill vacancies due to skills gaps was not published in 2017 as it was too small). Over the same period, vacancies which could not be filled due to skills gaps in manufacturing reduced from 8% to 5%. The 2020 results were heavily impacted by COVID-19 – the field work for this survey was conducted in late autumn 2020 at a point where the number of vacancies was extremely low by pre-pandemic standards. The survey collection was also moved from its usual summer spot due to pandemic, and so there might be a seasonal pattern which explains some of the differences.

The [Scottish Government evidence to the Migration Advisory Committee](#) (August 2020) mentions long standing shortages of skills in the digital sector which has been restricting growth. Data in the SESS survey shows that vacancies which could not be filled due to digital skills shortages increased from 29% of all vacancies which could not be filled due to a skill shortage in 2017, to 35% in 2020.

UK Apprenticeship Levy

The Apprenticeship Levy is charged to all large employers (defined as those with a wage bill of over £3 million per year), and is charged at 0.5% of their total annual wage bill. Scotland receives a share of these revenues, and the Scottish Government note that these funds are used to 'support skills, training and employment'. Employers who pay the levy in Scotland (and SMEs) can access the £13 million [Flexible Workforce Development Fund](#) which provides training through the college sector of up to £15,000.

The Logan Review

In May 2020 Professor Mark Logan was commissioned by the Cabinet Secretary for Finance to undertake a review in how Scotland's technology sector can contribute to the country's economic recovery from the COVID-19 pandemic. Chapter 2 of the review dealt with [the role Scotland's education system can play in nurturing talent in the tech sector](#). The review noted that:

- Young people need to be equipped with the programming and related technical skills they need by the time they leave school in order to encourage more start-ups, as lack of technical skills is a key barrier to being able to demonstrate the feasibility of the idea for a future start up

- Increasing technical computer science skills will also increase the pool of technical expertise available to support start-ups in Scotland

- Computing science teachers tend not to be subject specialists, unlike maths or physics, and the number of computing science teachers in schools is falling. Syllabus is restricted to what can be taught by non-specialists, and as a result is "boring". Gender balance is 84% male

- Lack of entrepreneurial content at university level

- Need to equip entrepreneurs with better skills in "Silicon Valley business models, Internet Economy operating practices, fundamentals of team and people management, funding models and business hygiene."

The review made 34 recommendations, of which 6 relate directly to skills provision in Scotland:

1. Create a network of tech scaler centres which provide long-term affordable space, free high quality educational material covering Silicon Valley business models, internet-economy working practices, team and people management, funding models and operating hygiene.

2. Treat computer science teaching the same as mathematics or physics – teach it from the first year of high school and attract more computer science graduates into teaching. Allow computer science teachers dedicated training time each year to keep pace with a rapidly changing subject.

3. Establish an industry partnership with schools to give computer science pupils summer work experience.

4. Strategically support extra-curricular programming clubs at the school stage.

5. Address the gender stereotyping in the early stages of computer science schooling.

6. Introduce an education/ mentoring scheme for start-ups to develop better skills and understanding of funding models, venture capital and pitching.

In the [2020-21 Programme for Government](#), the Scottish Government committed to:

"[establish] a national network of 'Tech Scalers' – world-class start-up incubators delivering the best available mentoring and training for our company founders. We aim to have five operational scalers by end 2021/22 and aim to create between 300-500 high-quality new start-ups over 5 years."

In March 2021, the [Scottish Government appointed Mark Logan to advise ministers on the implementation of the recommendations of the Logan Review](#), which included £7 million funding for 2021-22.

Recent policy announcements

In December 2020 the Scottish Government and Skills Development Scotland launched the [Climate Emergency Skills Action Plan 2020-2025](#). This aims to ensure Scotland builds the skills necessary to achieve its climate change aims, while also links to the idea of a fair recovery from COVID-19 and the Just Transition.

Over the summer and in the [Programme for Government](#), the Scottish Government has announced a number of initiatives, mainly focused on skills provision for the Just Transition:

- The National Transition Training Fund (NTTF) was initially launched as part of the response to the COVID-19 pandemic in October 2020, and focuses on those aged 25 and above. In June 2021, [the Scottish Government announced a further £20 million in funding](#) to support an initial 25 projects which aim to fill identified skills shortages which will support the transition to net zero.

- In August 2021 the Scottish Government announced that Skills Development Scotland would deliver a [Green Jobs Workforce Academy](#), an advice service to access information, advice and skills to prepare for the transition to net zero. As part of this academy, the Scottish Government will implement a skills guarantee for workers in carbon intensive industries.

- Promises to evaluate performance of investment in previous initiatives ([flexible workforce development fund](#) and [individual training accounts](#)), with a view to simplifying the lifelong learning offer.

- £100 million (capital) green jobs fund over the next five years aims to help business create green employment, with the first tranche of awards to be made later this month. SG promise further investment this year to 'help the existing supply chain grow'.

Written submissions

In addition to the witnesses appearing in today's panels, the Committee received written submissions from the Scottish Chamber of Commerce (SCC), the Scottish Retail Consortium (SRC) and ScotlandIS.

The SCC make 5 recommendations in their submission:

1. The SG should provide a decade long guarantee to the Developing Young Workforce programme, including funding

2. Grow foundation, modern and graduate apprenticeships

3. Make further and higher education more responsive – shorter degrees, and expanded graduate apprenticeship offer

4. Invest in digital skills and digital infrastructure

5. Support a 'training revolution' through incentivised grants to employers for retraining, reskilling and retaining staff.

The SCC also suggest a workforce wide 'skills and training passport' to assist in workers' upskilling and reskilling at any stage in career and a virtual learning centre to provide a single-entry point for workers to access training and development opportunities.

ScotlandIS noted that GVA per head is 40% higher in the Scottish tech than the wider economy, and that the sector makes up around 6.3% of Scottish businesses and 3.7% of employment. However, digital skills are increasingly important across the labour market, noting that an estimated 80% of future jobs will require STEM skills. In their submission to the Committee, they call for a greater shift in focus on digital in terms of Government funding. ScotlandIS highlight the digital critical friend programme, delivered in conjunction with Developing Young Workforce in Glasgow, North and South Lanarkshire. Every secondary school in area will have a digital tech expert at their disposal, and the programme is currently being rolled out to the South of Scotland in partnership with SDS.

ScotlandIS highlight many of the issues picked up in the Logan review such as the lack of dedicated computer science teachers at schools. The number of computer science students and teachers has been falling in Scotland since 2001. They also highlight the issue of gendering throughout school – by level 5 only 20% of computing science students are female, and by degree level this has fallen to just 16%.

The Scottish Retail Consortium were unavailable to attend the panel but did provide a written submission to the Committee. In their submission, they noted that retail is Scotland's largest private sector employer but noted that the sector struggles to attract a reasonable share of public spending through mechanisms like the UK Government apprenticeship levy, accessing only 2% of funding in Scotland. The Flexible Workforce Development Fund has a limit of £20,000 per employer, and can only be accessed at one site which limits retailers' ability to take advantage of the fund. The SRC noted that there are currently no retail foundation apprenticeships in Scotland which means less academically successful pupils do not have this pathway available to them. Finally, the SRC noted that existing modern apprenticeships have not kept pace with the changes in the industry and calls for the frameworks to be made more flexible.

Business Planning Day

At the Committee's business planning day on 31 August, members heard from Nora Senior from the Enterprise and Skills Strategic Board, and Mhairi Spowage from the Fraser of Allander Institute. Key themes emerging from this session included:

- £2 billion is spent annually on post school training education – an assessment is needed to ensure that this represents value for money, and to better understand the outcomes from different routes to gaining skills. The Enterprise and Skills Strategic Board and currently preparing to undertake this analysis.
- Scotland's record on entrepreneurship is strong at primary school, but weakens at secondary and Scotland performs poorly compared to international peers.
- A mismatch between skills supply and demand contributing to slow productivity growth since 2007/08

- Scotland's skills system needs to deliver in the context of long term challenges – demographic change and the changing nature of work through technological change. The demographic change could be exacerbated by Brexit and reduced migration, while the pandemic could accelerate changing trends in work.
- There are some persistent skills gaps – in particular digital skills but also some transient skills which are addressed through on the job training. However, recent surveys have found that on the job training opportunities have been reducing in Scotland.
- Young people entering labour market in last 18 months – what will the impact of the pandemic, furlough, and fewer opportunities be? Could there be longer term scarring effects associated with youth unemployment, and could there be an impact on the development of personal skills which are a key part of individuals' first jobs?

Economy and Fair Work Committee inquiry

The Economy and Fair Work Committee are currently carrying out an inquiry into the challenges facing Scotland's supply chain, and held two evidence sessions focussed on the skills and labour shortages contributing to the present disruption. On 10 November the Committee heard from Professor Mark Logan, Professor Melanie Simms, Paul Hunter and Oil and Gas UK, and on 17 November from Skills Development Scotland, Colleges Scotland, the Open University and Qualifications for Industry. While these sessions focussed on the supply chain issues, they did explore current and expected skills gaps in Scotland and there is some overlap in the witnesses, so may be of interest to members.

Witnesses suggested that the key issue facing the labour market was a skills mismatch – there are vacancies in sectors where there is either little demand for employment, or applicants do not hold the necessary qualifications. This highlights the need for greater flexibility of skills provision – offering multiple pathways to acquiring the right skills. Industry and the workforce need to improve an understanding of the transferability of skills to broaden the potential applicant pool.

One key method of ensuring that skills provision matches industry demand is effective dialogue between the state, employers and employee representatives. Witnesses suggested that while there are some structure in Scotland which attempt to achieve this, for example the Scottish Apprenticeship Approval Board, they are not sufficiently established and do not necessarily include the voice of the worker. Witnesses suggested that countries who have had more success in this such as the Netherlands, Denmark and Singapore have a number of sector specific forums which ensure a high degree of dialogue between all parts of the labour market. In the UK, the North Sea is a good example of a sector who have a clear idea of their future skills demand, but this is not necessarily widespread.

In terms of the sectors facing challenges, witnesses highlighted that digital skills are lacking although they are only likely to become more important across many sectors of the economy jobs. The lack of digital skills is worsened by the gendering that occurs early – 85% of high school computer science students are male, while the subject is not given a high enough priority – Mark Logan suggested it should be taught on a par with maths and English. In addition, witnesses agreed that leadership and entrepreneurial skills were going to be increasingly important to ensure that participants in the labour market are able to cope with greater flexibility and agility.

Members may wish to explore with panel 1

1. How engaged do industry feel in skills planning in Scotland, and how could links between industry and skills planning be improved?

2. To what extent does Scotland's skills system deliver the skills your sectors need?

3. How well does industry understand the skills that will be needed in the short and medium term?

4. The Scottish Government Future Skills Actions Plan aims to make the skills system in Scotland more responsive; to what degree has there been progress?

5. Until the COVID-19 pandemic the number of apprenticeships in Scotland was growing year on year. How much do the current apprenticeship offerings deliver the skills that industry needs, and how should the system be expanded or reformed?

6. How do employers work together with schools and further education organisations to establish a link between skills needs and training?

7. Does Scotland currently have the right balance in support for new entrants to the labour market, against support for retraining and reskilling of the existing workforce?

8. In the 2021-22 Programme for Government the Scottish Government pledged to review Individual Training Accounts and the Flexible Workforce Development Fund. How can the Scottish Government improve the way funding from the UK Apprenticeship Levy is made available to the industry in Scotland?

Panel 2

Members may wish to explore similar issues with the second panel, and also to reflect the answers given in panel 1. In addition, members may wish to explore the following:

1. How could links between Scotland's skills system and industry be improved?

2. What are the main issues contributing to the digital skills gaps in Scotland?

3. Can Professor Logan give an update on the implementation of the findings of the 2020 review, and how much will the implementation address the issues identified in the review?

4. How can Scotland's education system overcome the gendering issues which restrict uptake of computer science at school, college and university?

5. What can be done to attract a greater number of computer science graduates into the teaching profession?

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