

#### Manuscript version: Working paper (or pre-print)

The version presented here is a Working Paper (or 'pre-print') that may be later published elsewhere.

#### Persistent WRAP URL:

http://wrap.warwick.ac.uk/179625

#### How to cite:

Please refer to the repository item page, detailed above, for the most recent bibliographic citation information. If a published version is known of, the repository item page linked to above, will contain details on accessing it.

#### **Copyright and reuse:**

The Warwick Research Archive Portal (WRAP) makes this work by researchers of the University of Warwick available open access under the following conditions.

Copyright © and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable the material made available in WRAP has been checked for eligibility before being made available.

Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

#### Publisher's statement:

Please refer to the repository item page, publisher's statement section, for further information.

For more information, please contact the WRAP Team at: wrap@warwick.ac.uk.



# Apprenticeships: Employer Incentives Final report

# A report prepared for Skills Development Scotland By

Peter Dickinson Terence Hogarth

30 June 2020

Warwick Institute for Employment Research University of Warwick



## Table of contents

Executi	ve summary	ii	
1. Intr	oduction	. 1	
2. Re	cession to recession: the impact on apprenticeships	. 3	
2.1	A comparison of the financial crisis and Covid-19 downturns	.3	
2.2	Recent developments in the labour market	. 3	
2.3	Trends in apprenticeships	.5	
2.4	Potential impact of Covid-19 on apprenticeships	. 8	
2.5	Conclusion	. 9	
3. Ap	prenticeships and the labour market: responses to shifts in the economic cycle	11	
3.1	Introduction1	11	
3.2	Apprenticeships and the economic cycle	11	
3.3	Responses to economic downturns	12	
3.4	VET complements to apprenticeships 1	14	
3.5	Other considerations	15	
3.6	Conclusion	16	
4. The	e Covid-19 crisis and support to apprenticeship programmes	18	
4.1	Introduction1	18	
4.2	Approaches to maintaining participation in apprenticeships	18	
4.3	Provision of subsidies	18	
4.4	Supporting completion of apprenticeships	19	
4.5	Online training	19	
4.6	Conclusion	20	
5. Wh	hat is known about effective apprenticeship support policies	21	
5.1	Introduction	21	
5.2	Overview of employer apprenticeship financial support measures across Europe.2	21	
5.3	Effective practice in apprenticeship programmes2	23	
5.4	Conclusion: Developing employer incentives2	28	
6. Co	nclusion and recommendations	30	
Annex A: References			
Annex I	3: EU apprenticeship financial support mechanisms	39	
Annex (	C: Infographic	40	

### **Executive Summary**

#### Introduction

This report focuses on the role and potential that employer incentives could play in supporting and stimulating uptake of apprenticeships, particularly as part of the economic recovery from the recession which is likely to affect the country following the Covid 19 crisis.

#### Comparisons with past recessions

The length of past recessions has ranged between one and two years, with GDP regaining its pre-recession levels in three to four years. The length and depth of the Covid-19 recession is unclear at this point in time but the initial evidence suggests an extraordinarily deep fall in output over the short-term with likely implications for employment and the provision of apprenticeships.

The evidence over the recent past indicates that the number of apprentices has been increasing in Scotland (by 8% over the past five years). This has seen an increase in the share of disabled people, those from BAME backgrounds, and older people participating in apprenticeships. It has also seen increases in occupational areas such as construction, sport, health and social care, food and drink, and automotive; as well as higher level apprenticeships (Level 3 and above). There is the danger that these gains made over the recent past might be undone if any Covid-19 associated recession proves to be deep and protracted.

It might well be that the number of apprentices in administration and related; construction and related; creative and cultural; hospitality and tourism; personal services; retail and customer service; and transport and logistics that are most at risk. Together these accounted for 54% of all apprenticeship starts in 2018/19, and four are key/growth sectors.

**Potentially at risk is the future skills supply to key occupations and sectors** and alongside that the opportunities apprenticeships provide to those who occupy a more disadvantaged position in the labour market.

#### Apprenticeship responses to the economic cycle

Apprenticeships tend to be **pro-cyclical** and are therefore affected by recessions **more so than other types of skills provision**. That said, evidence from a number of countries shows that apprenticeships grew in the period after the 2008 financial crisis. In part this was because of measures Governments introduced to bolster apprenticeships through public subsidies and other mechanisms to help apprentices who had been made redundant to complete their apprenticeships. But it needs to be borne in mind that the depth of the recession currently forecast may be much deeper than that following the financial crisis in 2008.

Some countries, such as the Netherlands, have always recognised that apprenticeships are susceptible to economic downturns. To manage the vagaries of the economic cycles an alternative was available to learners which contained a substantial work experience element but which was mainly delivered by vocational schools. In this way, when there were not a sufficient number of employers willing to provide apprenticeships, places could be provided in vocational schools. Both the school based workplace learning and the apprenticeship path in the Netherlands are equally well regard by learners and employers.

Countries have focused on increasing the benefits and reducing the costs of apprenticeships to make them more attractive to employers. In Switzerland, the emphasis has been on increasing the productive content of apprentices (through increasing their ability to undertake more productive work), whilst in England employers have been given primary influence over the content and structure of apprenticeships.

#### **Current apprenticeship responses to Covid-19**

Initial evidence suggests that **public authorities have responded to the Covid-19 crisis by providing wage subsidies to employers to take on apprentices and/or providing flexibility in completing apprenticeships.** The German, Dutch and Danish Governments have provided wage and other subsidies to employers to keep apprentices employed. Other countries (such as England) have introduced flexibilities so that furloughed, or key sector staff have longer to complete their apprenticeships. A number of EU countries have promoted the use of ICTs so that training and assessment can be undertaken online.

#### Effective practice in employer focused apprenticeship support

Most EU-28 countries provide financial support for apprenticeships via training grants, tax incentives and levies. These are mostly national and long standing programmes operating for all employers, although some are targeted at certain sectors and sizes of organisation.

A review of the international evidence suggests that Government funding of employer investment in apprenticeships produce **modest but positive returns**, but **impacts vary** due to the differences in apprenticeship programmes, and the nature and size of financial inducements. In addition, **effects vary between sectors and firm sizes.** 

Apprenticeship incentives on their own have **limited impact**, involve **trade offs** (e.g. cost of administration versus deadweight) and **work better on** increasing apprenticeship take-up amongst **existing employers** rather than new ones.

To be effective, **incentives need to increase financial and non-financial benefits and/or reduce financial and non-financial costs.** They need to be **flexible** because employers vary in their characteristics, cost and benefit calculation, and intent. **Smaller employers tend to require higher levels of support.** These facets require an understanding of employers' needs as well as the structure and dynamics of local labour markets.

**Employer incentives work best** when they **are simple, straightforward**, and are **aligned with and complement existing systems and structures**. **Effective communication** is important, especially to employers less likely to engage with apprenticeships.

A number of incentives are **sectorally targeted** because this can facilitate employer engagement and input into design and delivery, as well as tailoring support. In addition, a number of other national and subregional economic development and skills strategies are sectorally focused, which new incentives can be aligned with.

**Programmes need to be monitored** to identify that the incentive's aims and objectives are being met as well as **identifying and measuring any unintended consequences** such as deadweight, substitution and displacement.

A key success factor is employer buy-in through involving employers in design and delivery. This helps to ensure a fit with employers' needs, and makes communication and engagement more effective.

#### Conclusion and recommendations

The key message is that, depending upon the depth of the economic downturn associated with Covid-19 and the period over which the recovery takes place, **the current level of apprenticeship provision will prove hard to maintain even with the provision of employer subsidies.** It may well be the case that some of the employers which have recurrently taken on apprentices no longer exist or have the capacity to take on much fewer if any apprentices. High levels of support may be required to sustain a sizeable apprenticeship programme even if that support is only temporary in nature.

Building on recent international apprenticeship experience, there are a number of design factors which should be taken in consideration when designing support measures. The key ones, based on previous experience, are listed below.

- It is easier to persuade employers to take on more apprentices (or maintain current levels of apprenticeships) than it is to persuade new employers to take on apprentices.
- Apprenticeships tend to be pro-cyclical, suggesting that:
  - other forms of VET may be needed to safeguard future skills supply if apprentice numbers prove difficult to maintain;
  - subsidies will be required to employers to take on apprentices where they have limited financial capacity to support this form of training.
- Policies/measures need to have clarity of aims and objectives.
- Incentives and support need to be based on **an understanding of employer requirements** as the costs and benefits of apprenticeships can vary according to size and sector.
- It is best to work within current structures and programmes so that new incentives and support align with and complement them.
- Smaller employers require additional incentives and support.
- Employers should to be involved in the design and delivery of incentives and support so that it is directed at their needs.

**Current regional and sub-regional economic development and skills structures** can help deliver additional apprenticeship support because they already incorporate many of the above principles.

As the impact of Covid-19 is currently uncertain, there needs to be a consideration of short- and medium-term responses, both involve managing employer demand. Short-term measures are concerned with ensuring that existing apprentices are allowed to complete their apprenticeships, and ensuring that those young people who were expecting to enter an apprenticeship in 2020/21 have access to apprenticeships or something comparable. The latter is likely to involve substantial public subsidy over the short-term if the intention is to supply people with an apprenticeship. In its simplest form support may involve providing employers with subsidies to cover some of the wages of apprentices, bearing in mind that this support might have an impact on the employment

of others in the workplace unless there is some proviso that prevents other workers being laid-off as a consequence of an apprenticeship wage subsidy.

In addition, in the short-term, one can **look at the way training might be restructured to accommodate the restrictions imposed by Covid-19.** If employers, even if they have a desire to recruit apprentices - or continue to train their existing ones – are constrained in doing so by, say, social distancing or periodic lockdowns, then one can look at the extent to which training can be reorganised. For instance, the training provider might be able to bring forward certain elements of training, with delivery online where necessary, so that the apprentice's time is filled, or add elements to the training programme if the duration of the apprenticeship needs to be extended. It is all a question of making best use of the apprentice's time and converting constraints into opportunities.

In the medium term, responses have the potential to **address employer costs and benefits** so that apprenticeships remain an attractive proposition to employers if the economy remains in the doldrums. For example, **increasing training provision via ICTs** (reducing the time apprentices need to be away from the workplace) and, as in Switzerland, thinking about **how the productive contribution of the apprentice can be increased** (for example, through progression pathways). The message here is essentially that of **making apprenticeship a more attractive financial proposition to employers** so long as there is uncertainty about the future outlook for the economy.

Over the long-term the resilience of post-16 vocational education and training and the capacity of the traditional apprenticeship model of training may be improved by adopting similar approaches to those in, for example, the Netherlands and Sweden. That is **having a twin track approach**: the **traditional apprenticeship model** and one in which the apprentice is based with a training provider or vocational school, but spends around a day a week gaining work experience with an employer. The **school based approach** to apprenticeships may well involve greater Government spending if there is no employer contribution to cover the costs of training. **The quality of a school-based approach to apprenticeship delivery needs to be high** so as to avoid the criticism of programme led apprenticeships in England and Northern Ireland.

If the recession proves to be as deep and protracted as some forecasters fear, then there are no easy solutions with respect to the future of apprenticeships. Clearly the short-term requirement to allow people to complete their apprenticeships and ensure that there are places for the next would-be cohort of apprentices is a daunting one which will require a public policy response as indicated above. But there is also a need to think about how to develop a more resilient workplace based initial VET system, with a substantial apprenticeship component, if there is less certainty about future economic prospects.

## 1. Introduction

The University of Warwick Institute for Employment Research (IER) was commissioned by Skills Development Scotland (SDS) to undertake a study to shed light on the role and potential which employer incentives could play in supporting and stimulating uptake of apprenticeships, particularly as part of economic recovery from the likely Covid-19 related recession. To address this issue, the study draws on analyses of:

- the use of apprenticeship employer incentives in European and other OECD countries, especially those incentives which have been used to offset the impact of economic downturns;
- the measures countries have taken to support their apprenticeship programmes in response to the Covid-19 crisis, and
- data on apprenticeship starts by, amongst other things, sector and occupation, with a view to identifying where the impact of the Covid-19 crisis might be most significant.

The number of apprentices which employers are able to take on is sensitive to the economic cycle. If, as a consequence of an economic downturn, employers have excess capacity then their demand for apprentices might be expected to fall because:

- existing employees may well have spare capacity (i.e. there is no need to recruit additional personnel); and
- where employers need to acquire additional skills there is likely to be plentiful supply of fully skilled personnel in the external labour market.

But if employers see apprenticeships as an investment in their future they may well want to continue taking on apprentices depending upon their short, medium and long-term business expectations. To do so, however, they may require some form of support. Given prognoses of a particularly deep recession resulting from the Covid-19 crisis, the capacity of employers to take on apprentices is likely to be severely constrained. The role public policy might play in supporting apprenticeships – such as the provision of temporary subsidies - can potentially learn from practice in other countries.

In most countries apprenticeships tend to be publicly subsidised. These subsidies can have the effect of dampening any recessionary effect on apprentice numbers and provide a conduit through which further support can be provided as necessary The current report, drawing on international evidence, provides information on the incentives/subsidies which have been used to support employers to participate in apprenticeships. The particular questions and issues the study addresses are the following.

- 1. An understanding of where employer incentives have worked best, in which context and why (i.e. what were the preconditions that enabled incentives to be effectively used?).
- 2. What are the key differences in how employer incentives have been used? In terms of target market, instruments that have been used, rules of engagement and desired outcomes?

- 3. Understanding the potential for employer incentives to support uptake of SDS current programmes (i.e. for Modern Apprenticeships and Graduate Apprenticeships).
- 4. The risks and opportunities associated with employer incentives for work-based learning products using evidence from elsewhere in the UK and internationally.
- 5. The potential scale that employer incentives could deliver with respect to the above how much uptake could be expected? What would be the cost?
- 6. Based on examples of best practice, how might an employer incentive work?
- 7. Are there any alternative methods or instruments in the literature and what are they?
- 8. The emphasis is upon identifying those measures which are potentially applicable to Scotland.

The report is structured as follows:

- Section 2 provides, by way of background, a short summary of the impact of the economic cycle on the demand for employment, an analysis of recent apprenticeship trends, and an indication of Covid-19's impact on apprenticeship occupations.
- Section 3 goes on to provide information on how economic downturns affect participation in apprenticeships with a particular focus on the impact of the 2008 financial crisis and how countries have responded.
- Section 4 describes countries' initial responses to the Covid-19 crisis.
- Section 5 provides a review of effective apprenticeship support policies.
- Section 6 delivers an insight into the potential impact of Covid-19 on apprenticeships and how any adverse impacts might be averted.
- Annex A details the references used in the report.
- Annex B (in a separate spreadsheet) includes a summary of current EU apprenticeship systems highlighted in Section 4.
- Annex C provides an infographic based on the results of the study.

## 2. Recession to recession: the impact on apprenticeships

#### 2.1 A comparison of the financial crisis and Covid-19 downturns

In order to give an indication of the scale of the downturn which currently faces the country it is useful to view it from the perspective of previous recessions. The financial crisis of 2008 was regarded at the time as a particularly deep recession - the like of which had not been seen before in the Post-War period - which reflected structural weaknesses in the UK and global economies that took time to fix. This time around it is not clear whether the predicted post-Covid-19 recession is cyclical which will allow the economy to bounce back relatively quickly or is likely to have more deep rooted structural impacts upon the economy. Table 2.1 provides an indication of the scale of recessions which have affected the UK over the past 45 years.

	Start date	Date of bottom of recession	Length of period from start to bottom of recession	Total decline in GDP (%)	Time taken for GDP to recover to level at start of recession
1	1974 Q4	1975 Q3	4 Quarters	3.8	7 Quarters
2	1980 Q1	1980 Q4	4 Quarters	5.9	13 Quarters
3	1990 Q3	1992 Q2	8 Quarters	2.3	11 Quarters
4	2008 Q2	2009 Q4	5 Quarters	Scotland: 4.0 UK: 6.0	16 Quarters
5	2020 Q2	?	?	Scotland 20- 25*	?

 Table 2.1:
 Four recent periods of recession in the UK

Note: \* estimate from Fraser of Allander Institute

#### 2.2 Recent developments in the labour market

Early signs are that there has been a steep decline in economic activity in the UK. Average total weekly hours in the UK (which had been on steady upward growth) fell by around -1% in 2020Q1. This is around the same as the fall in 2008Q2 at the start of the financial crisis. But if one looks at change in the number of vacancies it reveals a dramatic fall in demand (see Figure 2.1). During February to April the number of vacancies in the UK fell by -20% in one quarter (compared to with a fall of -3% in the second quarter of 2008 at the start of the financial crisis).

The importance of the vacancy indicator is that it gives an indication of demand in the external labour market. This might rebound quickly depending upon the speed the economy picks up after the lockdown, but for now the fall in the number of vacancies is unprecedented. This suggests that for the time being the impact of Covid-19 has been initially felt more in recruitment than current employment which most mostly stems from the furlough scheme. This may well have implications for future apprenticeships if employers have curtailed or have a moratorium on recruitment.



Figure 2.1: Number of current vacancies in the UK, 2006 - 2020

Source: Office of National Statistics Vacancy Survey

Data for 2020Q1 indicates that employment had declined slightly. It is likely, given the various support measures in place to keep people in their jobs, that the impact on employment may well be delayed. It is notable that the impact of the 2008 financial crisis was not fully felt until 2010, around a year and a half after the recession started.

The claimant count – an imperfect measure of unemployment – provides a timely indicator of the extent to which the labour market might be weakening (see Figure 2.2).<sup>1</sup> The number of claimants rose by 70% between March and April 2020 (leading to an unemployment rate of 6.6%). Like the vacancy indicator it indicates the speed at which the labour market weakened at the onset of the economic lockdown.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> It needs to be borne in mind that the claimant count will include people claiming benefits but who are in employment.

<sup>&</sup>lt;sup>2</sup> Office of the Chief Economic Adviser Monthly Economic Brief June 2020.



# Figure 2.2: Claimant count measure of unemployment – number of claimants 2006 – April 2020

Source: Office of National Statistics Claimant Count Statistics Scotland

Looking back to previous recessions, it is apparent that the financial crisis of 2008 resulted in the economy in Scotland contracting by 4% (6% in the UK). The impact of the financial crisis varied significantly by sector. The production sector was particularly affected with a decline in output of around 10% in one year, construction had contracted by around 23% by the end of 2009 and never fully recovered, and output in financial services fell by around 12% and has still not fully recovered (Fraser of Allander Institute, 2018). These are all sectors with which apprenticeships were and continue to be associated. This time around the fall in output is expected to be much steeper. The sectors which appear to be particularly vulnerable to Covid-19 are outlined below (Fraser of Allander Institute, 2020):

- agriculture +2.5%;
- production -25% to -30%;
- construction -40% to -50%;
- services -40% to -50% (retail and wholesale, food and accommodation, and transport in particular).

UK-wide analysis suggests that, given the sectoral and occupation profile of Covid-19's impact on the economy and labour market it will disproportionately affect certain groups in society. This includes: low paid and low skilled workers, young people, women, Black and Minority Ethnic (BAME) people, and disabled people (McKinsey, May 2020; Resolution Foundation, April 2018; TUC, June 2018).

#### 2.3 Trends in apprenticeships

The data below compares the situation in 2019/20 with that in 2014/15 to given an indication of how the characteristics of the apprentice population have changed over time. In 2019/20 there were just over 38,000 apprentices (Modern and Graduate Apprenticeships), of which 27,875 had started an apprenticeship in that year, an increase of 10% since 2014/15. Given the vulnerable groups at increased risk from Covid-19 – identified above – it is worth bearing in mind the socio-demographic composition of the apprentice population in Scotland.

Table 2.2 shows that since 2014/15 there have been important changes in the characteristics of apprentices by age and demographic group.

- Age: In keeping with trends prior to 2014/15, there has been a fall in younger apprentices aged 16-19 (-17%)<sup>3</sup> and a decline in those aged 20-24 (-11%). Those aged 25+ have risen significantly (110%). In 2014/15 one in five apprentice starts was aged 25+ but this had almost doubled to two in five (39%) by 2019/20.
- **Gender:** The number of female and male apprentices both increased over the six year period by 10%. The proportion of female apprenticeships has remained around 40% since 2014/15.
- **BAME:** The proportion of BAME apprentices rose significantly (87%) but from a low base (361 apprentices in 2014/15). In 2019/20 the proportion of BAME apprentices rose to 2% of all apprentices, a doubling from 1% in 2014/15.
- **Disability:** There was a large increase in the number of disabled people becoming apprentices. In 2014/15, 103 or 0.4% of apprentices reported a disability compared with 4,220 or 15.4% of all apprentices in 2019/20.

	2014-15	2019-20	% change	
Age				
16-19	13,247	10,963	-17%	
20-24	6,877	6,138	-11%	
25+	5,123	10,774	110%	
Gender				
Female	10,169	11,226	10%	
Male	15,078	16,649	10%	
Disability				
Impairment, health condition or learning difficulty	103	4,220	3,997%	
No impairment, health condition or learning difficulty	25,144	23,207	-8%	
Prefer not to say	0	448	-	
Ethnicity				
BAME	361	676	87%	
White	24,756	26,961	9%	
Prefer not to say	130	238	83%	

# Table 2.2:Percentage change in apprenticeship starts by age and key<br/>demographic groups – 2014/15 to 2019/20

Source: Skills Development Scotland, Modern Apprenticeships Statistics, various years at <a href="https://www.skillsdevelopmentscotland.co.uk/publications-statistics/statistics/modern-apprenticeships/?page=1&statisticCategoryId=4&order=date-desc">https://www.skillsdevelopmentscotland.co.uk/publications-statistics/statistics/modern-apprenticeships/?page=1&statisticCategoryId=4&order=date-desc</a>

<sup>&</sup>lt;sup>3</sup> The observed decline in apprenticeship starts among the 16-19 population is a steeper one than that observed in the population of 16-19 year olds over the same period.

The evidence suggests that many of the areas where progress has been made in increasing the participation of certain groups is at risk, other things being equal, from a particularly deep recession following on from Covid-19.

**There has been a trend over the past six years to higher level apprenticeships.** Until 2018/19 level of apprenticeship was reported using VQ levels, this data showed that between 2014/15 and 2017/18 there was a fall in the number of Level 2 apprenticeships (-5%), and an increase in the number of Level 3 (10%) and Level 4+ apprenticeships (168%). Since 2018/19 apprenticeships levels have been reported using SCQF levels. There has been a continuation of these trends to 2019/20 with a decrease in SCQF 5 (equivalent to Level 2) numbers (-9%), and increases in SCQF 6-7 (equivalent to Level 3) and SCQF 8+ (equivalent to Level 4+) of 5% and 25% respectively.

Covid-19 impact analyses suggest a greater impact on lower paid and lower skilled groups (McKinsey, May 2020; Resolution Foundation, April 2018). Particular demographic groups are over-represented in the low paid and lower skilled workforce, such as disabled people and specific BAME groups. Any post-Covid recession may therefore have a disproportionate impact on lower skilled Level 2 apprenticeships in lower paid occupations.

Table 2.3 shows apprenticeship starts by occupation groups 2014/15 to 2019/20. Occupations groups are split into growth and key sector occupations and other occupation groups. In 2019/20, growth/key occupation starts accounted for 54% of apprenticeship starts and other occupations 37%, IT and other services comprised 8%.<sup>4</sup> The largest apprenticeship occupations are construction and related (23%), and sport, health and social care (20%). Both of these occupations rose significantly from 2014/15 by 46% and 79% respectively.

Since 2014/15 there have been sizeable reductions in some of the largest occupations. For example, there were double digit percentage falls in administration and related, hospitality and tourism, retail and customer service, and transport and logistics which together accounted for 39% of all apprenticeship starts in 2014/15 but fell to 25% in 2019/20. These have been offset by large increases in construction and related, IT and other services, and sport health and social care which grew from a combined proportion of 33% in 2014/15 to 51% in 2019/20.

The latest Employer Perspectives Survey (EPS) for Scotland (IFF Research, 2019) indicates that the recent expansion of apprenticeships is likely to have come from existing employers taking on more apprentices rather than new employers engaging with them. The reasons these employers take on apprentices are to: obtain skilled staff; entice young people into the sector/company; and to upskill current staff. The main reasons why employers did not take on apprentices were that: they were not appropriate for the size of firm; were not offered in the sector; and lack of demand for new workforce recruits or upskilling existing employees.

<sup>&</sup>lt;sup>4</sup> IT, digital and other IT services are divided between growth/key and other sectors but data is not available for each IT sub group.

	2014/15		2019/20		
	Number	% of all	Number	% of all	% change
Growth/key occupations total	13,804	55%	15,092	54%	9%
Automotive	1,118	4%	1,159	4%	4%
Chemicals & Biotech.	65	0%	31	0%	-52%
Construction & Related	4,409	17%	6,417	23%	46%
Creative & Cultural Skills	319	1%	161	1%	-50%
Engineering & Energy Related	1,704	7%	1,604	6%	-6%
Financial Services	502	2%	663	2%	32%
Food & Drink	1,064	4%	1,217	4%	14%
Hospitality & Tourism	2,940	12%	2,388	9%	-19%
IT & Digital*	-	-	-	-	-
Transport & Logistics	1,683	7%	1,452	5%	-14%
Other occupations total	10,598	42%	10,431	37%	-2%
Administration & Related	2,451	10%	1,558	6%	-36%
Animal Care, Land and Water	394	2%	238	1%	-40%
IT & Other Services*	-	-	-	-	-
Management	829	3%	723	3%	-13%
Other Manufacture	26	0%	152	1%	485%
Personal Services	965	4%	606	2%	-37%
Retail & Customer Service	2,886	11%	1,708	6%	-41%
Sport, Health & Social Care	3,047	12%	5,446	20%	79%
IT & Other Services*	845	3%	2,352	8%	178%
All occupations	25,247	100%	27,875	100%	10%

# Table 2.3:Percentage change in apprenticeship starts by occupation groups –<br/>2014/15 to 2019/20

Source: Skills Development Scotland, Modern Apprenticeships Statistics, various years at <a href="https://www.skillsdevelopmentscotland.co.uk/publications-statistics/statistics/modern-apprenticeships/?page=1&statisticCategoryId=4&order=date-desc">https://www.skillsdevelopmentscotland.co.uk/publications-statistics/statistics/modern-apprenticeships/?page=1&statisticCategoryId=4&order=date-desc</a>

\* IT, digital and other IT services are divided between growth/key and other sectors but data is not available for each IT sub group.

#### 2.4 Potential impact of Covid-19 on apprenticeships

Unpublished analysis by Skills Development Scotland based on UK-wide research (Learning and Work Institute, 2020) suggests that the **sectors most at risk** from job losses are: **accommodation and food services; arts, entertainment and recreation; construction; manufacturing; and administrative support services.** The **occupations most at risk** are: **elementary administration and service; administrative; and sales occupations**.

Some of these occupations cover a number of sectors some of which are less at risk than others, and the level of apprenticeship is also important because lower skilled workers are more vulnerable.

Applying the SDS analysis, along with that of the IFS<sup>5</sup> (IFS, May 2020a; IFS, May 2020b; IFS, May 2020c), and recent trends in apprenticeship uptake suggests:

- Apprenticeship occupations most at risk: administration and related; construction and related; creative and cultural; hospitality and tourism; personal services; retail and customer service; and transport and logistics<sup>6</sup>. Together these accounted for 51% (14,290) of all apprenticeship starts in 2019/20, and four are key/growth sectors. Table 2.3 shows that all but one of these occupation groups (construction and related) showed a decline in apprenticeship starts in the six years to 2019/20 which is likely to exacerbate future trends.
- Apprenticeship occupations least at risk: animal care, land and water based; chemicals and biotechnology; financial services; food and drink; IT and other services; and sport, health and social care. Together these accounted for 36% (9,947) of all apprenticeship starts in 2019/20, and four are key/growth sectors. Table 2.3 shows that most of these occupation groups (and the largest ones in number of starts) were increasing apprenticeship starts in the six years to 2019/20.
- Apprenticeship occupations with uncertain risk: automotive<sup>7</sup>; engineering and energy; management; and other manufacture. Together these accounted for 13% (3,638) of all apprenticeship starts in 2019/20, two are key/growth sectors. Table 2.3 shows that there was a mixed picture in terms of number of starts in the five years to 2019/20 with engineering and energy, and management declining.

As will be explained in the next section, the impact of relatively mild economic downturns on apprenticeships – and training in general – can be limited with declines in the current year being compensated for in the following years as an economy recovers. But economic shocks tend to have a longer lasting impact and affect employers' views about their future skill needs some years ahead which reduces investments in apprenticeships now and in the foreseeable future.

#### 2.5 Conclusion

Whilst apprenticeships have expanded considerably in Scotland in recent years, there have been a number of important changes to the types of apprenticeships (by level and occupation) and take up by demographic groups. The expansion in the number of apprentices is likely to have come from existing employers taking on more apprentices rather than engaging with new employers. Some of these underlying trends will offset the impact of the current crisis but others may exacerbate them, and these will necessarily have an impact on other aspects of apprenticeships especially any diversity and inclusion objectives.

<sup>&</sup>lt;sup>5</sup> The IFS is undertaking a series of analyses of the impact of Covid-19 based on the most recent data available see <u>https://www.ifs.org.uk/coronavirus</u>

<sup>&</sup>lt;sup>6</sup> Many transport and logistic apprentices are in the rail freight sector.

<sup>&</sup>lt;sup>7</sup> This includes automotive sales and repair.

Based on the wider analysis of the impact of Covid-19 on particular sectors and occupations, and allied with recent changes in Scottish apprenticeship take-up the most at risk apprenticeships are likely to be: administration and related; construction and related; creative and cultural; hospitality and tourism; personal services; retail and customer service; and transport and logistics. These occupations accounted for more than half of apprenticeship starts in 2019/20, most are in the growth/key apprenticeship occupations as defined by SDS, though all but one has experienced a decrease in apprenticeship starts since 2014/15.

It is worth ending by noting that any decline in skills investments during recessions can ultimately result in skills shortages at a later date which can slow the pace of recovery and potentially contribute to future economic slowdowns (Blake et al. 2000).

# 3. Apprenticeships and the labour market: responses to shifts in the economic cycle

#### 3.1 Introduction

This section looks at the measures taken by various countries to even out the effect of the economic cycle on apprenticeships and the rationale for the measures taken (Annex B provides detail on the apprenticeship systems of EU countries mentioned in this section). It is apparent that the impacts of an economic downturn on apprenticeships are not necessarily the same for individuals, employers and Government (Dietz et. al., 2011). Individuals may want to invest in their skills during the downturn since the costs of doing so are lower because of the limited opportunities to find paid work. They are also more willing to complete their apprenticeships since the incentives to guit and take a non-training position are reduced (thereby reducing the overall costs of delivering an apprenticeship). On the other side, employers may be reluctant to take on apprentices because of the costs of doing so and uncertainties about the returns. Public policy has the scope to provide subsidies/ incentives to employers to continue providing apprenticeships (if they are able to do so) because this financial support might be more cost-effective than providing additional places in vocational or general schools or meeting the costs associated with unemployment/ economic inactivity. In effect, individuals are more likely to want (and more likely to complete) an apprenticeship whereas employers will be less likely to recruit apprentices. In safeguarding future skills supply, the role of public authorities is to find some way of satisfying demand (from would-be apprentices) and increasing supply (from employers).

The remainder of this section first looks at the sensitivity of apprenticeship starts to the economic cycle, and then looks at the policies which have been used to even out the cycle. This considers both policies where support is provided directly to the employer, and those elements of the apprenticeship/VET system which are designed to safeguard the provision of training during an economic downturn.

#### 3.2 Apprenticeships and the economic cycle

Employer investments in apprenticeships can be viewed in at least two ways (Lüthi and Wolter, 2020):

- an investment in the future skill needs of the workforce; and
- as a means of using relatively less expensive labour (apprentices) in place of relatively expensive skilled or fully experienced workers.

These are not necessarily mutually exclusive and may well depend upon the subject and level of the apprenticeship, and the business strategy of the employer. Research from the UK has indicated that it tends to be relatively high level apprenticeships which are of the investment type; where the employer is willing to bear a net cost at the end of the training period and recoup it at a later date (Gambin and Hogarth, 2017). This suggests that higher level apprenticeships may be less sensitive to short-term fluctuations in the economic cycle. As such, it may well be the case that Graduate Apprenticeships – where the number of apprentices has revealed relatively strong growth over recent years – will be more immune to fluctuations in the economic cycle.

The evidence tends to overwhelmingly point to the number of apprentices being related to the economic cycle, but the impact of downturns on apprentice numbers is perhaps less than might be expected. There is indicative evidence that employers might look to lay-off relatively highly paid and skilled workers in the first instance rather than apprentices (or curtail their apprenticeship programmes). The implication is that apprentices, as an investment in the future, may be initially protected until such time that the long-term impacts of the downturn become apparent (Hart, 2005).

While the evidence suggests that the number of apprentices is affected by the economic cycle, up to now the impact has been relatively muted certainly across Europe (Brunello, 2009). In England, in the aftermath of the economic recession, the number of apprentices increased in large part because apprenticeships were expanding into new areas of activity (e.g. higher level apprenticeships) in addition to the measures which were designed to ensure that apprentices potentially faced with redundancy could complete their training. In Switzerland, for instance, it has been estimated that between 1988 and 2004, on average a one percentage point decrease in unemployment (as a proxy for the economic cycle) results in 0.6% more apprentices (Muehlemann et. al., 2009). Similar results emerge from Germany indicate that a one percentage point increase in unemployment reduces a trainee's probability of entering an apprenticeship by 1% (Wessling et. al., 2015). The implication from much of the analysis indicates that during economic downturns the means are found of maintaining levels of apprenticeship training which more or less evens out any cyclical effects. The reasons why apprenticeships have proved to have a degree of immunity to downturns in the economic cycle to date are complex and reflect a mix of:

- the extent to which employers regard apprentices as an investment in the future and therefore reluctant to lay them off;
- subsidies to incentivise employers to take-on apprentices (reflecting Government priorities);
- measures designed to safeguard apprentices so that they are able to complete their training if faced with potential redundancy (sometimes with another employer); and
- expansion in apprenticeship provision such that at the same time apprenticeship starts might be in decline in some occupations, it is offset by increased take-up in new areas (e.g. by increasing provision at higher levels).

Whether these factors will be able to play the same role in relation to Covid-19 is moot as the next section reveals.

#### 3.3 Responses to economic downturns

Given the findings presented in the previous section, what means have been used to ensure that apprenticeship programmes are recession proof? The evidence points to a range of measures being used (Heyes, 2011):

- subsidies/tax breaks to employers to continue recruiting and training apprentices; and
- finding the means to ensure that apprentices who are made redundant are able to complete their apprenticeship.

Most apprenticeship systems across the world receive public funding (usually to cover the costs delivering off-the-job training i.e. the training provider's costs rather than the wages of apprentices whilst training). In addition to these **subsidies** there are incentives which directly subsidise the employer in order to increase the number of apprentices who would otherwise be taken on (especially during economic downturns). The evidence on the use of these types of subsidy tends to be mixed. In Denmark from the 1970s to the early 1990s, employers were subsidised to take on apprentices. The evaluation evidence from Denmark suggests that subsidies to the employer can increase the overall number of apprentices but not necessarily in all industries (Westergaard et. al., 1999). It was in manufacturing, office, and retailing where the subsidy was seen to be most effective and is estimated to have increased, other things being equal, the number of apprentices in these industries by 7%. The costs per apprenticeship were considered high but cheaper than allowing learners to spend an additional year in vocational schools.<sup>8</sup>

Results from the Netherlands indicated that the **tax reductions** employers received to take on apprentices - Reduction of Remittance Act Payroll Tax and National Insurance Contribution - tended to have little or no impact on the number of apprentices (though these findings did not take into account the impact of the economic cycle).<sup>9</sup> Other more recent evidence for the Netherlands suggests that the lump sum payment the government makes to apprenticeship employers does not necessarily have an impact on the decision to take on apprentices but influences the number of training places made available.<sup>10</sup> There are concerns that subsidies are used inappropriately i.e. where they mainly to use subsidised labour to substitute for semi-skilled workers whose jobs require relatively little training.

In countries with a strong tradition of **collective agreements** these were used to protect apprenticeship places in the period following the economic crisis. In summary, collective agreements in countries such as Germany guaranteed that a certain number of apprenticeship places would be provided each year. It was also the case in Germany that a system was in place to transfer apprentices from insolvent to solvent companies. Essentially the government contributed to the employer's training costs. An evaluation suggested that around 80% of the firms in receipt of the subsidy would have taken on the apprentice without it (Heyes, 2011).

Ireland also had a scheme in place to allow apprentices in danger of losing their jobs to complete their apprenticeships through a number of different means (e.g. sometimes accelerating the time in which they might complete the apprenticeship through accreditation of prior learning, and wage subsidies to employers who took on an apprentice who had been made redundant) (OECD, 2017). But given the depth of the recession in Ireland following the economic recession, the measures struggled to find sufficient places with many apprentices becoming unemployed. It is also apparent that the large fall in the number of apprentices has remained below pre-financial crisis levels (Government of Ireland, 2019). Given this outcome in Ireland, it does raise questions about the extent to which

 $<sup>^8</sup>$  Each newly created apprenticeship has cost about DKK 54,000 (approximately £6,550) compared with DKK 300,000 (approximately £36,400) for a school based apprenticeship.

<sup>&</sup>lt;sup>9</sup> See: <u>https://zoek.officielebekendmakingen.nl/kst-29282-42-b1.pdf</u>

<sup>&</sup>lt;sup>10</sup> See: <u>https://zoek.officielebekendmakingen.nl/blg-185028.pdf</u>

apprenticeship systems are resistant to the effects of an economic downturn – as suggested in the previous section – when the recession is as deep as the one Ireland encountered after 2008.

#### 3.4 VET complements to apprenticeships

The information provided above concerns the delivery of apprenticeships. Some countries have adopted a twin track approach to delivering workplace based vocational education and training, typically by having in place alternatives to the traditional apprenticeship model but which contains many of the same elements such that they might be regarded as an alternative form of apprenticeship delivery or something complementary to it. Examples are provided below of the systems in place in the Netherlands, Sweden and Austria.

The Netherlands has a twin-track approach to providing workplace based learning at the upper-secondary level – one track is provided via a traditional apprenticeship arrangement and the other is primarily provided in a vocational school but with a substantial workplace based element. The latter is able to provide training when employer demand for apprentices is low. Both tracks are highly regarded by employers (see panel).

#### Twin track approach to apprenticeship/workplace based learning in the Netherlands

At the upper-secondary level in the Netherlands there are two vocational pathways:

- school based training (Beroepsopleidende Leerweg, BOL) where students typically spend four days a week in a VET school and one day with an employer on a work placement; and
- apprenticeships (Beroepsbegeleidende Leerweg, BBL) students typically spend four days a week with an employer (with an employment contract and are paid) and one day at a VET school.

Both pathways lead to the same qualification and the content of training is determined at national level. The trend in participation over time indicates that during economic downturns participation levels in BOL increase simply because of the difficulties of finding an employer willing to offer an apprenticeship. Following the economic crisis, participation rates in apprenticeships dropped and have struggled to recover their pre-crisis levels

Source: Broek (2018) CEDEFOP Changing Nature of VET: the Netherlands. Ockham IPA.

As noted above, the work-based route (BOL) in the Netherlands is highly regarded and has substantial employer involvement. It does not have the stigma of low quality training provision attached to programme-led apprenticeships in England (i.e. apprenticeships largely delivered in the training providers' premises with no real link to an employer), and used in Northern Ireland as a response to the 2008 financial crisis. These were abolished in England and Northern Ireland in 2012.<sup>11</sup>

<sup>&</sup>lt;sup>11</sup> See <u>https://www.gov.uk/government/speeches/matthew-hancocks-speech-on-world-class-apprenticeships</u>

Sweden provides another example where an alternative to apprenticeships is available; in this case it is possible for apprentices to shift between school-based and apprenticeships over the course of their vocational training (see panel).

#### Apprenticeships in Sweden

The Swedish VET system offers 12 national vocational programmes that aim at preparing students for the labour market and can be pursued through two different modes of delivery: the school-based scheme (skolförlagd utbildning) that includes compulsory in-company training, or apprenticeship education (lärlingsutbildning). The school-based and the apprenticeship schemes lead to the same vocational diploma (yrkesexamen) and largely share the same curriculum, as well as admission and diploma requirements and goals. Both schemes require students to spend time in a workplace but in different proportions, in principle. In the school-based VET scheme, most learning is delivered at school, with a minimum of 15 weeks spent in a workplace (around 14% of the total programme duration). In the apprenticeship scheme, at least 50% of the total time, calculated from the moment the student starts the apprenticeship training, should be spent in the workplace. Students have the possibility to switch from the school-based scheme to apprenticeship and back.

Source: Cedefop (2018), Flash thematic country review on apprenticeships in Sweden. Luxembourg: Publications Office.

Austria also provides an example of how to provide apprenticeship-like training where there are an insufficient number of employers willing to take on apprentices. This was introduced following the last financial crisis.

#### Apprenticeship variants: the example of Austria

In Austria young people who are interested in an apprenticeship are guaranteed a training place. In most cases, an apprentice will find a training place with a company and they will follow the traditional apprenticeship pathway. But in those instances where a training place is not available then there is the possibility of undertaking an alternative form of apprenticeship where the individual is referred to an accredited training provider (the Uberbetriebeliche Ausbildung/Supra-company training). Here the training company takes responsibility for the training which may take place partially within a workplace though for a shorter-duration than the entirety of apprenticeships (employers sometimes form alliances to provide this type of training). Those participating in this form of training are encouraged to move into a company-based apprenticeship if a place becomes available. The government also provides supra-company training to young people with special needs.

Source: BFI the Austrian education system (VET and TVET)/OGB Apprenticeship Training and the Training Guarantee in Austria

#### 3.5 Other considerations

While not directly related to how apprenticeship systems rebound from economic downturns, it is worth bearing in mind some developments since the 2008 financial crisis. Apprenticeships have become increasingly regarded as an important means through which the transition from school to work and matching of skills supply to demand can be improved. There has been, for instance, concerted action across Europe to promote apprenticeships

(cf. <u>European Alliance for Apprenticeships</u>). These have considered how to make apprenticeships attractive to employers and would-be apprentices. If one looks at it from the employer perspective one can see, in different countries, attention being focussed on:

- ensuring that apprenticeships are financially viable to employers (Hogarth and Gambin, 2017). Rather than the emphasis being on the state (or apprentice) meeting an increased share of the overall cost, the focus has been on the design of apprenticeships such that the productive contribution of the apprentice while training is maximised ; essentially by making sure that the apprentice is given work of economic value whilst in the workplace. Switzerland is regarded as a particularly interesting case as its apprenticeship system is considered to be on a par with those of its German speaking neighbours, but does so at a much lower cost to the employer (Muehlemann, 2016; Muehlemann and Wolter, 2014);
- providing the employer with more influence over the content and structure of apprenticeships as is the case in England with the gradual shift towards the use of apprenticeship standards to determine apprentice training (Hogarth et. al., 2014). Arguably in return for increased influence employers have been expected to meet an increased share of the overall cost of delivering an apprenticeship.

One might speculate that the austerity programmes which have been in place in many countries since the financial crisis has constrained the capacity of the state to subsidise apprenticeship training. It is perhaps worth bearing these developments in mind when thinking about how apprenticeship systems need to be configured in the future especially if the state's capacity to fund apprenticeships becomes increasingly restricted.

#### 3.6 Conclusion

The impact of the 2008 economic crisis on apprenticeships appears to have been muted. Countries such as Ireland experienced a precipitous decline in the number of apprentices because so many were linked to the construction industry. Something similar occurred in England where the number of construction apprenticeships fell away completely following the financial crisis but was compensated by growth in other sectors and levels (the total number of apprenticeship starts increased in England during the crisis period).

Where subsidies were provided in the wake of the crisis – or the State ended up bearing more of the cost of the apprenticeship in the immediate crisis period – this may have stored up problems later on when the subsidies were withdrawn. There is some evidence this happened in Ireland. There is some indicative evidence that in the post-financial crisis period there may have been more focus on how to better balance the costs and benefits of apprenticeships due to:

- reducing the overall costs of training by increasing the productive contribution of the apprentice (e.g. learning from the Swiss system). Potentially this makes the apprenticeship more attractive to employers if their net costs are reduced to zero;
- reflecting the need to reduce public expenditure, attempts to shift an increasing share of the cost of the apprenticeship on to the employer (e.g. the Levy in England but also perhaps in the Netherlands given the fixed pot which subsidises employers).

The above, however, are not necessarily quick fixes which are able to deal with a large fall in apprentice numbers. Perhaps the key points which can be drawn about the past responses are:

- apprenticeships are sensitive to the economic cycle but in many countries there are safeguards in place which prevent recession having a large impact on participation levels;
- countries responded to the economic crisis in 2008 and earlier ones through either offering an alternative to the apprenticeship to allow existing apprentices who had been laid off to complete their apprenticeships, thus safeguarding the future supply of skills;
- the evidence of subsidies paid directly to employers to respond to the financial crisis appears not that common and the effectiveness of any subsidies seems to be uncertain;
- the recovery in apprenticeship numbers following the financial crisis has been fuelled by the expansion of apprenticeships into new occupations (e.g. England and Ireland);
- in the period following the economic crisis there has been a push to increase the number of apprentices but at the same time consideration has been given in some countries to containing the costs of apprenticeship programmes to: (a) the employer; and (b) the State.

The above provides an indication of how countries responded to previous recessions including the financial crisis of 2008 and how they have developed since then.

## 4. The Covid-19 crisis and support to apprenticeship programmes

#### 4.1 Introduction

There is clearly a high degree of uncertainty about the impact of the current economic crisis on employment and the potential demand for apprentices. The previous recession indicated that young people were particularly affected by the downturn and there were concerns that there would be a lost generation who would fare less well in the labour market than their immediate predecessors and successors, much as had been the case with young people in 1990s Japan. It seems to have been the case that in practice the number of apprentices did not decline as a consequence of the financial crisis as much as might have been feared mainly because there were support measures in place to ensure that apprentices threatened with redundancy were able to complete their apprenticeship, but also because a variety of expansionary measures were in place to boost the number of apprenticeship starts. To this extent there may have been a degree of good fortune here with policies already being in place to ensure that participation in apprenticeships increased. Whether apprenticeship systems will be so fortunate in the face of the Covid-19 crisis remains to be seen. This section focuses on countries' current approaches to supporting apprenticeships in the midst of the current Covid-19 crisis and the predicted post-Covid economic downturn.

#### 4.2 Approaches to maintaining participation in apprenticeships

At this stage the response to Covid-19 falls into three main categories:

- maintaining employment levels including those of apprentices;
- ensuring that apprentices are able to complete their apprenticeship;
- looking to establish online delivery of vocational education and training.

What is less clear at this juncture is how apprentices can catch-up with their learning where this has been delayed, and the extent to which they will be guaranteed employment at the end of their training.

The evidence indicates that while there can be a break in training resulting in a delay to completion of the apprenticeship, authorities appear to be keen to avoid this outcome.

#### 4.3 **Provision of subsidies**

Across many countries the aim is to maintain people in employment including apprentices. To this end various measures have been introduced which have sought to:

- compensate workers where their employers have reduced working hours (e.g. Kurzarbeitgeld in Germany which is paid by the Federal Employment Agency up to 60% of the loss in remuneration);
- provide cover for employees' wages costs regardless of hours worked (e.g. the Temporary Emergency Bridging Measure for Sustained Employment" (Tijdelijke Noodmaatregel Overbrugging voor behoud van Werkgelegenheid, NOW in the Netherlands);
- direct subsidies to companies who can guarantee not to lay-off staff (e.g. in Denmark the state guarantees 75% of salaries for firms promising not to lay-off staff).

In general, where apprentices have employed status they fall within the ambit of the types of measures outlined above. In Denmark, for example, the government and the social partners entered into an agreement in May 2020 whereby companies which either have apprentices or want to hire them will receive 75% of the apprentices' salaries from the Employers' Education Grant, AUB (a training levy which employers pay). In Norway, the 4,000 or so apprentices who have been temporarily laid off – mainly in hospitality, hairdressing, construction. – have 100% of their salary paid (if they are amongst the lowest paid), and 62% of their salary where they earn EUR 1 134 to EUR 4 539 a month, so that they can continue with some elements of their training. In Germany, it is worth noting that the Kurzarbeitgeld can be paid to new employees who started after the introduction of the subsidy where they are apprentices who have been made redundant an alternative employer with which they can complete the apprenticeship (e.g. England), at the time of writing is not clear to what extent this has been possible.

#### 4.4 Supporting completion of apprenticeships

It is also apparent that countries are looking to find ways that apprentices who are not able to enter their workplace or vocational school, or can do so in a much more limited way, can complete their apprenticeships. This relates primarily to:

- extending the period in which an apprenticeship can be completed;
- flexible approaches to completion/assessment and allowing delays to sitting entrance exams to enter university education
- using digital technologies to access training remotely.

A common response to the past recession and the current health crisis is to use short-time working as a means of maintaining employment levels and avoiding redundancies. This was a commonly used measure to protect employment in the aftermath of the financial crisis and it appears to be relatively commonplace at the moment. If companies are engaged in short-time working – including their apprentices – then this leaves less time for training. In Switzerland, if companies are engaged in short-time working they are not allowed to take additional staff, but in the case of apprentices there is an exception. Those nearing completion of their apprenticeship (and thereby employment contract) will be allowed to stay on for an extra year to complete their apprenticeship.

In England, the Department for Education is encouraging flexible approaches to delivery, ongoing assessment and support. In some cases, End Point Assessment (EPA) can be undertaken remotely/online. Apprentices can also take a break in their learning and EPAs can also be rescheduled. From 1st June 2020, apprenticeship training could be delivered in an educational setting. In Germany employer associations have encouraged employers to give their apprentices a project to complete if they cannot attend the workplace. There have also been recommendations that the vocational schools provide additional teaching to apprentices in the downtime, though this is constrained where the vocational schools are closed.

#### 4.5 Online training

In many countries, the workplace learning element of the apprenticeship has been suspended. As a result, the period over which the apprenticeship can be completed has

been extended with apprentices encouraged to work from home. There is a heavy emphasis on using digital technologies/platforms as a conduit to provide the training. There are manifold examples of digital delivery taking place. CEDEFOP (2020) point to examples such as WhatsApp (e.g. when learners do not have a computer at home) or through other more elaborate IT learning platforms, or even using national television for broadcasting and replacing usual classroom lessons. Some countries have developed TV and YouTube channels for learners to follow general and VET lessons. Teachers and trainers record their lessons on video and broadcast them. It is also an opportunity to promote and further explore some existing eLearning materials and tools for creating them. At the moment is not clear to what extent the use of digital resources has:

- taken root outside those areas where it has already been firmly established as means of delivering training;
- is able to deliver practical as opposed to theoretical knowledge;
- is able to reach those who may have limited or no access to computers at home; and
- maintains levels of quality within the apprenticeship programme.

The evidence also points to final assessments being undertaken online/remotely, but this might not be applicable across all sectors or occupations depending upon the nature of the assessment exercise.

#### 4.6 Conclusion

It is apparent that these are the immediate responses to Covid-19 developed in the period since March 2020. As such they represent the immediate and rapid response to dealing with short-term needs (i.e. how to ensure that the current cohort of apprentices can complete, and how to ensure that there is a further intake of apprentices in 2020). The immediate response has been very much that of how to continue training when the premises of the employer is closed (or has restricted entry) and the training provider's premises are also closed. This is essentially concerned with ensuring immediate continuity. As the health crisis has continued more responses have been forthcoming such as the recently announced subsidies in Denmark as attention turns increasingly to how to sustain apprenticeship training in general and especially in those sectors where the recovery may be over a prolonged period of time.

## 5. What is known about effective apprenticeship support policies

#### 5.1 Introduction

This section is based on a review of literature over the past ten years. These mostly include cross-national studies of apprenticeship programmes in Europe, but also other OECD countries. The focus is on financial incentives for apprenticeships but also covers non-financial support. In addition, where studies provide important insights into employer skills incentives (e.g. from non-apprenticeship adult skills programmes) these are also included. The complete list of references used in this study is included in Annex A.

#### 5.2 Overview of employer apprenticeship financial support measures across Europe

Most EU-28 countries provide financial support for apprenticeships. Most of these (19) incentivise employers to encourage them to deliver apprenticeships whilst nine directly support individuals. For employers there are three main types of support.

- Training grants: Financial grants to companies to co-fund training delivery, employers are usually asked to contribute a certain proportion of the costs.<sup>12</sup> This can be in the form of direct payments or indirect funding in the form of training vouchers.
- 2. Tax incentives: Concessions in tax codes related to training activities companies undertake.<sup>13</sup> For example, expenditure on training is deductible from taxable income.
- 3. Training levies: Where companies make a voluntary or compulsory contribution (e.g. a percentage of their workforce pay bill) to a collective fund which they can draw against to fund their own training activity.<sup>14</sup>

Table 5.1 shows that, of the 19 EU countries with these incentives, most government support for employers was through training grants (17 countries), tax incentives (15 countries) and training levies (ten countries). Around two thirds of countries (63%) operate more than one apprenticeship financial support programme, however, the budgetary size of the different schemes varies considerably within and across countries.

Apprenticeship financial incentives vary across countries but there are several common characteristics:

- most programmes (60%) pre-date the 2008 financial crisis and are still in operation;
- virtually all financial incentives operate on a national, rather than regional, basis;

<sup>&</sup>lt;sup>12</sup> See https://www.cedefop.europa.eu/en/publications-and-resources/tools/financing-adult-learning-db/instrument-types/grant-companies

<sup>&</sup>lt;sup>13</sup> See https://www.cedefop.europa.eu/en/publications-and-resources/tools/financing-adult-learning-db/instrument-types/tax-incentive-companies

<sup>&</sup>lt;sup>14</sup> See https://www.cedefop.europa.eu/en/publications-and-resources/tools/financing-adult-learning-db/instrument-types/training-fund

- most apply to all companies, though a minority are sectorally targeted, and some are only available to smaller employers; and,
- a number target specific demographic groups mostly young people.

	Training grants	Tax incentives	Levies
Austria	$\checkmark$		
Belgium-FL		$\checkmark\checkmark$	
Croatia	$\checkmark$	$\checkmark$	
Denmark	$\checkmark$		$\checkmark$
Estonia	$\checkmark$		
Finland	$\checkmark$		
France	$\checkmark$	$\checkmark$	$\checkmark$
Germany		$\checkmark$	$\checkmark$
Greece	$\checkmark$		
Hungary			$\checkmark$
Ireland	$\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark$
Italy		$\checkmark\checkmark$	
Malta		$\checkmark$	
Netherlands	$\checkmark\checkmark$		$\checkmark$
Poland	$\checkmark\checkmark$		
Romania	$\checkmark$	$\checkmark$	
Slovakia	$\checkmark$	$\checkmark\checkmark$	
Sweden	$\checkmark$		
United Kingdom	$\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark \checkmark \checkmark$

 Table 5.1:
 Summary of European apprenticeship financial incentives 2016-17

Source: Cedefop 2016-17<sup>15</sup>

Key:  $\checkmark$  represents the existence of that incentive and the number of  $\checkmark \checkmark$  represents the number of measures.

<sup>&</sup>lt;sup>15</sup> See <u>https://www.cedefop.europa.eu/en/tools/financing-apprenticeships/cross-country-comparison</u>

#### 5.3 Effective practice in apprenticeship programmes

Perhaps the only main consistent finding from cross-national apprenticeship studies is that there is a lack of high quality evidence (i.e. impact studies), with most evaluations based on qualitative observations and evidence.

Studies generally conclude that **the benefits from Government funding employer investment in apprenticeships outweighs the costs** but there tend to be varying impacts (see Marsden and Dickinson 2013 for an overview). This is due to the fact that **apprenticeship programmes vary** (e.g. some are for new entrants whilst others are for existing employees, some are targeted at particular sectors and firm size whilst others are generic); the nature and size of financial inducements differs (for example, even within tax incentives there are different systems such as tax allowance, credits, deferrals, exemptions and relief); and the outcome measures used vary (some assess impacts on apprenticeships starts and completions, whilst others focus on employer performance such as productivity). Furthermore, impacts and other measures of effectiveness and can vary between sectors and firm sizes (Kuczera 2017; Muehlemann 2013; Novella 2017; OECD 2018; What Works 2017).

The apprenticeship decision for employers is more complex than for most other forms of training because it often involves recruiting new employees (rather than training existing ones), hiring younger people, involves more complicated costs (e.g. backfilling for staff time whilst they are training), higher levels of supervision, and often more complicated administration (OECD, 2020). Apprenticeship financial support operates on the assumption that **employers will invest in apprenticeships when benefits outweigh costs** (Muehlemann, 2013). However, what constitutes costs and benefits (and their level) varies between different employers and can include non-financial aspects of apprenticeships (e.g. the status of apprenticeships).

A number of cross-national studies find modest effects of apprenticeship incentives (Kuczera, 2017; OECD, 2018; What Works 2017) because the net benefits of apprenticeships to employers are variable. **Financial incentives will make a difference for firms at the margin**, for example, those that initially found apprenticeships not worthwhile but for whom the incentive has changed the balance. (Non-financial incentives will also work in a similar way).

For these reasons it is not possible to identify specifically which incentives work best and under what conditions. However, there are a number of core elements which the evidence suggests underpin effective apprenticeship programmes.

- **Financial incentives on their own have limited impact** (Cedefop, 2009). They need to be aligned with and complement other incentives (financial and non-financial) and support measures that are in place (Marsden and Dickinson, 2013).
- Apprenticeship financial support involves trade-offs. For example, generic incentives are cheaper to administer but can lead to lower levels of additionality (Marsden and Dickinson, 2013). Targeted incentives involve more complicated programmes which are then difficult to promote to employers.
- Monitoring is important in order to ensure that the support measures are working as intended. However, some measures (e.g. tax incentives) are more difficult to

monitor where training outcomes are more difficult to link to the take-up of the financial support as is the case with tax incentives (Cedefop, 2009).

- Apprenticeship take-up tends to be pro-cyclical (see Section 3). Therefore incentives that work well in one period may not in another (Brunello, 2009). This means that it may be harder to encourage employers to take on apprentices in a downturn but easier to encourage them to invest in other forms of training.
- It is easier for firms to take on more apprentices than to get employers to start to take on apprentices (IFF, 2019).

#### Levies versus tax incentives versus training grants

Most studies focus on apprenticeship programmes as a whole, rather than the addition of specific incentives to support apprenticeship training due to external events.

Overall, evidence suggests that employers tend to favour training levies rather than tax incentives. However, this preference may be because a number of levy schemes have a sector focus and high levels of employer involvement (Lerman, 2013). Employers tend to prefer levies because:

- they fall on employers collectively, benefitting those who invest in apprenticeships (OECD, 2018);
- overcome poaching which is a key barrier to employer skills investments. Levies (if they cover all employers) overcome this problem (OECD, 2018);
- levies can have sector-wide spill over effects in encouraging sector wide attitudes to training (Marsden and Dickinson, 2013).

Training levies are easier to monitor than tax incentives because there is a direct link between support, employer take-up and training outcomes (Marsden and Dickinson, 2013); However, they are costlier to administer. Tax incentives often involve an entrance in a tax return whereas levies involve a separate administrative system (such as the current UK levy system). In addition, those based on employer involvement incur additional employer costs of time and commitment (Lerman, 2013).

Training grants (such as those provided through ESF programmes) provide highly subsidised training but involve relatively high administrative costs. Training grants also allow targeting of priority employers and individuals, but tend to be smaller in scale, concentrated in specific sectors, and can have high levels of deadweight as they attract employers who are training anyway (Marsden and Dickinson, 2013; What Works Centre, 2015).

#### Financial and non-financial components

There is a need to take into account the financial and non-financial aspects of apprenticeship programmes as both aspects contribute to employer costs and benefits (Brunello 2009; Chankseliani 2017; Kuczera, 2017). Financial and no-financial elements need to be given equal consideration, and can be supported in various ways as listed below.

• Support and capacity building. Providers, sector and other employer support/representative organisations can work with employers to make access and understanding easier (Kuczera, 2017).

- Assistance with supervision and training. The quality of supervision and training is important and can vary between different sectors. Providing support to employers to enhance their apprentice supervision can be made available through a variety of social partners (Kuczera, 2017; Marsden and Dickinson, 2013).
- Developing a skills 'culture' e.g. management capacity, and developing workplace development strategies. Apprenticeships are more effective when seen as an investment rather than substituting workers. Skills 'culture' is often a function of management capacity on how to make effective use of apprentices (Kuczera, 2017; Novella, 2017). Skills utilisation is a bigger issue for smaller than larger firms and varies by sector, including traditional apprenticeship sectors such as construction, retail, transport and hospitality (IFF Research 2018). Apprenticeships can be linked to wider business support to help develop management capacity.

#### **Need for flexibility**

Not all businesses are the same, therefore apprenticeship programmes and incentives need to be flexible. This can include modular and intensive provision (e.g. for employers with seasonal or variable demand) and/or the use of e-learning so apprentices can access learning and support at different times (OECD/ILO, 2017). In the current Covid-19 situation, assessment and portfolio evidence can also use ICTs for communication and evidence (Dickinson, 2010; Dickinson, 2020b).

In the Scotland, the apprenticeship levy covers the cost of the training programme. But other costs can be considerable and serve as a financial barrier to employers. For example, the cost of backfilling staff whilst they are undertaking off-the-job training is a cost barrier in England (Dickinson, 2020b) and the Netherlands (OECD, 2017). Backfilling staff is the biggest concern for employers in Scotland wanting to increase levels of skills training (IFF Research, 2018). Supporting these additional costs may encourage employers to take on an apprentice.

In some sectors, quality of supervision is an issue. In some programmes, funding is used to support in-work supervision leading to quality improvements (Kuczera, 2017; Marsden and Dickinson, 2013).

#### Provide additional assistance and support to SMEs

Many evaluations suggest that programmes need to provide additional funding and support to accommodate SMEs, so incentives need to be higher. This is for the following reasons:

- Apprenticeships are more expensive for SMEs because they cannot generate economies of scale. For example, larger employers have lower pro rata costs of supervision because it is shared across apprentices (Muehlemann, 2013).
- Apprenticeship administration is more problematic for smaller employers because they have fewer dedicated HR resources and processes. This can be offset by providers and other intermediaries providing administrative support to employers (Kuczera, 2017; Lerman, 2013; Marsden and Dickinson, 2013).
- SMEs may need additional support to develop their internal capacity to deliver apprenticeships, such as supervisory expertise (Stone, 2010).
- Smaller firms may also require greater flexibility in accommodating training around working times, and minimising off-site provision (Stone, 2010).

- SMEs can find it harder to attract new apprenticeships because they cannot offer the same career opportunities of larger employers, offer lower wages or cannot provide the breadth of different work experiences (Muehlemann, 2013). Group Training Associations and other forms of small firm collaborations, or linking different employers through supply chains or other networks can help to address some of these issues (Dickinson, 2010; Stone, 2010).
- Generally larger firms are better able to access incentives, and they are often better integrated into local business and other networks and so have greater awareness of apprenticeship support (OECD, 2018).

#### Understanding of local labour markets and local context

The characteristics of employers, apprenticeship recruitment, sector dynamics and wider strategic initiatives can vary from region to region. In introducing new and/or additional support it is important to understand the local context and labour markets. There may be alternative learning pathways for specific subsectors or occupations (Kuczera 2017) and other support may be available (for example, the Employer Recruitment Incentive in Dundee) which new incentives need to be aligned with.

Many localities have priority sectors where specific support packages are available for these sectors, and through these local level connections between social partners, employers and providers exist.<sup>16</sup> These can be used to facilitate collaboration on new initiatives and help to align various incentives with other initiatives (OECD/ILO, 2017). Regional and sub-regional economic strategies and skills strategies are often based on local labour market information which can assist in identifying where incentives are best targeted, for example, small and/or rural firms or specific sub-sectors where take-up is low (OECD/ILO, 2017; OECD, 2020). Existing strategic and operational partnerships can also be used to facilitate employer engagement (although a danger is that employers who are already engaged may crowd out those who are not).

Existing initiatives, such as City Deals and infrastructure developments, can be used as levers to entice employers to take on apprenticeships through Section 106 agreements or social value<sup>17</sup> commitments (Marsden and Dickinson, 2013; Muehlemann, 2013).

#### Work within existing structures

Cross-national studies stress the importance of working within existing structures (OECD/ILO, 2017). Developing new or more novel approaches within existing apprenticeship systems is more costly and takes time (Kuczera, 2017). Apprenticeships are complex systems, the nature and characteristics of social partners have evolved over time (Chankseliani, 2017). Funding adult skills training in general, and apprenticeships in particular, involves complex relationships and delivery mechanisms, aligning with and complementing these make implementation and delivery more effective and efficient (Brandt, 2015). A corollary of utilising existing structures is aligning and complementing the aims and

<sup>&</sup>lt;sup>16</sup> Many Scottish regions and sub-regions have developed their own economic strategies in which priority sectors are identified. For example, food, drink, agriculture and fishing, life sciences, and tourism sectors in Aberdeenshire.

<sup>&</sup>lt;sup>17</sup> For example, there are Community benefit requirements defined in the Procurement Reform (Scotland) Act 2014.

objectives of new initiatives with existing ones, as happened in the Glasgow 2014 Commonwealth Games (Marsden and Dickinson, 2013; What Works Centre, 2017).

#### Keeping things simple

Given the intricacies of existing programmes, new supplementary initiatives need to be simple and straightforward to prevent adding complexity to what already exists. Greater and varied aims and objectives can make the system more complex. The relationship between complexity and the range of objectives is common to all financial support models (Marsden and Dickinson, 2013).

#### Communication

Virtually all Scottish employers are aware of apprenticeships, even those who have not considered them more so than other Government skills initiatives (IFF Research, 2019). Effective communication of additional financial and other support is important but needs to be in keeping with existing apprenticeship support.

Communication of new initiatives is particularly important with employers who do not usually invest in apprenticeships (such as SMEs) and those in non-traditional apprenticeship sectors (Cedefop 2009; Lerman, 2013). Awareness of Graduate, and Foundation Apprenticeships, is much lower amongst employers in Scotland than Modern Apprenticeships (IFF Research, 2019). Different employers have different levels of engagement and may need to be targeted differently (OECD, 2020).

Promotion of apprenticeship incentives should focus on the business benefits of training (Marsden and Dickinson, 2013). This also involves understanding the different costs and benefits to different types of employers as this variation could influence the message (Stone, 2010).

There is a role for the public sector, providers and other intermediaries (such as sector and business support organisations) that can promote incentives within the context of particular groups of employers (Chankseliani, 2017).

#### Sectoral targeting

A number of studies suggest that more successful schemes are sectorally targeted. As Many levy schemes are sectorally focused (see above) and reducing the fear of poaching and free riding, a major a concern to employers (Grollman, 2017).

A sectoral focus, especially where employers are involved in the design, delivery and management can improve the training and skills 'culture' within a sector because of the collective effort. For these reasons, it is also easier to entice employers who do not usually invest in training to participate (Chankseliani, 2017; Kuczera 2017; Marsden and Dickinson, 2013).

A sectoral approach can also help tailor financial and other support more effectively. As mentioned previously several studies find modest impacts because net benefits to apprenticeships vary a lot according to occupation, firm size and sectors. Sectoral systems with employer input can develop understanding of where incentives can have the greatest marginal impact (OECD, 2018).

Sectoral approaches can also align with wider sectoral approaches to a national, regional and sub-regional level. For example, the UK Industrial Strategy has spawned a number of

sector deals (such as, offshore wind, construction and tourism).<sup>18</sup> UK nations, regions and local areas have their own sector priorities usually based on growth potential or numbers of local jobs and added value. Sectoral apprenticeship support can be positioned within these wider strategies.

#### 5.4 Conclusion: Developing employer incentives

There is great variability in employer incentives across countries, the characteristics of apprenticeship programmes and the context within which they operate. There is also limited, high quality research available to identify which ones are most effective, and the details of what makes them more or less effective.

The previous section identified a number of design principles that underpin more effective systems: understanding the needs of employers, and the local labour market context; align and complement existing structures; allow for flexibility; adopt sectoral approaches; keep incentives simple and straightforward; communicate effectively; tailor incentives and support to smaller firms; take into account non-financial as well financial factors.

Some of these aspects can be contradictory, requiring trade-offs between different design principles. The following provide examples.

- Administrative costs. The more it costs to manage and deliver a financial incentive, the less is available to employers. Whilst tax incentives are administratively cheaper they are also associated with higher levels of deadweight because they are available to all employers, including those who would have invested in apprenticeships anyway (Cedefop, 2009; Kuczera 2017). Targeting incentives at employers that underinvest in apprenticeships (e.g. specific sectors and smaller employers) is more effective but more costly because it requires an administrative infrastructure to deliver the programme adding to its costs and reducing the public sector net present value (Cedefop, 2009; Marsden and Dickinson, 2013).
- **Complexity.** Integrating financial incentives into regional and sub-regional strategies and wider skills and employer support, developing sectoral approaches can lead to a more complicated programme with complex aims and objectives. Incentives could operate differently in different sectors and regions making them more confusing for employers. However, simpler systems (because they tend to be more universal) may not support important groups of employers (e.g. those in growth/key occupations or priority sectors) or deliver on inclusion and diversity priorities.

It is important, therefore, to be clear about the aims and objectives of what is required and to be achieved as these will shape the nature of financial incentives, and influence the infrastructure needed to deliver and support them. For example, maintaining or increasing apprenticeship starts and completions may result in one type of incentive whereas supporting priority groups and inclusive aims will result in a different sort.

<sup>&</sup>lt;sup>18</sup> See <u>https://www.gov.uk/government/collections/industry-sector-deals</u>

Deadweight, substitution and displacement are also important considerations. All incentives will attract some deadweight so a key question is what level of deadweight is acceptable. In a recession, substituting one type of employee for another is a zero sum game and substitution tends to happen more at lower skills levels where apprenticeships are seen as less of an investment. Displacement can also occur where the financial incentive leads to one form of training replacing another.

The most important element to the success of any apprenticeship incentive is employer 'buyin' (Marsden and Dickinson, 2013). Involving employers in design and delivery is a key success factor. This helps to ensure a fit with employers' needs, and understand where deadweight, substitution and displacement may happen. Employer involvement also makes communication and engagement more effective. This is likely to be particularly important with employers or sectors with limited experience of apprenticeships (Chankseliani 2017; Kuczera 2017).

### 6. Conclusion and recommendations

#### Key findings

Apprenticeships are regarded as a relatively efficient means to deliver skills which are well matched to labour market demand. The very fact that the apprentices' training is directly tied to their employment ensures that they will be in receipt of training that their employer needs. But the fact that apprenticeships are tied to employment means they are potentially sensitive to the economic cycle. Apprenticeships are also a more involved and costlier form of skills training (compared to other forms of adult skills provision) which makes it more difficult to increase take-up amongst existing or new employers or, in the current situation, maintain existing levels.

Over the period since 1990/91 economic conditions have been relatively benign. With the exception of the 2008 economic crisis it has been a period of more or less uninterrupted economic growth. It has been against such economic conditions that apprenticeships have taken root across the UK, becoming the preferred vocational pathway through further education. Since 2008, the take-up of apprenticeships in Scotland has grown. Recent growth is likely to have come from existing employers taking on additional apprenticeships rather than new employers. Apprenticeships growth in the past five years has disproportionately benefited underrepresented groups in the labour market i.e. BAME, and disabled people. It is these groups of people who are the most likely to be hardest hit by a recession, thus undermining any recent gains. Analysis of the economic impact of Covid-19 on Scotland and the UK suggests that it is young people and those with lower skill levels that will be hardest hit implying that recent trends away from younger apprentices studying at lower levels may be exacerbated. Occupational and sectoral analysis also points to a continuation of downward trends in particular areas, especially administration and related; creative and cultural; hospitality and tourism; personal services; retail and customer service; and transport and logistics, as well as construction and related.

#### Supporting apprenticeships

How apprenticeships should respond to the current health crisis and the likely inevitable recession that follows depends to some extent upon how one views the recovery. If there is a quick bounce back, reflecting the fact that the downturn is not structural in nature, then arguably there is little need to make changes to the existing apprenticeship system other than ensuring that existing apprentices are allowed to complete, and there are a sufficient number of apprenticeships on offer over the short-term. Achieving current apprenticeship levels could be met through public subsidies designed to safeguard employer participation in apprenticeships with the proviso that these would be temporary.

If a subsidy is required then there is a question at what level this should be set. The principal cost to the employer is the apprentice's wage costs. At one extreme the subsidy could be equal to the wage cost or, more precisely, the alternative income which would be available to the would-be apprentice if no apprenticeship were available (e.g. their Job Seeker's Allowance [JSA] entitlement). Since the employer should be able to extract a productive contribution from the apprentice the level of the subsidy might need to reflect this. For example, it is known that during the first year of a Level 3 engineering apprenticeship the productive contribution of the apprentice is low because the apprentice spends a substantial

amount of time in off-the-job training. In customer care, however, the productive contribution of the apprentice is relatively high after the induction period (see Hogarth et al., 2012).

Providing a substantial wage subsidy to cover all apprentices is likely to be costly, but as noted above consideration needs to be given to what the would-be apprentice would be doing if they were not enrolled on an apprenticeship. To this end there is a need to factor in the cost of the alternatives such as a place in full-time education or the costs of paying JSA. There are also the opportunity costs to consider of not providing an apprenticeship place.

A further factor to consider in relation to any subsidy is **whether there is a need to limit any subsidy to particular apprenticeships**, such as those where there is a long-lead time to train people. In engineering apprenticeships at Level 3 and above, for instance, it can take three to four years to complete the apprenticeship and then a further few years to become fully proficient. In contrast, a Level 2 apprenticeship in customer care can be completed in a year with the apprentice close to full proficiency within a few months of commencing their training Hogarth et al., 2012). Again there is the issue of the alternatives available to those people who would have taken a Level 2 customer care apprenticeship.

Any wage subsidy would be short-term. As noted this will require clear signalling that any subsidy would be of limited duration and perhaps tapered to reflect the pace of recovery in the economy. It would also need to be designed such that apprentices were not being used as substitutes for existing workers.

If the recovery from any recession proves to be protracted there are other measures which might be considered. This may require **a more systemic review of apprenticeships**. This might, though not necessarily, need to consider how apprenticeships might be made more resilient such that it is better able to withstand future economic shocks.

If it is the latter, then there are a number of areas of potential investigation:

- how to make apprenticeships more attractive to employers e.g. with regard to the costs and benefits which derive from providing this form of training;
- how apprenticeship provision can be built into any overall economic stimulus package (e.g. ensuring that any large scale public investments include the training of apprentices);
- how apprentices can be afforded protection from the vagaries of the labour market by ensuring their skills are transferable across occupations and sectors; and
- providing flexible routes through initial vocational education and training such that learners and employers are not locked into one particular mode of delivery which might become unsustainable at some points in time.

There is nothing particularly new about these options from a policy perspective, but the current crisis may give a degree of impetus to the discussion and accelerate reforms which may have already been set in train.

In designing support there are a number of principles to bear in mind:

• Employer engagement with apprenticeships. It is easier to persuade employers to take on more apprentices (or maintain current levels of apprenticeships) than it is to persuade new employers to engage. Given that apprenticeships are

concentrated in certain sub-sectors and occupations, other forms of initial and continuing vocational education and training may also need support depending upon the sectors most adversely affected by Covid-19.

- The evidence suggests that **apprenticeships tend to be pro-cyclical.** Depending upon the scale of any economic downturn there may be a need to think about other forms of comparable initial vocational education and training to maintain future skills supply, at least over the short-term, if there are an insufficient number of employers able to take on apprentices (with or without receipt of subsidies).
- Clarity of aims and objectives. Decisions need to be made as to what incentives are designed to achieved, for example, is it to maintain or further develop apprenticeship starts, places and/or completions? What are the timescales of the intervention, are they to operate as short-term support or look to the medium-term when the predicted recession bottoms out and the upturn starts? In addition, the equal opportunities aims and objectives of apprenticeships are important, but may prove more difficult to support in the current climate without higher levels of incentives and support.
- Understanding employer need. There is a lot of evidence and strategic partnerships that can be utilised to ensure that incentives are developed in the right way (e.g. barriers to training of different groups of employers). These need to inform the direct and indirect cost of apprenticeship training (such as backfilling staff), as well as financial and non-financial aspects (e.g. supporting in-work supervision) that inform the nature and level of the incentive. As employers vary, incentives and support should be flexible to accommodate different needs.
- Working within current structures. New and additional incentives need to align with and complement existing structures and the existing apprenticeship programme. There are existing national and regional skills strategic structures that can be used to ensure alignment. These can also be used to position the incentives within the various trade-offs, expected and acceptable levels of deadweight (and how it might be overcome), and the unintended consequences of substitution and displacement. Established structures will also have existing communications to employers and providers which can be utilised to promote new incentives, ensuring alignment with existing initiatives. However, these need to be monitored so that key employers are not excluded.
- **Provide additional incentives and support to smaller employers** as their calculation of costs and benefits are different to larger employers, and they have fewer management, administrative and other resources to support apprentices.
- Involving employers in design and delivery. This is usually identified as best practice, but given the extraordinary circumstances it is essential to have employer input so that incentives and support fit with employer needs. Employers are already involved in apprenticeship design, and in wider skills partnerships nationally and regionally and these can be quickly utilised to provide input into the design and delivery of additional incentives and support. However, these existing structures may not include certain types of employers so it is necessary to identify which employers are less represented and how they can be involved.

Current regional and sub-regional economic development and skills structures can help deliver additional apprenticeship support because they already incorporate many of the above principles. For example, they are already developed economic and skills priorities, are engaging with existing apprenticeship employers, have undertaken local labour market analysis, have sectoral approaches with which new initiatives can be aligned, and work with key local stakeholders (including apprenticeship providers).

#### Short, medium, and long-term recommendations

In thinking about the future it is worth **bearing in mind shorter and longer-term goals.** Participation in apprenticeships is largely determined by the willingness of employers to provide apprenticeships and it is known that that willingness is determined in large measure by their anticipated future demand for skills. So the issue is how to manage employer demand and ensure that it does not result in potentially damaging skill shortages emerging where employers are temporarily unable to provide apprenticeship places.

Short-term measures are essentially concerned with ensuring that existing apprentices are allowed to complete their apprenticeships either with their current employers, or if that is not possible, with other employers or with the training provider. There are also a range of issues attached to ensuring that those young people who were expecting to enter an apprenticeship in 2020/21 have access to apprenticeships or something comparable. The evidence suggests that if employers are to be encouraged to take on apprentices then they are likely to need substantial public subsidy to do so over the short-term.

In looking at the short-term considerations, one can look at the way training might be restructured to accommodate the restrictions imposed by Covid-19. If employers, even if they have a desire to recruit apprentices - or continue to train their existing ones – are constrained in doing so by, say, social distancing or periodic lockdowns, then one can look at the extent to which training can be reorganised. For instance, the training provider might be able to bring forward certain elements of training, with delivery online where necessary, so that the apprentice's time is filled. If the duration of the apprenticeship becomes elongated because of the restrictions on entering the workplace, then there is the potential to increase the scope of the apprenticeship. For example, the apprentice could take additional modules which can be delivered by the training provider such that the elongation of the apprenticeship is able to confer additional benefits on the apprentice and ultimately the supply of skills to the labour market. It is all a question of making best use of the apprentice's time and converting constraints into opportunities.

Looking to the medium-term, if the economy struggles to recover from economic aspects of the Covid-19 crisis, there may be a need to look at other ways of encouraging employers to take on apprentices other than providing public subsidies to do so. National, regional and local government investments (such as those in energy, infrastructure, and housing) can provide valuable financial and non-financial levers that can be used to encourage employers to invest in training generally, and apprenticeships in particular. A protracted recovery may affect the employer's cost-benefit calculations with regard to apprenticeships insofar as they might be less certain about the returns from taking on apprentices. One way of managing apprenticeship levels is to assess whether the costs and benefits can be restructured in some way so that the cost to the employer is reduced without necessarily passing that cost onto the apprentice or the State. More

training provision via electronic means has the capacity to drive down employer costs (especially if the apprentice needs to spend less time away from the workplace). And based on the example of Switzerland there is the potential to think about how the productive contribution of the apprentice can be increased. Additionally there is scope to think about progression routes to higher levels of learning where there are greater returns to the employer. As it is easier to encourage existing apprenticeship employers to take on apprentices, incentivising and developing pathways from Level 2 to Level 3 and beyond may be a cost effective means of promoting apprenticeships.

Over the long-term there are questions about the resilience of post-16 vocational education and training and the capacity of the traditional apprenticeship model of training to weather the vagaries of the economic cycle. As food for thought the examples of Sweden and the Netherlands have been provided. In the former learners can move between traditional apprenticeship provision and one which relies upon more time being spent with the training provider albeit with a substantial work experience component. In the Netherlands, there is a twin-track approach of a traditional apprenticeship programme and a more school based version with work experience built into it. The more school based version is designed to provide training to young people during economic downturns when employers are reluctant to take on apprentices to a more traditional form of apprenticeship. In both Sweden and the Netherlands the system of workplace based training is designed to provide a degree of resilience in the face of economic turmoil: learners are assured training with a workplace based element and the state and employers are guaranteed a sustainable supply of skills to serve the labour market. Where the apprenticeship model is reliant upon more time being spent with the training provider or in the vocational school, the quality of this provision needs to be high and there needs to a substantial work experience component (to avoid the criticism of programme led apprenticeships in England and Northern Ireland). Of course, where apprenticeship training is more reliant upon delivery through vocational schools than employers, then there is a question about how this should be funded (e.g. via training levies, general taxation, etc.).

#### Annex A: References

Blake, N. Dods, J. and Griffiths, S. (2000), Employers Skill Survey: Existing Survey Evidence and its use in the analysis of skill deficiencies, DfEE, Research Paper SKT 30, London, 2000.

Brandt, N. (2015), Vocational training and adult learning for better skills in France. OECD Economics Department Working Papers No. 1260.

Broek, S. (2018), Changing Nature of VET: the Netherlands. Ockham IPA.

Brunello, G. (July 2009), The Effect of Economic Downturns on Apprenticeships and Initial Workplace Training: A Review of the Evidence. IZA Discussion Paper No. 4326.

Cedefop (2009), Using tax incentives to promote education and training.

Cedefop (2018). Flash thematic country review on apprenticeships in Sweden. Luxembourg: Publications Office. Thematic country reviews.

Chankseliani, M., Keep, E. and Wilde, S. (October 2017), People and Policy: A comparative study of apprenticeship across eight national contexts: Technical Report.

Dietz, M., Stops, M. and Walwei, U. (2011), Safeguarding jobs in times of crisis – Lessons from the German experience. Geneva: International Labour Organization (International Institute for Labour Studies.

Dickinson, P. (2010), European Social Fund: Support for In-Work Training research. DWP.

Dickinson, P. (2017), Evaluation of the Degree Apprenticeship Development Fund: Interim Report. Office for Students.

Dickinson, P. (2020a), The impact of accountancy apprenticeships. Kaplan and the Association of Accounting Technicians (AAT).

Dickinson, P. (2020b), Independent Review of the Co-op Apprenticeship Programme. Co-op Group.

Fraser of Allander Institute (2018), Scotland's economy: ten years on from the financial crisis Glasgow: University of Strathclyde.

Fraser of Allander Institute (2020), Coronavirus: quantifying the impact on the Scottish Economy. Glasgow: University of Strathclyde.

Gambin, L. and Hogarth, T. (2017), 'Employers and apprenticeships in England: costs, risks and policy reforms', Empirical Research in Vocational Education and Training, 9: 16.

Government of Ireland (2019), Review of Participation and Costs of Apprenticeships. Dublin: Irish Government Economic and Evaluation Service

Grollmann, P., Steedman, H., Jansen, A. and Gray, R (December 2017), Building apprentices' skills in the workplace: Car Service in Germany, the UK and Spain. Research Discussion Paper 011. Centre for Vocational Education Research (CVER).

Hart, R. A. (2005). 'General human capital and employment adjustment in the Great Depression: apprentices and journeymen in UK engineering'. Oxford Economic Papers, 57(1), 169–189.

Heyes, J. (2011), 'Vocational training, employability and the post- 2008 jobs crisis: Responses in the European Union' Economic and Industrial Democracy 34(2); 291–311.

Hogarth, T., Gambin, L., Winterbotham, M., Koerbitz, C., Hasluck, C., Baldauf, B. (2012) Employer Investment in Apprenticeships and Workplace Learning: The Fifth Net Benefits to Employers Study, London: Department for Business Innovation and Skills, Research Report 67.

Hogarth, T., Adams, L., Gambin, L., Garnett, E. and Winterbotham, M. (2014), Employer Routed Funding: Employer Responses to Funding Reform, London: BIS Research Paper Number 161.

Hogarth, T. and Gambin, L. (2017), 'Who Pays for Skills? Differing perspectives on who should pay and why', in Oxford Handbook of Skills and Training. Edited by J Buchanan, D Finegold, K Mayhew, C Warhurst. Oxford: Oxford University Press.

IFF Research (2018), Scottish Employer Skills Survey 2017: Scotland data tables. Scottish Government.

IFF Research (2019), Scottish Employer Perspectives Survey 2019: Research report. Scottish Government.

IFS (May 2020a), Getting people back into work.

IFS (May 2020b), Job vacancies during the Covid-19 pandemic.

IFS (May 2020c), Sector shutdowns during the coronavirus crisis: which workers are most exposed?

IPPR Scotland (May 2017), Scotland Skills 2030: The Future of Work and the Skills System in Scotland.

Köhler, C., Laredo, P. and Rammer, C. (January 2012), The Impact and Effectiveness of Fiscal Incentives for R&D. Nesta Working Paper.

Kuczera, M. (January 2017), Incentives for Apprenticeship: OECD Education Working Paper No. 152. OECD.

Learning and Work Institute (April 2020), Coronavirus and the labour market: Impacts and challenges.

Lerman, R.I. (November 2013), Should Employer-Led Training be the Framework for Workforce Development? American University and Urban Institute.

Lüthi, S. and Wolter, S. (2020), 'Are apprenticeships business cycle proof?' Swiss Journal of Economics and Statistics, Vol 156(3).

Marsden, J. and Dickinson, P. (April 2013), Review of International Evidence on Co-funding and the use of Tax Systems for Training: Final Report. Department for Business, Innovation and Skills.

McKinsey (May 2020), COVID-19 in the United Kingdom: Assessing jobs at risk and the impact on people and places.

Muehlemann, S, Wolter, S.C, Wueest, A (2009). 'Apprenticeship training and the business cycle'. Empirical research in vocational education and training, 1(2), 173–186.

Muehlemann, S. and Wolter, S.C. (October 2013), Return on investment of apprenticeship systems for enterprises: Evidence from cost-benefit analyses. European Expert Network on Economics of Education (EENEE). Analytical Report for the European Commission.

Muehlemann, S., & Wolter, S.C. (2014). 'Return on investment of apprenticeship systems for enterprises: evidence from cost-benefit analyses'. IZA Journal of Labor Policy, 3, 25.

Muehlemann, S. (2016), The Costs and Benefits of Work Based Learning. Paris: OECD;

Novella, R. and Pérez-Dávila, Y.S. (July 2017), Are Apprenticeships Programs Effective? Lessons for Latin America and the Caribbean. Inter-American Development Bank.

OECD (2017a), Financial Incentives for Steering Education and Training, Getting Skills Right, Paris: OECD Publishing.

OECD (2017b), OECD Skills Strategy Diagnostic Report: The Netherlands 2017.

OECD (2018), Seven Questions about Apprenticeships: Answers from International Experience, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris.

OECD (2020), Effective Adult Learning Policies: Challenges and Solutions for Latin American Countries, OECD Skills Studies. OECD Publishing. Paris.

OECD/ILO (2017), Engaging Employers in Apprenticeship Opportunities, OECD Publishing, Paris.

Office of the Chief Economic Adviser Monthly Economic Brief June 2020.

Raikes, L. and Davies, B. (May 2015), European employers' perspectives on long-term unemployment, recruitment and public employment services. IPPR.

Resolution Foundation (April 2018), Women, the young and low-paid workers are bearing the biggest health and economic risks from the coronavirus crisis.

Scottish Apprenticeship Advisory Board (May 2020), Scottish Apprenticeship Advisory Board (SAAB) Structure and Remit.

Scottish Government (2019a), Longitudinal Educational Outcomes (LEO) from Modern Apprenticeships: 2016/17.

Skills Development Scotland (2019b), A Human Future: Strategic Plan 2019–2022.

Scottish Government (September 2019), Scotland's Future Skills Action Plan.

Skills Development Scotland (February 2019), Foundation Apprenticeships: Progress Report.

Skills Development Scotland (2019a), Graduate Apprenticeships Early Activity and Progress: 2017/18 and 2018/19.

Skills Development Scotland (2019b), Apprenticeship Equality Action Plan: Annual Report 2019.

Stone, I. (June 2010), Encouraging small firms to invest in training: learning from overseas. UKCES.

Taylor, A. (May 2020), The Role of Short-Time Working Schemes in Mitigating the Impact of Financial Crises: Learning From France and Germany. City REDI Blog.

TUC (June 2018), Young workers are most at risk from job losses due to the coronavirus crisis.

Wessling, K., Hartung, A., Hillmert, S. (2015). 'Spatial structure counts: the relevance of regional labour-market conditions for educational transitions to vocational training'. Empirical Research in Vocational Education and Training, 7(1), 12.

Westergaard Nielsen N and Rasmussen A, (1999), The Impact of Subsidies on Apprenticeship Training, Centre for Labour Market and Social Research, Aarhus.

What Works Centre (2015), Toolkit Employer Training: Financial Incentives.

What Works Centre (2017), Toolkit Apprenticeships: Financial Incentives.

# Annex B: Overview of EU apprenticeship financial support mechanisms identified in the study (see spreadsheet)

The information in this annex is taken from Cedefop's database on financing apprenticeships in the EU at <a href="https://www.cedefop.europa.eu/en/tools/financing-apprenticeships">https://www.cedefop.europa.eu/en/tools/financing-apprenticeships</a> .

Annex C: Infographic of the main conclusions and recommendations