



Skills Investment Plan for Scotland's Historic Environment Sector

January 2019



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1. Introduction

This report presents the findings of research undertaken to develop a Skills Investment Plan (SIP) and Action Plan for the Historic Environment sector in Scotland.

The development of this SIP was supported by a wide range of individuals and organisations who helped identify and prioritise the key actions which will address the skills challenges and opportunities in the sector.

While many of the skills needs of the sector focus on main-stream skills issues we have also been able to identify some new and exciting opportunities to really make a difference.

We believe that the implementation of the SIP Action Plan will make a significant difference and impact on the sector and help Scotland achieve its goal to ***care for and protect its historic environment***.

1.1 Defining the Historic Environment

Scotland's Historic Environment is an integral and important part of the fabric of our society. It contributes to society in many ways, not least in economic terms (as a key driver of domestic and international tourism), but also in cultural terms by shaping our sense of identity and belonging, creating social cohesion, and enriching and improving people's lives (health, wellbeing and quality of life)¹.

¹ Our Place in Time, The Historic Environment Strategy for Scotland, March 2014. Available at: <https://www.gov.scot/Publications/2014/03/8522>

“Scotland's historic environment is the physical evidence for human activity that connects people with place, linked with the associations we can see, feel and understand.

“The historic environment could be said to be the cultural heritage of places, and is a combination of physical things (tangible) and those aspects we cannot see - stories, traditions and concepts (intangible). It comprises a variety of objects, structures, landscapes and features. [acknowledging] the great breadth which this encompasses, from underwater, to ecclesiastical and industrial, as well as the traditional great architecture and monuments”.

Source: Our Place in Time - The Historic Environment Strategy for Scotland, 2014

Heritage and Culture has also long been recognised as a key driver for the tourism economy in Scotland. Heritage and Culture is rich and diverse spanning:

- Cultural Heritage (museums and galleries, collections, researching ancestry, etc);
- Built Heritage (world heritage sites, historic buildings and ancient monuments, pre-1912 homes, ecclesiastical and heritage, archaeological sites, gardens and designed landscapes etc); and
- Contemporary Culture².

² People Make Heritage, Heritage Tourism 2020. Available at: <https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=2575e7f9-328b-42ca-9d50-a7af01038682>

1.2 Background

Scotland's first national strategy for the Historic Environment - Our Place in Time (OPiT) - sets out a vision that: *"Scotland's historic environment is understood and valued, cared for and protected, enjoyed and enhanced. It is at the heart of a flourishing and sustainable Scotland and will be passed on with pride to benefit future generations"*.

It is recognised that a skilled workforce is crucial for the future success of the sector, and that skills underpin the successful delivery of the national strategy. As such, "Skills and Capacity" has been identified as one of four cross-cutting priorities, under which the strategy sets out the need to *"develop the skills and capacity at all levels that are needed to manage, nurture and enjoy the historic environment across all our communities"*.

Over recent years there have been various reports of skills shortages facing the sector and widespread industry concern that a lack of appropriate skills in the future could be a threat which could impact on the management, protection and conservation of the Historic Environment.

The National Heritage Training Group (NHTG) reported earlier this year that *"the UK's much loved historic buildings are at risk due to a lack of available restoration skills within the construction industry"* and that *"young people have scant knowledge of the skills required for historic building repair and maintenance. This suggests as experienced craftspeople retire, many skills could be lost"*³.

Heritage Update (2016) also report a skills shortage saying there is *"a current under-capacity in the archaeological workforce to deal with major infrastructure projects"*, and that *"the UK is set to see a surge in major infrastructure projects with more than 40 planned across the UK"*.

³ <https://www.propertywire.com/news/uk/experts-warn-historic-buildings-uk-risk-skills-shortage/>

over the next 17 years (e.g. HS2, Crossrail 2 and major road upgrades).....existing routes for qualifications are unlikely to deliver enough people”⁴.

In response, Skills Development Scotland (SDS) and Historic Environment Scotland (HES), on behalf of the OPiT Skills and Expertise Working Group, commissioned the development of a Historic Environment Skills Strategy and Action Plan (SIP) to identify the main skills issues for the sector and solutions for how these can be best addressed.

1.3 Study Objectives

The overall objectives of the research were two-fold, to:

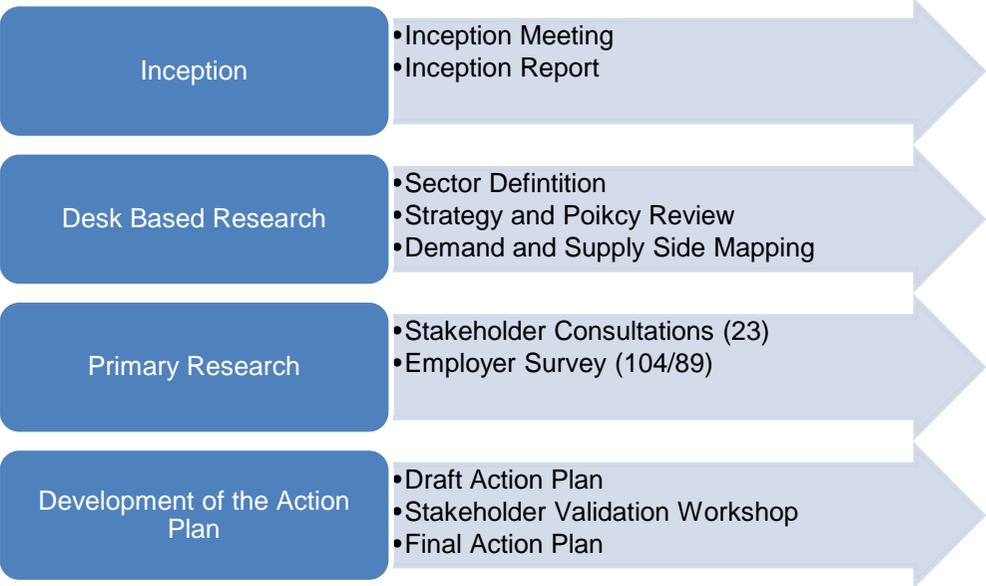
1. Deliver a robust Historic Environment Skills Strategy on behalf of the OPiT Skills and Expertise Working Group; and
2. Deliver a strategy and evidence-based Action Plan that articulates the key skills issues for the sector, working collectively with the sector and key partners to develop responses to these challenges.

The [EKOS Historic Environment SIP Scoping Report](#) (February 2018) has been provided separately, and shared with the Skills and Expertise Working Group.

⁴ <http://www.theheritagealliance.org.uk/update/skills-shortage-in-archaeology-hits-the-national-news/>

1.4 Study Method

The study was comprised of four key elements:



2. Sector Footprint

2.1 Overview

It is clear from the definition on page 1¹ that the Historic Environment sector is diverse and complex in nature. This poses challenges for understanding the profile of the sector (e.g. market size, employment levels, skills levels, etc) although, anecdotally, the biggest share of activity within the sector relates to the built environment/construction.

What is known is that the HES:

- spans organisations/companies across the public, private, and third sectors;
- covers many broad market areas that span historic and listed buildings and sites, the built environment, conservation areas, gardens/created landscapes, tourism and hospitality, historic landscapes, museums and galleries etc;
- has high levels of self-employment and micro and small businesses and is therefore very difficult to quantify;
- spans a wide range of occupations/functions (listed in Table 2.1, over);
- includes a wide range of professionals and specialists that work to protect and promote the historic environment (e.g. surveyors, architects, archaeologists, archivists, museum curators, planners, engineers and craftspeople across many different skills and trades);
- comprises employees, freelancers, professionals, individuals, researchers, students, and volunteers; and
- can have a strong alignment with individual professions and other (sub)-sectors rather than with broader sectors, for example the Cultural Heritage, Tourism or Hospitality sectors.

Table 2.1: Historic Environment Sector Occupations

Table 2.1: The Historic Environment Sector Comprises	
Archaeology	Libraries and Archives – curation, interpretation and learning
Architectural, Engineering, and Surveying Activity	Heritage Regulation and Planning
Architectural and Building History	Heritage Tourism – including visitor experience and interpretation activities
Conservation and Interpretation – art, artefacts, buildings, historic sites, gardens and landscapes	Traditional Craft, Materials and Building Skills
Museums and Galleries	Curation, interpretation and learning

Additionally, skills required within the Historic Environment do not exist within a vacuum, but sit within the wider skills infrastructure and may already be accommodated within other sectoral skills plans. For example, skills needs within Heritage Tourism are addressed within the skills plan - People Make Heritage² and there are already SDS Skills Investment Plans (SIPs) supporting Construction, Tourism and Creative Industries.

There is a range of research in the archives relating to the Historic Environment sector but very little with a clear skills focus and, to add to the complexity, these reports often used different mapping methodologies. For instance, some research was based on asset types such as ancient monuments or archaeological sites while other research was based on defined Standard Industrial Classification (SIC) codes and the Joint Academic Coding System (JACS). This makes comparison between studies quite challenging. If the Historic Environment sector is considered as a whole it is clear that from a “skills” perspective a sector map requires to reflect:

- historic environment skills in historic environment organisations/companies;
- non-historic environment skills in historic environment companies; and

- historic environment skills in non-historic environment organisations.

While traditionally, sector mapping is carried out using SIC and/or Standard Occupational Classification (SOC) codes this method has limitations from a number of perspectives:

- some firms will only operate in the Historic Environment market as part of their overall business (e.g. an architect firm that works in the historic environment sector but also does work in other sectors);
- some people may work entirely within the HES, others in part, and others not at all (e.g. joiners);
- some activity will only be peripheral (but important) but difficult to define (e.g. the growth in digital); and
- some of the key skills/occupations for a company or organisation within the HES will be generic (e.g. management, marketing, HR, etc).

While the above complexities pose challenges in being able to robustly define the sector, this has not constrained the research for the Historic Environment SIP. In more clearly identifying the Historic Environment footprint, we built on the previous Historic Environment Scotland research and the published SIC/SOC codes, which offer the most granular description of industry and occupational roles available (Appendix A).

2.2 Employment

Employment in the Sector

Using the above characterisation, [it is estimated that the Historic Environment sector in Scotland comprises 20,000 FTE employees \(excluding volunteers\)](#). This assessment is largely based on some reasoned assumptions and is not therefore strongly evidenced although the Skills & Expertise Working Group are in broad agreement with this figure.

Volunteer Workforce

Volunteers are an important part of the overall workforce and, although less relevant in some sub-sectors, make a significant contribution across others (e.g. 20% of the museum workforce are volunteers⁵). As such, volunteers must be recognised as a key part of the workforce and included when considering future skills requirements.

There are reported to be at least 17,000 volunteers actively engaged in Scotland's Historic Environment⁶. However, given the difficulty in defining and tracking those involved in this broad sector this figure is likely to significantly under-represent the true level of volunteering in the sector.

Many organisations are run purely by volunteers or are reliant on them, and they fulfil a wide range of roles and functions. The volunteer base has been growing, and that trend is expected to continue which raises a number of challenges, including the need to diversify the volunteer base, which can be perceived as being 'older'. There is also a need to improve recruitment and management of volunteers by, for example, building skills levels beyond the narrow 'technical' focus to encompass other roles, providing training to maintain the professional standing of the organisation and undertake succession planning.

2.3 What Does This Mean for the SIP?

It is difficult to provide a finely-tuned overview of employment and the wider workforce in the Historic Environment sector in Scotland. The challenge for the Historic Environment SIP is how best to reach and engage with all parts of such a multi-faceted and diverse sector, particularly where there are high levels of self-employment and micro and small businesses, as well as a strong alignment with professions or sub-sectors.

⁵ Volunteer Scotland, Volunteering and the Historic Environment, June 2016. Available at: https://www.volunteerscotland.net/media/723561/volunteering_and_the_historic_environment_2008.pdf

⁶ The figure is based on findings of 182 survey respondents only (no grossing up of data to total population).

The Historic Environment SIP needs to speak to, and resonate with, all parts of the Historic Environment sector given that there are likely to be a range of perspectives and needs.

The SIP must also recognise that some people who work/operate in the Historic Environment sector come into the sector without a heritage, hospitality, or customer care background, and that volunteer roles are crucial in many parts of the sector (e.g. museums, cultural heritage organisations).

Additionally, key messages from both the policy review (Chapter 3) and stakeholder consultations (Chapter 5) are that there is a pressing need to create a more diverse and flexible employee and volunteer workforce with a broader range of skills that reflect the ever-changing environment in which businesses and organisations involved in the Historic Environment sector operate.

3. Strategy and Policy Review

3.1 Introduction

This Chapter sets the wider strategic context, and identifies contextual issues that influenced the development of the Historic Environment SIP.

Historic Environment Strategy for Scotland – Our Place in Time

Our Place in Time (OPiT) sets out the partners' collective commitment to care for Scotland's Historic Environment, and for current and future generations to continue to gain benefit from it. To achieve this, the Historic Environment needs to be understood, valued, protected, and championed.

"Skills and Capacity" was identified as one of four cross-cutting priorities, and key points relate to:

- developing the skills and capacity, at all levels, that are needed to manage, nurture, and enjoy the Historic Environment across all communities;
- a focus and priority on capacity building efforts to maintain and enhance Historic Environment skills to address skills gaps and effective succession planning;
- protecting, maintaining and developing the many professional and specialist skills required to carry out the appropriate care, management and promotion of the Historic Environment;
- upgrading existing skills and developing, delivering, and accrediting new skills across the public, private and third sectors; and

- harnessing the energy and enthusiasm of volunteers by providing training and support in the skills and knowledge required to understand, record and promote the Historic Environment.

3.2 Tourism Specific Context

Tourism Scotland 2020

The ambition set out within Tourism Scotland 2020⁷ is that Scotland is “*a destination of first choice for a high quality, value for money and memorable customer experience, delivered by skilled and passionate people*”. The Strategy sets out its ambitions around leadership and growth in the tourism sector, and improving the overall quality of visits to Scotland.

Key skills priorities for tourism businesses are centred on building capabilities and improving the customer journey, and are identified as:

- improving management, leadership and enterprise in the sector;
- ensuring staff have the skills to deliver a high-quality visitor experience;
- raising the attractiveness of the sector to new entrants; and
- ensuring appropriate and high-quality training is available to the sector.

People Make Heritage – Heritage Tourism 2020

“Heritage” is identified as a key asset which has potential to support continued growth of the tourism sector⁸.

⁷ Tourism Scotland 2020, Available at: <http://scottishtourismalliance.co.uk/content.php?url=page/ts2020history/>

⁸ People Make heritage, Heritage Tourism 2020, Available at: <http://scottishtourismalliance.co.uk/content.php?url=page/ts2020history/>

People Make Heritage - Heritage Tourism 2020⁹ sets out a strategic framework for leadership and growth in Scotland's Historic Environment and Heritage Tourism sector. Key themes are around sustainable management/protection of heritage assets, better promotion of the heritage sector, digital opportunities, increasing active participation with the Historic Environment, broadening the appeal to younger audiences, and improving the quality of heritage visitor journey.

Skills are an explicit priority, and the strategy highlights:

- the new People Make Heritage skills development programme designed to address skills shortages in the heritage tourism sector: specialist visitor service skills, wider ambassadorial skills, marketing, professionalism;
- that there is more to do in terms of heritage being an attractive and stimulating career path; and
- workforce development and building capabilities (employees and volunteers) – recognising that some staff do not come from a hospitality or customer care background and, in some cases, there is a reliance on volunteers. Skills development should focus on customer care and professionalism.

3.3 Cultural Heritage Specific Context

Character Matters: Attitudes, Behaviours and Skills in the UK Museum Workforce⁹

Museum Galleries Scotland was one of a number of partners across the UK that commissioned research to better understand the museum workforce. The recent research points to a number of drivers of change within the sector which were also raised during our consultation process: reduced funding streams, development of new business models, changing approaches to audience engagement and participation.

⁹ Character Matters: Attitudes, Behaviours and Skills in the UK Museum Workforce, Available at: https://www.artscouncil.org.uk/sites/default/files/download-file/Character_Matters_UK_Museum_Workforce_full_report.pdf

It concludes that the museum workforce will face a growing need to adapt and develop new skills, knowledge and ways of working to meet changing organisational and audience needs.

Some key research findings of relevance to the development of the Historic Environment SIP are that:

- there is a drive towards more stable and financially resilient museums which aim to diversify income streams while also seeking to expand their social impact with audiences. This was also highlighted in The University of Cambridge Museums Skills Audit¹⁰
- there is a need to develop a more diverse, flexible, and well-rounded workforce that brings new skills, energy and ideas into and across the sector. Ideally, we need to develop specialists with a broad range of other skills and knowledge. A range of “personal qualities” such as conscientiousness, optimism, motivation, self-efficacy, persistence, curiosity, creativity and the ability/willingness to learn and collaborate are also considered important.
- the importance of retaining and protecting specialist knowledge and heritage-specific skills, while at the same time broadening roles and encouraging collaboration across specialisms;
- priority skills gaps reflect the overall drive towards improved museum resilience, including business and management skills to support income diversification, embedding digital skills, and better leadership skills;
- most job adverts require high levels of education, with only 30% stating they would consider equivalent experience rather than a formal qualification;
- there are more women than men in the museums workforce, but men typically earn more and are more likely to hold senior management positions;
- overall the majority of the museums workforce is made up of white women and by those with a high level of education; and

¹⁰ The University of Cambridge Museums Skills Audit, Available at: https://www.museums.cam.ac.uk/files/skills_audit_report_update.pdf

- while 70% of the workforce is engaged in training and CPD (most of it initiated by themselves e.g. attending conferences), it is rarely targeted to the needs of the individual and the individual organisation. Training and CPD is also dominated by heritage-specific training, with much lower rates of business or management CPD training.

The Historic Environment and Cultural Heritage Skills Survey

The Skills Survey research (2013)¹¹ was commissioned by Creative & Cultural Skills and English Heritage and looked at skills across the wider cultural heritage sector in the UK, and was driven by concerns raised about skills being lost and not replaced.

The research also reports that historic environment and cultural heritage organisations are continuing to change (business models, becoming increasingly commercial), and that staff require a broader range of skills.

This includes skills around change management, strategic planning, financial and budget planning, sourcing new and alternative sources of finance).

While recognising the diversity of the sector, it identifies commonalities with regard to skills development and training issues:

- many, including those within Scotland, do not typically associate themselves with a broader 'cultural heritage sector'. Instead they align themselves more strongly with their individual professions or sub-sectors. This creates challenges around sharing skills across the sector and ensuring the Heritage sector has a strong voice in relation to its skills needs.
- the sector is slow-moving in terms of the recruitment of new staff and its low rate of staff turnover. This, coupled with ongoing reductions in public-sector budgets, brings about concerns regarding a lack of opportunities for young people, particularly given that the current highly-skilled workforce is older and when people retire there may not be the opportunity to pass on knowledge/skills. This

¹¹ The Historic Environment and Cultural Heritage Skills Survey, Available at: <http://creative-blueprint.co.uk/library/item/the-cultural-heritage-and-historic-environment-skills-survey>

is considered critical in conservation, where skills in professions such as architectural historian, conservation engineer, landscape architect and conservator of art and artefacts are already in short supply;

- in contrast to the slow pace of recruitment, the supply of entrants to the sector remains strong. There are, however, concerns around whether they are qualified to the appropriate level with organisations expecting specialist and wider skills in their recruits such as managerial, business and other skillsets;
- the most common route into work in the sector is via other relevant employment (much more so than direct from education). This raises potential problems for those at the very outset of their careers who lack sufficient experience compared to someone moving between jobs;
- high-level postgraduate qualifications are required in some roles (e.g. archaeology and conservation) which has the potential to cut off more diverse entry routes to the sector; and
- the extent to which volunteering is an effective entry route to employment in the sector is unclear. People typically enter the sector via paid employment elsewhere or direct from education, and the type of activities volunteers are engaged in, and for which training is provided do not necessarily build an effective CV. Rather than volunteering opportunities, it recommends that candidates should be seeking, and be sought for, specific work placements or internships relevant to the 'business' of the organisation.

3.4 Built Heritage Specific Context

Scotland's Archaeology Strategy

Scotland's (first) Archaeology Strategy (2015)¹² identifies five high level aims: Delivering Archaeology, Enhancing Understanding, Caring and Protecting, Encouraging Greater Engagement, Innovation and Skills. Points of note include the importance of:

- improving the accessibility and communication of findings and results (e.g. making interpretation more engaging and relevant);
- broadening opportunities for public/community engagement (formal and informal learning opportunities);
- pursuing and promoting good practice standards – including to avoid unnecessary damage to or destruction of the historic environment;
- sustainable archaeology – knowledge and understanding, suitably qualified staff;
- keeping abreast of new discoveries, ideas, innovations, technologies, and research; and
- ensuring a wide range of skills – technical as well as engagement, communication, teaching, etc.

“Innovation and Skills” has been identified as one of five high level strategic aims, detailed in Table 3.1.

¹² Scotland's Archaeology Strategy, Available at: <http://archaeologystrategy.scot/>

Table 3.1: Goals and Key objectives set out in Scotland's Archaeology Strategy

Goal	Key Objectives
<p>Ensure that people have the opportunity to acquire and use the archaeological skills that they need or desire, and that those skills provide the underpinning for innovation in the understanding, interrogation, learning and funding of archaeology.</p>	<ul style="list-style-type: none"> • Develop and promote the supply of training and learning resources and opportunities at all levels to equip current and future generations. • Demonstrate the importance of archaeological skills to employers and clients to promote demand. • Improve collaborative links, knowledge transfer and creative synergies between universities, communities, museums, businesses, local authorities, arts sector. • Support the innovation, development and application of cutting-edge scientific techniques, more creative ways of funding, organising and managing archaeological projects, and new approaches to communicating and teaching archaeology.

Archaeological Skills and Training in Scotland

At a recent event (March 2018), a range of pinch points were identified regarding archaeological skills and training in Scotland.

There is a shortage of specialists in the field (including in the marine, museums and finds sectors) and, in addition to the loss of 'A' levels as an option, colleges and universities are not joined up in their training, with a rather fragmentary infrastructure for learning routes. This is compounded by the fact that career paths remain unclear within the sector. There are also no Scottish Archaeological Apprenticeships or Professional Development Awards and a very modest uptake of NVQs in the field.

There is also a continuing lack of workforce diversity with low numbers of employees being trained, which might in part be due to employers reporting time and cost concerns with regard to training.

Traditional Building Skills: A Strategy for Sustaining and Developing Traditional Building Skills in Scotland¹³

The Strategy, published in 2011, is somewhat outdated and focuses on the construction, maintenance and repair of traditionally constructed buildings. Its vision is of “a world-leading system of traditional skills training that meets the needs of a modern, innovative and competitive construction sector”. Key skills-related issues include:

- demand is growing for traditional building, repair and maintenance skills as stock is becoming older, there is a lack of maintenance, poorly executed repairs, etc;
- there is a lack of formal vocational training and qualifications covering traditional skills;
- considerable variation in depth and quality in existing qualifications covering traditional skills;
- trades-people and some of those teaching across Scotland have gaps in the knowledge and skills they need to repair and maintain traditionally constructed buildings;
- new-build drives the college course content to the detriment of traditional building skills;
- there is a lack of understanding of the relevance of traditional building skills and the benefits they offer;
- the geographic spread of supply of traditional skills against demand across Scotland is highly varied – traditional skills training is also among the most expensive to deliver within colleges and even if there is clear demand, overhead costs to run courses might be prohibitive (therefore different approaches required);
- greater focus on long-term sustainability and better repair and maintenance of traditional buildings (climate change, energy efficiency, carbon emissions, etc) - practical solutions and training for those who will need to undertake the work in future;

¹³ Traditional Build Skills, A Strategy for sustaining and developing traditional build skills in Scotland, Available at: <https://www.historicenvironment.scot/media/3359/traditionalbuildingskills.pdf>

- shortages of stonemasons, plasterers, lead workers and traditionally skilled joiners, and wider concerns around the demise of vernacular building skills, and in some areas specialists retiring without their skills being passed on; and
- repair and maintenance sector typically serviced by very small firms – challenge in engaging in training (and many sole traders do no training at all). Others use own in-house training and report the lack of relevant training available.

The Strategy provides some pointers around skills issues:

- protecting and enhancing the historic environment for future generations cannot be adequately achieved without the appropriate knowledge, skills and materials to conserve and maintain Scotland's traditional buildings (of which there are circa 450,000);
- promoting a better understanding of the value of traditional building skills and their relevance to Scotland's current building stock;
- improving the standard, consistency and availability of skills training to ensure the supply of skills, training and qualifications can meet and is responsive to what is needed for future success (e.g. identify and resolve gaps in qualifications for traditional skills, CPD, etc); and
- better understanding of, and capability to, demonstrate the relevance of traditional skills to Scotland's current building stock in terms of energy efficiency, sustainability and conservation gain.

Skills-Needs Analysis of the Built Heritage Sector in Scotland¹⁴

The above report is over a decade old, nevertheless, it provides useful demand and supply-side pointers which have skills implications.

Current repair and maintenance is insufficient to ensure the survival of the built heritage and as building stock increases with age, more conservation, repair and maintenance is required.

¹⁴ Skills-needs analysis of the Built Heritage Sector in Scotland, Available at: https://www.citb.co.uk/documents/research/nhtg_skillsresearch_scotland_report2007_tcm17-6861.pdf

Contractors and sole traders carry out a relatively large proportion of the repair and maintenance work on pre-1919 buildings, but issues centre on this not being their main specialism.

Their commitment to training is low, and lower yet to traditional skills training. They also use relatively few traditional building materials and a need to improve standards of work carried out has been identified.

On the supply side, it notes shortage of labour, skills and experience (stonemasons, roofers, plasterers, lead-workers and joiners); that specialists are sparse in some regions; poor image of construction industry and lack of knowledge of built heritage sector results in a lack of applicants; and there is insufficient training provision to meet demand across regions.

The new-build sector of the construction industry drives the course content within FE colleges and there is a low uptake of add-on conservation units. Training opportunities are sparse in some regions meaning that upskilling the current workforce requires alternative and more flexible forms of training provision. There is also a lack of appropriately skilled trainers to deliver traditional building skills courses which require a higher level of skills and knowledge.

It called for:

- a multifaceted approach that encompasses stimulating increased spending and meeting demand with an adequate supply of skills and traditional building materials through improved training provision.
- ensuring a general knowledge and understanding of conservation and restoration across everyone involved in the sector;
- demonstrating to new entrants to the construction industry the relevance of the skills and career possibilities within the traditional building sector; and
- less formal means of training in a flexible system to integrate upskilling and continued skills development.

3.5 Related Sector SIPs

The development of the Historic Environment SIP needs to take cognisance of other relevant sector-specific SIPs (Table 3.2)¹⁵. Many of the priority themes identified within other SIPs chime with themes emerging here.

Table 3.2: Key priorities set out in relevant Sector SIPs

Priorities	
Construction	<ul style="list-style-type: none">• Attracting future talent and building on pathways into and through the sector.• Upskilling and workforce development in line with employer demand.• Modernising training and targeting interventions.• Building skills for future growth (e.g. business, management etc).
Creative Industries	<ul style="list-style-type: none">• Developing industry readiness and progression.• Addressing the creative digital agenda.• Developing leadership and business skills.• New approaches to delivery.
Tourism	<ul style="list-style-type: none">• Improving management, leadership and enterprise skills across the sector.• Supporting the development of professional and digital skills for all in the sector.• Ensuring staff at all levels understand and can respond to visitor needs and expectations.

¹⁵ <https://www.skillsdevelopmentscotland.co.uk/what-we-do/skills-planning/skills-investment-plans/>

-
- Raising the attractiveness of the sector.
-

3.6 What Does This Mean for the Historic Environment SIP?

The various strategy and research documents paint a picture of a Historic Environment sector that has experienced, and is likely to continue to experience, change.

Skills are a recurring theme and the importance of the Historic Environment sector being adaptable to changing demands is emphasised. A skilled workforce is viewed as crucial to protecting Scotland's rich and diverse Historic Environment, be they- employees, contractors, volunteers, skills and training providers, etc.

There is a strong message throughout that work on skills is required on a number of fronts:

To protect, maintain and develop the many professional and specialist skills required to carry out the appropriate care, management and promotion of the historic environment. This includes a continuing need to educate and stimulate demand for traditional building, archaeological skills, etc and to ensure that there is a strong supply of skilled people (existing workforce and new entrants) with traditional and specialist skills which in some cases are at risk of being lost. This highlights the importance of effective succession planning and calls for greater training and upskilling of the current workforce alongside activities to raise the attractiveness of the sector to new entrants (creating a stronger pipeline of talent).

It is recognised that the workforce needs to be more flexible and to have a broader range of skills to adapt to ongoing changes, and this, in part, reflects the need to attract a more diverse talent pool. The main skills gaps include digital, leadership and management, business, financial and budget planning, sourcing new and alternative sources of finance, customer service, and marketing.

There is a need to ensure that the supply of skills, training and qualifications meets the requirements of the Historic Environment sector. Key messages from the review are that:

- a one-size-fits-all approach will not work, and that the sector needs to be flexible and adaptable in its approach to meet both high and low-volume specialist training requirements;
- there needs to be greater promotion of vocational routes into and through the sector;
- training and CPD needs to better meet the needs of the individual and the individual organisation, including the development of business and management skills, etc; and
- there is a need for more opportunities for work placements and internships.

4. Skills and Training Provision

4.1 Introduction

This Chapter provides an overview of the skills and training provision relating to the Historic Environment in Scotland. It covers: Higher Education (HE), Further Education (FE), Apprenticeships, and organisational training and seeks to build on the Heritage Conservation Skills Audit for Scotland¹⁶ undertaken for HES in 2015.

The broad range of HE and FE courses and subject areas which are considered to relate to the Historic Environment, along with the numbers of students registered on each in the academic years 2010/11 and 2015/16 (HE) /2016/17 (FE) are detailed in Table 4.1 and 4.5.

It should be noted many of students undertaking studies within the subject areas detailed will not enter employment in the Historic Environment sector but the broad trends in numbers have been used to help inform the SIP.

There is also limited data available in relation to student numbers and equalities around gender, ethnicity, and disability, with some data not available at a level where useful conclusions can be made.

Nevertheless, we identify some pointers from the data and analysis.

¹⁶ Not in the public domain

4.2 Higher Education Provision

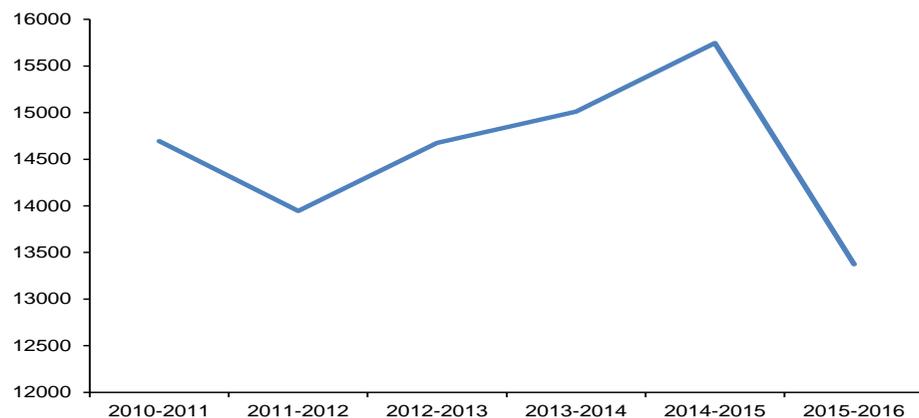
Undergraduates

It is not possible to be definitive about from which graduate courses the majority of graduate-level employees are sourced as they could enter the sector from any course.

There were almost 13,500 students undertaking an undergraduate Historic Environment-related course in Scotland in 2015/16¹⁷ (Table 4.1, over) with the highest proportions studying History (by period), Architecture, Building-related courses, History (by topic) and Forensic & Archaeological Sciences respectively. This is a decrease of in student numbers of 1,320 (9%) overall compared to 2010/11. However, when the total number of students studying Historic Environment-related courses is looked at each year from 2010/11 to 2015/16, inclusive, there is a general fluctuation in numbers around a mean of approximately 14,550 (Figure 4.1). It is probable that this is an impact of overall student intake in each year as intake in 2014/15 was particularly large in a number of universities and relatively small in 2015/16.

Figure 4.1: Numbers of HE Students studying Historic Environment-related Subjects in Scotland from 2010/11 to 2015/16

¹⁷ We have specifically excluded a number of courses which may be related to the Historic Environment but where it is believed they will only have a limited impact on the sector. These include Agricultural/Rural, Physical Geographical Sciences and Engineering courses.



Source: HESA data 2010-2011 to 2015-2016

The largest percentage increase in student numbers from 2010/11 to 2015/16 was in Heritage Studies (100%) and Landscape and Garden Design (43%). However, in absolute terms these increases account for very low numbers of students. The largest increase from 2010/11 to 2015/16 in absolute student numbers was seen in History (by period, an increase of 1,305 and History (by topic, an increase of 175).

There was a percentage decline in students studying Cinematics and Photography (-1,305 students, -86%), Fine Art (-705 students, -81%), Other courses in Architecture, Building and Planning (-45 students, -39%); and Building (-820 students, -32%). Despite the large percentage drop in student numbers studying Building and Planning this only equates to a small absolute number of students.

It is of course not possible to say if this decline directly translates to fewer graduates seeking jobs in the Historic Environment sector.

Table 4.1: Scottish HE Student Numbers by Subject Area (2010/11 and 2015/16)

Subject Area	2010/2011		2015/2016		Change from 2010 to 2015	
	No.	% of total	No.	% of total	Change in No. (% change)	Change in % of total
<u>Architecture/Building/Planning:</u>						
Architecture	2930	20%	2,775	21%	-155 (-5%)	+1%
Building	2595	18%	1,775	13%	-820 (-32%)	-5%
Landscape & garden design	175	1%	250	2%	75 (+43%)	+1%
Others in architecture, building planning	115	1%	70	1%	-45 (-39%)	0
<u>Creative Arts & Design:</u>						
Cinematics & photography	1515	10%	210	2%	-1305 (-86%)	-8%
Fine Art	875	6%	170	1%	-705 (-81%)	-5%
<u>Historical & Philosophical Studies:</u>						
History by period	3640	25%	4,945	37%	1,305 (+36%)	+11%
History by area	330	2%	395	3%	65 (+20%)	+1%
History by topic	1330	9%	1,505	11%	175 (+13%)	+2%
Archaeology	425	3%	415	3%	-10 (-2%)	0
Heritage Studies	0	0%	5	<1%	5 (+100%)	+<1%
<u>Physical Sciences:</u>						
Forensic and Archaeological Sciences	765	5%	860	6%	95 (+12%)	+1%
Total	14,695	100%	13,375	100%	-1,320 (-9%)	

Source: HESA Data Publication Tables 2010-2015.

All of the Universities in Scotland currently offer some form of Historic Environment-related course, apart from Queen Margaret University and the Royal Conservatoire of Scotland. The majority share of these students studied in Edinburgh, Glasgow and St Andrews (Table 4.2).

The University of Dundee has seen an increase in student number in Historic Environment-related courses of 1,400% from 2010/11 to 2015/16. However, in real terms this equates to an increase from 10 to 140 students. The ‘comparatively small’ increase of 36% in student number over this time at the University of Edinburgh equated to an absolute increase of 770 students, the largest absolute increase in any Scottish university.

This has been accompanied by an overall decline in student numbers in The Robert Gordon University (-650 students/45%), The Glasgow School of Art (-445 students/41%) and The University Aberdeen (-385 students/41%).

Overall there has been a decline across all universities of 1,320 students (9%) studying subjects related to the Historic Environment (Table 4.2) but they still accounted for 16% of all HE students in the country in 2015/16 (Table 4.3).

Table 4.2: Historic Environment Student Numbers by Scottish University (2010/11 and 2015/16)

Scottish University	2010/2011		2015/2016		Change 2010-2015	
	No.	% of total	No.	% of total	Change in No.	Change in % of total
The University of Aberdeen	945	6%	560	4%	-385 (-41%)	-2%
University of Abertay Dundee	10	<1%	150	1%	140 (+1,400%)	+<1%
The University of Dundee	1,085	7%	860	6%	-225 (-21%)	-1%
Edinburgh College of Art	975	7%	N/A	N/A	N/A (N/A)	N/A
Edinburgh Napier University	650	4%	395	3%	-255 (-39%)	-1%
The University of Edinburgh	2,130	14%	2,900	22%	770 (+36%)	+8%
Glasgow Caledonian University	1,130	8%	1,030	8%	-100 (-9%)	0%
Glasgow School of Art	1,095	7%	650	5%	-445 (-41%)	-2%
The University of Glasgow	1,385	9%	1,950	15%	565 (+41%)	+6%

Heriot-Watt University	630	4%	335	3%	-295 (-47%)	-1%
The Open University in Scotland†	0	0%	370	3%	370 (+100%)	+3%
Queen Margaret University, Edinburgh	0	0%	0	0%	0 (0%)	0%
The Robert Gordon University	1,430	10%	780	6%	-650 (-45%)	-4%
Royal Conservatoire of Scotland	0	0%	0	0%	0 (0%)	0%
The University of St Andrews	910	6%	1,200	9%	290 +32%	+3
SRUC	0	0%	30	<1%	30 (+100%)	+<1%
The University of Stirling	400	3%	445	3%	45 (+11%)	0%
The University of Strathclyde	1,115	8%	980	7%	-135 (-12%)	-1%
University of the Highlands Islands	495	3%	600	4%	105 (+21%)	+1%
The University of the West of Scotland	295	2%	140	1%	-155 (-53%)	-1%
Total Scotland	14,695	100%	13,375	100%	-1,320 (-9%)	

Source: HESA 2015-2016

Table 10a - Full-time postgraduate students by HE provider and subject of study** 2015/16

Table 4.3: Scottish University Historic Environment Student Numbers (2015-2016)

	Nos.	(%)
Students undertaking a Historic Environment related courses	13,375	16%
Students undertaking other courses	70,800	84%
Total number of students in Scottish Universities	84,175	100%

Source: HESA 2015-2016

Table 10a - Full-time postgraduate students by HE provider and subject of study** 2015/16

Post Graduates

There were around 3,000 post-graduate students studying subjects related to the Historic Environment in 2015/16 (Appendix B). The majority of these students were based in Edinburgh, Glasgow and St Andrews, with their main areas of study being architecture and history-related.

Equalities in Higher Education

Equalities data is not available at individual subject level and location of study. However, national data at subject group details several inequalities (Table 4.4, over), namely in 2015/16 there was:

- a lower proportion of male students undertaking a Creative and Arts-Related Course (34% compared to 44% nationally);
- a lower proportion of female students undertaking Architecture/Building Planning and History-Related courses (47% and 50% respectively, compared with 55%);
- a lower proportion of students identifying from an Ethnic Minority group undertaking History-Related or Creative and Art-Related courses (10% and 13% respectively compared with 21%).

Table 4.4: Equalities Data for Students Studying Historic Environment-Related Courses in Scottish Universities in 2015/16

Subject Class	% Female	% Declaring a disability	% Identifying as Black/Asian/ Other Non-White Caucasian
Architecture/ Building/Planning	47%	7%	24%
History-Related	50%	11%	10%
Creative and Arts-Related	66%	12%	13%
Total Courses in Scotland	55%	7%	21%

Source: HESA 2015-2016

4.3 Further Education Provision

There are a number of Historic Environment-related subjects taught at FE/college level (Table 4.5). Again, many of the students undertaking these programmes of study will not go on to work in Historic Environment-related roles, or may do so only as part of their job after graduation.

The total number of students enrolled in Historic Environment-related subjects fell by 22% from 2010/11 to 2016/17 resulting in almost 60,000 students studying Historic Environment-related courses in 2016/17. That said, students undertaking courses related to the Historic Environment still account for 25% of all Scottish college students.

Although there was an overall drop of 20% in the number of students studying Construction (general) and a 19% drop in the number of students studying Languages at FE/college level from 2010/11 to 2016/17 the proportion of the total number of Historic Environment-related students studying Construction (general) and languages rose by 0.3% and 0.9% respectively during this time.

The numbers of students studying Hotel/Catering (general) dropped by 88% during the same period. This equates to a fall of 4.1% of the proportion of the total number of students studying Historic Environment-related courses.

Table 4.5: Scottish FE Student Numbers by Subject Classification (2010/11 and 2016/17)

Subject Area	2010/11		2016/17		Change Change in No. (% change)	% Change in % of total
	No.	% of total	No.	% of total		
History	240	0.3%	48	0.1%	-192 (-80%)	-0.2%
Archaeology	81	0.1%	9	<0.1	-72 (-89%)	-0.1%
Culture/Gender/Folklore	25	<0.1%	74	0.1%	49 (+196%)	+0.1%
Literature	352	0.5%	152	0.3%	-200 (-57%)	-0.2%
Linguistic Studies	763	1%	287	0.5%	-476 (-62)	-0.5%
Languages	20,543	26.8%	16,575	27.7	-3968 (-19%)	+0.9%
Cultural/Area/Social/Diaspora	75	0.1%	239	0.4%	164 (+219%)	+0.3%
Art Studies/Fine Arts	2,182	2.8%	2,037	3.4%	-145 (-7%)	+0.6%
Art Techniques/Practice	5,103	6.6%	2,375	4.0%	-2728 (-53%)	-2.6%
Crafts: Leisure/General	1,256	1.6%	1,209	2.0%	-47 (-4%)	+0.4%
Decorative Leisure Crafts	389	0.5%	2,112	3.5%	1723 (+443%)	+3.0%
Decorative Metal Crafts/Jewellery	869	1.1%	26	<0.1	-843 (-97%)	-1.1%
Fashion/Textiles/Clothing (craft)	2,234	2.9%	370	0.6%	-1864 (-83%)	-2.3%
Fabric Crafts/Soft Furnishings	620	0.8%	1,128	1.9%	508 (+82%)	+1.1%
Wood Cane and Furniture Crafts	329	0.4%	426	0.7%	97 (+29%)	+0.3%
Glass/Ceramics/Stone Crafts	203	0.3%	18	<0.1	-185 (-91%)	-0.3%
Film/Video Production	767	1.0%	231	0.4%	-536 (-70%)	-0.6%
Audio and Visual Media	1,724	2.2%	549	0.9%	-1175 (-68%)	-1.3%
Print and Publishing	512	0.7%	1,059	1.8%	547 (+107%)	+1.1%
Music History/Theory	162	0.2%	129	0.2%	-33 (-20%)	0%
Music of Specific Kinds/Cultures	194	0.3%	303	0.5%	109 (+56%)	+0.2%
Musical Instrument Technology	653	0.9%	219	0.4%	-434 (-66%)	-0.5%
Hotel/Catering (general)	3,665	4.8%	447	0.7%	-3218 (-88%)	-4.1%

Subject Area	2010/11		2016/17		Change Change in No. (% change)	% Change in % of total
	No.	% of total	No.	% of total		
Food/Drink Services	2,526	3.3%	1,844	3.1%	-682 (-27%)	-0.2%
Catering Services	1,642	2.1%	1,963	3.3%	321 (+20%)	+1.2%
Hospitality Services	1,706	2.2%	560	0.9%	-1146 (-67%)	-1.3%
Tourism/Travel	2,019	2.6%	1,718	2.9%	-301 (-15%)	+0.3%
Leisure/Sports Facilities Work	407	0.5%	1,910	3.2%	1503 (+369%)	+2.7%
Country leisure Facilities Works	19	<0.1%	407	0.7%	388 (+2042%)	+0.7%
Arts/Culture/Heritage	22	<0.1%	415	0.7%	393 (+1786%)	+0.7%
Environmental	220	0.3%	220	0.4%	0 (0%)	+0.1%
Agriculture/Horticulture (general)	3,532	4.6%	2,790	4.7%	-742 (-21%)	+0.1%
Agricultural Sciences	35	<0.1%	14	<0.1	-21 (-60%)	0%
Gardening/Floristry/Plant Sales	482	0.6%	323	0.5%	-159 (-33%)	-0.1%
Amenity/Horticulture/Sports	564	0.7%	292	0.5%	-272 (-48%)	-0.2%
Agricultural/Horticultural	197	0.3%	161	0.3%	-36 (-18%)	0%
Built Environment (general)	1,382	1.8%	1,148	1.9%	-234 (-17%)	+0.1%
Property:	105	0.1%	185	0.3%	80 (+76%)	+0.2%
Building Design/Architecture	236	0.3%	393	0.7%	157 (+67%)	+0.4%
Construction (general)	10,438	13.6%	8,300	13.9	-2138 (-20%)	+0.3%
Construction Management	207	0.3%	889	1.5%	682 (+329%)	+1.2%
Building/Construction Operations	4,170	5.4%	2,567	4.3%	-1603 (-38%)	-0.9%
Construction Site Work	613	0.8%	437	0.7%	-176 (-29%)	-0.1%
Civil Engineering	656	0.9%	760	1.3%	104 (+16%)	+0.4%
Structural Engineering	44	0.1%	56	0.1%	12 (+27%)	0%
Woodworking/Furniture	907	1.2%	832	1.4%	-75 (-8%)	+0.2%
Welding/Joining	1,721	2.2%	1,712	2.9%	-9 (-1%)	+0.7%

Subject Area	2010/11		2016/17		Change Change in No. (% change)	% Change in % of total
	No.	% of total	No.	% of total		
Total	76,791	100%	59,918	100%	-16873 (-	

Source: InFact Database SFC

In terms of location (college region), Glasgow is clearly the biggest supplier of students followed by Highlands and Islands and Edinburgh/Lothians (Table 4.6).

Table 4.6: % FE Students undertaking Historic Environment-related courses by College Region 2016/17

College Region	% Students
Aberdeen and Aberdeenshire	6%
Ayrshire	5%
Borders	2%
Dumfries and Galloway	2%
Dundee and Angus	5%
Edinburgh and Lothians	11%
Fife	4%
Forth Valley	5%
Glasgow	28%
Highlands and Islands	13%
Lanarkshire	7%
West	5%
West Lothian	2%

SRUC	4%
Newbattle College	0%
Sabhal Mor Ostaig	2%
Total	100%

Source: InFact Database/ SFC

Equalities in Further Education

Historic Environment related FE/college courses have fewer female students, similar ethnic minorities and fewer students with a disability than the average across all courses (Table 4.7).

Table 4.7: FE Students Equalities Data (2016/17)

	% Female	% Identifying as Black/Asian/Other Non-White Caucasian	% Declaring a Disability
Historic Environment Related	43%	14%	10%
All Students	49%	13%	14%

Source: InFact Database/ SFC

4.4 Apprenticeship Activity

This section provides an overview of the Apprenticeship Family (made up of Modern, Foundation and Graduate Apprenticeships) activity in the Historic Environment-related occupations/job roles within Scotland.

Modern Apprenticeship Activity

Due to the difficulty in defining the Historic Environment and the job roles within it, a 'best fit' range of Modern Apprenticeship (MA) Frameworks (Table 4.8) has been used to identify those which could fall within the context of Historic Environment. It is unlikely that all the activity detailed is being carried out, in part or in full, in an Historic Environment setting but the figures are being used as a broad indication of apprenticeship activity within the sector.

There was an overall increase of 133 MA starts in subjects related to the Historic Environment from Q3 2016 to Q3 2017. This is, in part, due to the increase of 250 students undertaking MAs in Construction (Building, Civil Engineering and Technical) but is also offset by a reduction of 143 students enrolling in an MA in Hospitality. Nevertheless, Hospitality remains the most popular MA with 1,650 students enrolling on it by Q3 2017/18. There are also high numbers of students enrolled on MAs in Construction (and related frameworks) and Electrical Installation.

Table 4.8: MA Frameworks Relevant to the Historic Environment

	Starts Q3 2016/17	Starts Q3 2017/18	Change in no.
Agriculture	51	81	+30
Amenity Horticulture	0	0	0
Construction	6	0	-6
Construction: Building	1,458	1,520	+62
Construction: Civil Engineering	579	618	+39
Construction (Civil Engineering & Specialist Sector)	0	0	0
Construction (Craft Operations)	*	0	0
Construction: Professional Apprenticeship	88	87	-1
Construction: Specialist	199	166	-33
Construction (Technical Operations)	0	0	0
Construction: Technical	579	728	+149
Construction: Technical Apprenticeship	365	358	-7
Creative	17	*	n/a
Creative and Digital Media	38	28	-10
Domestic Plumbing and Heating	n/a	371	n/a
Electrical Installation	734	751	+19
Engineering Construction	19	30	+11
Equine	28	17	-11
Facilities Management	*	18	n/a
Furniture, Furnishings and Interiors	7	*	n/a
Game & Wildlife Management	16	21	+5

Glass Industry Occupations	122	188	+66
Glass Industry Operations	24	0	-24
Heating, Ventilation, Air Conditioning and Refrigeration	98	104	+6
Horticulture	173	155	-18
Hospitality	1,793	1,650	-143
Hospitality Management Skills Technical Apprenticeship	62	98	+36
Land-based Engineering	*	34	n/a
Plumbing	*	0	n/a
Skills for Craft Businesses	n/a	*	n/a
Travel Services	58	36	-22
Trees and Timber	*	8	n/a
Total	6,934	7,067	133

Source: Modern Apprenticeship Supplementary Tables, Q3, 2016/17 and 2017/18 Note: * The data does not sum due to data suppression being applied to frameworks with female, male, or total figures being 5 or less.

Although the data relating to starts by gender (Table 4.9) is patchy due to data suppression being applied to frameworks with female, male, or total figures being 5 or lower, it is clear that more males undertake MAs than females. There were however, considerably more female starts in the MA in Hospitality and the Hospitality Management Skills Technical Apprenticeship. There were also more females enrolled in Travel Services and Equine MAs (data not shown). Moreover, females exhibited higher achievement rates than males in both cohorts studied when looking at frameworks as a whole.

Table 4.9: Historic Environment Related MA Performance Q3 2016 / 2017

	Female	Male	Total
No. of Starts	1,233 / 1,065	4,580 / 3,675	6,934 / 7,067

No. of Leavers (Achievers and non-achiever)	1,232 / 1,205	3,001 / 3,481	5,545 / 5,828
No. in Training	1,660 / 1,628	11,098 / 11,705	14,493 / 15,706
Achievements	984 / 909	2,198 / 2,427	4,308 / 4,506
Achievements as % of All Leavers	80% / 75%	73% / 70%	78% / 77%

Q3 2016 Source: SDS, All MA Performance Report, Period from 1st April 2016 to 30th December 2016. Published 14th February 2017. Note: Two Frameworks for 2017/18 not referenced in 2016/17 – Domestic Plumbing and Heating, and Skills for Craft Businesses

Q3 2017 Source: SDS, All MA Performance Report, Period from 1st April 2017 to 29th December 2017. Published 13th February 2018.

Note: The data does not sum due to data suppression being applied to frameworks with female, male, or total figures being 5 or fewer.

Foundation Apprenticeship Activity

Foundation Apprenticeships (FAs) provide work-based learning opportunities for secondary school pupils in S4-S6 as one of their senior phase subject choices. FAs enable young people to gain industry-recognised qualifications, work experience and skills in key growth sectors.

Although there are FAs currently available across a range of frameworks not all would be considered as relatable to Historic Environment occupations. Using a 'best fit' model three frameworks were identified as falling within the context of Historic Environment (Table 4.10).

There was a large increase in student numbers in each of the three frameworks from 2016/18 to 2017/19. However, this is to be expected as 2016/18 was the first year these apprenticeships were available and they are still a very new product.

Table 4.10: FA starts by HE defined frameworks 2016-2018 and 2017-2019

Framework	2016-2018 FA Cohort		2017-2019 FA Cohort		Change in Numbers
	No.	%	No.	%	No.
Business Skills	5	4%	67	17%	+62
Civil Engineering	47	38%	87	23%	+40
Engineering	71	58%	232	60%	+161
Creative Media	0		43		
Total	123	100%	429	100%	

Source: SDS Foundation Apprenticeship: Early Progress and Learning Insights, March 2018¹⁸.

Graduate Apprenticeship Activity

Graduate Apprenticeships are the most recent addition to the Apprenticeship Family and were first introduced in 2016/17 across four frameworks at SCQF Level 8 and 10. The Graduate Apprenticeship offering has been expanded and now covers 11 frameworks across SCQF level 8,10 and 11. Some 12 college and universities throughout Scotland now offer Graduate Apprenticeships.¹⁹

The Construction and Built Environment Graduate Apprenticeship (SCQF 10) would be of relevance to those in the Historic Environment sector. Individuals undertaking the Graduate Apprenticeship would be prepared for a career in a variety of Historic Environment job roles, such as Architectural Technology, Building Surveying, Facilities Management, Planning & Development and Construction Management. The

¹⁸ <https://www.skillsdevelopmentscotland.co.uk/media/44472/foundation-apprenticeships-progress-report.pdf>

¹⁹ <https://www.apprenticeships.scot/become-an-apprentice/graduate-apprenticeships/>

Construction and Built Environment Graduate Apprenticeship was introduced in 2018 and is currently offered by five universities: Edinburgh Napier University, Glasgow Caledonian University, Heriot-Watt University, Robert Gordon University, the University of Aberdeen.

Construction Craft Pre- Apprenticeship Pilot

In 2017/18, SDS set up SCQF level 4 and 5 courses in Construction in response to the fact that a high number of young people are leaving school with a maximum attainment level of SCQF level 5 or below. Such vocational opportunities aim to support more young people to progress into employment, and Foundation and Modern Apprenticeships (at level 6 and above).

Over the course of two years those undertaking the Construction Award courses gain practical skills in four of the main construction trades: bricklaying, decorative painting, carpentry & joinery, and plumbing.

At level 5, students move towards learning more specific and detailed skills associated with these trades.

4.5 Wider Skills and Training Provision

In addition to the education and training provided through the mainstream sources there is also a range of organisational activity across the sector and some of this is highlighted below.

HES

HES is the lead public body set up to investigate, care for and promote Scotland's historic environment and is a repository of traditional skills in practice across Scotland.

They have 30 operational bases across 336 sites, 450 technical staff, two high-quality training facilities and Scotland's first dedicated building conservation centre - the Engine Shed – based in Stirling. A key focus for HES is to ensure the knowledge, skills and expertise required to care for traditional structures is there, and key areas of skills training and Apprenticeships focus on the stonemasonry, joinery, plumbing, electrical and painting trades. HES also have Foundation Apprenticeships in IT and Human Resources, Graduate Apprentices in site management and IT and Modern Apprenticeships in business management in heritage and Cultural Venues Operations.

HES also has a Graduate Program in Heritage Management, giving experience of designations, case work and all other areas of Heritage Management, a Traineeship SVQ in Museum & Galleries Practice and a Traineeship NVQ in Archaeology practices (NVQ as no SVQ in place).

HES also runs a Conservation Summer School which provides an in-depth introduction to building conservation and traditional building materials and skills over the course of a week.

The Summer School combines presentations, workshops, field trips and hands-on experience opportunities in a number of related topics such as conserving traditional building materials and working with traditional building materials (e.g. stone, lime and metal). Typical attendees include historic homeowners and professionals looking to develop their knowledge in this field.

The Engine Shed

The Engine Shed²⁰, Scotland's dedicated building conservation centre, is based in Stirling and funded by a number of partners including the Heritage Lottery Fund (HLF)²¹. It acts as a central hub for building and conservation professionals and the public, to provide more of an

²⁰ The Engine Shed: <https://www.engineshed.scot/>

²¹ Heritage Lottery Fund: <https://www.hlf.org.uk/>

understanding of the traditional building skills and materials used within the sector and encourage more people to become interested in caring for Scotland's built heritage.

The advanced professional diploma in technical building conservation offered through the Engine Shed aims to provide recent graduates, professionals and existing practitioners with the opportunity to broaden their expertise in a wide range of conservation skills such as: stone conservation, Scottish architectural traditions and traditional roofing repairs.

Some of the wider training provision provided by the Engine Shed are:

- Advanced Professional Diploma in Technical Building Conservation awarded by the Scottish Qualifications Authority, with students registered at Forth Valley College;
- Units in Technical Building Conservation certificated by the Scottish Qualifications Authority; and
- Individual modules on the conservation of traditional materials, with certificates awarded by Historic Environment Scotland.

Museum Galleries Scotland

Museum Galleries Scotland (MGS) is the national development body for the Scottish museums sector. The “Skills for the Future” programme aims to support people who are interested in beginning a career in the museums and galleries sector by providing a one-year placement in one of the 35 host museums across Scotland.

The programme has been running since 2011 and many of those involved go on to find employment in the heritage and arts sector.

In 2018 the “Skills for Success” programme was launched and 22 non-graduate learners are taking part in a one-year placement at a museum in Scotland while undertaking an SVQ3 qualification in Museums and Galleries Practice.

MGS and their partners²² provide various opportunities for staff and volunteers, usually in the form of:

- courses which address the training needs of the sector; and
- workshops on a range of topics which can be used by attendees as an opportunity to deliver resources, share good practice, ideas and network with others in the sector.

National Museum of Scotland

The National Museum of Scotland (NMS) is a body concerned with caring for museums of importance and they offer knowledge and skills training to those working within Scottish museums.

Courses cover a range of topics such as caring for Scottish silver collections, pest management, object labelling and couriering collections for loans.

The National Training Programme also offers free, basic collections knowledge and skills training to individuals either directly employed by, or volunteering with, a museum organisation in Scotland.

Museums Association

The Museums Association is a professional membership organisation for those working within the museum, gallery and heritage sector in the UK. The Transformers Programme, is aimed at mid-career professionals looking to develop stronger influencing and negotiation skills, develop their ability to build relationships with identified communities and increase their ability to engage with experimental ideas from within the sector and beyond.

²² List of MGS partner organisations: <https://www.museumsgalleriesscotland.org.uk/our-training-partners/>

National Trust for Scotland²³

The National Trust for Scotland (NTS) is a Scottish conservation organisation which aims to care for and promote Scotland's natural and cultural heritage, and offers a number of training and internship opportunities to help people develop their careers.

The Bute Internships are aimed at postgraduate students who wish to undertake a year-long internship in collections conservation. They are hosted by the Trust in partnership with the Institute of Conservation.

The NTS also offer a range of training and online training opportunities to their employees and volunteers across a very wide range of natural and built heritage and visitor engagement disciplines. It also offers management development programmes tailored to early career managers and middle and senior management.

The NTS operate a stonemasonry apprenticeship scheme from Culzean Castle, providing training for 2 apprentices per intake. They also provide for Garden Apprenticeship training at 5 properties across Scotland and their School of Heritage Gardening at Threave Estate where training is provided for 6 student gardeners per intake.

Built Environment Forum Scotland

Built Environment Forum Scotland (BEFS) is an umbrella body for organisations working within the built environment in Scotland. BEFS uses the expertise of their members to help debate and strategise solutions to the issues and challenges facing Scotland's historic and contemporary built environment.

²³ National Trust for Scotland: <https://www.nts.org.uk/>

Scottish Traditional Building Forum

The *Scottish Traditional Building Forum* offers a number of Continuous Professional Development (CPD) training courses, which are taught through lectures, site-visits and practical sessions²⁴, covering:

²⁴ Scottish Traditional Building Forum: <http://stbf.org.uk/>

- Conservation of Surface Finishes - This module focuses on the history and conservation of paints other surface finishes used on the interiors and exteriors of Scotland's historic buildings. Taught through lectures, site visits and practical sessions;
- Traditional Roofing Masterclass – This course focuses on the skills and material which can be used to protect and maintain the character and appearance of traditional roofs; and
- Geology of Building Stone in Scotland – This course discusses the geology of Scotland's rock types and why they were once the predominant material of choice for building traditional Scottish structures.

4.6 Conclusions and Key Messages

The Chapter has provided an overview of the skills and training provision relating to the Historic Environment in Scotland although it is difficult it is to fully analyse the provision due to the broad range of its activities within the sector and their interconnection with other sectors.

While we were able to identify the education and learning activity at a high level it is not practical to try and translate that into how many students/apprentices work or will go on to work directly in the historic environment. It does not, for example, tell us how many stonemasons are being trained each year nor where they work after qualifying.

However, in order to give a sense of supply side activity we need to make some very high-level conclusions:

- at a high level there appear to be around 90,000 students/apprentices being educated/trained in Historic Environment-related subjects on an annual basis;
- if we assume that the average period for education/training is three years, this suggest that there will be around 30,000 completers each year across all Historic Environment related subjects;

- if we use the occupational dilution factor (see Chapter 2) around 5% of these will go on to work in some form in the Historic Environment;
- this suggests that there could be around 600 new entrants directly to the Historic Environment sector each year; and
- this would account for 5% of the total workforce to support expansion and/or replacement;

We are unable to make any conclusion regarding the quality of the education or training although anecdotally we were informed that the “*content of architecture and engineering courses are out of step with the ‘real work’ that students will face in employment*”.²⁵ Similar views have been expressed by members of the archaeological community.

Other key messages:

- there appears to be an overall decline in student numbers in Historic Environment related courses in FE/HE, although it is not possible to relate that directly to the sector and it is likely to reflect student numbers overall;
- there are a number of inequalities within the HE provision such as gender imbalance and under-representation of ethnic minority groups; consideration should be given to how the greater representation can be achieved;
- specific sectors/job roles will have under-representation that should be addressed through taking positive action and steps to be more inclusive in promotion of roles/recruitment;
- the main (public) organisations operating across the sector have developed a range of very specific interventions to meet their own needs; and

²⁵ Personal communication, Public-Sector consultee

- geography will continue to play a key role with particular locations having the majority of the training capacity. The challenge will be how to support access across Scotland; and

5. Stakeholder Engagement

5.1 Introduction

A total of 23 face-to-face and telephone consultations were undertaken with a range of partners and stakeholders, including SDS, HES, Local Authorities, members of the Skills and Expertise Working Group, and various umbrella and membership organisations that operate in the Historic Environment sector in Scotland (Appendix D).

The feedback below provides an overview of the main themes emerging from the consultations.

5.2 Key Findings

Defining the Scope and Scale of the Sector

The scale and scope of the Historic Environment sector in Scotland was presented in **Chapter 2**. This was tested with stakeholders through the consultation process.

Key points to note from the interviews include that there is recognition of the inherent challenges in defining and profiling the sector, and that there has previously not been a single universal definition of what constitutes the Historic Environment. The challenges in defining the sector are said to arise because the Historic Environment covers a range of broad market areas, occupations and functions. It often means different things to different people, and might represent a small part of what an individual or business does. Within this it is recognised that the Historic Environment is a relatively broad but small sector:

- an inclusive definition of the sector is, nonetheless, crucial for the SIP – the Historic Environment is more than the built heritage/environment and there needs to be greater recognition of intangible cultural heritage;
- the Historic Environment cuts-across other key sectors (Construction, Creative Industries, Tourism) – for example 45% of construction activity is reported to be related to traditional buildings - and the SIP needs to resonate and engage with all parts of the sector; and
- it comprises a large range of professions, occupations, freelancers, researchers, and volunteers, etc – again, highlighting the need for the SIP to engage with different audiences and reflect differing needs and perspectives.

The general feedback from stakeholders is that a reasonable approach was undertaken to estimating the scale of the sector, that the estimate of circa 20,000 people directly employed within the Historic Environment sector in Scotland (excluding volunteers), seems about right, and that there is broad agreement with the list of functions represented across the sector.

Stakeholders, however, emphasised that the SIP needs to both reflect the broad and varied composition of the sector (e.g. many self-employed and micro businesses), and recognise the differences that exist across discrete parts of the sector.

Support for a Standalone Skills Investment Plan

There is unanimous agreement that there should be a stand-alone SIP for the Historic Environment sector.

While it is recognised that there is read-across with elements of existing SIPs for Construction, Tourism and Creative Industries, the overriding view is that there is an inherent risk that actions linked to the Historic Environment get lost, and that the SIPs do not sufficiently cover skills issues and solutions that reflect the uniqueness of the Historic Environment sector.

Producing a stand-alone SIP for the Historic Environment sector is considered important for wider reasons, including to give sufficient prominence and visibility, recognition, and visibility to the sector at all levels, including from a policy perspective, and given the important contribution that the Historic Environment sector makes to Scotland's economy – from an economic but also from a cultural, social, health and well-being perspective.

Wider factors raised centred on the scale of the sector – small and disparate, and therefore a requirement for different approaches, etc. There was also recognition that given the scale of the sector, there would likely be limited resources which would not necessarily call for new courses, but “add-ons”.

Drivers of Change within the Historic Environment Sector

It was identified that there are a host of drivers of change within the Historic Environment sector, all of which point to an increase in demand for skills in the future.

The main drivers of change are:

- significant increase in tourism (heritage tourism);
- policy agenda for improving and widening access to heritage assets;
- enhancing the overall visitor experience - keeping pace with changing customer/visitor expectations, how staff interact and engage with the public;
- scale and pace of change - technological and digital transformation across most parts of the sector;
- climate change effects - including damage to or loss of heritage assets which highlights the need to mitigate against and adapt to changes, etc;

- condition of heritage buildings (repair and maintenance) - combination of factors at play, including ageing assets, conservation deficit, lack of investment, austerity measures, backlog in public/private maintenance, poor repairs and maintenance historically, etc;
- Brexit – while there are many unknowns at this stage, and Brexit will impact on sectors in different ways and to different degrees, it points to ensuring that the sector draws on as wide a talent pool as is possible;
- an ageing workforce – importance of effective succession planning and knowledge transfer; and
- a shift towards a more commercial focus for heritage organisations requiring a diversification of skills – changing business models, changing funding and support landscape including ongoing reductions in public sectors funding has resulted in more emphasis being placed on income generation, diversification of activity, more entrepreneurial use of spaces within heritage assets, etc.

In developing the SIP there is recognition that the Historic Environment sector needs to be able, and sufficiently agile, to respond to these drivers of change in order to meet any increases in the demand for skills.

Skills Shortages and Gaps

The business trends and drivers of change within the Historic Environment sector highlighted above are considered to be reflective of a sector that continues to operate in a changing and challenging environment.

From a skills perspective, the Historic Environment's future success will require a focus on:

- raising awareness, appreciation, and development of traditional craft skills;
- maintaining the specialist technical skills that underpin the Historic Environment sector (e.g. some artisan traditional skills are reported to have been lost, or be in critical danger of being lost);

- continual promotion of professional skillsets;
- vocational training and learning;
- new (and changes in) technical skills and practices arising from the ongoing development of new technologies, approaches, products, materials, etc; and
- wider underpinning/supporting skills needed by, but not unique to, the Historic Environment sector.

More specifically, points to note in relation to the demand for skills, include:

- a continuing demand for stonemasonry and roofing to maintain Scotland's built heritage²⁶;
- wide areas of skills shortages are being reported, in roles such as traditional joiners, lime plasterers, historic gardeners, surveyors; archaeologists, and
- There is an increase in demand for skills in areas including:
 - ICT and digital
 - leadership and management (e.g. project management, business planning and development, financial planning and management, etc)
 - business and enterprise
 - customer service skills (front of house)
 - marketing and communication

²⁶ Also highlighted in the Construction Sector SIP, Available at: https://www.skillsdevelopmentscotland.co.uk/media/35688/sds_construction_sip_digital.pdf

- advocacy
- creativity and co-production.

This emphasises the need for the Historic Environment SIP to support actions that help to maintain a base of core technical and professional skills, and build skills for sector resilience and growth (i.e. developing management capability, supporting business sustainability, etc).

Wider Key Skills Issues and Challenges

Over and above the points raised above, stakeholders identified a wider range of skills issues and challenges facing the Historic Environment sector, namely:

- Work is required to **raise image and attractiveness of the sector** which is perceived as “*old*”, “*old-fashioned*” and “*beardy*”, among young people, and faces stiff competition from other more “attractive” sectors.
- There is a need to **demystify the Historic Environment sector for young people** as many feel that it is “*not for them*”. Action is required to help make this sector a career of choice, and raise awareness of the range of opportunities available.
- There is a need to **widen the talent pool and address gender inequality**. For example, traditional trades and technical professions attract more male entrants and while more women than men make up the workforce in museums they are less likely to be in senior positions.
- There is a need to **build more vocational-skills learning into courses** to support the readiness of new entrants (technical/professional and broader skillsets required) and help manage the expectations of those coming into the sector at entry level.
- **More entry-level routes and pathways** into the sector need to be created.

- Despite the fact that that teaching traditional skills is often expensive as they are highly specialist and of low volume, there is a need to **address the decline in education and training provision in some areas.**
- In recognition that people come into the sector from a variety of backgrounds, and to better meet employer demand (e.g. supporting the development of broader skillsets such as leadership and management) more should be done to help **upskill and develop the current workforce.**
- Many companies are micro/small businesses, especially on the crafts side, and **difficulties in reaching and engaging the workforce in staff development should be addressed.**
- The role of **volunteers** in some parts of the sector is very important and the need for qualification/accredited training for them was identified. This could be used a route into the sector over the long term.

It is recognised that the scale and breadth of sector has implications for effective and cost-effective delivery of training, and it would be difficult to justify major investment in all areas, particularly where demand is low. However, this could be tackled by new approaches to delivery of training and better use of what is already in place to better meet the needs of the sector.

6. Employer Engagement

6.1 Introduction

The main findings of an online survey of employers involved in the Historic Environment sector in Scotland are presented in Appendix C. The survey was undertaken to gather thoughts and views on the main skills-related issues, challenges, and potential solutions from an employer's perspective.

The online survey was distributed on behalf of EKOS via a range of contacts and mechanisms resulting in **104 responses** being received. Of these, 25 employers, reported that none of their business activity was related to the Historic Environment sector. The feedback from the remaining **89** respondents is summarised below:

Respondents operate across a range of sectors, with the most responses coming from the Construction (40), and Tourism & Hospitality (20) sectors. Seven responses were received from employers in Professional Services, four from Creative Industries and 17 from 'Other' sectors including Heritage and Conservation, Archaeology Education, Charities and Public Services.

6.2 Employer Profile

The extent to which employers' business activity relates to the Historic Environment is varied, with 51 employers reporting that less than 50% of their business activity related to the Historic Environment sector and 28 reporting that less than 10% of their business activity related to the Historic Environment sector.

24 employers stated that over 75% of their business activity related to the Historic Environment sector.

Most employers (40) work in the Private Sector, 32 in the Third Sector and 17 in the Public Sector.

In total, 2,792 people were employed across the 89 businesses with almost half employed in Tourism companies.

Businesses were located throughout Scotland, with responses from the Shetland Islands to the Scottish Borders.

Almost all employers are micro businesses or SMEs, with an even split between those employing fewer than 10 (36) and fewer than 50 (35) employees. Only two businesses employed more than 250 employees.

Some 39 employers make use of volunteers (Figure 6.2, over) with four employing significantly stating they have 250 or more volunteers supporting their activity. Typically, volunteers are used in the smaller businesses.

Table 6.1: Number of Volunteers Employed

	Companies	Sum
Less than 10	4	22
10 to 49	19	407
50 to 249	12	1,035
250+	4	8,088
Total	39	9,552

Just over one-quarter (27) indicated their businesses make use of Historic Environment sub-contractors, free lancers, or self-employer workers.

6.3 Key Findings

Almost all employers reported that the market in which their business operates has been stable or has grown over the last three to five years. The main drivers for this are reported as stable/growing visitor numbers and an increase in demand for work associated with the condition of historic/listed buildings.

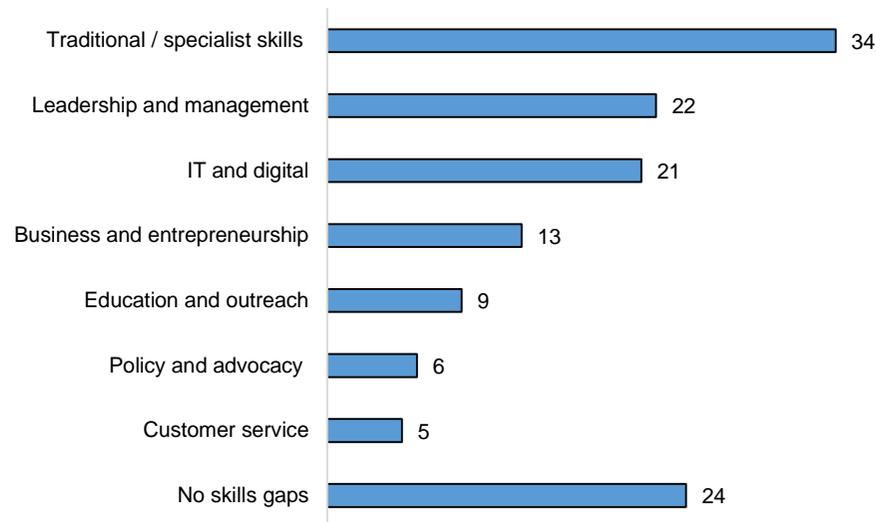
The main reasons given for employers reporting a decline in their market over recent years (10%) typically related to ongoing effects from the recent recession and uncertainty over Brexit as well as, or possibly resulting in, a decline in visitor numbers.

Employers are equally optimistic about their market's future performance, with 87% reporting that they expect it to either remain stable or grow over the next three to five years. Brexit is highlighted as a concern for some employers along with a reduction in Public-Sector funding to support the sector.

Almost half of employers (48%) currently face, or anticipate facing, **skills shortages** due to a lack of skilled or suitably qualified people. Job roles which were reported as hard-to-fill included garden and landscape related roles, archaeologists, scaffolders, stonemasons, and joiners.

Seventy percent of employer's report that they currently face or anticipate facing **skills gaps** (Figure 6.2) with the main implication of this reported as constraining future business growth.

Figure 6.2: Current and/or Anticipated Skills Gaps (and Nature of Skills Gaps, Note, multiple responses were possible)



N=81

Attraction and retention of staff

Currently and looking to the next three to five years, the attraction of staff is considered to be more of a challenge for employers than retention although both are an issue and the inability of the sector to offer competitive salaries is seen as one cause.

Three-quarters of employers reported that they anticipate some or major skills/labour problems in the next three to five years with an ageing workforce being by far the main concern. That said, 81% of employers are reporting that the anticipated skills/labour problems will cause no problems or that the problems will be manageable.

About 43% of employer's report facing a number of recruitment challenges with the main ones being that candidate either lack the relevant experience or do not have the required skills for the job, a circumstance which is compounded by the fact that they can receive very small numbers of applications. This suggests a need for employers to ensure that they are tapping into as wide a talent pool as possible to fill the roles which will become available.

Currently most staff are recruited from within the sector, from other employers.

Qualification levels in current staff vary from no formal qualifications to university graduate level (Figure 6.3).

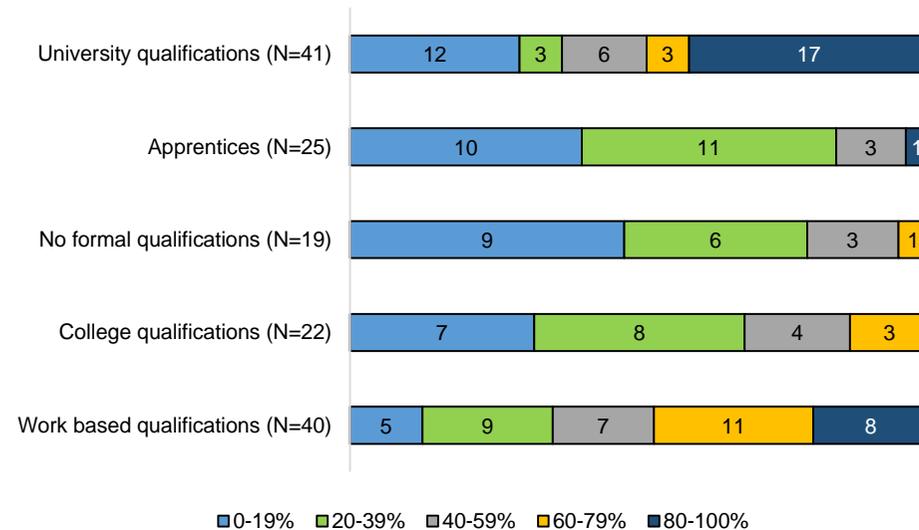


Figure 6.3: Estimates of Qualifications in Current Staff

Overall, employers do not report difficulties with recruiting directly from school, college or university although where challenges are reported (32% of employers) they arise due to applicants lacking the correct skills and/or experience and lack of interest in the sector.

A lack of correct skills in new recruits could, in part, be addressed by increasing the number of apprentices in the sector and there is a current and future demand for apprenticeships with 53% of employers currently offering or planning to offer them (Table 6.1). That said, almost 40% of employers know about apprenticeships but have no plans to offer one. Lack of awareness of apprenticeships does not appear to be an issue which suggests there are other barriers to their uptake. Anecdotal evidence would suggest that this could be due to the number of small companies in the sector and the time/capacity commitment and cost of taking them on. Some employers (17) suggested that financial support or a shared apprenticeship scheme would help to increase employer access to apprentices.

Table 6.2: Future Demand for Apprenticeships

Apprenticeship	Nos. of Employers (Future Demand)	Number of Apprentices Employers Require	Roles to be Filled
Modern Apprenticeships	18	38	Builder, joiner or slater/roofer roles
Foundation Apprenticeships	9	18	Builder, joiner or bricklayers roles
Graduate Apprenticeships	6	10	Project officer or trainee roles

N=29 Employers, multiple responses possible.

Workforce Development and Upskilling

Seventy seven percent of employers reported that the delivery of skills and training is a key activity for their business albeit not all have an annual budget for workforce development. Employers typically use a range of providers to meet their workforce development and training needs, with private training providers and internal provision, using their own staff, the most common ways to develop their workforce.

There is a relatively high level of satisfaction with training providers used, and where there was dissatisfaction, this centred on the provision of generic rather than bespoke training. Upskilling requirements were identified for a number of occupations, namely gardeners/landscapers, curators/archivists, labourers, stonemasons, joiners, scaffolders, and building surveyors.

When it comes to encouraging people to enter the sector it was agreed that raising awareness of the traditional skills used within the sector and the variety of roles is vital along with enhancing links between the education and the Historic Environment sectors which would also help with upskilling and workforce development (Table 6.2).

Table 6.3: Important Factors in Encouraging People into the Sector

Factor	No. of responses
Raising awareness and appreciation of traditional skills	63 (74%)
Raising awareness of the variety of jobs available within the Historic Environment sector	52 (61%)
Building stronger links between schools, Further/Higher Education, and businesses	47 (55%)
Workforce development and upskilling opportunities	47 (55%)
Opportunities for continuous professional development training i.e. in-work training	34 (40%)
Raising awareness of the opportunities for career progression	34 (40%)
Talent attraction and retention activities	28 (33%)
Establishment of Work Based Learning programmes	24 (28%)
Opportunities for post-graduate education	21 (25%)

N=85. N.B. Multiple responses possible.

7. A Skills Investment Plan

7.1 Introduction

This Chapter presents high-level priorities and associated actions to help address the main skills issues identified through the desk-based and primary research.

Prior to setting the detail of the SIP, it is important to set out some of the broad principles which underpin it:

- There is broad consensus that there **should be a manageable number of priority themes** as there is an inherent risk that if there are too many it will be difficult to give each one sufficient attention. The key to success will be for partners to focus their time and efforts on delivering against key priorities.
- It is important to **draw on relevant actions from other SIPs** (Construction, Creative Industries, Tourism, etc). Some of the priority themes across these SIPs chime with what has emerged through this research. The key is to ensure that actions are specific to addressing the needs of the Historic Environment sector.
- Stakeholders were realistic in their views that actions should not focus on the creation of a whole host of new things/interventions. The **aim is to amend, adapt, and make better use of what is already in place.**
- It will be important to **set out short, medium, and longer-term actions**, as having some early deliverables and quick wins is considered crucial.
- Commitment will need to be confirmed from key delivery organisations on actions before final sign-off, including ensuring **clarity over roles and responsibilities** (i.e. who is leading on what, by when, resource requirements, etc). and

- **The effectiveness of the SIP must be monitored.** Considerations must be given to how partners measure success, and how partners know what has been achieved.

7.2 Focus on Skills and Related Issues

In considering the priority areas for engagement we sought to ensure a clear focus on skills and related issues and while “growing the market” emerged as a key issue through the stakeholder engagement we suggest that this is not a direct skills issue.

The skills investment plan should be able to respond to any changes in the market demand for skills.

While building health-check schemes can be an important part in driving demand and lead to a for additional skills and labour it is not in itself a skills issue. However, this may result in a requirement for increased provision which would be captured in the plan. Other issues such as community engagement and developing international markets, which were highlighted as important, cannot be directly addressed through this SIP.

Other parts of the policy landscape are responsible for stimulating demand and will inform the development of the skills plan. This could include government policy or legislation drivers.

Where appropriate we have sought to package key themes and priorities. This has resulted in a number of priorities against which stakeholders will seek to deliver.

The SIP contains flagship projects which we believe have the potential to make a major difference to the sector, and which should be accorded particular status. These include;

- strengthening the role of the Engine Shed in Innovation across the sector
- developing a network of traditional skills centres; and
- developing volunteer networks and accreditation.

These will provide an early focus on the plan and will seek to achieve an early win status.

Key priority themes with related actions have been identified ensure a resilient Historic Environment sector and position it for future growth.

(table 7.1) to

Table 7.1: Priority Themes for Historic Environment SIP

HISTORIC ENVIRONMENT SKILLS INVESTMENT PLAN - BUILDING ON OUR CULTURAL HERITAGE	
Strategic Framework	
Overarching Goal	<ul style="list-style-type: none"> • To ensure that the operation and growth of the historic environment is not constrained by a lack of suitable and appropriate talent
Strategic Objectives	<ul style="list-style-type: none"> • Improve awareness and understanding of employment opportunities within the wider historic environment • Provide a shared understanding of the key skills issues which are, and will, impact on the historic environment • Provide a strategic skills framework around which all stakeholders will deliver resources • Ensure that all supporting sectors have a good understanding and awareness of the historic environment

- Ensure that there is a range of skills development and training opportunities to meet the needs of individuals and employers operating in the sector
- Promote equality and diversity in the sector
- Act as a catalyst for increased delivery within related actions in Construction, Creative Industries and Tourism Skills Investment Plans

Priority Themes and Key Actions		
Engaging the Sector in Skills and Innovation	Attracting Future Talent and Improving Access	Workforce Development
<ul style="list-style-type: none"> • Improve awareness and understanding of skills challenges and solutions • Widening employer engagement in skills • Promoting Innovation 	<ul style="list-style-type: none"> • Promote sector as attractive place to work. • Promote pathways into the sector for all. • Developing Apprenticeships and enhancing Further and Higher Education provision • Develop volunteer networks for young people and offer work placements 	<ul style="list-style-type: none"> • Expand Traditional Skills and specialist provision • Develop and enhance CPD provision and availability nationally • Increasing Skills and Qualifications of Volunteers

Governance

Stakeholders/Partners must agree and establish an appropriate governance framework to oversee and monitor the delivery of the SIP.

The options will be to utilise an existing group such as Our Place in Time (OPiT) Skills and Expertise Working Group or establish a new structure specifically for the SIP.

The specific roles and responsibilities will require to be established as well as its operational activities.

7.3 Key Actions

The specific key actions highlighted below will form the basis of a detailed delivery plan.

Priority Theme 1: Engaging the Wider Sector in Skills and Innovation

The Historic Environment sector is a multi-faceted sector spanning all aspects of Scotland's built and cultural heritage, and comprising an equally diverse business structure (public, private and third sectors) and workforce (employees, freelancers, professions, individuals, academics, researchers, students, and volunteers). It comprises high levels of self-employment and a significant number of micro and small businesses which are traditionally difficult to engage with effectively.

Engaging with the wider sector to ensure they have appropriate skills to meet the ongoing and future requirements of the sector will be the most significant part of the SIP. It is essential that employers and individuals can access up-to-date information about skills and training. The sector needs to work together to support our new workforce to develop traditional, specialist and commercial skills including digital, leadership management, business, financial, budget planning, customer service, and marketing

Aligned to this aim is engaging and influencing skills conversations and investment for the key Industries most closely aligned to the sector, i.e.: Creative, Hospitality and Tourism and the Construction Sector.

In these sectors, Scotland's Innovation Centres also help businesses large and small increase the pace of innovation and support engaging employers in skills. This helps both our economy and our people to flourish and prosper. This is something our sector needs to fully embrace.

Existing *Engine Shed* plans and activity relating to digital innovation, climate change adaptation of traditional building, demonstrate the success of having a distinct resource to support innovation. While the sector has links with three current innovation centres; Sensor and Imaging System (CENSIS), Construction Scotland Innovation Centre (CSIC) and The Data Lab, there will be benefit in strengthening these links and increasing the focus of the Engine Shed on innovation, working with employers and academia across the wider sector.

Priority Theme 2: Attracting Future Talent and improving access

Developing a stronger pipeline of talent and ensuring that the future workforce has the right knowledge and skills for working in the Historic Environment sector is essential.

There are outdated perceptions of what it means to work in the Historic Environment sector, and the image of the sector could be improved among young people (and their key influencers). Working with education to Increase awareness of career opportunities as well as influencing the curriculum will enable more young people to consider a career in the Historic Environment sector and gain valuable work and employability skills. This will help to increase the flow of talent into Apprenticeships, Further and Higher Education and across different parts of this varied sector.

It will also be important to make key audiences aware of the breadth and depth of different entry routes and career progression opportunities available within the sector to ensure a range of future talent from a variety of backgrounds.

With volunteers so vital to the sector, there is a real benefit in stimulating interest in sector with young people by promoting volunteering opportunities and offering work placements. There could become an effective entry route into the sector

There is a perceived need to construct a map of entry and exit points for programmes at all levels, looking at credit equivalence, skills balances and learner needs, to ensure that we are facilitating entry to, and progression through, learning that is flexible, allows entry, exit and re-entry at various stages in the learner journey, and which eases horizontal mobility between programmes and providers in terms of the current education offer.

One of the other key findings from the research is the increased demand for apprenticeships and the need for employers to have staff with the right skills and training that meets their current and future needs. In addition to this we also need to ensure that specific “modules”, either as part of mainstream courses or as separate extra-curricular study are available in areas covering

- business, HR and commercial topics;
- understanding the historic built environment;
- understanding the natural environment;

Theme 3: Workforce Development

The evidence points to a sector that is experiencing change, and that, alongside a much broader range of skills, the current (and future) workforce require the technical and specialist knowledge and skills which are at the heart of the sector’s varied trades and professions.

There is a clear need for traditional skills in both the built and natural environments and to grow the supply of highly-skilled contractors and craftspeople to undertake the work required in the sector. Workforce development is an important issue and will include the use of different apprenticeship models such as foundation, modern and graduate.

Like other sectors, skills need for the Historic Environments Sector are not static, and skills need to be refreshed and developed in line with employer needs, technological progress, new ways of working, etc. Action is required on many fronts to ensure that the workforce develops and improves their skills to improve their capability, match employers' needs and to support business resilience and growth.

Consideration should be given to encouraging employers to take positive action to address under-representation in their organisations.

One of the main messages arising from the research is that a more multi-faceted and flexible approach to the delivery of education, skills and training is required to meet the specific needs of the sector and to support future growth. Geography and accessibility of training provision, with urban locations has been highlighted as a barrier to training therefore there is a need to support access across Scotland, in particular the need for more specialist provision which is not currently available as it is low volume and can be costly to deliver. Developing and promoting a network of national traditional and specialist skills centre of excellence will go some way to address this.

Volunteers are crucial to some sub-sectors but tend to receive little or no training or support. There has been a relatively stable/growing volunteer workforce in recent years and this trend is set to continue.

Consideration should be given to developing accredited training that meets the needs of businesses and organisations operating in the sector.

Specific actions and activities under each of the priority themes are set out in Table 7.1 and, at this stage, are for discussion, assessment and prioritisation. Further development of these will be required as part of the implementation process.

Theme 1: Engaging the Sector in Skills and Innovation

Action	Objectives	Activities	Partners	Interim Outcomes	Longer Term Impacts	SMART Target
1.1 Improve awareness and understanding of skills challenges and solutions	<p>Ensure all stakeholders have an awareness of, and an opportunity to, engage with the SIP</p> <p>Ensure that stakeholders & employers are aware of available skills development and training opportunities.</p>	<p>Develop and deliver long term communication plan</p> <p>Engage with ESP's Construction Strategy Group and inform the Interactive Map</p> <p>Long term visible engagement with Construction, Creative Industries and Tourism ILGs and skills groups</p>	<p>Lead: HES</p> <p>Support: SDS, MGS, NTS, FE, HE, ESP, ILG's</p>	<p>Increase in awareness of training and workforce development opportunities</p> <p>Key public and private sector stakeholders committed to sector wide approach</p>	<p>Employers/individuals can easily access up-to-date information about courses</p> <p>Increased influence / voice of sector with ILG & sector skills councils.</p>	<p>5 meetings with key stakeholders to agree detailed actions and commitment (Apr 2019)</p> <p>Digital Mapping available online (Oct 2019)</p> <p>Mapping reviewed on an annual basis (Oct 2019)</p> <p>Baseline established of training uptake (2019) and 5% increase in training uptake (2020) & reviewed annually</p>
1.2 Widening employer engagement in skills	<p>Ensure that stakeholders and employers are engaging staff in training addressing key skills gaps</p>	<p>Support existing employer workforce development initiatives for commercial skills: digital, leadership management, business, financial, budget planning, customer service, and marketing</p> <p>Support existing employer workforce development initiatives for traditional and specialist skills.</p> <p>Work with ESP's Construction Strategy Group to engage with</p>	<p>Lead: Enterprise Agencies</p> <p>Support: SDS, HES, MGS, NTS, ESP, Traditional Building Forum</p>	<p>Increase in uptake of training and workforce development</p> <p>Increased staff commercial capability and awareness.</p> <p>Increased staff specialist skills</p> <p>Support training providers, especially FE to develop skills to service these demands</p>	<p>Public and private sector employers in the Historic Environment are more competitive</p>	<p>Baseline established of training uptake (2019) and 5% increase in training uptake. (2020) & reviewed annually</p> <p>Undertake employer survey establishing baseline capability for commercial and specialist skills (Oct 2019)</p>

Action	Objectives	Activities	Partners	Interim Outcomes	Longer Term Impacts	SMART Target
		industry and develop and deliver industry led programmes				
1.3 Promoting Innovation	Engage the sector through Innovation to address future skills – driven by Industry 4.0, building standards, energy efficiency, climate change commitments	<p>Complete a review of innovation best practice in the sector, opportunities with existing innovation centres and gap analysis.</p> <p>Develop Business Case for extending Engine Shed scope to function as National Heritage & Technical Conservation Innovation Centre</p> <p>Engage with colleges and Innovation Centres (universities) via the College Innovation Working Group</p>	<p>Lead: HES</p> <p>Support: Innovation Centres Universities Colleges, SFC, Employers,</p>	<p>Increase number of companies involved in Innovation and product development</p> <p>Employers have increased awareness of Innovation best practice</p>	<p>Historic Environment Sector adopting more appropriate innovative practices</p> <p>Appropriate retrofitting of all pre-1919 buildings</p>	<p>Review of Innovation best practice complete (Dec 2019)</p> <p>% increase in sector engagement with Innovation Centres and Engine Shed (Dec 2020)</p>

Theme 2: Attracting Future Talent and Improving Access

Action	Objectives	Activities	Partners	Interim Outcomes	Longer Term Impacts	SMART Target
2.1 Promote the sector as an attractive place to work.	<p>Promote sector as being open to all to attract diverse range of new talented people into the sector</p> <p>Increase its attractiveness as a career option</p> <p>Retain more people in Scotland</p> <p>Increase awareness of job roles/career opportunities</p>	<p>Engage with the existing Work based learning offer Inc. foundation Apprenticeships and future pathways in school</p> <p>Develop sector online profile using MyWoW to promote diversity of sector, multiple entry routes and opportunities</p> <p>Pilot New SCQF level 4/5 Construction Craft & Technician award with St Modan's High School</p> <p>Establish Working Group to develop Historic Environment award at SCQF 6, with Built Environment & Archeology options</p> <p>Engage with Influencers and education sector through National CIAG offer</p> <p>Engage with Regional STEM Hub Partnerships to support the delivery of the National STEM Strategy</p>	<p>Lead: SDS</p> <p>Support: SQA, HES, MGS NTS, Education Scotland, parents, employers & private sector providers</p> <p>Schools, FE & HE, STEM ambassadors</p> <p>DYW regional groups</p> <p>Professionals Institutions.</p> <p>OPiT working groups</p> <p>College led STEM Hub Partnerships</p> <p>Traditional Building Forums</p> <p>Local Authority Education & Built Environment Services</p> <p>HES Conservation Area Regeneration Schemes and other grant supported initiatives to deliver this action</p>	<p>Increased understanding of Historic Environment with Primary & Secondary School pupils & Teachers</p> <p>New MyWoW content and new case studies uploaded</p> <p>Increased delivery of CPD with Careers Advisers and Guidance teachers</p> <p>Increased awareness amongst parents & influencers of opportunities within Historic Environment</p> <p>Pathways in the historic environment sector available from school</p>	<p>Greater awareness of sector and opportunities for all</p> <p>More diverse workforce including protected characteristics and all levels of study</p> <p>Sector embedded in CMS/CIAG services and school option choices</p>	<p>8 students on course St Modans High School offered interviews for HES apprenticeships (2019)</p> <p>Accreditation from SQA and supported National rollout agreed (2020)</p> <p>6 new case studies (August 2019)</p> <p>10 CPD sessions run nationally (April 2020)</p>

Action	Objectives	Activities	Partners	Interim Outcomes	Longer Term Impacts	SMART Target
2.2 Promote pathways into the sector for all.	<p>Promote sector as being open to all to attract diverse range of new talented people into the sector</p> <p>Promote apprenticeships and traditional academic routes by which new entrants and career changers</p> <p>Address balance of graduates / non-graduate employment to meet employer demand</p>	<p>Develop and Provide works based learning & training programs that will equip individuals for formal training</p> <p>Stakeholders and employers to recruit to and promote existing Foundation, Modern and Graduate Apprenticeship opportunities for all ages.</p> <p>Develop suite of case studies different entry routes from school, FE, careers changes including non-cognate degrees and internships</p> <p>Highlight diversity success and non-traditional entry routes</p>	<p>Lead: Industry</p> <p>Support: SDS, HES, FE, HE, ESP, charitable sector, SPS, DWP, BEM sector</p>	<p>Increased number of public and private sector employers offering apprenticeships</p> <p>Increased uptake of apprenticeships (FA, MA and GA) in sector</p> <p>Public Sector enabled to work collaboratively with each other, as well as private & charitable sectors</p>	<p>Employers able to recruit from wider talent pool</p> <p>Awareness of multiple routes of entry to sector</p> <p>Greater ethnic, gender and social diversity within the sector</p>	<p>20% increase in public and private sector employers with Apprentices (Aug 2020)</p> <p>Contribute to Scottish Government Target of 30,000 MA/GA starts by 2021</p> <p>5% increase of Interns recruited by public sector employers (Aug 2019)</p> <p>6 Case studies with focus on diversity and other routes of entry published Dec 2019)</p>
2.3 Developing Apprenticeships and enhancing Further and Higher Education provision	<p>Increase the number and type of apprentices in sector including higher-level apprenticeships (SCQF 7 and above)</p> <p>Increase visibility and develop content of Historic Environment within undergraduate and postgraduate courses, Including mandatory content.</p>	<p>Scope new MA & NOS developments based on employer demand for Archaeology and other identified roles.</p> <p>Develop new, innovative models of apprenticeship management, funding and delivery that address the constraints that SMEs in the sector face.</p> <p>Enable seamless transition from pre-app to</p>	<p><u>Lead</u>: SDS & SFC</p> <p><u>Support</u>: HES, MGS, NTS, ESP, local authorities and SSCs</p>	<p>Increase the number of apprentices in sector</p> <p>Increase the quality of the apprenticeships in the sector</p> <p>Increase number of individuals completing 'bolt on' Apprenticeship modules</p> <p>Increase direct delivery of CPD and up-skilling to</p>	<p>Increase understanding and preparedness for sector of apprentices and graduates</p> <p>Reduction in number of graduates requiring post-grad training or internships to be equipped for employment in the sector</p> <p>Vocational content of all publicly funded training &</p>	<p>Demand for New MA's and modules demonstrated through industry consultation (April 2019)</p> <p>Business Case Developed for MA development (Dec 2019)</p> <p>6 sessions with graduates / apprentices delivered (September 2019)</p>

Action	Objectives	Activities	Partners	Interim Outcomes	Longer Term Impacts	SMART Target
	Parity of esteem for the 'vocational training'	<p>apprenticeships, through closer collaboration with 'feeder' programmes</p> <p>Review qualifications and pathways and recommend changes to meet industries current and future needs.</p> <p>National 'train the trainers/lecturers' programme to highlight the skills needs of industry and assist FE & HE in delivering 'training'</p>		graduates and apprentices	education aligned with industrial needs of sector	New modules developed (June 2020)
2.3 Develop volunteer networks for young people and offer work placements	<p>Stimulate interest in sector with young people by promoting volunteering opportunities and offering work placements</p> <p>Accredited award scheme identified and supported by the sector</p>	<p>Promote volunteering opportunities in schools</p> <p>Public and private sector employers to offer work placement opportunities to students in schools, FE & HE</p> <p>Review existing accredited award schemes</p>	<p><u>Lead:</u> Volunteer Scotland & HES</p> <p><u>Support:</u> schools, Local Authorities, employers DYW groups</p> <p>OPiT volunteering working group</p>	<p>Increase number Public and private sector employers offering volunteering and work placements</p> <p>Increased number of individuals volunteering</p>	<p>Volunteering networks expanded</p> <p>Employers using volunteering as recruitment tool</p>	<p>Baseline established of volunteering provision & work placements (August 2019)</p> <p>20% increase in work placements / accredited volunteering by employers (Aug 2020)</p>

Theme 3: Workforce Development

Actions	Objectives	Activities	Resources	Interim Outcomes	Longer Term Impacts	SMART Target
3.1 Expand Traditional Skills and specialist provision	<p>Develop and promote a national traditional and specialist skills Hub and National Heritage & Technical Conservation Innovation Centre building - <i>the Engine Shed</i>.</p> <p>Support a network of Spokes, delivering technical skills training, with public and charitable sector providers, such as STSC, SCLT & FE Colleges.</p>	<p>Establish industry led working groups including education and training partners to identify gaps in provision and develop business cases</p> <p>Engage with existing and establish formal networks and introduce new accredited and quality assured provision in response to demand</p>	<p>Lead: SFC</p> <p>Support: HES, FE, HE, SDS, SQA, MGS, NTS, private providers</p>	<p>Increased understanding of demand for new provision</p> <p>Better coordination of activity</p>	<p>increased access to specialist provision.</p> <p>Shared knowledge between providers and provision responsive to employer's needs.</p> <p>Ability to address specialist skills issues and market failure that current provision cannot</p> <p>Establish International Centre of Innovation and Excellence, based on SCQF & SQA best practice</p>	<p>Working group Established (August 2019)</p> <p>Gaps in provision Identified and response underway (Dec 2020)</p> <p>Gaps reviewed on bi annual basis (2021)</p>
3.2 Develop and enhance CPD provision and availability nationally	<p>Develop and fund new CPD and train the trainer courses to address commercial and specialist demand</p> <p>Increase availability and enable access</p>	<p>Industry led working groups including academic partners to create course content and/or adapt existing course modules to satisfy industries' need</p> <p>working groups define content of different courses and which partners will be responsible for their delivery</p> <p>deliver training in different regions and for different skills issues</p>	<p>Lead: HES</p> <p>Support: Industry, ESP, MGS, NTS, Professional bodies, Private providers</p>	<p>Increased number of courses throughout Scotland</p> <p>Uptake in CPD courses</p> <p>Reduced number of companies reporting skills gaps in existing workforce</p> <p>Employees develop and maintain required skills for the sector</p> <p>Employees have access to a wider career pathway</p>	<p>Current Workforce becoming more skilled to meet changing needs of sector</p> <p>Companies can grow and respond to changing skills needs no matter their location.</p> <p>Employees develop and maintain skills required for sector.</p>	<p>Working group established to agree (August 2019)</p> <p>Baseline established of training uptake (2019) and 5% increase in training uptake (2020) & reviewed annually</p> <p>Development of 1 new CPD courses (April 2019) and expansion of existing provision to rural areas (August 2020)</p>

Actions	Objectives	Activities	Resources	Interim Outcomes	Longer Term Impacts	SMART Target
					Companies can source employees with the appropriate skills	
3.3 Increasing skills and qualifications of volunteers	Increase capability of volunteers through setting standards and skills benchmarks	Identify skills gaps in volunteering network	<u>Lead:</u> Volunteer Scotland, SVCO, HES <u>Support:</u> Schools, Local Authorities, employers DYW groups	Volunteers achieving national standard of certification Appropriate training identified	Volunteers develop and maintain skills required for sector. Companies can source volunteers with the appropriate skills	Baseline established of volunteering training levels (2019) and 5% increase in training uptake (2020) & reviewed annually Development of 1 new CPD courses (December 2019) and expansion of existing provision to rural areas (August 2020)

7.4 Monitoring and Implementing the Action Plan

The Action Plan will inform the development of the monitoring and implementation process.

Following the finalisation of the Action Plan, SDS and the Skills and Expertise Group will facilitate a session with key partners, stakeholders and industry in which a detailed Monitoring and Implementation Plan will be developed and agreed.

The Monitoring and Implementation Plan build on the Action Plan and will agree:

- the step-by-step tasks for each action to be achieved;
- the proposed name lead/support organisations within each action/task;
and
- the quantifiable SMART targets against the actions and the determine data sources to measure the targets.

It is recognised that resources to deliver the Action Plan are constrained. As such, lead partners will be required to identify and unlock the potential resources to support each of the actions. This may differ for each partner dependent on existing funding programme.

The lead partners be required to provided progress updates every six months to the Skills and Expertise Group for review.

To ensure the Action Plan remains current and responsive to industry needs, it is recommended the Skills and Expertise Group review the Monitoring and Implementation Plan on an annual basis.

Appendices

Appendix A: Historic Environment Definition

Appendix B: Technical Data

Appendix C: Stakeholder Consulted

Appendix D: Employer Survey

Appendix A: Historic Environment Definition

The Historic Environment sector was defined using the SIC/SOC codes in Table A.1. A dilution factor (detailed in Table A.2) was applied to each SIC/SOC, identified through consultation with SDS Key Sector Managers for Construction, Creative Industries, and Tourism.

The limitations in this approach is recognised as it is largely based on some general assumptions and is not therefore robustly evidenced. It was, however, tested and validated with the Skills and Expertise Group.

Table A.1: Historic Environment SIC/SOC Definition

SIC Definition	SOC Definitions
<ul style="list-style-type: none"> • Binding and related services • Construction of domestic buildings • Construction of other civil engineering projects nec • Demolition • Site preparation • Electrical installation • Plumbing, heat and air-conditioning installation • Other construction installation • Plastering • Joinery installation • Floor and wall covering • Painting • Glazing • Other building completion and finishing • Roofing activities • Scaffold erection • Specialised construction activities nec • Retail sale of antiques including antique books, in stores • Retail sale of books in specialised stores • Retail sale in commercial art galleries • Other holiday and other short-stay accommodation nec • Unlicensed restaurants and cafes • Video production activities • Letting and operating of conference/exhibition centres • Letting and operating of own or leased real estate n.e.c. 	<ul style="list-style-type: none"> • Professional occupations • Social and humanities scientists (archaeologists) • Conservation professionals • Environment professionals • Architects • Town planning officers • Quantity surveyors • Chartered surveyors • Construction project managers and related • Librarians • Archivists and curators • Associate professional and technical occupations • Architectural and town planning technicians • Draughtspersons • Authors, writers and translators • Arts officers, producers and directors • Photographers, AV broadcasting equipment operators • Conservation and environmental associate professionals • Administrative and secretarial occupations • Library clerks and assistants • Skilled trades occupations • Horticultural trades • Gardeners and landscape gardeners • Groundsmen and greenkeepers

SIC Definition	SOC Definitions
<ul style="list-style-type: none"> Architectural activities Urban planning and landscape architectural activities Engineering related scientific technical consulting Other research natural sciences and engineering Translation and interpretation activities Environmental consulting activities Other professional, scientific and technical activities Travel agency activities Tour operator activities Activities of tourist guides Building and industrial cleaning activities n.e.c. Landscape service activities Regulation activities incl cultural services etc Foreign affairs Cultural education Operation of arts facilities Library activities Archive activities Museum activities Operation of historical sites buildings visitor attractions Botanical and zoological gardens and nature reserves Repair of furniture and home furnishings Repair of watches, clocks and jewellery Repair of other personal and household goods 	<ul style="list-style-type: none"> Smiths and forge workers Bricklayers and masons Roofers, roof tilers and slaters Plumbers and heating and ventilating engineers Carpenters and joiners Glaziers, window fabricators and fitters Construction and building trades n.e.c. Plasterers Floorers and wall tilers Painters and decorators Construction and building trades supervisors Glass and ceramics makers, decorators and finishers Furniture makers and other craft woodworkers Other skilled trades n.e.c. Caring, leisure and other service occupations Leisure and travel service occupations n.e.c. Housekeepers and related occupations Caretakers

Table A.2: Dilution Factor

Dilution	Description
1%	Very limited
10%	A little
25%	Some
50%	Split
75%	Most
100%	All

Appendix B: Technical Data

Table B.1: Scottish University Student Numbers by Historic Environment Subject Area (2015-2016)

Subject Area	2010-2011		2011-2012		2012-2013		2013-2014		2014-2015		2015-2016	
	Nos.	(%)										
<u>Architecture/Building/Planning:</u>												
Architecture	2930	20%	2610	19%	2670	18%	2610	17%	2665	17%	2,775	21%
Building	2595		2190	16%	1665	11%	1685	11%	1865	12%	1,775	13%
Landscape & garden design	175	1%	175	1%	170	1%	180	1%	225	1%	250	2%
Others in architecture, building & planning	115	1%	105	1%	110	1%	90	1%	90	1%	70	1%
<u>Creative arts & design:</u>												
Cinematics & photography	1515	10%	1380	10%	1970	13%	1895	13%	1960	12%	210	2%
Fine Art	875	6%	1145	8%	1125	8%	1140	8%	1085	7%	170	1%
<u>Historical & philosophical studies:</u>												
History by period	3640	25%	3565	26%	4050	28%	4525	30%	4900	31%	4,945	37%
History by area	330	2%	330	2%	305	2%	380	3%	380	2	395	3%
History by topic	1330	9%	1325	10%	1345	9%	1325	9%	1450	9%	1,505	11%
Archaeology	425	3%	435	3%	430	3%	425	3%	410	3%	415	3%
Heritage Studies	0	0%	0	0%	0	0%	0	0%	5	<1%	5	<1%
<u>Physical Sciences:</u>												
Forensic and Archaeological Sciences	765	5%	685	5%	825	6%	755	5%	710	5%	860	6%
Total:	14,695	100%	13,945	100%	14,675	100%	15,010	100%	15,745	100%	13,375	100%

Source: All HESA Annual Data Publication Table 2010/2011 – 2015/2016.

Table B.2: Scottish University Student Numbers by Historic Environment Subject Area (2015-2016)

Scottish University	2010-2011		2011-2012		2012-2013		2013-2014		2014-2015		2015-2016	
	Nos.	(%)										
The University of Aberdeen	945	6%	885	6%	895	6%	730	5%	665	4%	560	4%
University of Abertay Dundee	10	<1%	0	0%	175	1%	5	<1%	0	0%	150	1%
The University of Dundee	1,085	7%	1,150	8%	1,090	7%	1,125	7%	1,130	7%	860	6%
Edinburgh College of Art	975	7%	660	5%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Edinburgh Napier University	650	4%	3,185	23%	595	4%	555	4%	585	4%	395	3%
The University of Edinburgh	2,130	14%	950	7%	3,025	21%	2,955	20%	3,160	20%	2,900	22%
Glasgow Caledonian University	1,130	8%	1,035	7%	780	5%	900	6%	1,020	6%	1,030	8%
Glasgow School of Art	1,095	7%	1,310	9%	1,070	7%	1,110	7%	1,090	7%	650	5%
The University of Glasgow	1,385	9%	675	5%	2,470	17%	2,435	16%	2,660	17%	1,950	15%
Heriot-Watt University	630	4%	0	0%	460	3%	365	2%	365	2%	335	3%
The Open University in Scotland†	0	0%	1,125	8%	0	0%	370	2%	405	3%	370	3%
Queen Margaret University, Edinburgh	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
The Robert Gordon University	1,430	10%	1,125	8%	1,145	8%	1,120	7%	1,095	7%	780	6%
Royal Conservatoire of Scotland	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
The University of St Andrews	910	6%	990	7%	915	6%	1,035	7%	1,160	7%	1,200	9%
SRUC	0	0%	0	0%	0	0%	5%	<1%	25	<1%	30	<1%
The University of Stirling	400	3%	365	3%	390	3%	390	3%	415	3%	445	3%
The University of Strathclyde	1,115	8%	770	6%	720	5%	810	5%	890	6%	980	7%
University of the Highlands and Islands	495	3%	495	4%	595	4%	705	5%	735	5%	600	4%
The University of the West of Scotland	295	2%	365	3%	345	2%	395	3%	330	2%	140	1%
Total Scotland	14,695	100%	13,945	100%	14,675	100%	15,010	100%	15,745	100%	13,375	100%

Source: HESA Annual Data Publication Table 2010/2011 – 2015/2016

Table B.3: HE Post-Graduate Study 2015/16

	Physical Sciences	Architecture, Building & Planning				Historical & Philosophical Studies					Creative Arts & Design		TOTAL
	Forensic & Archaeological Sciences	Architecture	Building	Landscape & Garden Design	Architecture Building & Planning	History (by period)	History (by area)	History (by topic)	Archaeology	Heritage Studies	Fine Art	Cinematic Photography	
The University of Aberdeen	0	0	0	0	0	20	0	10	20	0	0	5	55
University of Abertay Dundee	0	0	0	0	0	0	0	0	0	0	0	0	0
The University of Dundee	40	5	0 ²⁷	0	0	10	20	60	0	0	45	5	185
Edinburgh Napier University	0	10	70	0	0	0	0	0	0	0	0	30	110
The University of Edinburgh	0	360	0	110	0	95	30	110	60	0	45	20	830
Glasgow Caledonian University	0	0	175	0	0	0	0	0	0	0	0	0	175
Glasgow School of Art	0	145	0	0	0	0	0	0	0	0	150	35	330
The University of Glasgow	0	0	0	0	0	75	5	130	45	5	0	90	350
Heriot-Watt University	0	10	180	0	0	0	0	0	0	0	0	0	190
The Open University in Scotland†	0	0	0	0	0	10	0	5	0	0	0	0	15
Queen Margaret University,	0	0	0	0	0	0	0	0	0	0	0	0	0
The Robert Gordon University	0	10	45	0	70	0	0	0	0	0	5	0	130
Royal Conservatoire of Scotland	0	0	0	0	0	0	0	0	0	0	0	0	0
The University of St Andrews	0	0	0	0	0	160	15	110	0	0	0	0	285
The University of Stirling	0	0	0	0	0	50	0	0	0	0	0	0	50
The University of Strathclyde	35	150	0	0	0 ³¹	30	0	0	0	0	0	0	215
University of the Highlands Islands	0	0	0	0	0	0	35	5	25	0	0	0	65
The University West Scotland	0	0	0	0	0	0	0	0	0	0	0	20	20
Total Scotland	75	690	465	110	70	445	105	425	150	5	245	200	2985

Source :HESA Annual Data Publication Table 2010/2011 – 2015/2016

²⁷ "Planning" subsumed into geography ³¹ Planning School now closed

Table B.4: Gender Split in FE Courses 2015-2016

	Male	Female	Other	Not say	Total
History	21	23	0	5	49
Archaeology	5	7	0	0	12
Culture/Gender/Folklore	19	55	0	0	74
Literature	55	93	0	0	148
Linguistic Studies	109	177	5	0	291
Languages	6,818	9,749	5	5	16,577
Cultural/Area/Social/Diaspora Studies	111	127	0	0	238
Art Studies/Fine Arts	666	1,361	5	5	2,037
Art Techniques/Practice	880	1,492	5	0	2,377
Crafts: Leisure/General	1,059	1,053	0	0	2,112
Decorative Leisure Crafts	5	25	0	0	30
Decorative Metal Crafts/Jewellery	44	325	0	5	374
Fashion/Textiles/Clothing (craft)	210	918	0	0	1,128
Fabric Crafts/Soft Furnishings	165	261	0	0	426
Wood Cane and Furniture Crafts	11	7	0	0	18
Glass/Ceramics/Stone Crafts	87	144	0	0	231
Film/Video Production	333	216	0	0	549
Audio and Visual Media	689	364	5	5	1,063
Print and Publishing	57	69	0	0	126
Music History/Theory	178	124	0	5	307
Music of Specific Kinds/Cultures	89	130	0	0	219
Hotel/Catering (general)	703	1,138	5	5	1,851
Food/Drink Services	769	1,192	0	0	1,961
Catering Services	251	303	0	0	554
Hospitality Services	666	1,048	5	5	1,724
Tourism/Travel	445	1,465	0	0	1,910
Leisure/Sports Facilities Work	301	106	0	0	407
Arts/Culture/Heritage Administration	39	376	0	0	415
Environmental Protection/Conservation	170	50	0	0	220
Agriculture/Horticulture (general)	2,058	729	5	5	2,797
Agricultural Sciences	12	5	0	0	17
Gardening/Floristry/Plant Sales	104	219	0	0	323
Amenity/Horticulture/Sports grounds	265	27	0	0	292
Agricultural/Horticultural Maintenance	123	37	0	5	165
Built Environment (general)	1,031	116	0	5	1,152
Surveying/Planning/Development	102	83	0	0	185

	Male	Female	Other	Not say	Total
Building Design/Architecture	290	103	0	0	393
Construction (general)	7,581	718	0	5	8,304
Construction Management	842	47	0	0	889
Building/Construction Operations	2,420	147	0	0	2,567
Construction Site Work	365	72	0	0	437
Civil Engineering	668	92	0	0	760
Structural Engineering	45	11	0	0	56
Woodworking/Furniture Manufacture	649	183	0	0	832
Welding/Joining	1,596	112	0	0	1,708
Totals	33106	25099	40	60	58305

Source: Infact Database/ SFC

Table B.5. FE Ethnicity Data

	No information	White	Other	Indian	Pakistani	Bangladeshi	Chinese	Black Caribbean	Black African	Black Other	Arab	Black, Black, or	Info	Info	Total
History	23	21	0	0	0	0	0	0	0	0	0	0	5	0	49
Archaeology	0	8	5	0	0	0	0	0	0	0	0	0	0	0	13
Culture/Gender/Folklore	30	10	11	5	7	5	5	0	0	0	6	0	5	0	84
Literature	13	127	5	0	5	5	5	0	5	0	0	0	5	0	170
Linguistic Studies	0	263	5	5	0	5	5	5	5	5	5	0	5	5	313
Languages	1,988	8,468	1,851	107	366	86	713	29	1,769	159	841	25	165	8	16,575
Cultural/Area/Social/Diaspora Studies	38	31	6	0	5	5	161	0	0	0	0	0	0	0	246
Art Studies/Fine Arts	219	1,727	43	11	14	0	7	5	7	0	0	0	5	5	2,043
Art Techniques/Practice	481	1,812	40	5	14	5	11	0	7	5	0	5	5	0	2,390
Crafts: Leisure/General	2,027	84	5	0	0	0	0	0	0	0	0	0	0	0	2,116
Decorative Leisure Crafts	0	23	5	0	0	0	0	0	5	0	0	0	0	0	33
Decorative Metal Crafts/Jewellery	28	321	8	0	5	0	5	0	5	0	5	0	5	0	382
Fashion/Textiles/Clothing (craft)	280	754	23	6	19	5	9	5	24	5	5	5	5	5	1,150
Fabric Crafts/Soft Furnishings	340	86	0	0	0	0	0	0	0	0	0	0	0	0	426
Wood Cane and Furniture Crafts	10	8	0	0	0	0	0	0	0	0	0	0	0	0	18
Glass/Ceramics/Stone Crafts	131	92	5	0	5	5	0	0	0	0	0	0	5	0	243
Film/Video Production	0	520	10	5	7	0	5	0	5	0	0	5	5	0	562
Audio and Visual Media	30	986	28	5	5	0	5	0	5	0	0	5	5	0	1,074
Print and Publishing	0	117	5	5	0	0	5	0	5	5	0	0	0	0	142
Music History/Theory	0	292	6	0	0	0	0	5	5	0	5	0	0	0	313
Music of Specific Kinds/Cultures	0	208	5	0	0	0	5	5	0	0	0	0	5	0	228

	No information	White	Other	Indian	Pakistani	Bangladeshi	Chinese	Black Caribbean	Black African	Black Other	Arab	Black, Black, or	Info	Info	Total
Hotel/Catering (general)	163	1,597	17	11	9	5	7	0	21	5	5	5	7	6	1,858
Food/Drink Services	60	1,796	26	16	20	5	9	5	18	0	5	0	5	5	1,970
Catering Services	0	532	5	5	5	0	5	0	10	5	0	5	0	0	572
Hospitality Services	91	1,555	24	5	15	5	5	5	12	5	9	0	5	0	1,736
Tourism/Travel	0	1,744	50	11	36	5	8	5	39	9	5	0	5	0	1,917
Leisure/Sports Facilities Work	6	384	5	5	5	0	0	0	5	0	0	0	0	5	415
Arts/Culture/Heritage Administration	0	400	6	0	5	0	5	0	5	0	0	0	5	0	426
Environmental Protection/Conservation	0	218	0	5	5	0	0	0	0	0	0	0	0	0	228
Agriculture/Horticulture (general)	35	2,739	9	0	0	0	5	0	5	0	5	0	5	0	2,803
Agricultural Sciences	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14
Gardening/Floristry/Plant Sales	103	214	5	0	5	0	0	0	0	0	0	0	0	0	327
Amenity/Horticulture/Sports grounds	15	274	5	0	0	0	0	0	5	0	0	0	0	0	299
Agricultural/Horticultural Maintenance	8	147	5	0	0	0	5	0	5	0	0	0	5	0	175
Built Environment (general)	7	1,104	6	5	10	0	5	0	8	5	5	0	5	0	1,160
Property: Surveying/Planning/Development	0	182	5	0	5	0	5	0	0	0	0	0	0	0	197
Building Design/Architecture	0	367	5	5	6	0	6	0	5	0	5	0	0	0	399
Construction (general)	210	7,968	32	11	23	0	6	5	27	5	5	9	5	0	8,306
Construction Management	0	871	5	5	5	0	5	0	5	0	0	0	5	0	901
Building/Construction Operations	17	2,505	12	5	13	5	5	0	5	0	5	5	6	0	2,583
Construction Site Work	121	306	5	0	0	0	0	5	5	5	0	0	5	0	452
Civil Engineering	0	694	15	5	17	0	5	5	19	0	7	5	5	0	777
Structural Engineering	0	51	5	0	5	0	0	0	5	0	5	0	0	0	71
Woodworking/Furniture Manufacture	89	726	8	0	5	0	5	0	5	0	0	0	5	0	843

	No information	White	Other	Indian	Pakistani	Bangladeshi	Chinese	Black Caribbean	Black African	Black Other	Arab	Black, Black, or	Info	Info	Total
Welding/Joining	73	1,607	16	0	5	0	5	0	5	5	0	5	5	0	1,726
Totals	6,636	43,953	2,337	248	651	146	1,037	84	2,061	223	928	79	303	39	58,725

Source: Infact Database/ SFC

Table B.6: FE Ethnicity Data

	None	Dyslexia	Blind/part sighted	Deaf/hearing impair	W'chair user/mob	Personal care support	Mental health diff	Unseen-disability	Multiple disability	Disable not listed	Total
History	44	0	0	0	0	0	5	0	0	0	49
Archaeology	6	0	0	0	0	0	5	5	0	0	16
Culture/Gender/Folklore	73	0	0	0	0	0	0	5	0	0	78
Literature	122	8	5	0	0	5	6	5	5	5	161
Linguistic Studies	287	0	0	0	0	0	0	0	0	0	287
Languages	15,710	112	31	62	103	6	163	106	155	127	16,575
Cultural/Area/Social/Diaspora Studies	232	5	0	5	0	5	0	0	0	5	252
Art Studies/Fine Arts	1,597	127	5	11	7	5	93	17	97	83	2,042
Art Techniques/Practice	1,918	105	7	17	8	0	111	30	124	55	2,375
Crafts: Leisure/General	2,063	5	5	0	5	0	5	5	27	13	2,128
Decorative Leisure Crafts	20	5	0	0	0	0	5	0	5	5	40
Decorative Metal Crafts/Jewellery	296	18	5	5	5	0	5	5	25	10	374
Fashion/Textiles/Clothing (craft)	964	41	5	7	5	0	44	7	45	12	1,130
Fabric Crafts/Soft Furnishings	413	5	0	0	0	0	5	5	5	0	433
Wood Cane and Furniture Crafts	18	0	0	0	0	0	0	0	0	0	18
Glass/Ceramics/Stone Crafts	218	5	0	5	5	0	0	5	5	5	248
Film/Video Production	452	34	5	5	5	0	15	8	20	13	557
Audio and Visual Media	853	71	5	5	9	0	48	15	31	26	1,063
Print and Publishing	108	9	0	0	5	0	5	5	5	0	137

	None	Dyslexia	Blind/part sighted	Deaf/hearing impaired	W'chair user/mob	Personal care support	Mental health diff	Unseen-disability	Multiple disability	Disable not listed	Total
Music History/Theory	238	19	0	5	0	0	24	5	11	7	309
Music of Specific Kinds/Cultures	207	5	0	5	0	0	5	5	0	5	232
Hotel/Catering (general)	1,530	99	5	7	5	0	45	25	78	53	1,847
Food/Drink Services	1,731	86	5	6	5	0	26	19	56	32	1,966
Catering Services	462	32	0	5	5	0	17	5	27	11	564
Hospitality Services	1,432	95	5	10	5	5	42	20	56	53	1,723
Tourism/Travel	1,721	64	5	5	6	0	39	12	41	21	1,914
Leisure/Sports Facilities Work	380	9	0	0	0	0	5	5	5	7	411
Arts/Culture/Heritage Administration	376	9	5	5	5	0	13	5	9	5	432
Environmental Protection/Conservation	175	18	5	5	0	0	5	6	8	6	228
Agriculture/Horticulture (general)	2,220	227	5	5	5	5	43	45	130	115	2,800
Agricultural Sciences	9	5	0	0	0	0	0	0	5	5	24
Gardening/Floristry/Plant Sales	278	5	0	5	5	0	5	5	23	6	332
Amenity/Horticulture/Sports grounds	222	30	0	5	0	5	8	5	17	9	301
Agricultural/Horticultural Maintenance	137	7	0	5	0	0	5	5	5	9	173
Built Environment (general)	993	83	5	5	5	5	12	8	26	18	1,160
Property: Surveying/Planning/Development	178	5	0	5	0	0	0	5	0	5	198
Building Design/Architecture	356	19	0	5	5	0	5	6	7	5	408
Construction (general)	7,424	478	13	12	10	5	50	61	141	109	8,303
Construction Management	838	23	5	5	0	0	5	9	8	5	898
Building/Construction Operations	2,283	177	5	11	5	0	23	19	24	26	2,573

	None	Dyslexia	Blind/part sighted	Deaf/hearing impairment	W'chair user/mob	Personal care support	Mental health diff	Unseen-disability	Multiple disability	Disable not listed	Total
Construction Site Work	415	11	5	5	0	0	5	5	0	5	451
Civil Engineering	704	23	5	5	5	0	10	5	7	6	770
Structural Engineering	55	0	0	0	0	0	0	5	0	0	60
Woodworking/Furniture Manufacture	722	52	5	5	5	0	10	10	18	14	841
Welding/Joining	1,574	69	0	5	5	0	12	12	16	18	1,711
Totals	52,054	2,200	151	258	238	46	929	535	1,267	914	58,592

Source: Infact Database/ SFC

Table B.7: MA Frameworks

Ma Frameworks
Agriculture
Amenity Horticulture
Construction
Construction: Building
Construction: Civil Engineering
Construction (Civil Engineering & Specialist Sector)
Construction (Craft Operations)
Construction: Professional Apprenticeship
Construction: Specialist
Construction (Technical Operations)
Construction: Technical
Construction: Technical Apprenticeship
Creative
Creative and Digital Media
Electrical Installation
Engineering Construction
Equine
Facilities Management
Furniture, Furnishings and Interiors
Game & Wildlife Management
Glass Industry Occupations
Glass Industry Operations
Heating, Ventilation, Air Conditioning and Refrigeration
Horticulture
Hospitality
Hospitality Management Skills Technical Apprenticeship
Land-based Engineering
Plumbing
Travel Services
Trees and Timber

Source: SDS

Appendix C: Stakeholders Consulted

Table C.1: Stakeholders Consulted

Organisation
Energy Skills Partnership / Colleges Scotland
Scottish Council on Archives
Museums Galleries Scotland
Historic Environment Scotland (various representatives)
National Trust for Scotland
Glasgow Museums
Heritage Tourism Group
Creative Scotland
Built Environment Forum Scotland
Historic Houses Association
Skills Development Scotland
National Federation of Roofing
Historic Environment Scotland
University of Stirling / Universities Scotland
Forth Valley College
Archaeological Training Forum (UK)
Scottish Library and Information Council
Arts & Business Scotland
Scottish Funding Council

Appendix D: Employer Survey

Introduction

This Report presents the main findings of a survey of employers involved in the Historic Environment sector in Scotland. The survey was undertaken to gather thoughts and views on the main skills-related issues, challenges, and potential solutions from an employer's perspective.

An online survey was promoted and distributed on behalf of EKOS via a number of contacts and mechanisms, including:

- Arts & Business Scotland sent a direct email to contacts on their Resourcing Scotland's Heritage database;
- Built Environment Forum Scotland (BEFS) distributed the survey in a number of ways, including via its regular Bulletin (600 subscribers) and to key organisations²⁸;
- Construction Industry Training Board's (CITB) advisors sent it to their Scottish contacts (circa 1,400) and promoted the survey via Twitter and LinkedIn;
- Creative Scotland promoted the survey on their Opportunities website;
- Federation of Master Builders included a feature in their March 2018 e-newsletter to FMB Scotland members (circa 400 members);
- National Trust for Scotland (NTS) cascaded the survey to their local surveyors;
- Scottish Library and Information Council (SLIC) issued the survey to their membership (circa 70 public, academic and college libraries in Scotland);
- SDS staff members LinkedIn accounts; and
- other key contacts were asked to distribute the survey to their networks/members – although we do not have confirmation that it has been issued.

Note: A total of 104 responses to the survey were received, however, 15 employers reported that none of their business activity was related to the Historic Environment

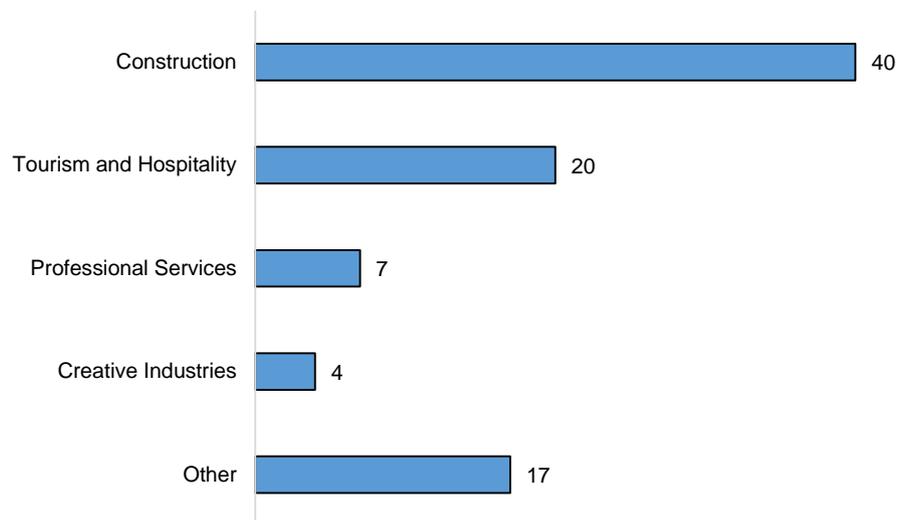
²⁸ RIAS, IHBC, Chartered Institute for Archaeology, Scotland's Traditional Building Forum, ALGAO Scotland, and practices Simpson & Brown, Page|Park, LDN, AOC, Northlight, Headland, Wessex Archaeology, Glasgow City Heritage Trust, Edinburgh World Heritage, Glasgow Building Preservation Trust, Scottish Historic Buildings Trust, GLM and Perth & Kinross Heritage Trust).

sector²⁹. The feedback below is based on the 89 employers who reported that some or all of their business activity related to the Historic Environment sector.

Employers Profile

As might be expected, employers operate across a range of sectors, with the most common responses from those operating in the Construction, followed by Tourism and Hospitality sectors, **Figure D.1**.

Figure D.1: Business Sector



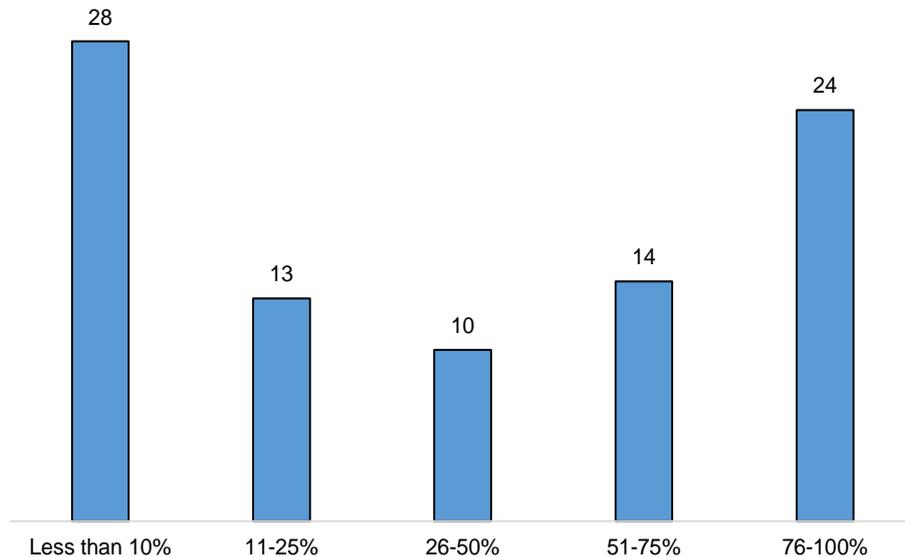
N=89. Other includes: Heritage and Conservation, Archaeology, Education, Charities and Public Services.

As is also to be expected, the proportion of employers' business activity that relates to the Historic Environment sector is varied, **Figure D.2**:

- almost 60% of employers (51 employers) reported that less than 50% of their business activity related to the sector – with the majority of this at the lower end of the scale; and
- the remainder (38 employers, over 40%) are involved in the Historic Environment sector to a large extent (i.e. 50%+ of their business activity, with the majority of these employers at the top end of the scale).

²⁹ These employers were routed to the end of the survey and an explanation was provided that the survey was aimed at businesses who were involved in the Historic Environment sector.

Figure D.2: Historic Environment Related Business Activity



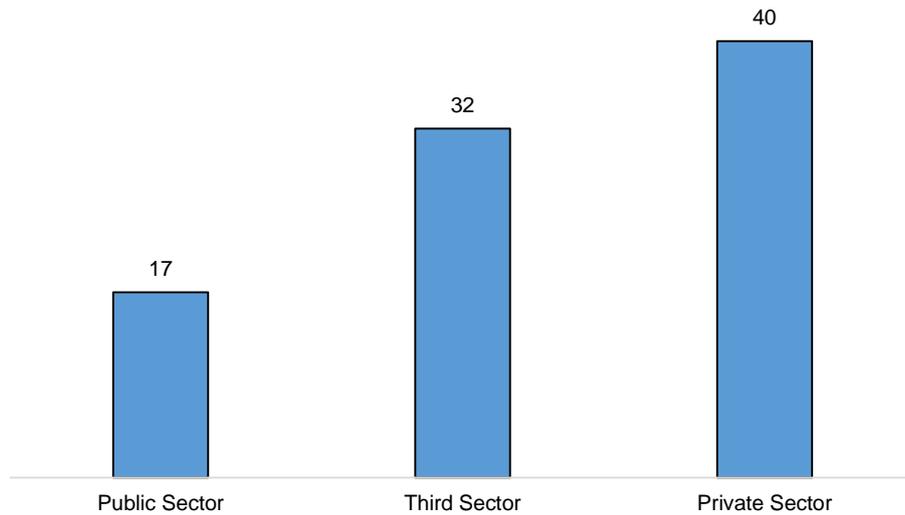
N=89.

Employers involvement in the Historic Environment sector is equally varied and covers a wide range of market areas, including work associated with:

- historic and listed buildings e.g. restoration, refurbishment, and repair works (24 employers);
- the curation of artefacts e.g. within museums/other historic archives, etc. (17 employers);
- promoting the conservation of Scotland's Historic Environment e.g. getting local communities/visitors to engage with historic buildings, archives, museums, etc., and educating people on the Historic Environment and how best to preserve it (12 employers); and
- conserving and/or protecting outdoor historic land/greenspaces e.g. groundworks/environmental regeneration works (four employers).

A mix of business types responded to the survey, with more private and third sector employers responding than public sector employers, **Figure D.3**.

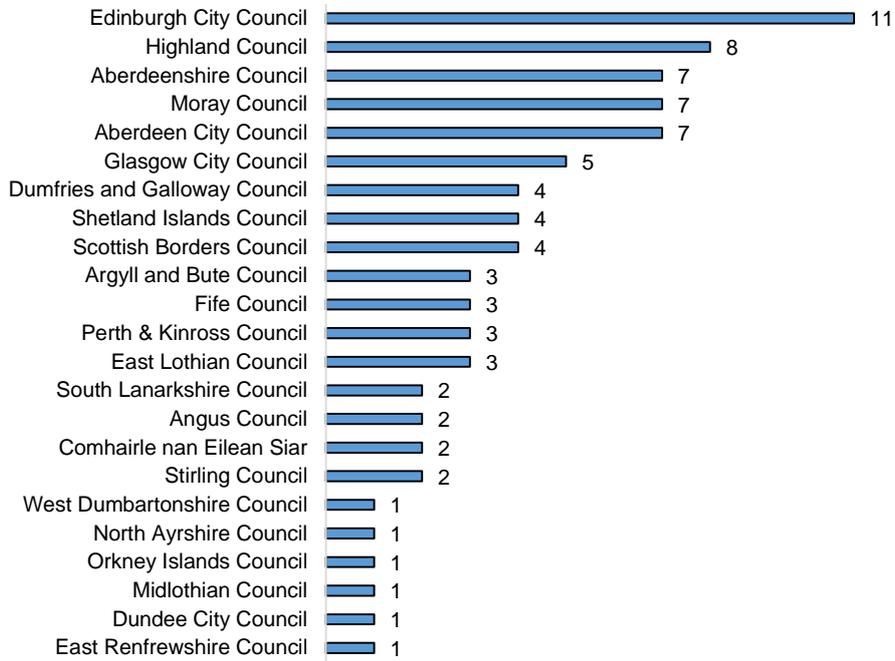
Figure D.3: Business Type



N=89.

Employers' company HQs are based across Scotland, with the survey securing responses from employers with HQs within 23 of Scotland's Local Authorities. The most common responses were from employers with HQs in Edinburgh City, Highland, Aberdeenshire, Aberdeen City, and Moray, **Figure D.4**.

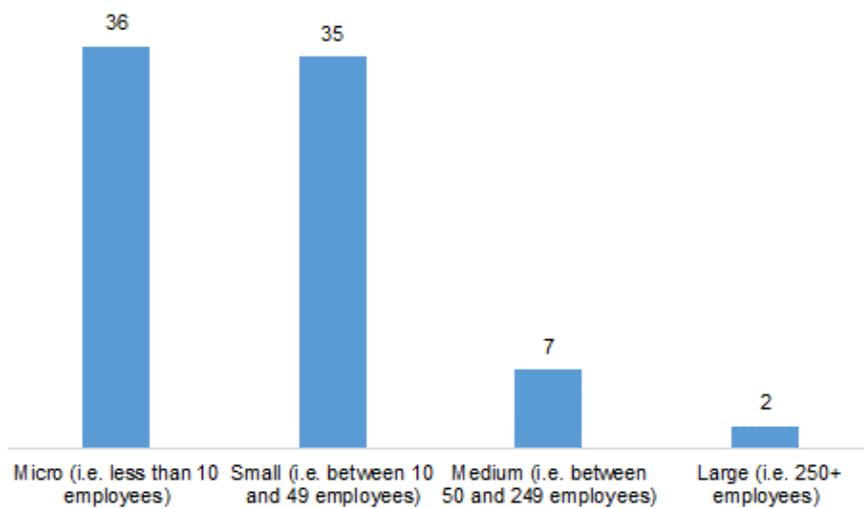
Figure D.4: Local authority of businesses



N=83.

Almost all employers are either micro businesses or SMEs, with the majority employing less than 50 employees, **Figure D.5**.

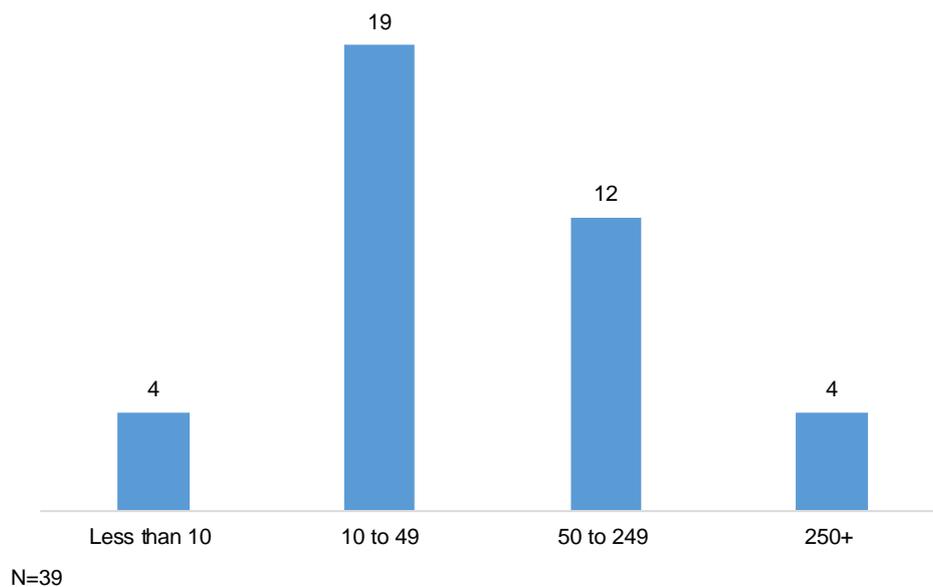
Figure D.5: Size of Business



N=80.

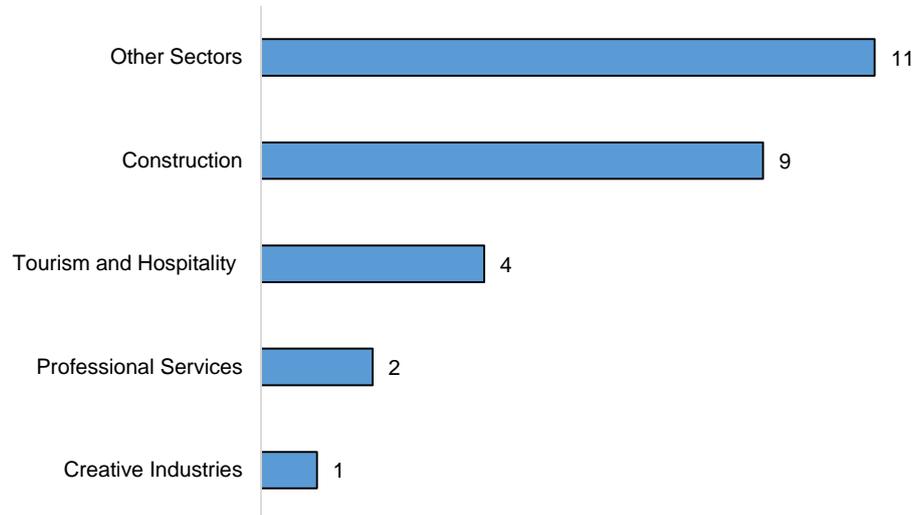
Just over two-fifths of employers indicated that they use volunteers, and of those who do, they typically have less than 50 working with them – **Figure D.6**. There were only three employers who relied solely on volunteers (all which were third sector organisations).

Figure D.6: Number of Volunteers Used



Just over one-quarter of employers (27) indicated that their business makes use of Historic Environment sub-contractors, freelancers or self-employed workers. This was typically those involved in heritage and conservation, education and archaeology and construction (**Figure D.7**)

Figure D.7: Sectors of Employers Using Sub-Contractors etc.



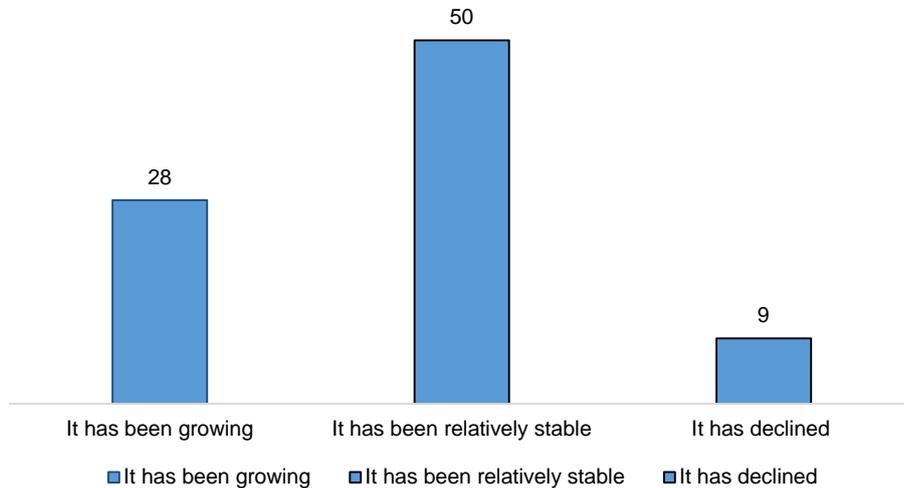
N=27. Others include: Heritage and Conservation, Archaeology and Education.

Business Activity

A positive finding is that the vast majority of employers reported that the market in which their business operates has been either stable or grown over the last three to five years (78 employers, 90%), **Figure D.8**. The main drivers of this were reported as stable/growing visitor numbers and an increase in demand for work associated with the condition of historic/listed buildings.

The main reasons provided for a decline in the market over recent years (nine employers) typically related to ongoing effects from the recent recession, uncertainty around Brexit, and a decline in visitor numbers.

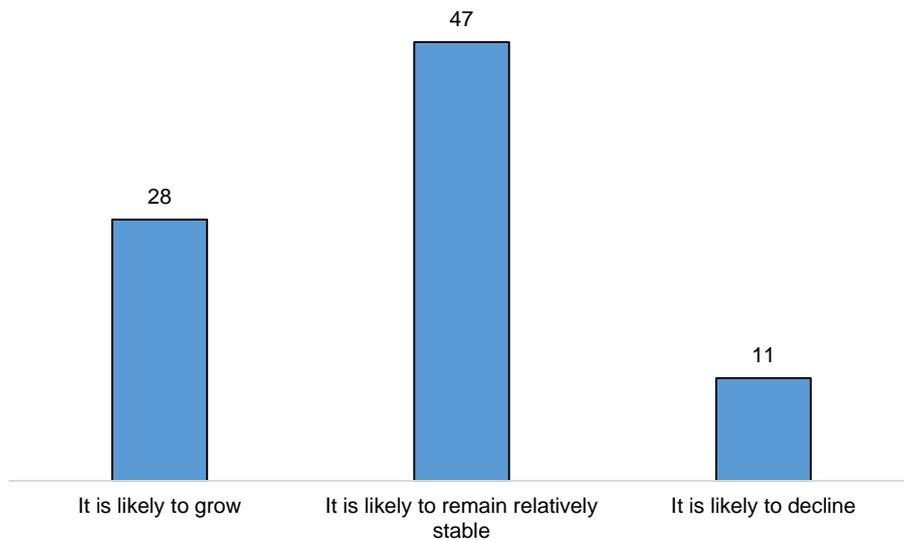
Figure D.8: Recent Market Performance



N=87.

Employers were equally optimistic about their market’s future performance, with almost 90% reporting (75 employers) that they it to either remain stable or to grow over the next three to five years, **Figure D.9**. Whilst Brexit was highlighted as an ongoing concern for some employers, in general it was reported that tourist/visitor numbers would remain stable or grow – and with this comes impacts on natural and cultural heritage.

Figure D.9: Anticipated Future Market Performance



N=86.

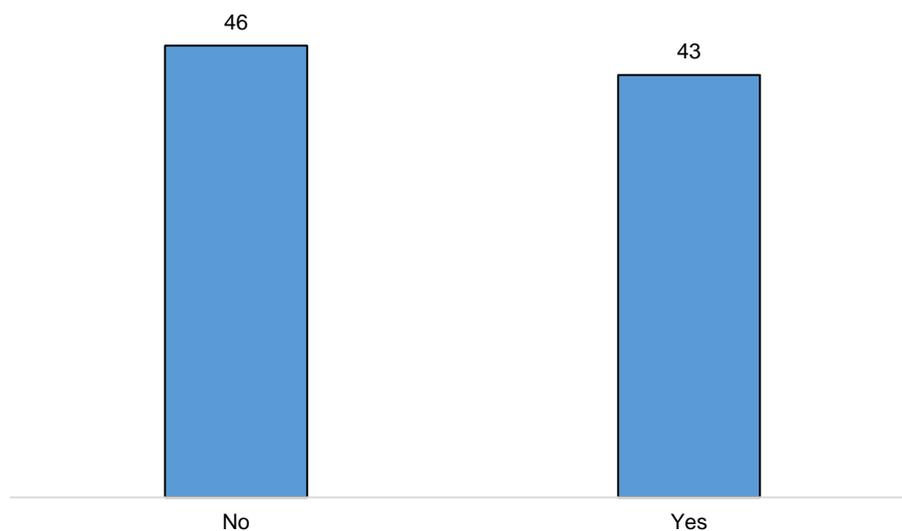
Where employers expect a future decline in the marketplace, the reasons for this centred on the changing business support landscape (e.g. ongoing reductions in public sector funding) and Brexit.

Skills Shortages and Gaps

There was little difference between the number of employers reporting whether or not they currently face (or anticipate facing over the next three to five years) skills shortages within their industry workforce, **Figure D.10**.

Almost half of employers have/will face skills shortages.

Figure D.10: Current and/or Anticipated Future Skills Shortages



N=89.

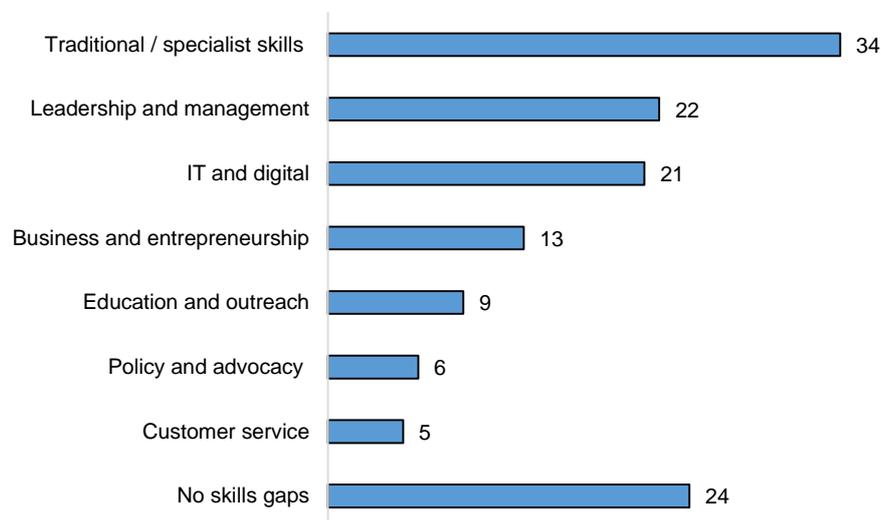
Vacancies which have been difficult to fill because of a lack of a skilled or qualified person(s) to take the job (i.e. not enough people with a particular skill to meet demand) were reported as:

- garden and landscape related roles (e.g. gardeners, and garden and landscape designers) (eight employers);
- scaffolders (five employers);
- stonemasons (five responses); and
- joiners (four employers).

Employers were more likely to report that they currently face (or anticipate facing over the next three to five years) skills gaps. Some 57 employers reported skills gaps (70%), with the main aspects being:

- traditional/specialist skills (e.g. stonemasonry, joinery, garden/landscape design, scaffolding and building surveying);
- leadership and management skills; and
- IT and digital skills.

Figure D.11: Current and/or Anticipated Skills Gaps (and Nature of Skills Gaps)



N=81. N.B. Multiple responses possible.

The main implication associated with skills shortages and/or gaps reported was that it would affect aspirations for business growth. Wider implications reported include:

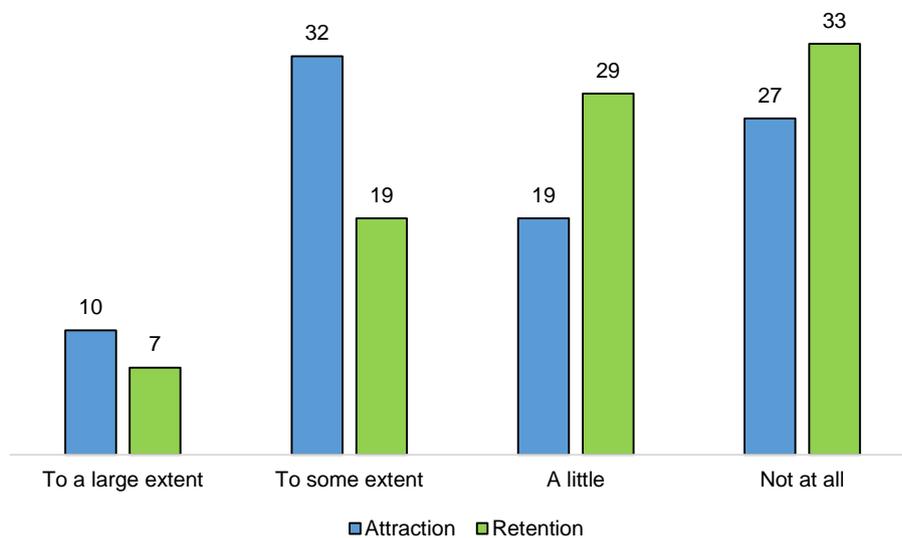
- cannot do as much work as envisaged;
- cost associated with workforce development and training and/or sourcing in people with the right skills at an added cost (e.g. sub-contractors, etc.)
- those associated with a growing ageing workforce and succession planning – including the inherent loss of traditional skills, knowledge and expertise; and
- quality of work undertaken.

Attraction and Retention of Staff

Overall, the attraction of staff is slightly more of an issue for employers than staff retention (61 and 55 employers respectively), **Figure D.12**. The main reasons for this are that:

- finding those with the required experience/skills is a challenge; and
- they are unable to offer competitive salaries.

Figure D.12: Current Challenge of Attracting and Retaining Staff

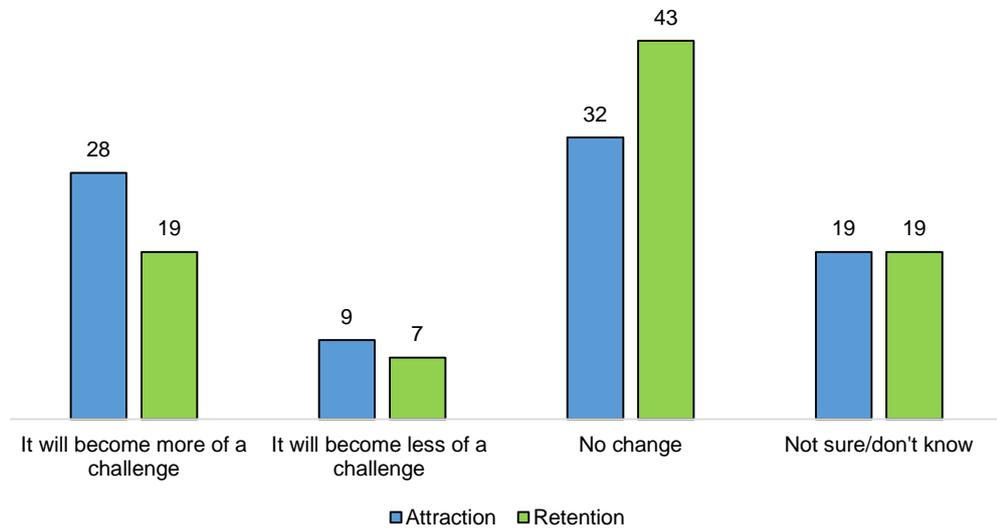


N=88.

The main reasons why employers experienced challenges in retaining employees also related in the main to the inability to offer competitive salaries, and in some cases employees moved elsewhere to secure full-time, permanent posts.

In looking to the next three to five years, the attraction of staff continues to be slightly more of an issue for employers than staff retention (28 and 19 employers respectively) **Figure D.13**. It should be noted that a relatively large number of employers were unsure about how staff attraction and retention would fare over the next few years, and this is likely in part to be linked to uncertainties surrounding Brexit.

Figure D.13: Future Challenge of Attracting Staff and Retaining Staff



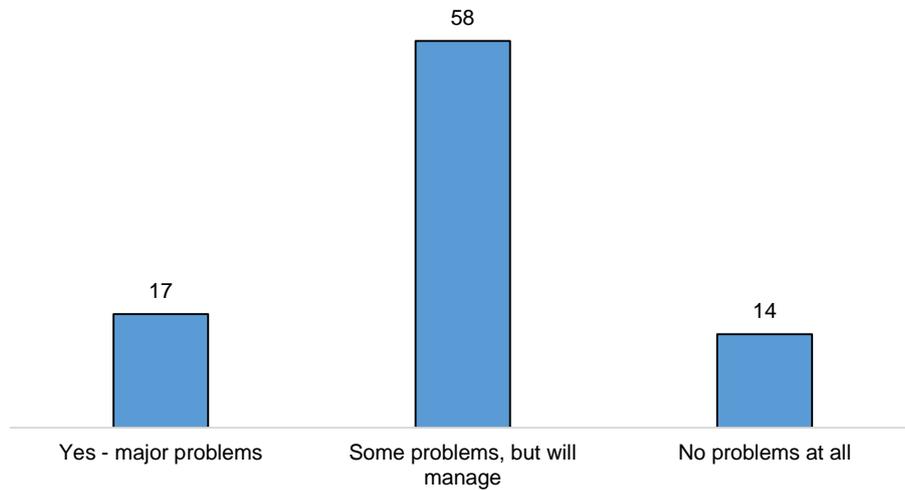
N=88.

The main challenges employers expect to face in relation to attracting and retaining staff in the future are similar to those reported on the previous page. The main difference related to a growing ageing workforce was highlighted as an issue over the medium term.

Three-quarters of employers reported that they anticipate some or major skills/labour problems in the future (i.e. over the next 3 to 5 years), however, most reported this as manageable, **Figure D.14**.

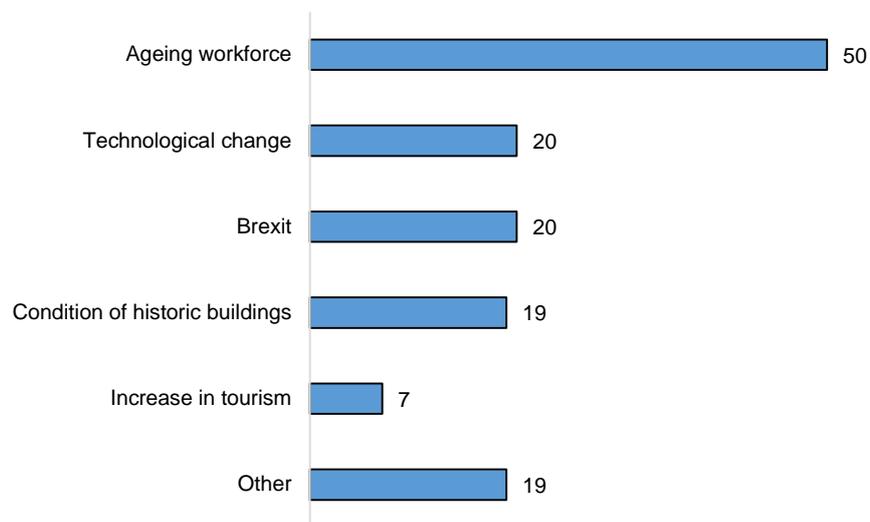
The main driver of future skills/labour problems was reported as an ageing workforce. This was followed by changes in technology, Brexit, and the condition of historic buildings, **Figure D.15**.

Figure D.14: Anticipated Skills/Labour Problems



N=89.

Figure D.15: Main Drivers of Future Skills/Labour Problems



N=73. N.B. Multiple responses possible.

“Other” drivers of future skills/labour problems reported include:

- a lack of people interested in working in the Historic Environment;
- a lack of skilled/qualified people;
- fewer training providers that focus on Historic Environment related skills (such as joinery, stonemasonry, scaffolding, curation and conservation); and

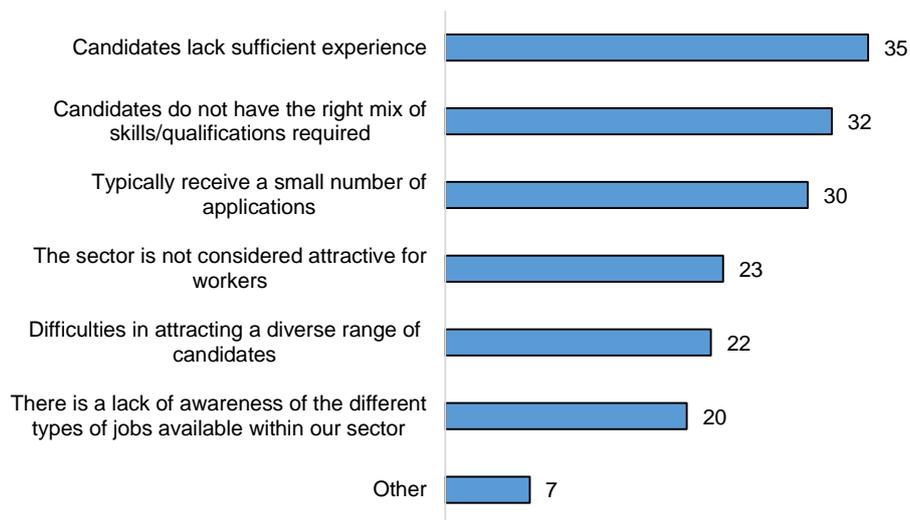
- that wages in the sector are lower when compared to other sectors.

The main occupations in which employers expect to experience skills/labour problems were reported as: garden/landscaping roles, stonemasonry, museum/curatorial/archival roles, construction, archaeology, joinery and scaffolding.

Recruiting Staff

Employers face a range of recruitment challenges, with the main challenges reported as candidates having a lack of experience and/or not having the right mix or required skills/qualifications, and that they typically receive a small number of job applications.

Figure D.16: Recruitment issues

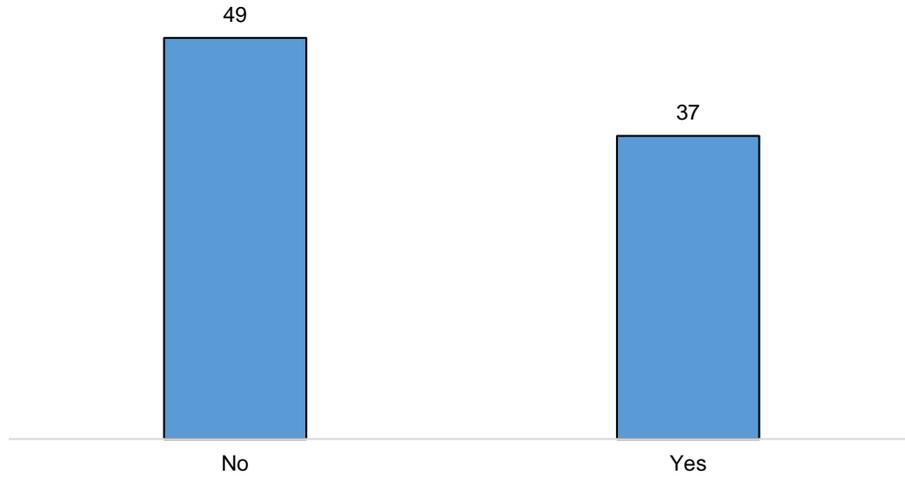


N=72. N.B. Multiple responses possible.

Other includes unable to take on new staff due to a lack of foreseeable work/resources to accommodate them.

Over half of employers reported that their business had not experienced any difficulties in recruiting for specific roles/occupations in recent years (**Figure D.17**). However, over 40% of employers had experienced problems, and it was reported that it had been challenging to recruit volunteers, gardeners, joiners, scaffolders and building surveyors in particular.

Figure D.17: Any Issues in Recruiting Staff

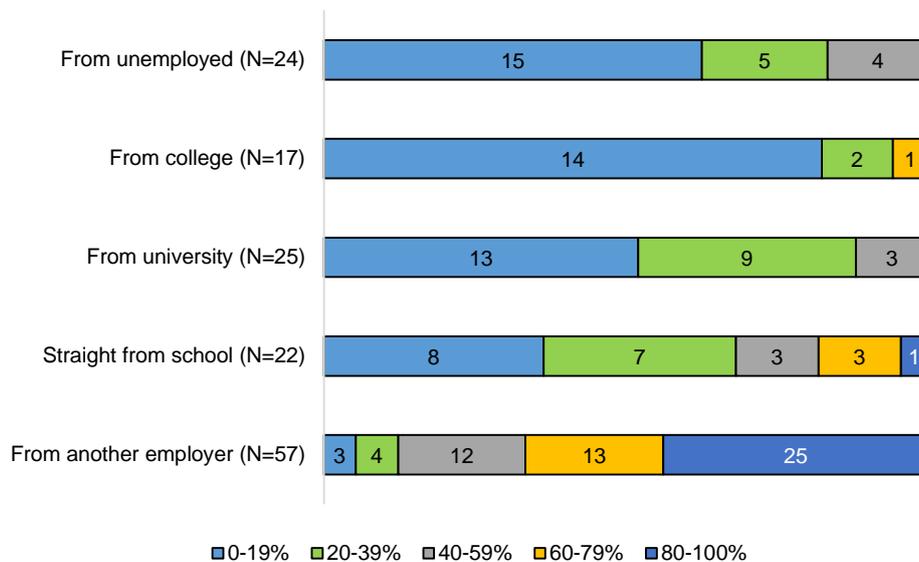


N=86.

Employers recruit staff from a range of sources – see **Figure D.18**. As well as this:

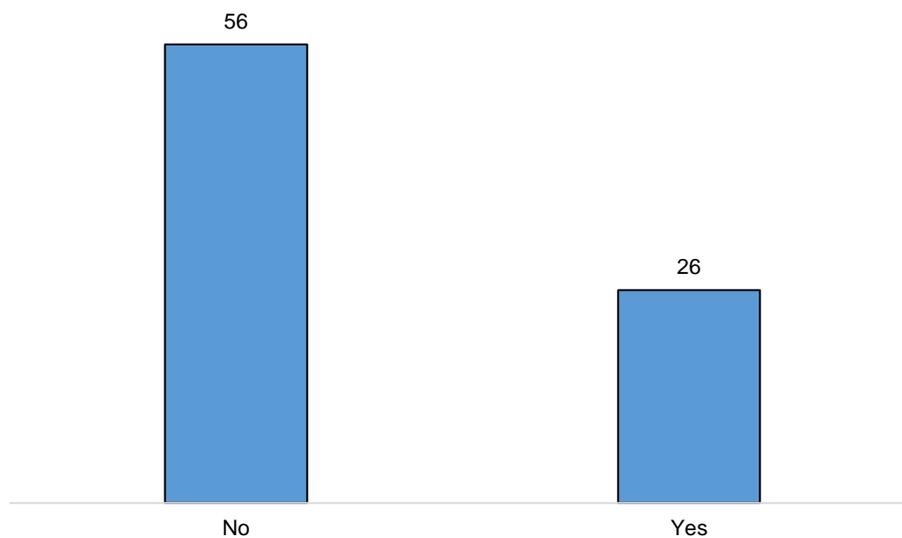
- the most common source is the recruitment of staff from other employers – and these workers typically account for over 60% of the workforce; and
- recruitment of employees from colleges happens less often – and these workers account for less than 20% of the workforce.

Figure D.18: Where Employers Recruit From



Over two-thirds of employers had not experienced difficulties in recruiting employees straight from either school, college and/or university – see **Figure D.19**.

Figure D.19: Difficulties in Recruiting from School, College and/or University



N=82.

That being said, where issues have been encountered, this has typically centred on three main challenges:

- applicants do not have the right skills/qualifications and/or experience required (eight employers);
- those at school, college and/or university are not always interested in jobs related to the Historic Environment sector (e.g. scaffolding, joinery and construction) (six employers); and
- reliability and attitude of younger workers (sick leave, work ethic, commitment) (four employers).

Skills Profile

As shown in **Figure D.20**, some of the key points to note in terms of the current skills/qualifications profile of respondent business employees are that:

- university qualifications are most common – and 17 employers reported that over 80% of their staff had achieved this level of qualification;

- work based qualifications are also common place – with 19 employers indicating that 60% of their employees have these qualifications;
- among businesses with staff who have college qualifications or are apprentices, these types of staff tended to make up less than two-fifth of their employees; and
- employers with staff with no formal qualifications reported that these employees tend to make up less than 40% of their workforce.

Figure D.20: Skills/Qualifications Estimates of Staff

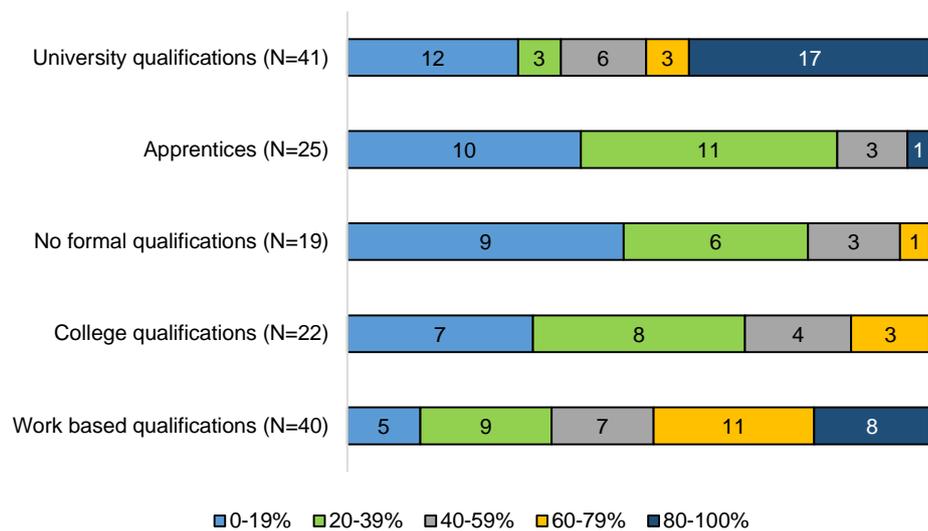


Table D.1 provides details of employers' involvement in Apprenticeships.

Table D.1: Apprenticeships

Factor	No. of responses
Know about Apprenticeships, but don't offer them	31
Already have Apprentices and increasing their involvement	23
Have Apprenticeships from time to time	7
Have Apprenticeships, but not increasing their involvement	6
Plan to start offering Apprenticeships	6
Don't know about Apprenticeships	6
Have recently stopped providing Apprenticeships	1
Have Apprenticeships, but reducing their involvement	1

N=81.

Key points note include that:

- almost 40% of employers are aware of Apprenticeships but do not offer them – lack of awareness does not seem to be an issues, and suggests that there are wider barriers that prevent employers from offering Apprenticeships (e.g. lack of time/capacity, cost, previous negative experiences and insufficient work available); and
- some 43 employers currently have or plan to have Apprentices (53%) – of note is that most of those employers with Apprentices plan to increase their involvement.

Of the 29 employers planning to increase their Apprenticeship offering or plan to start offering Apprenticeships, **Table D.2**, key findings are that:

- there is interest across the Apprenticeship Family, and in particular interest Modern Apprenticeships;
- the average number of Apprentices required is 4;
- the total number of Apprentices required is 66; and
- key job roles centre on builders, joiners, etc.

Table D.2: Type, Number and Role of Future Apprentices

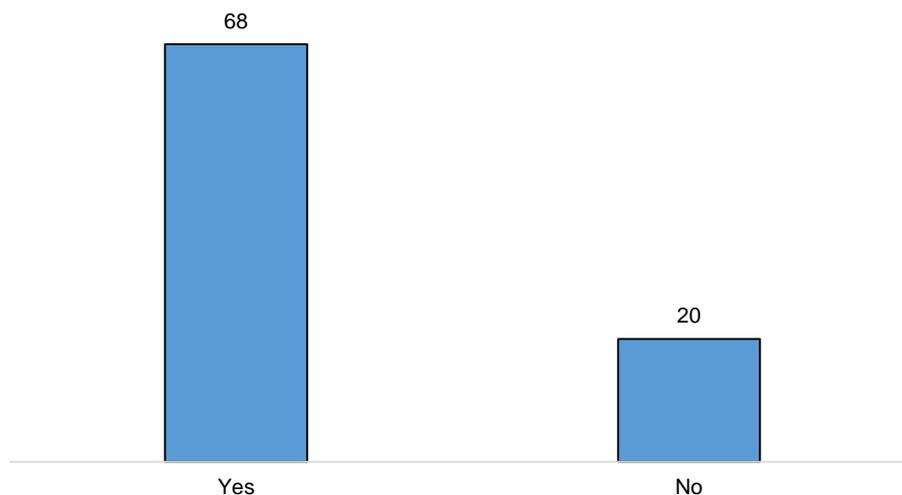
Type of Apprenticeship	Nos. of Employers Interested	Number of Apprentices Employers Interested In Having	Roles to be filled by Apprentices
Modern Apprenticeships	18	38	builder, joiner or slater/roofer roles
Foundation Apprenticeships	9	18	builder, joiner or bricklayers roles
Graduate Level Apprenticeships	6	10	project officer or trainee roles

N.B. where "Type of Apprentice" base N=29, however multiple responses possible. N.B where 'Number of Apprentices' base Modern Apprentice N=10, base Foundation Apprentice N=5 and base Graduate Level Apprentice N=4.

Workforce Development and Upskilling

A positive finding is that the majority of businesses reported that the delivery of skills and training is a key activity for their business (over three-quarters of employers) (**Figure D.21**).

Figure D.21: Is Delivery of Skills and Training Activities a Key Priority



N=88.

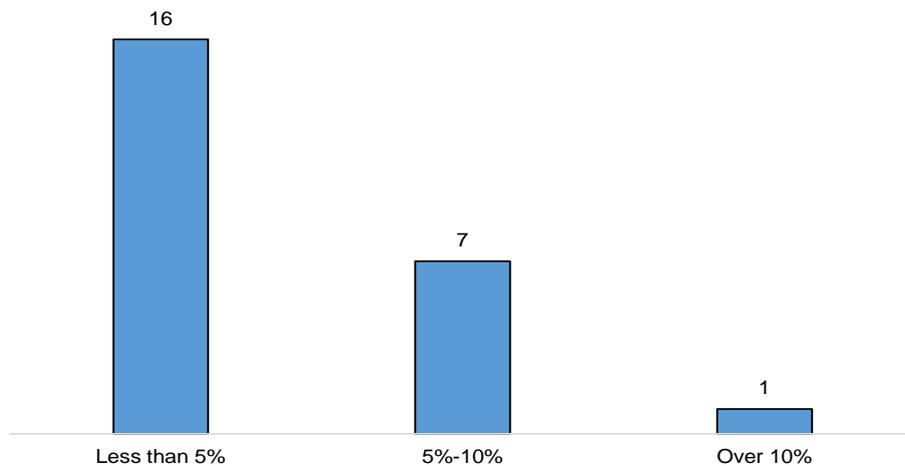
Of those who indicated that this was not a key activity for their business, reasons why this was the case included:

- a lack of financial resources (three responses); and
- no employees to train (albeit they have volunteers) (two responses).

Although some three-quarters said that workforce development was a key activity of their business, only forty employers indicated that their business has an annual budget for training (59%).

Even fewer employers were able to provide information on what percentage of their annual budget was used for workforce development, of those who did the majority reported that less than 5% was used for this, **Figure D.22**.

Figure D.22: Percentage of Annual Budget for Workforce Development and Up-Skilling

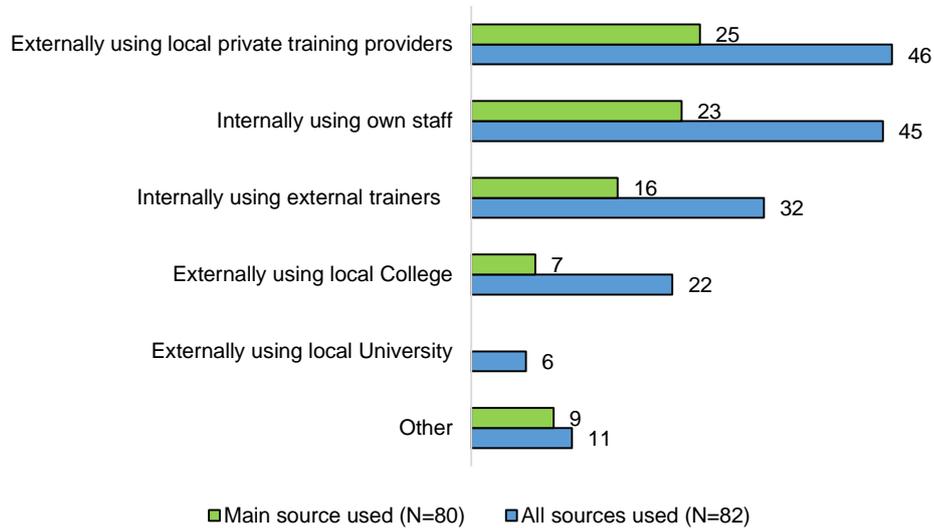


N=24.

The occupations employers felt required upskilling are similar to some of those they find difficult to fill vacancies (e.g. gardeners/landscapers, curators/archivists, labourers, stonemasons, joiners, scaffolders and building surveyors).

Employers typically use a number of sources to meet their workforce development and training needs, with private training providers and using their own staff being the most common options, **Figure D.23**.

Figure D.23: Sources Used for Workforce Development and Training

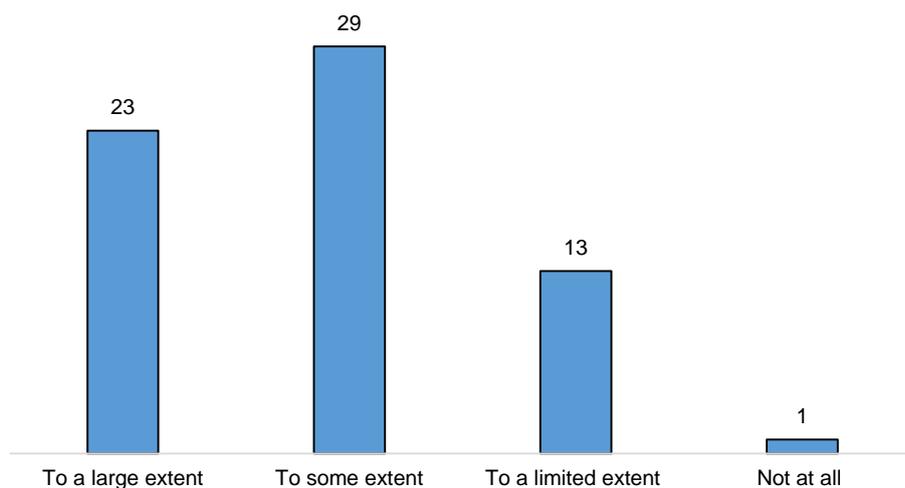


N.B. In the case of 'All sources used' multiple responses were possible.

Other includes: external national training providers, museum led courses and council run courses.

Where employers source training from external providers, over three-quarters felt that these sources meet their workforce development/up-skilling needs to a large or some extent – **Figure D.24**.

Figure D.24: External training providers meeting needs of employers



N=66.

Where there was an element of dissatisfaction, this typically centred on the provision of generic training that was not tailored/bespoke to their businesses specific needs.

Potential Solutions

Some solutions employers provided as to how current and future skills issues in the Historic Environment sector could be addressed include:

- ensuring there are more widely available/accessible training opportunities/courses in Historic Environment related job roles/occupations (such as heritage/conservation/curation/construction/joinery/scaffolding) in schools and colleges (31 responses);
- more incentives and options for businesses to take on Apprentices, including financial support and Shared Apprenticeships (17 responses); and
- raising awareness of the Historic Environment sector and the wide variety of jobs/traditional skills involved in it, to make it a more attractive sector to work in (12 responses).

Employers were asked to indicate what factors would be important in encouraging more people to work in the Historic Environment sector, **Table D.3**. Key issues are considered to be raising awareness (of traditional skills, variety of jobs, etc.), strengthening links between the education sector and industry, and the provision of workforce development and up-skilling opportunities.

Table D.3: Important Factors in Encouraging People into the Sector

Factor	No. of responses
Raising awareness and appreciation of traditional skills	63
Raising awareness of the variety of jobs available within the Historic Environment sector	52
Building stronger links between schools, Further/Higher Education, and businesses	47
Workforce development and upskilling opportunities	47
Opportunities for continuous professional development training i.e. in-work training	34
Raising awareness of the opportunities for career progression	34
Talent attraction and retention activities	28
Establishment of Work Based Learning programmes	24
Opportunities for post-graduate education	21

N=85. N.B. Multiple responses possible