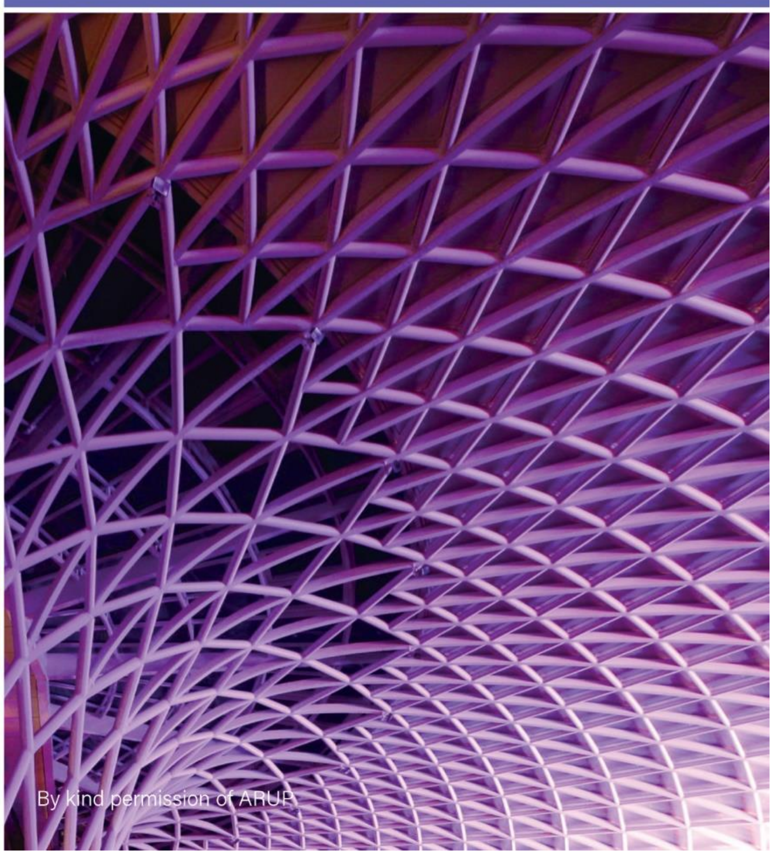
CITB REPORT

CONSTRUCTION AND BUILT ENVIRONMENT

Skills Transferability in the UK

Research Report

A CITB Report to understand the potential of skills transferability into, and within the UK construction sector.



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Study prepared by Pye Tait Consulting from a commission by CITB.

The views expressed by research participants do not necessarily represent those of their employers.

Contents

Figures

Tables

Executive Summary

The main aim of this research is to understand the potential of skills and labour transferability across construction, and from comparable sectors into construction. This evidence will be used to prioritise and develop actions to ultimately help the industry with workforce planning.

For the purpose of this research, the report author defines transferability as:

The ability to usefully carry skills, knowledge and behaviours from one role/sector/location to another role/sector/location which might then be insufficient for the new role/sector or location but are perceived to be relatively 'easily' up-skilled or developed.

This study finds there is potential for transferability[1] between skills/occupations and between sectors, but there appears to be little appetite for this among employees and employers on a sector-wide basis. For example, on paper there appears to be good potential for transferability between skilled and semi-skilled trades. The evidence also suggests that roles in site management and project management are the most straightforward transfer to construction from other sectors, because of the need for transferable 'soft' skills' such as problem solving, effective communication, leadership and team working, which can be acquired from a wide range of occupations and sectors.

However, the culture of the sector, the way training is delivered (in silos and trade-specific) and opposition from unions act as obstructions to multi-skilling and transferability. Motivation for geographical mobility has waned in recent years, which could prove challenging for employers in years to come. Offering the likes of relocation expenses, accommodation or similar, is unlikely to be the deciding factor. Employees are more inclined to consider the cultural fit, sustainability of the new role/company and the impact on family life of either a temporary or permanent relocation.

It seems that at the time of writing, transferability of labour is unlikely to happen on a widespread basis in the construction sector, regardless of any type of intervention intended to encourage it.

1 See Tables 5 and 6 in Appendix 1

It is not the norm in the construction sector to proactively take any kind of action to underpin transferability of labour, on an on-going basis. Primary evidence obtained for this research finds that in the last 2 years, 62% of employer responses show no actions were taken to encourage workers to transfer between trades. Over half of the responses show employers take no action to recruit construction workers from other parts of the UK, or from other sectors.

Where employers do generally act, it is typically in response to a specific project need, rather than something which is a standard part of recruitment practice. Actions tend to be of a practical nature, to pay for training and/or qualifications to support up-skilling or attainment of an industry card so the employee can work in a particular context. The most common/successful action reported is to pay for training and/or qualification/card to assist with up-skilling. Actions such as increasing salaries are more likely to appeal to younger workers without family commitments, rather than being a solution that would apply to the whole workforce.

Where dedicated schemes exist to support transferability, most seem to target ex-armed forces people into construction. Companies doing this tend to be medium and large companies that have the time and resource - either operating their own schemes or working in conjunction with third parties. There are examples[2] of where this has worked successfully, not just because of the highly transferable skillset, but also because ex-military personnel usually have funding allocated to pay for their re-training, so the employer does not have to make that investment. However, the transition is not just about re-training, and it takes a certain amount of time and resource to support individuals as they adapt to civilian life. This is not always successful in the long-term, and so people leave.

Transferability between sectors is not always successful. The most notable example, drawn from evidence for this study, is the transition of oil & gas workers into construction. While on paper, oil & gas workers have a transferable skillset, in practice construction sector employers say they are reluctant to invest time and money into training people they expect to lose when the oil & gas sector has a resurgence. A dedicated government training fund offering money to up-skill oil & gas workers in Scotland, has not, to date, reported any sizeable moves into the construction sector[3].

Construction is not the only sector that is, and will continue to, experience skills gaps and shortages. In the context of skills constraints in other industries, transferability cannot be viewed as the sole or main solution to help the industry with workforce planning and recruitment. There is a need to identify and capitalise upon other opportunities.

Recommendations for CITB

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2 See section 4.4.4

3 Based on qualitative evidence received from the fund's managers

1. There appears to be limited appetite on a sector-wide basis for ***proactively*** encouraging transferability among most construction sector employers, although it is more common to see this among larger companies. It is important that CITB seeks, where possible[4], to raise awareness of the potential for transferability in the sector, so that businesses of all sizes understand how they could harness opportunities that present themselves. As the most successful action in support of transferability is to pay for up-skilling/training, it is also important that employers understand the scope of grant funding available for this.

   This should be achieved by:

   a. Raising awareness of the most highly transferable skills/occupations (see Tables in Appendix 1), for example on GoConstruct (see recommendation 2);
   b. Working directly with employers to help them maximise grant monies;
   c. Working with conduits such as independent training providers and colleges who can educate employers to maximise their grant funding to access training;

2. CITB should publish a map of the routes into construction on the basis of transferable skillsets, using the mapping in this study and the information used on GoConstruct. CITB should aim for all construction sector vacancies to be published on GoConstruct (even if on other job sites), to cement its position as a ‘go to’ site for construction sector careers.

3. CITB should seek to understand, and maintain a watching brief, about actions being taken in other sectors which are experiencing skills gaps and shortages, and those which are anticipating notable recruitment difficulties because of Brexit. This will identify any actions that could be utilised in the construction sector. As a minimum this should include manufacturing, health & social care, farming and hospitality. Some employers in these sectors are already providing door-to-door transport to work and/or housing, as ways of attracting staff.

4. Alongside these actions, there is a need for CITB to maintain its efforts to attract more people into the sector, by promoting construction sector careers to young people, improving the image of the sector and seeking to attract more females into the industry. Table 2 (see Appendix 1) shows the range of construction sector occupations working in other sectors – skills that could be drawn back into the industry if employees perceived an attraction to return.

Recommendations for CITB and other industry stakeholders

5. An important recommendation to support transferability is the recognition of prior learning. CITB should consider working with industry partners such as trade

4 Although we recommend that industry takes a leading role on this

federations, to develop a scheme that will recognise and accredit prior learning, to eliminate this barrier for those people who are very close to entering the sector. CITB should also consider developing ‘bridging’ or top-up conversion courses to enable and fund skills transition for people who possess relevant transferable skills, but may require a short training intervention, for example to obtain a CSCS card. It will be necessary for any such training to be short, sharp and focused, as the aim is to avoid the need to complete a full training course and speedily ‘passport’ the individual into construction. This should only be considered where prior learning cannot be recognised – for example for health & safety reasons.

6. CITB should maintain a tracking approach to monitoring job vacancies by location and occupation, using CSN and other real-time vacancy data, to then work with colleges and training providers on an on-going basis, to share intelligence and enable them to react speedily to the demand for up-skilling. For example, forecasting a shortage of bricklayers in Hull would enable CITB to inform local/regional colleges and training providers of this need to promote existing courses and conversion courses where developed, to learners able to transition.

7. Over the medium and longer-term, CITB and the industry as a whole needs to consider the extent to which investment will need to be made in machinery, artificial intelligence and robotics to fill the employment gap, especially where there is much reliance on lower-paid migrant workers. Greater digitalisation of the sector will have an impact on skills and training needs, and CITB will need to respond to ensure qualifications and standards remain fit for purpose against this backdrop of external change.

8. The CSCS card scheme administrators should give strong consideration to enabling aspects such as prior learning and Continuing Professional Development (CPD) to be taken into account. This could be a valuable means of enabling workers from other sectors to come into construction more quickly and easily.

Recommendations for industry

9. Industry, and in particular large construction sector businesses, should raise awareness of the potential for transferability, in light of changing economic and political conditions such as Brexit, which may make it more challenging to fill skills gaps and shortages. This could include proactive promotion of the value of transferability as well as case studies to provide evidence of how this can work in practice. It should also emphasise the value of seeking to recruit people who can be trained and developed, rather than looking only for people with a precise skillset to match the company’s needs.

1. Research aims and approach

1.1 Aim of the research

Peaks and troughs in the output of individual sub-sectors have been an underlying and consistent trend in the construction sector for many decades. Economic slowdown is a consequence of higher inflation and slow wage growth affecting consumer spending and investment. Overall, therefore, the UK has become one of the slowest growing economies within the G7 countries (which together represent more than 62% of the global net wealth)[5].

There has been a downward revision in the annual average recruitment requirement for the construction sector in the last few years - from 46,500 between 2016-2020, to 35,740 between 2017 and 2021, and now 31,600 between 2018-2022[6]. Some sub-sectors of the construction industry are forecast to grow, whilst others may contract during this forecast period, however, over the next five years the industry is still forecast to need an extra 160,000 workers[7].

Furthermore, the possible impacts of Brexit – particularly on labour supply – on the construction industry means it is important to identify non-construction occupations and sectors which could transfer into the construction industry in the context of tighter controls on migrant labour. Many construction companies are delaying investment decisions due to uncertainty around Brexit[8].

CITB therefore requires an assessment of the potential of skills and labour transferability across construction, and from comparable sectors into construction. The main aim of this research is to prioritise and develop actions to ultimately help the industry with workforce planning in the forthcoming period of anticipated change.

1.2 Methodology

This study has used a mixed-method approach, collecting and analysing primary and secondary sources of qualitative and quantitative data to inform the final report (Figure 1). This approach was identified as the most effective and efficient means of obtaining a mix of rich qualitative data and comprehensive quantitative data to deliver the research objectives.

5 CSN (2018) Final forecast briefing notes
6 CITB (2018) Industry Insights: Construction Skills Network Report
7 CITB (2018) Industry Insights: Construction Skills Network Report
8 CITB (2018) Industry Insights: Construction Skills Network Report

Figure 1 Methodology

Desk-based research	Analysis of existing sources of secondary data; occupation and skills mapping; sector analysis
Depth interviews	In-depth telephone interviews undertaken with a sample of 67 stakeholders and employers in the construction sector and other industries spanning manufacturing, engineering, oil & gas and utilities (interviews took place between August and November 2017)
Online survey	Survey to capture primary quantitative and qualitative data from a sample of 420 construction sector employers (data obtained between October and November 2017)
Face-to-face consultation	Round table discussion, which took place in the Midlands in November 2017

2. Employment and the need for skills

2.1 Overview of the sector

The focus of this research is on the construction contracting sector in the UK, which spans SIC codes 41 (construction of buildings), 42 (civil engineering) and 43 (specialised construction activities). Also included in scope are SIC codes 71.1 (architectural activities) and 71.2 (engineering activities and related technical consultancy). The sector is dominated by micro businesses (Table 1).

Table 1 Breakdown of the UK construction sector by organisation size and nation (2017)

	England	Northern Ireland	Scotland	Wales
Micro	262,350	9,030	17,945	11,740
Small	13,685	585	1,560	745
Medium	1,530	65	240	80
Large	250	5	40	5
TOTAL	**277,815**	**9,685**	**19,790**	**12,570**

Source: NOMIS Official Labour Market Statistics, UK Business Counts - enterprises by industry and employment size band

In 2015, the construction contracting industry comprised over 314,000 enterprises[9]. Sector turnover was approximately £257 billion in 2016. Turnover increased by 8% between 2015 and 2016. Approximate gross value added (aGVA) increased by 5.4% (£5.0 billion). This was the sixth consecutive year of growth in aGVA for this sector.[10]

2.2 Growth forecast - construction sector output

The latest Construction Skills Network (CSN) data indicate that growth is expected to continue in the construction sector through to 2022.

Total construction output is projected to increase at an average annual rate of 1.3%, below the GDP growth rate of 2%, between 2018 and 2022. Considering that over the last four years, construction has grown faster than the economy, construction employment is now expected to grow at 0.5% a year on average over the five years to 2022.[11]

9 Annual Business Survey – release date 9 November 2017. Data relate to SIC codes 41, 42 and 43 only
10 Annual Business Survey – release date 9 November 2017
11 CITB (2018) Industry Insights: Construction Skills Network Report

Infrastructure

CSN data forecasts the strongest growth to be in infrastructure, underpinned by three major projects: High Speed 2 (HS2), Hinkley Point and Wylfa (nuclear builds).[12] Construction sector employers and stakeholders interviewed for this study agree these large-scale projects offer substantial opportunities for growth in the sector. Annual average growth of 3.1% is expected in infrastructure between 2018 and 2022. Growth is forecast to peak in 2019 at around 9%, due to the start of work on HS2 and Wylfa, as well as progress made on Hinkley Point.

"The main driver (of growth) is government infrastructure"

Large construction company, Wales

Several respondents specifically referred to large projects to construct or upgrade highways as catalysts of growth. Respondents say these factors are generating high demand for skilled trades – notably bricklayers, plasterers, carpenters and joiners. Existing skill shortages are well documented, particularly for bricklayers; respondents say these shortages will intensify. Commercial roles such as quantity surveying, estimating, planning and procurement are becoming harder to find.

Housing

Growth is forecast in public and private sector housing (2.2% and 2.8% average annual output growth respectively). In the Autumn 2017 Budget £15.3bn of new 'financial support' for housing was pledged to support both the public and private sectors. Another £2bn was allocated in October 2017 to provide 25,000 new council homes from 2020.

Furthermore, the continuing need for new housing in the UK should in theory be a major driver of growth. The government 'target' of a million new homes by 2020[13], requiring new homes to be built at a theoretical rate of 200,000 annually, will not be met.

In England, for example, net addition of new housing is not reaching pre-recession levels: in 2007/08 there had been 200,300 new houses built compared with 155,080 in 2014/15[14]. UK house-builders interviewed agree demand for housing is a critical driver, but say the extent of growth will be controlled to a considerable extent by the availability of public funding.

"I think demand for housing will be increasing and demand for sites will push up the need for site workers and professional trades"

Large house-builder, England

12 CITB (2018) Industry Insights: Construction Skills Network Report
13 Since dropped as a target post the referendum in 2016
14 DCLG, Live tables on net supply of housing, November 2016

Repair and maintenance

The repair and maintenance sector is forecast to achieve average annual output growth of 1.1% between 2018 and 2022. Housing repair and maintenance is expected to be stronger than longer-term trend growth at an average annual output growth of 1.2%.

Industrial

Average annual output growth is forecast to be 1.2% between 2018 and 2022. Limited demand is expected for factory facilities during this time. Demand for new warehousing facilities is forecast to be higher – with annual average output growth in the transport and storage sector expected at 2.2% over the five years.

2.3 Decline forecast - construction sector output

Non-residential

Limited growth is forecast for the non-residential building sectors – this is largely attributed to decline in growth within the healthcare and education (schools) sub-sectors.

Commercial

Commercial construction is expected to decline between 2018 and 2020, but forecast to return to growth after this point. This is attributed to the cautious attitude adopted by investors and developers because of the uncertainties associated with Brexit. The retail sector is still experiencing a shift away from bricks and mortar towards e-commerce, affecting the demand for construction of shopping centres and stores.

Employers taking part in interviews found it difficult to predict where decline in output might be, citing the uncertainties of Brexit and availability of public funding.

2.4 Regions and nations

In the devolved nations, the new nuclear build at Wylfa and the M4 upgrade are expected to be key drivers behind annual average output growth of 4.6% in Wales – the strongest growth forecast across all regions and nations in the UK.

Infrastructure projects in Scotland have declined in recent years, with projects including the Queensferry Crossing and large-scale motorway upgrades completed or due to complete imminently. Average annual output growth is forecast at 0.1% overall, but this increases to 1.4% if the infrastructure sector is excluded.

In England, steady growth is also forecast in the South West, underpinned by Hinkley Point. Greater London is expected to experience average annual output growth of 1.5% through to 2022.

2.5 Growth forecast - construction sector employment

Construction employment growth is expected to have increased by 2.6% during 2017, therefore between 2013 and 2017, construction employment grew by around 226,000.

Employment growth is forecast to slow down after 2018, averaging 0.5% annual growth per annum between 2018 and 2022. Total construction employment is projected to be 2.77 million by 2022 – around 3% below the previous peak experienced in 2008.

2.6 Digitalisation of the construction sector

The UK tech industry has recently attracted a huge amount of investment, testimony to the wide-ranging innovation and contribution the sector makes to the economy. Every sector needs skills in digital and IT, to varying degrees – construction is no exception. However, skilled digital workers attract high salaries, and with margins typically squeezed in the construction sector, it will be challenging for employers, even in large companies, to meet these salary demands. Furthermore, understanding the skillset they will need – now and in the future – is not always obvious to construction sector employers. Equally it is a challenge for skilled workers to understand the opportunities and needs within the construction sector.

3. The challenges of transferability

For the purpose of this research, the report author defines transferability as:

The ability to usefully carry skills, knowledge and behaviours from one role/sector/location to another role/sector/location which might then be insufficient for the new role/sector or location but are perceived to be relatively 'easily' up-skilled or developed.

By commissioning this research, CITB sought to understand the scope for transferability between different sectors of the construction industry, and from other industry sectors such as manufacturing. The aim was to develop a transferability typology, identifying a range of actions which may assist transfer of labour and skills in the contexts of;

i. geographical mobility
ii. transferability between different skillsets/occupations,
iii. between sectors.

It is clear from the evidence analysed for this study that construction sector employers do not typically set out to take any specific action in support of transferability. For example, primary evidence obtained for this research finds that in the last 2 years, 62% of responses show no actions were taken to encourage workers to transfer between trades. Over half of the responses show employers take no action to recruit construction workers from other parts of the UK, or from other sectors.

Where employers do act, it is of a practical nature, to pay for training and/or qualifications to support up-skilling or attainment of an industry card so the employee can work in a particular context.

A small number of respondents say they pay a higher salary for a particular skillset/ occupation if it is in short supply. This is no different from the pan-sector concepts of an employer providing training to new employees to help the transition into the new role, or an employer increasing salaries to remain competitive in the marketplace.

Although some large construction sector businesses have their own HR/recruitment strategies to attract people to the sector/their business, these do not generally specifically focus on achieving movement between sectors, geographies or occupations.

Furthermore, any such actions tend to be unique to a particular organisation, rather than representing the norm across the sector. Actions are not being planned or taken with intent to consciously facilitate transferability between geographies, skillsets/occupations or sectors - with the main exception to this rule being the various initiatives in place to facilitate a move into the construction sector from the armed forces.

As such, it is challenging to distinguish actions in support of transferability in the construction sector into the categories of geography, skills/occupational and sector transferability to develop a definitive typology. The concept of transferability in this context is not sufficiently homogenous to deal with such categories. For example, this could include a carpenter working in a domestic setting, moving to a large construction site, or an agricultural labourer with manual skills to use equipment safely, but under a different health & safety regime and in different conditions from construction. These examples of transferability taking place in practice do not necessarily equate to clearly defined set of actions in the form of a typology. To do so may result in a misleading picture – for example suggesting that taking a specific action would result in an increase in recruitment – which may be the case in one large business operating in a certain sub-sector, but would not apply to the industry as a whole.

Therefore, the remainder of the report sets out the evidence obtained as to the type/range of actions that employers may ***choose*** to take concerning transferability, but it should be borne in mind that these should not be interpreted as typical for the sector as a whole.

4. Labour and skills transferability in the construction and built environment sector

The following sections describe the actions that certain actors in the sector may *choose* to take concerning transferability.

4.1 Geographical mobility: the need and appetite for

Research conducted by CITB in 2016 suggests that increased skills gaps and shortages creates a knock-on effect requiring the workforce to be more mobile.[15] The (as yet) unknown impacts stemming from Brexit could also create labour pinch points, particularly in the South-East and London. Around half of London construction firms report they are dependent on non-UK labour.[16]

However, research on workforce mobility undertaken in 2016, shows greater stability in the workforce since 2012. A higher proportion of workers have worked within the same region/nation for their entire construction career (44% cf. 33% in 2012).[17]

Qualitative evidence obtained from large employers suggests the workforce at skilled trade/operative level is less inclined to travel long distances for work. Large businesses with multiple sites can cater for this when the economy is buoyant and they have a range of developments.

"Our experience is that people don't like to travel too far. They don't move that often and they don't move very far. They always want to work within striking distance of home. We're fortunate that we can cater for that. In any area we have many developments at various stages of completion. Once they come to an end we have to find them work on another site. It's cost effective for us because we don't have to pay for accommodation"

Large construction business, England (operating UK-wide)

Large-scale infrastructure projects offering guaranteed work for extended periods of time encourage greater geographical mobility – particularly from rural to urban areas. A good example of this is Hinkley Point drawing labour from Wales. This can have a knock-on effect for local employers who find their labour pool diminishes.

Respondents say that family commitments tend to influence the willingness to travel, and how far to travel. Employers say that over the last few decades there has been a steady increase in the number of females in the workplace, as well as a stronger likelihood that both

15 CITB (2016) Skills and training in the construction industry
16 CITB (2017) Migration and construction. The view from employers, recruiters and non-UK workers
17 CITB (2015) Workforce mobility and skills in the construction sector

parents in a family are working. There is a need for greater flexibility to manage childcare. A higher salary for working away from home is not necessarily motivating the workforce. The Chartered Institute of Personnel and Development (CIPD) suggests that factors such as the culture of the organisation and capacity to manage the impact on family life may be more important to employees considering a temporary or permanent relocation, than salary[18]. A number of interviewees say workers would accept a role with a competitor rather than travel or relocate, even if the salary was lower and even though this makes for a more volatile career path. At skilled trade/operative level, employers do not see the value in offering permanent accommodation because the workforce is disinclined to be away from home.

"We are seeing a decrease in motivation to be mobile, compared with 10-15 years ago. This is driven by changes in society – men are less prepared to live away from home for long periods of time. People don't want to relocate, they would rather get local jobs"

"Everyone wants to be home for the weekend"

Feedback from large employers

Inhibitors of workforce transferability in Scotland - geography

Several large-scale Scottish infrastructure projects have recently come to an end or are close to completion. These projects, that took place over the last few years, created a situation where construction sector workers could remain in one place for some time. Historically the sector has been fairly mobile in Scotland and travel was considered to be part of the job. Major infrastructure works meant this mobility was no longer the norm. Now, there is a greater reluctance to spend extended periods of time travelling or living away from home. A further issue is the rate of pay available – with one employer citing £35 for an overnight stay allowance which they argue is simply not feasible. Increasing rates of pay and allowances of this nature drives costs up for businesses – but this is necessary to offer better working conditions and thus attract and retain staff.

It becomes more challenging for workers to stay in their local area during times of recession – an economic downturn is a major driver of geographical mobility as recruitment freezes and the workforce becomes compelled to go where the work is. The availability of work can also force movement to some extent, or can also be a driver for people to leave the construction sector in favour of local work in a different industry.

[18] CIPD (2017) Employee engagement and motivation [factsheet]

“If the next project is 100 miles down the road – then that’s their next job. If there are no other local opportunities, then they’ll [workers] go for that. You could say that’s forced”

Large house-builder, Wales

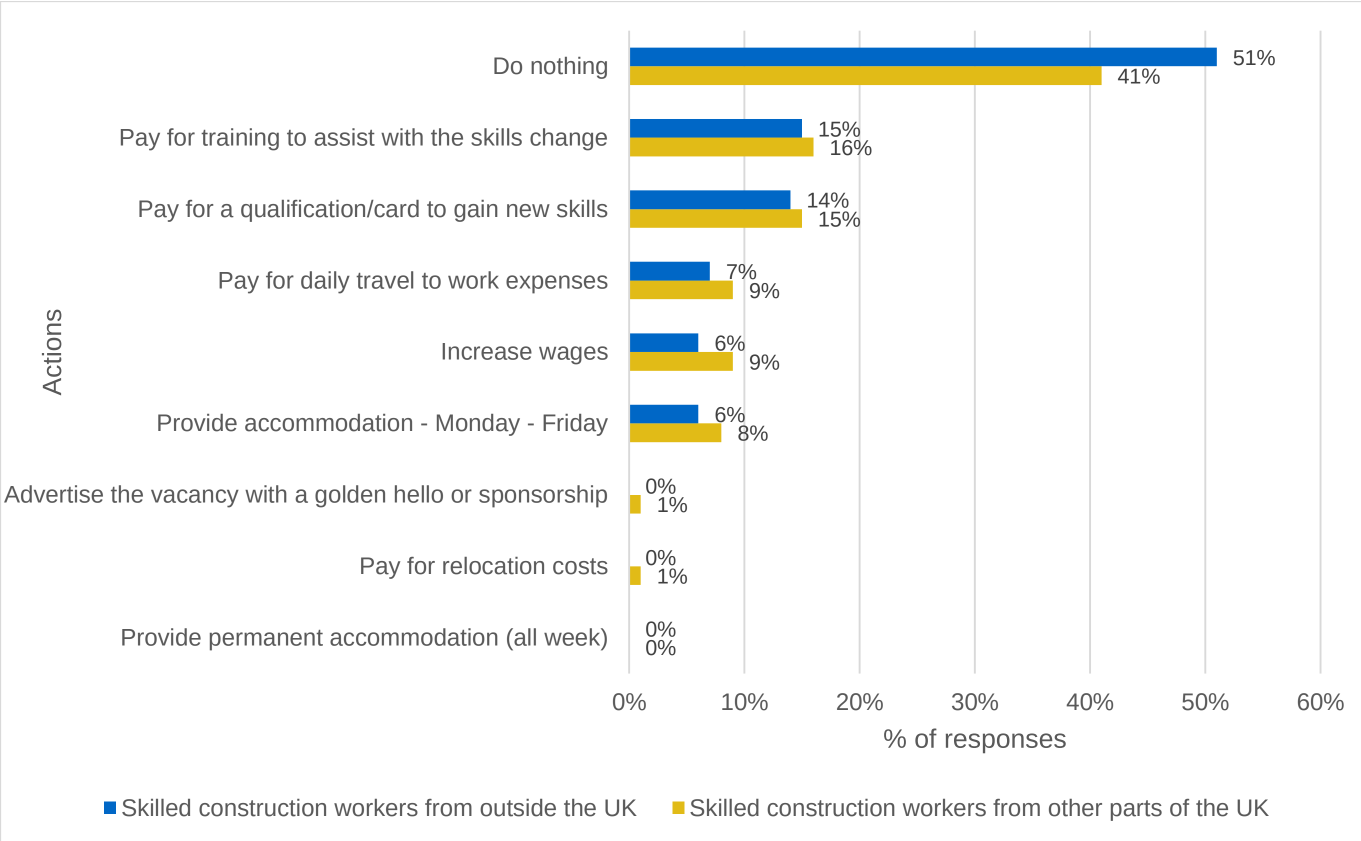
It can take longer to build up a network of contacts for professional roles, as they can be contracted to fulfil longer contracts. Some professional occupations are accustomed to being very mobile because of the nature of the work – for example in the civil engineering workforce where large highways projects may last for several years. In such cases regular travel is less likely than a temporary relocation to the area.

4.2 Recruitment from within, or outside of the UK

4.2.1 Skilled trades/operative roles: actions

As part of this research, Pye Tait Consulting surveyed over 400 employers to ask about the actions they typically take to attract skilled tradespeople or operatives into their business, spanning various scenarios. Just over half of all responses show employers take no action at all to recruit from outside the UK and 41% of responses indicate employers do nothing to attract skilled workers from other parts of the UK. Around 15% of responses show employers will pay for training to support up-skilling, or for a qualification or CSCS card, to help recruit into their business. Virtually no respondents will consider paying for relocation costs, for permanent accommodation, or offering some kind of ‘golden hello’ for joining the business (Figure 2).

Figure 2 Actions employers typically take to recruit skilled trades/operatives from other parts of the UK and from outside the UK



Base: 589 responses (skilled construction workers from outside the UK); 532 responses (skilled construction workers from other parts of the UK)

Few respondents have taken any kind of action to recruit skilled trades/operatives into their business over the past 2 years – either from outside the UK or from other parts of the UK. Of those that had (less than 8% of all respondents), the most successful action taken to help recruit, is paying for training to assist with the skills change.

Of the small number of respondents that have recruited skilled tradespeople/operatives in the last 2 years from other parts of, or outside of the UK, they most typically recruit for:

- labourers;
- plasterers;
- bricklayers; and
- carpenters.

Qualitative evidence echoes the survey data – culturally, it is not the norm for construction sector employers to offer specific benefits or higher salaries to attract skilled workers to their business. Most SMEs interviewed say they recruit from their local area only, and often through existing networks or word of mouth. If this is challenging, then they turn to other solutions such as recruitment agencies, even though this can be costly. The preference is to avoid increasing wages, as this could set a precedent.

"We would hire temporary staff from an agency rather than inflate our own wages on a permanent basis. Agency costs are expensive but short-term"

Medium-sized construction company, England

Some choose to turn work away if they cannot find skilled people in their locality.

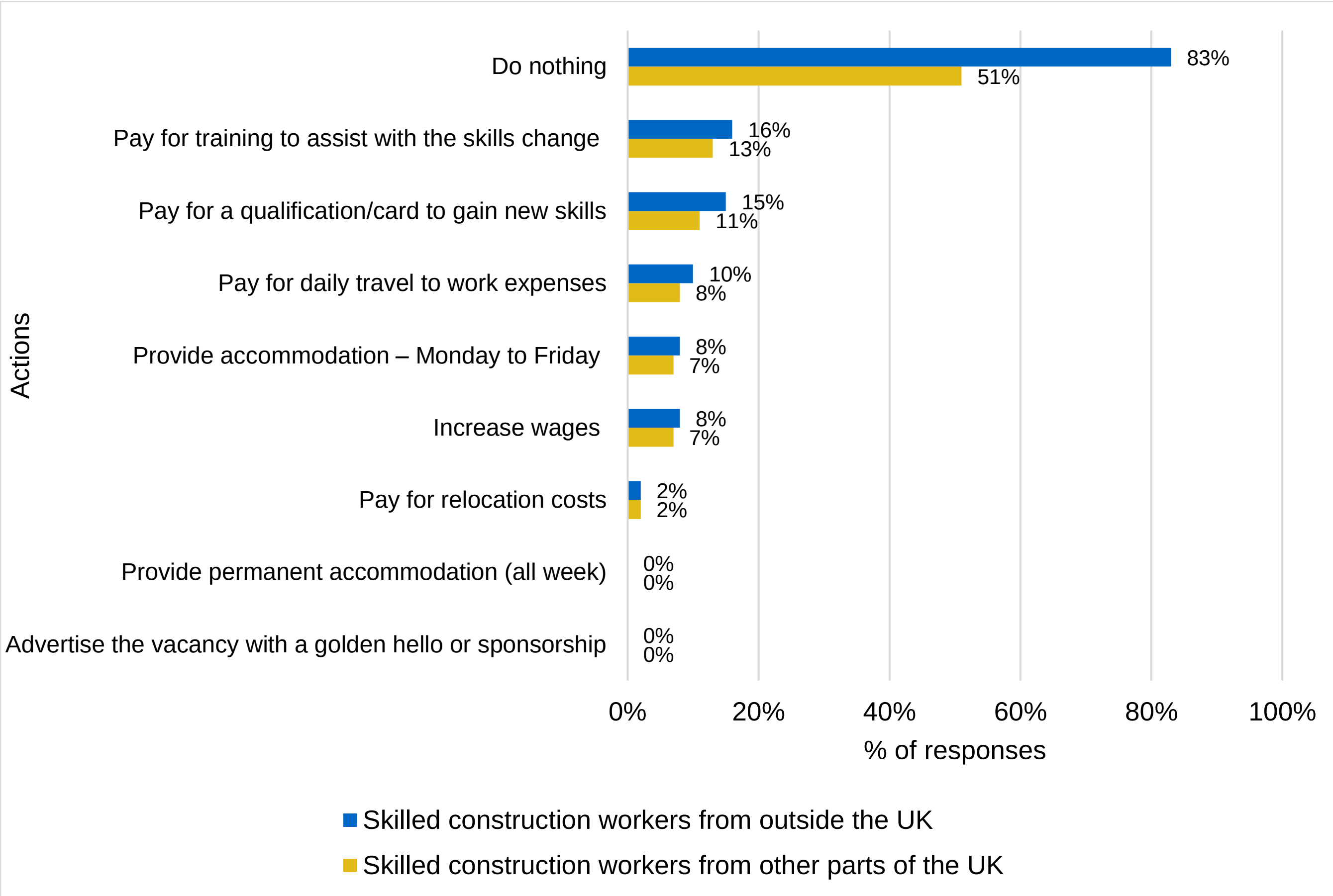
"If we cannot find staff in the local area, I'm not prepared to pay more, as the recruit might turn out to be useless and cost me more money. I'd turn the work down rather than take that risk"

Small general-construction business, England

4.2.2 Professional and Supervisory/Management roles: actions

There are few differences between actions taken to recruit at skilled trades/operative level and for professional roles. Over 80% of responses suggest no action would be taken to recruit people into professional roles from outside of the UK. Over half of all responses indicate nothing would be done to help attract people into professional roles from other parts of the UK. As with skilled trade/operatives, approximately 15% of responses show willingness to pay for training to upskill new recruits from outside the UK into professional roles, or pay for a new qualification or CSCS card. A slightly lower proportion of responses (c.12%) indicate similar actions would be taken to recruit from other parts of the UK (Figure 3).

Figure 3 Actions employers typically take to recruit professional/supervisory workers from other parts of the UK and from outside the UK



Base: 366 responses (skilled construction workers from outside the UK); 563 responses (skilled construction workers from other parts of the UK)

Around 10% of respondents have taken any kind of action that encouraged people into professional roles from a different location. The most successful action taken is to pay for training to assist with the skills change.

Less than 30 respondents have recruited people into professional roles from other parts of the UK in the last 2 years. Of these, most were into project management or supervisory roles, and the remainder were employed as architects. Less than 10 respondents have recruited from outside the UK into professional roles in the last 2 years.

Medium and large employers, particularly in Scotland, say that a strong incentive to join their organisation is a positive, supportive culture, with excellent working conditions on and off site. A favourable reputation as an employer can attract people in professional roles without the need to offer higher salaries.

4.3 Transferability between skillsets and occupations

Research conducted for CITB in 2016 found 48 surveyed employers consider certain construction roles have transferable skills. The strongest links identified were between those with installation and completion/finishing skillsets – for example bricklayers and plasterers[19].

Occupational and skills mapping conducted for this study (see separate annex) also clearly shows multiple professions have a transferable skillset including:

- roofers;
- painters and decorators;
- plasterers;
- bricklayers;
- carpenters; and
- general operatives.

Data collected for CITB in 2015 found that skilled tradespeople such as painters and decorators, carpenters and joiners were least likely, of all occupations surveyed, to work in more than one trade. These data also show a high proportion of labourers/general operatives can transfer into the roles of banksperson and plant/machine operative.[20] Plant operatives and site managers were most likely to have experience in more than one trade.

The 2015 research also found the main occupations of people entering the construction sector who had previously been in employment had transferable skills such as manual operation of machinery, use of hand tools and use of equipment. The three occupations most commonly reported among workers prior to entering construction were:

- process, plant and machine operatives;
- skilled metal and electrical trades; and
- elementary trades, plant and storage related occupations.

Where workers had previously worked in a non-manual role, the four most commonly reported former occupations were:

- science and technology professionals;
- corporate managers;
- culture, media and sports occupations; and
- science and technology associates professionals.

19 CITB (2016) Quarterly Dip Survey: Quarter 3 (confidential)
20 2015 workforce mobility data provided by CITB

However, it is important to note that having a transferable skillset on paper, does not necessarily equate to labour and skills transferability in practice. Nearly 80% of respondents in 2015 said they wanted to stay in the same trade. The most likely to want to change trades were bankspeople and labourer/general operatives – as borne out by the higher proportion of workers in these roles who reported having experience in more than one trade or did change their job role. This suggests some employers may find it harder to retain people in these roles, however – this could be because these employees sought to progress into more highly paid roles.

Table 5 in Appendix 1 presents results of mapping across skills and occupations in the construction sector, undertaken for this research. This shows the extent to which there is potential for transferability between roles on paper, and indicates good potential to move between a range of skilled roles such as plasterers, carpenters and joiners, and painters and decorators. However, qualitative evidence obtained for this study strongly reinforces that it is rare to see transferability of skills i.e. one trade fulfilling a different one such as a joiner undertaking plastering. Respondents say multi-skilling is more common in the repair and maintenance sector, and it is more widely recognised that multi-tasking can and should take place at general operative levels – but less so for skilled trades. One reason cited is union opposition towards any kind of transferability between trades.

“How often does this happen? [one trade fulfilling a different role] Pretty much never, in our experience”

Large house-builder, UK

“A plasterer’s a plasterer, and that’s not changing. If a joiner picked up a paintbrush, the union would strongly and loudly object”

Trade federation, UK

There are isolated examples of actions taken by individual companies; these tend to be large businesses which have the resources and capacity to plan for structured interventions, as illustrated by the following case study:

Skanska – transferability between occupations

Skanska is one of the world's leading project development and construction groups. Skanska directly employs around 6,000 employees in the UK. The business is focused on expanding development options and workforce mobility to drive engagement and performance. Skanska has introduced several initiatives to help tackle industry skills shortages and provide career paths to retain talented professionals.

One of these initiatives is ***Bring Your Difference***, which allows existing employees to apply for a 12-week secondment in a different role or department. For example, people from corporate functions like finance, could have a taster of a commercial role or a site-based role supervising a project. At the end of successful secondments, there is an opportunity to make the move permanent. Secondments are open to all, but particularly encouraged among people in roles that are traditionally easier to recruit – with the aim of stimulating interest in a permanent move to roles that may be more difficult to recruit. This is an efficient approach towards addressing skills shortages and also gives employees the opportunity to develop their skills and knowledge through exposure to other parts of the business.

Interviewees were also asked about the likelihood of transferability between construction sub-sectors (for example housing to road construction). The consensus is that this does not happen often; workers tend to become a specialist in a certain area such as highways construction, and then remain in that area. This echoes research conducted in 2015, which suggested increased stability within the construction sector with a higher proportion of workers on just one project type (47% compared to 18% in 2012).[21]

Employers say they find it easiest to transfer skilled trades into site management roles – however this is arguably a progression/promotion rather than skills/occupational transferability per se.

"Ex tradespeople bring practical knowledge of how things are done. It's always been the case that bricklayers and carpenters are best suited to transfer into other roles - carpenters better than anyone else because of their strong emphasis on maths skills. People with the most versatile skillsets are more readily able to transfer into other roles"

Medium-sized general construction employer

21 CITB (2015) Workforce mobility and skills in the construction sector

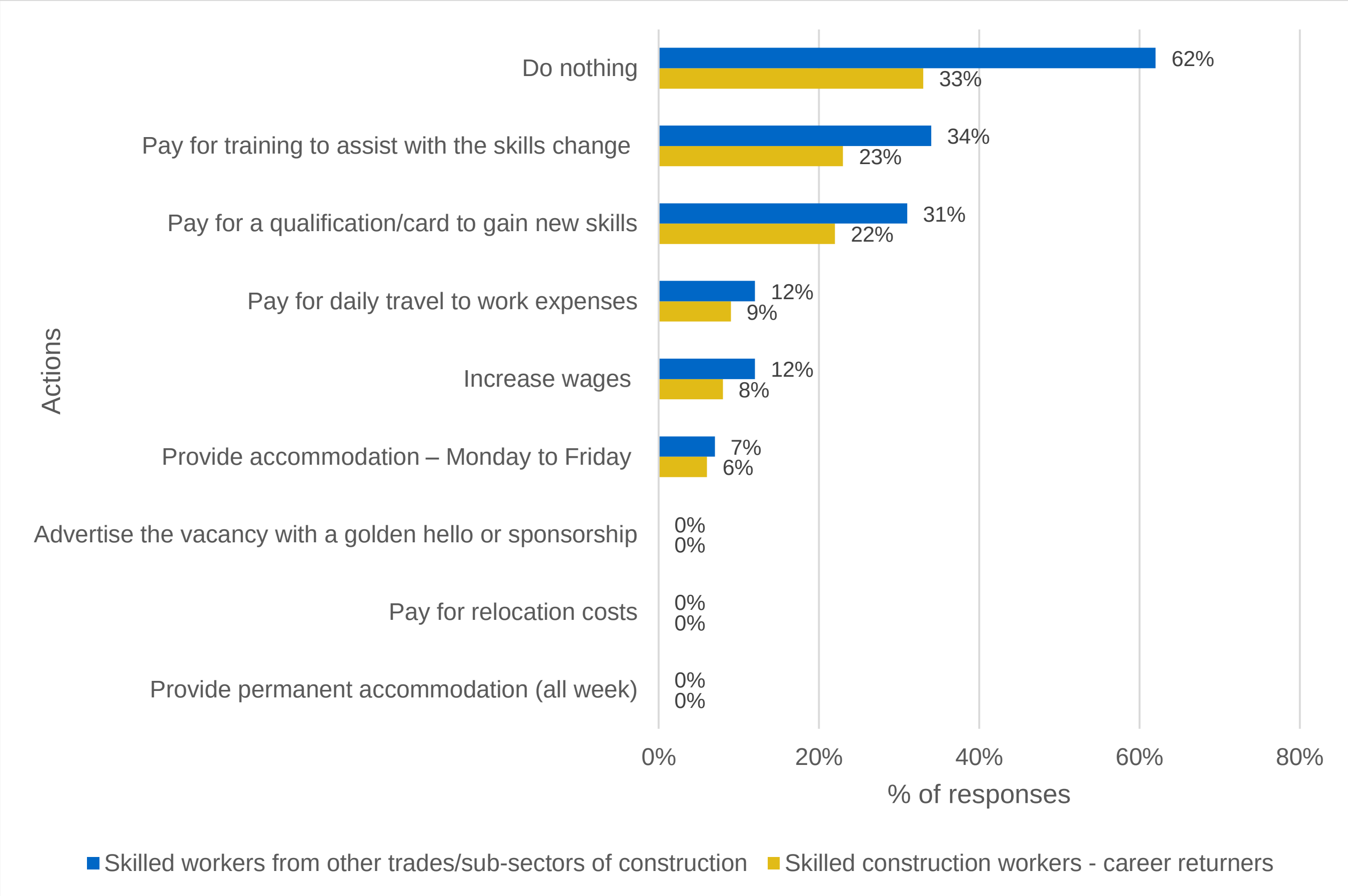
4.3.1 Skilled trades/operative roles: actions

Survey respondents were asked about the actions they would typically take to recruit skilled construction workers at skilled trade/operative levels from other trades or sub-sectors[22], and from other sectors (as career returners i.e. formerly worked in the construction sector). Nearly two-thirds of responses (62%) show no action would be taken to attract skilled workers from other trades. Around a third of responses indicate nothing would be done to try and recruit career returners back into the sector (Figure 4).

Survey data suggests employers appear more likely to take action to recruit skilled workers from other trades or sub-sectors, than to attract career returners. Just over 100 respondents had taken some kind of action to attract skilled workers from other trades or sub-sectors in the last 2 years. Approximately half of these say that paying for training to assist with the skills change was the most successful action. A slightly lower number of respondents (89) had acted to recruit career changers in the last 2 years; again, around half say that paying for training was the most successful intervention. The second most successful action in both cases was to increase wages.

22 By ‘sub-sector’, this means the type of construction such as housing, road construction, infrastructure etc.

Figure 4 Actions employers typically take to recruit skilled trades/operatives from other trades/sub-sectors and those returning to construction having previously left the sector



Base: 363 responses (skilled workers from other trades/sub-sectors of construction); 628 responses (skilled construction workers – career returners)

None of the respondents would consider paying for relocation or permanent accommodation. Many respondents say they look for employees in the local area, or via word of mouth.

"Should we need to recruit skilled decorators, we do this via word of mouth. We've been in the decorating business over 14 years, and have a network of decorators we can call upon when needed - all tried & tested. We have no need to spend extra money on training"

Small painting and decorating business, England

“We have our own very successful apprentice scheme. So, to look for qualified joiners is not something we need to concern ourselves with. With our own apprentice scheme, we churn out employees that are skilled in what our business requires - unlike a college apprentice, they normally need to be retrained”

Small carpentry business, England

Around 8% of respondents have recruited people from other trades or sub-sectors in the last 2 years. These people came from a wide range of sectors including retail, transport, professional services, media, and IT - but predominantly from engineering, utilities, manufacturing and oil & gas. They were recruited primarily as labourers, general operatives, plasterers, carpenters and joiners, and roofers.

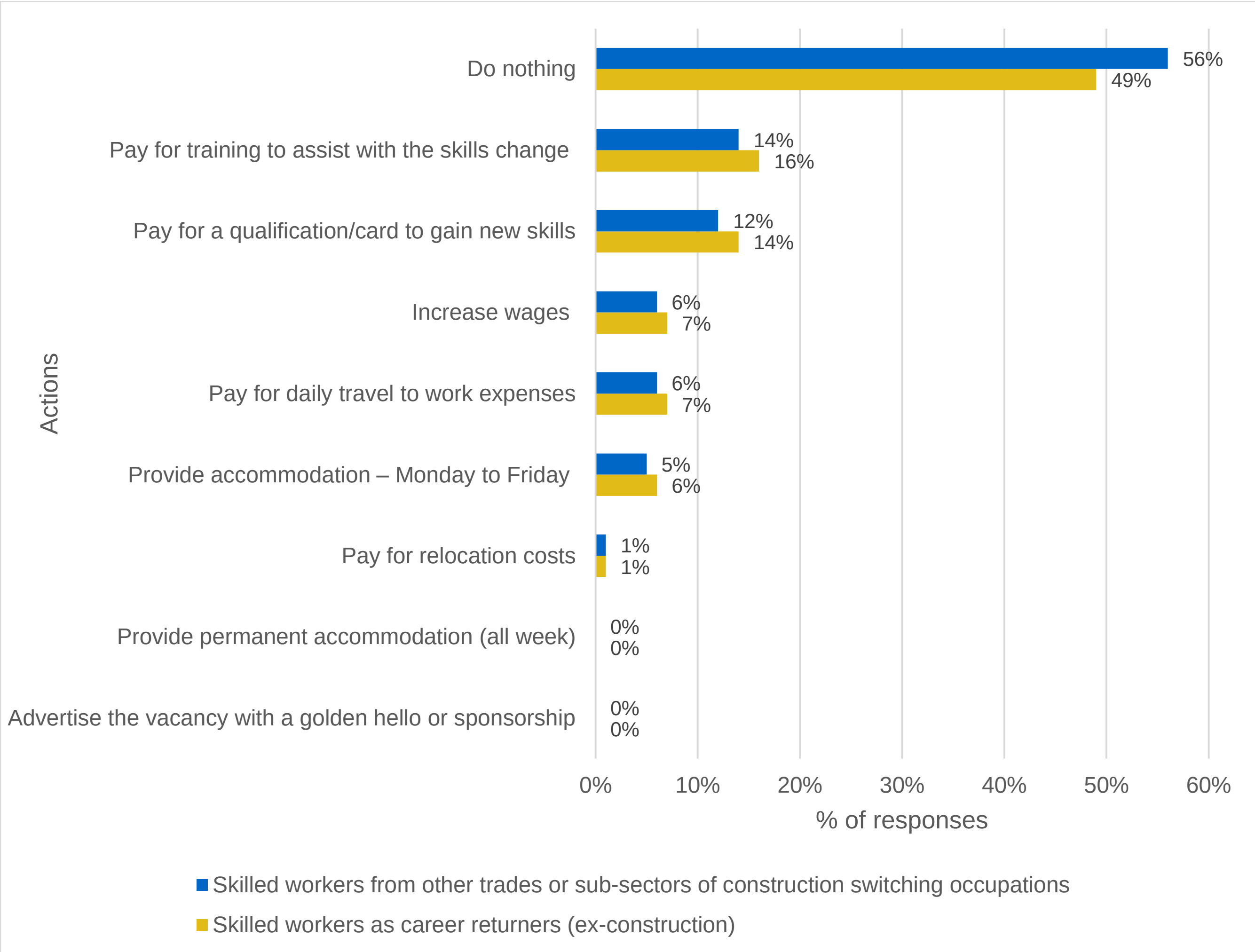
Approximately 15% of respondents have recruited career returners back into the construction sector in the past 2 years – predominantly as labourers, bricklayers or plasterers.

4.3.2 Professional, supervisory and management roles: actions

It is a similar picture among respondents recruiting into professional/supervisory roles, with the majority of responses showing that employers typically do nothing to help attract people from other trades/sub-sectors or those returning to the sector (Figure 5). Approximately 70 respondents have taken any action to support recruitment of people from other trades, and 68 respondents to help recruit career returners, in the last 2 years. The majority of these say the most successful action was to pay for training to upskill candidates.

Only 2 respondents said they would take any other type of action to attract people to their business – one would consider offering a bonus scheme and the other suggested they could increase the number of holiday days available. Both stressed that such actions were unlikely to be taken except in a situation where it was extremely challenging to recruit the people they needed.

Figure 5 Actions employers typically take to recruit into professional/supervisory roles from other trades/sub-sectors and those returning to construction having previously left the sector



Base: 525 responses (skilled workers from other trades or sub-sectors of construction switching occupations); 562 responses (skilled workers as career returners (ex-construction))

Less than 10 respondents say they have recruited career returners or those from other trades able to switch occupations, in the last 2 years. These people have largely been recruited into project management or site supervision roles.

4.4 Transferability between sectors

4.4.1 Sectors typically transferring into construction

This study has considered the extent of transferability of workers into, and out of the construction sector. It is clear from a range of datasets including CITB surveys, Office for

National Statistics and the Labour Force Survey, that not all people in construction-related occupations work in the construction sector, and vice versa.

Research conducted in 2015 found 19% of construction sector workers had previously worked in another sector. Just over a fifth (22%) had come from the retail sector, while 20% had come from manufacturing. Those coming from retail were more likely to be younger workers – which could reflect that they were in their first or second job, while older workers were more likely to come from manufacturing. The ‘push/pull’ factors are likely to vary depending on the nation and region – based on the types of industries most prevalent and offering the most opportunities in those areas. For example, a higher than average proportion of:

- Northern Irish workers previously worked in agriculture, forestry & fishing (23%);
- West Midlands workers previously worked in manufacturing (30%); and
- South East (16%) and South West (17%) workers have previously worked in the accommodation & food sector.[23]

It should also be noted, however, that these figures may simply be reflective of the circumstances. For example, post-recession a high proportion of retail employees became unemployed, therefore there was a larger pool of ex-retail workers available to the construction sector at this time. The Midlands has a high concentration of manufacturing companies, so there is a higher proportion of manufacturing workers in that region potentially able to transfer into the construction sector.

These data should not suggest with certainty, therefore, that ex-retail employees are any better suited to move into construction than workers from other sectors, despite the relatively high proportion that did so according to the 2015 data. Table 6 in Appendix 1 shows the results of high-level mapping of the most highly transferable skills and knowledge in the construction sector, against common skills needs for a range of roles in the retail, engineering and manufacturing sectors. This mapping suggests that on paper, those coming into construction from the retail sector have fewer relevant transferable skills than engineering and manufacturing occupations.

Larger employers with multiple divisions/group functions are more likely to recruit from outside the construction sector, for example into sales/marketing from retail where people have transferable skills such as customer service and communications. However, outside of support roles, respondents acknowledge it is harder to recruit for construction specific disciplines which require technical competence and often a qualification and/or CSCS card.

23 CITB (2015) Workforce mobility and skills in the UK Construction Sector

"You couldn't take anyone off the street and put them in a role as a quantity surveyor. They need to be qualified. You could take them [career changers] as trainees but that can be difficult for an experienced worker, for one thing they're not always willing to start again or take a pay cut while they train"

"From a professional perspective it's difficult to go outside because you need some experience – for trade and professional. A general labourer wouldn't be a problem at all. It's things like electricians, machine drivers, skilled operatives and supervisors. It would be a lot of money to upskill"

Feedback from employers

Employers say it is not impossible to upskill/retrain career changers or returners, but they would need to have up-to-date qualifications. Employer say there are no conversion courses or frameworks to facilitate the transition in the quickest and cheapest way possible. Respondents also perceive that there is no funding available for this route.

"To bring in a career changer or returner, it's recognising they would need to have qualifications and work experience. It's understanding that it is going to take some time to get people up to speed. There's no funding available at the moment. Years ago, there was "train to gain" but I'm not aware of any financial support now - that would make an enormous difference as its very costly"

Medium-sized construction employer, England

4.4.2 CSCS cards and transferability

Feedback suggests there is a shortage of assessors for niche specialist trades, and of assessment centres in more rural areas which restricts the accessibility of the CSCS card. Furthermore, having a 6-month provisional CSCS card is not considered a worthwhile solution; employers do not particularly value this, so trainees may struggle to get a job and then are compelled to pay again to upgrade their card. Several respondents suggest the provisional card is unnecessary and should be phased out.

"We make them [CSCS cards] an absolute requirement for all our jobs. If they aren't given a CSCS card, they often can't get onto sites. I think it affects mobility"

"The CSCS card structure should change. There are too many cards and it needs to be simpler. The cost of getting the card can also be an issue for people coming from a different sector, employers aren't always willing to invest in someone with limited experience, who could leave"

Feedback from employers

The CSCS card does not take into account Continuing Professional Development (CPD) or prior learning. Respondents suggest if this changed, it could offer a ‘quick win’ to more readily ‘passport’ people into construction who have recognisable transferable skills, but lack formal recognition of these via an NVQ/CSCS card etc. Large employers say they do not recruit extensively from outside the sector as it is not quick or cheap to make the transition.

4.4.3 Transferability from the oil & gas sector into construction

Qualitative evidence suggests there can be a number of barriers affecting transferability into construction from other sectors, with the oil & gas industry most commonly cited. The need for, and costs associated with, obtaining a CSCS card is considered a major barrier. For workers coming from sectors experiencing a temporary downturn, as is the case with oil & gas, employers can be unwilling to invest in the cost of training/CSCS cards in case new recruits simply leave to return to their former sector when it has picked up.

“Speed of transition from another sector can be an issue. Having transferable skills doesn’t necessarily mean someone has the right qualifications. Health & safety processes to work offshore in the oil & gas sector are not directly comparable with construction health & safety requirements. People need to take the corresponding construction training – this isn’t quick or cheap. It would help if CITB could produce a map of the common skillsets to illustrate transferability. Make it an open, revolving door – not a closed door”

Trade body, Scotland

Moving into construction from the oil and gas sector

When the oil and gas sector experienced a major downturn in recent years, many workers were made redundant. The Transitional Training Fund (TTF) was established in February 2016 to offer practical help to those who found themselves out of work. Individuals may apply for funding to support re-training to help them get a new job. No restrictions apply in terms of industry sectors; individuals can look at moving in to any other sector. Any training provider passing the financial due diligence checks can offer the training. At the time of writing there have been two rounds to procure funding, with £4million available per annum in total. It is due to end in March 2019.

As in theory many oil and gas workers possess a similar skillset to that required for construction (e.g. working at heights, manual handling, knowledge of health & safety etc.), the government and skills support bodies considered there could be scope to move many of the redundant oil and gas workforce into the construction sector. In practice, however, many construction sector employers were wary about employing people from oil and gas, for two main reasons. Firstly, they considered that once the oil and gas sector picked up again, that the employees would return to that industry. Secondly, and linked to the first point, they were reluctant to spend money on up-skilling or training (e.g. to get a CSCS card proving

competence to work on sites) because they did not view former oil and gas as a long-term, sustainable prospect for their workforce.

Furthermore, the former oil and gas workers themselves have been frustrated by the difficulties they perceive in making the transition to construction. For example, virtually all hold a health & safety qualification, but typically one which is not formally recognised by construction sector employers – mainly because of the need to pass the correct health & safety test to obtain a CSCS card and work on site. Some also found it difficult to apply for the funding, as they were asked to provide evidence of employment potential – for example a letter from an organisation confirming a job would be available for them post-training, which was not always easy to secure prior to attending training.

4.4.4 Transferability from the military into the construction sector

Some employers acknowledge they do not do enough to recruit from outside the industry, such as career changers or returners. Businesses report successes recruiting ex-military workers, particularly into site and project management roles. Those leaving the armed forces also have a sum of money to pay for re-training, taking this burden away from employers. It should be noted that it is not a given that ex-military personnel successfully make the transition however; despite a lot of time invested in them, some struggle to adapt to civilian life and leave the company.

“It’s easy to introduce people from trades or other sectors into site management. It’s easier for site management. It’s more of an understandable and visible role. We have taken people from ex-military – they have the discipline, team work, authority, presence”

Large construction employer, England

Persimmon Homes: Ex-servicemen into the construction sector

Persimmon Homes was founded in 1972, and builds around 14,500 new homes per year in over 400 UK locations. Their recruitment scheme designed specifically for ex-servicemen is called **Combat to Construction**. A complementary scheme, **Upskill to Construction** runs in conjunction and is aimed at candidates from a non-military background who are looking for a change in career.

The business says that the military background brings disciplined workers and people who are used to change. They are not scared of hard work and already have very good softer skills such as team working, time management, being able to take instruction and they are reliable and mature. They also can think independently and will come ready and prepared for outdoors work – they are work ready and all the business needs to teach them is the technical skills and construction knowledge.

Typically, candidates for the scheme are in their mid to late 20's, although some may be older when they leave the military, and so Persimmon put them through an apprenticeship. The formal learning element is centralised and delivered at Gateshead College. Candidates are paid a higher wage than normal apprenticeships in recognition that they are mature learners and some may have significant commitments. This helps reduce any financial burden during the apprenticeship and makes it more feasible when considering their future careers.

Candidates for the scheme do not need any qualifications or experience, but some might bring construction skills from employment in or prior to the military. They commence work at their regional office with a local induction, prior attending a two-week induction at Gateshead College. At this point they go through the processes to obtain their CSCS cards and commence their apprenticeship training. This makes them health & safety compliant and site ready. They attend a further 5 block weeks of college throughout their first year and at the end of 18 months should pass an apprenticeship at NVQ Level 2 in either site carpentry or bricklaying.

There are approximately 160 employees on programme at any one time. In total 112 have completed a full apprenticeship since the scheme started in 2014, with the majority still employed by Persimmon Homes. Those that left the business have usually remained in construction mainly working as sub-contractors or in other construction companies. Others have progressed into associated roles such as site management within the company.

Persimmon Homes find there are very few barriers to employing people from a military background as they are generally excellent potential candidates. When the scheme started it was the first of its kind, and was substantially oversubscribed.

Kier Construction: Step In, Step Up to Construction - Gareth

Kier Construction was instrumental in founding Step In, Step Up to Construction in conjunction with CITB. This is a £298,000 project, funded by several leading construction sector employers and by CITB, which has contributed £208,484 from its Flexible Fund. Candidates selected to take part will complete a 12-month programme of training and hands-on experience in some of the many careers available in the construction industry. The courses are as flexible as possible to make them accessible to a wide range of people – for example training can take place in the evenings and at weekends.

Before joining Step In, Step Up, Gareth had a 21-year career in the military and private security sector. This provided him with a range of transferable skills relevant to the construction sector including communication, leadership, team work and management.

Gareth’s effective communication skills and a calm approach to each challenge have enabled him to command authority amongst the supply chain despite his limited construction experience. He completed a short-term contract for Kier while progressing with his Step In, Step Up training. Kier are now supporting his attendance on a part-time Higher National Certificate (HNC) in construction.

Gareth is very pleased with the outcome: “*The Step in Step up programme has provided me with a brilliant opportunity to take my next career step. When Kier approached me I knew it would be a good fit and I was right. The team has given me great insight into the construction world as well as providing access to training courses which are invaluable to my progress within the industry*”

Simon Parsons, Construction Manager at Kier, said: “*Our commitment to training is continual and necessary to support business operations. It is important that we target career changers as well as school leavers and graduates to fill our skills shortages*”

<u>Kier Construction: Step In, Step Up to Construction – Sarah</u>

Before joining the Step In, Step Up project, Sarah had worked for Job Centre Plus as part of the Department for Work and Pensions for over 10 years. In this role she had been managing teams and had developed considerable transferable skills in collaborative working, networking, improving quality and performance and financial management of a large budget. Looking for a career change, construction was an obvious choice as her grandfather had been a structural engineer and surveyor, and her father had recently retired from a career as a Project Manager with Lakesmere. Both had found their careers to be rewarding and varied, with a high level of job satisfaction.

Initially she anticipated a Health and Safety role in construction. She arranged a site visit with Kier at Beckley Court in Plymouth to improve her understanding of construction and the roles available in the sector, followed by the assessment session at the start of the Step In, Step Up project. Kier then offered her a role as Trainee Estimator, where she has been working ever since. Kier are supporting her attendance on a Higher National Certificate training course and plan to sponsor her to degree level at the University of Sheffield.

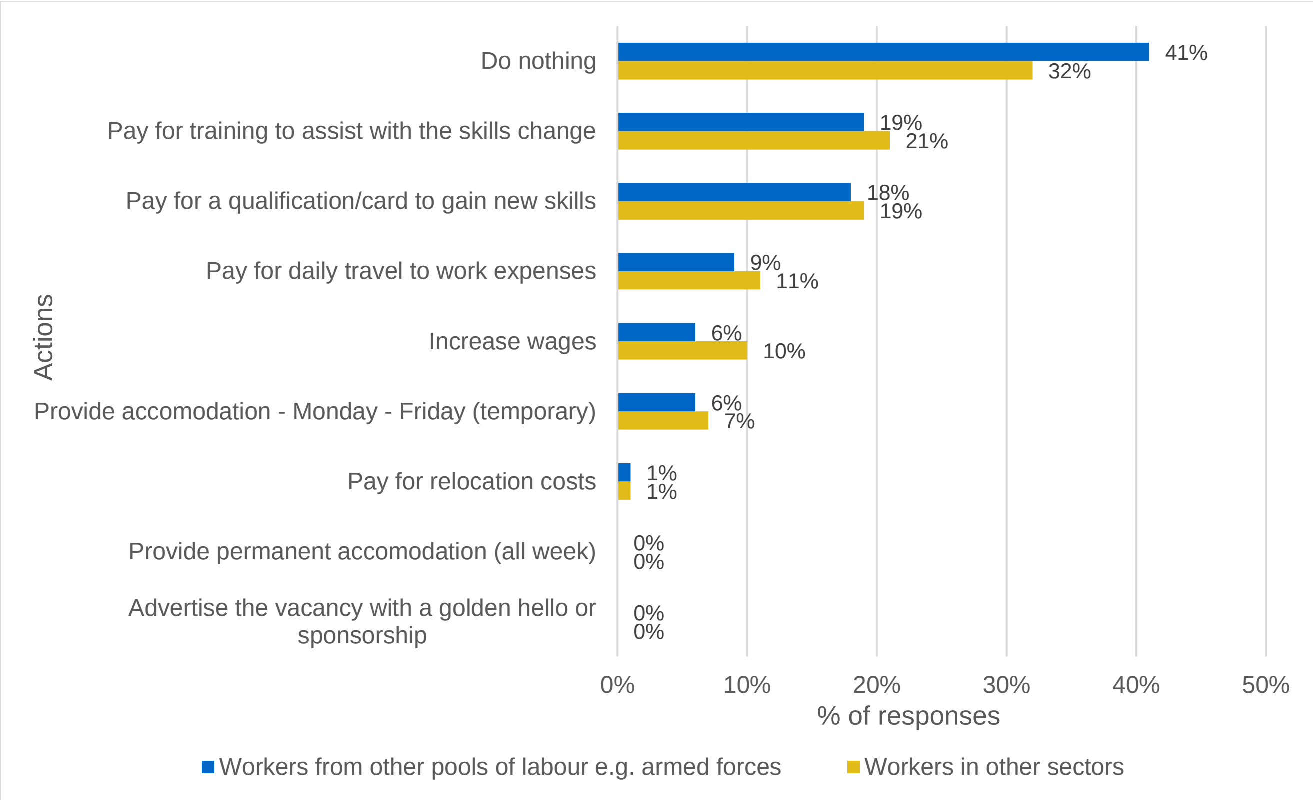
Sarah says: "*The project has had a significant impact on my life; Step In Step Up has enabled me to have a professional career – it's the only way I could afford to change careers*"

Alastair Mullen, Senior Bid Manager and Lead Partner for the Step In Step Up project from Kier, says: "*it is important that we target people returning to work or changing careers to fill our skills shortages; School leavers and graduates cannot meet all construction industry requirements. Sarah is a great example of this strategy's success*"

4.4.5 Skilled trades/operative roles: actions

Employers were asked about the actions they would typically take to recruit people into skilled trades/operative roles, from other sectors or other pools of labour. Around 41% of responses show that employers typically take no action to recruit from other pools of labour such as ex-military. Nearly a third of responses (32%) show the same in respect of workers from other sectors. Around a fifth of responses show employers would pay for training or a qualification/CSCS card to support up-skilling and assist the transition into the construction sector. Around 10% of responses indicate employers would increase wages or pay for travel to encourage workers from other sectors to join their business (Figure 6).

Figure 6 Actions employers typically take to recruit into skilled trades/operative roles from other pools or labour or sectors



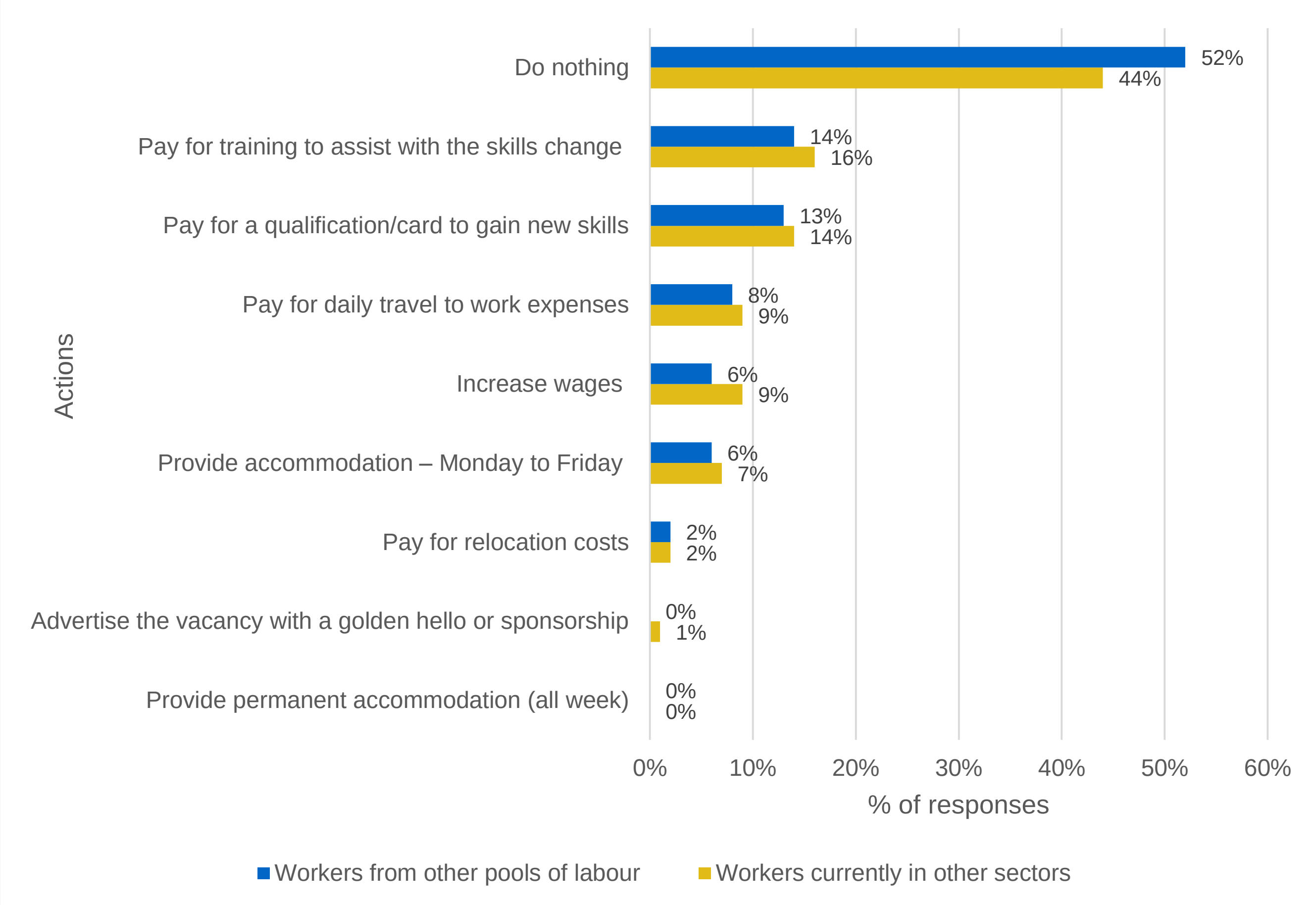
Base: 588 responses (worker from other pools of labour e.g. armed forces); 648 responses (workers in other sectors)

When asked whether they had taken any kind of action to help recruit from other sectors in the last 2 years, approximately 30% of respondents said they had. Nearly a quarter of respondents have recruited from other pools of labour. As with geographical and skills/occupational mobility, the most successful action has been to pay for skills training, followed by increasing wages (although only a small proportion of responses show that employers would typically consider increasing wages). Typically, respondents recruit people from other sectors/pools of labour as labourers, scaffolders, bricklayers, plasterers and carpenters.

4.4.6 Professional/supervisory and management roles: actions

Over half of the survey responses show that employers typically take no action to recruit workers from other pools of labour into professional/supervisory and management roles, and 44% of responses show the same picture in respect of recruiting from other sectors. Approximately 15% of responses indicate employers pay for training or a qualification/card to support up-skilling (Figure 7).

Figure 7 Actions employers typically take to recruit into professional/supervisory and management roles from other pools or labour or sectors



Base: 551 responses (workers from other pools of labour); 669 responses (workers currently in other sectors)

As with skilled trade/operative level recruitment, respondents who have taken any form of action to support recruitment of this nature in the last 2 years for professional roles, say paying for training was the most successful action. Around a quarter of respondents who had taken action say increasing wages was the most successful action to recruit from other pools of labour – although only 6% of responses suggest this is an action that is typically taken by the sector.

Only 5% of respondents have recruited workers from other sectors with skills that could transfer into construction at professional or supervisory/management level in last 2 years. There is no clear trend on the sector they came from, ranging from advertising, retail, financial services, professional services, transport & logistics. Workers have predominantly been recruited into project management or supervisory roles. Similarly, 5% of respondents have recruited from other pools of labour at professional levels – again this is predominantly into project management or supervisory occupations.

Respondents say it is unusual to take action as they tend to recruit via a tried and trusted network, via word of mouth and getting recommendations from inside the business or via sub-contractors.

“We don’t take actions to help recruit – it is all relationship driven”

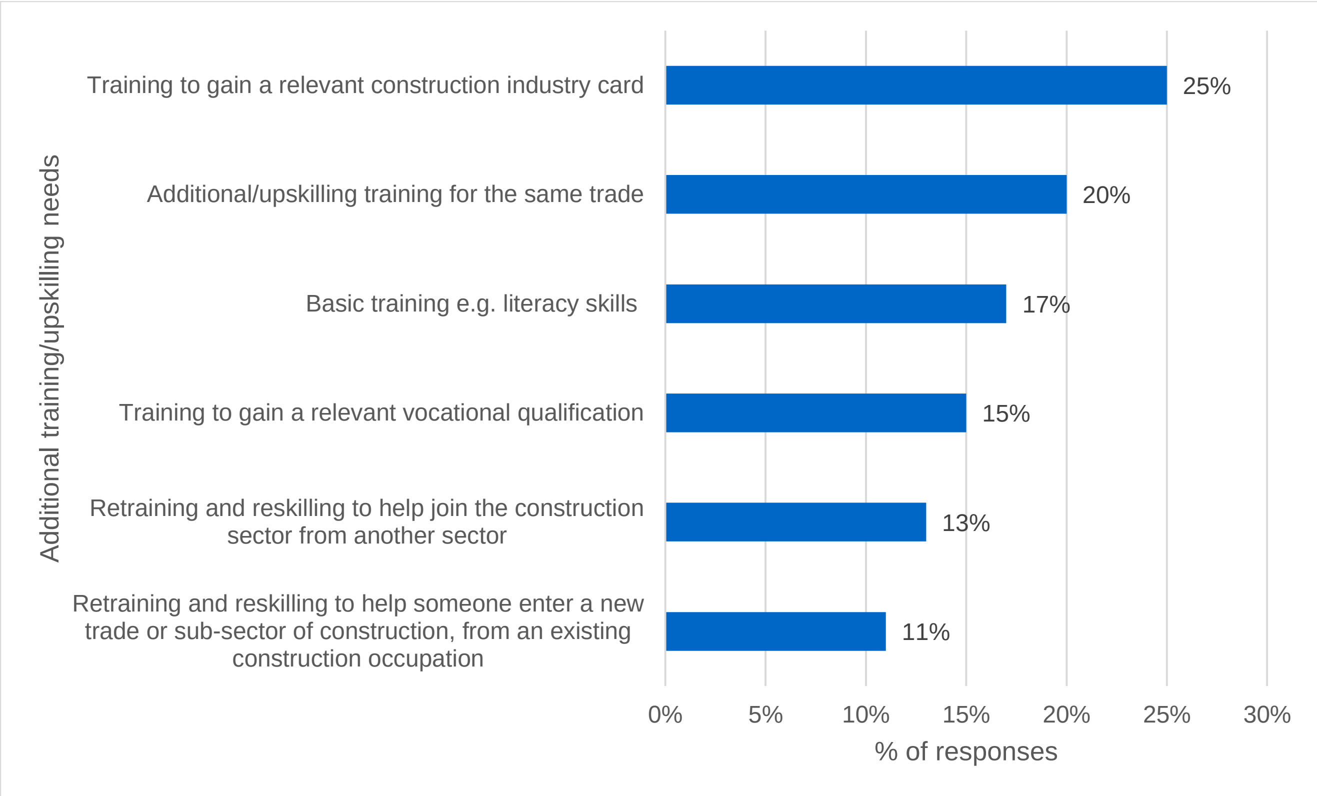
Small employer, Wales

Less than 3% of respondents say they would take any other type of action – these spanned offering other benefits such as healthcare, or turning to social media such as Facebook to promote the vacancy.

4.5 Additional training and skills acquisition

Respondents were asked about any additional training and upskilling needs for those people joining their business at skilled trade/operative level. A quarter of responses show workers needed to be training to gain a CSCS card, and a fifth needed additional training to work in the same trade (Figure 8). It should be noted that many respondents said they would expect to provide a certain amount of ‘on-the-job’ training and that their preference was to offer unaccredited, informal training to upskill people, except where a formal qualification was required to work on site/obtain a card.

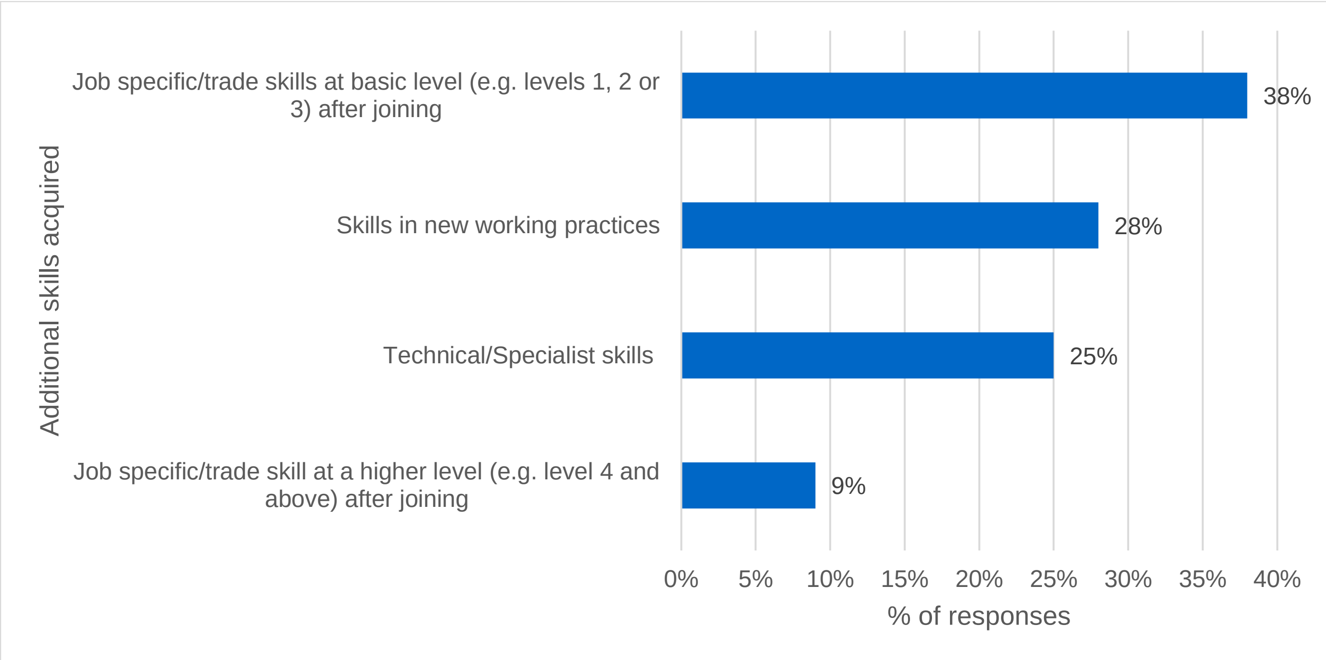
Figure 8 What additional training did skilled tradespeople/operatives <u>need</u> when joining your business?



Base: 438 responses

Respondents were also asked about skills acquisition among skilled tradespeople/operatives joining their business. Nearly 40% of responses show that job-specific skills were acquired, at levels 1, 2 or 3. Only around 9% of responses show skills were acquired at level 4 or above (Figure 9). Again, respondents emphasise that skills acquisition would typically be delivered via informal, non-accredited means.

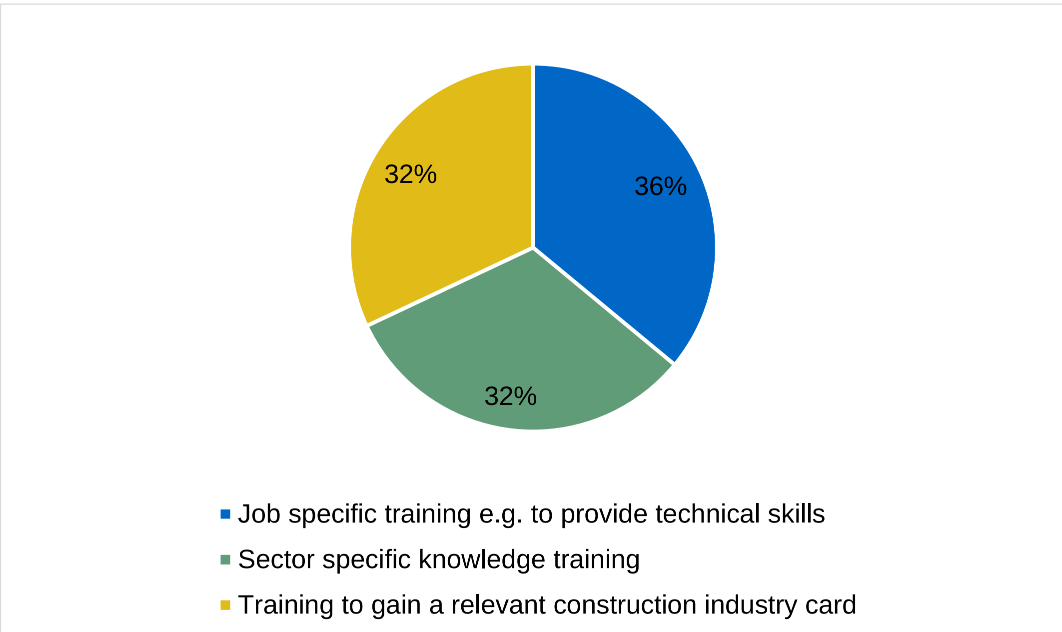
Figure 9 What additional skills did skilled tradespeople/operatives acquire when joining your business?



Base: 309 responses

People joining employers at professional levels required a mix of job-specific, sector-specific and other training to gain a CSCS card (Figure 10).

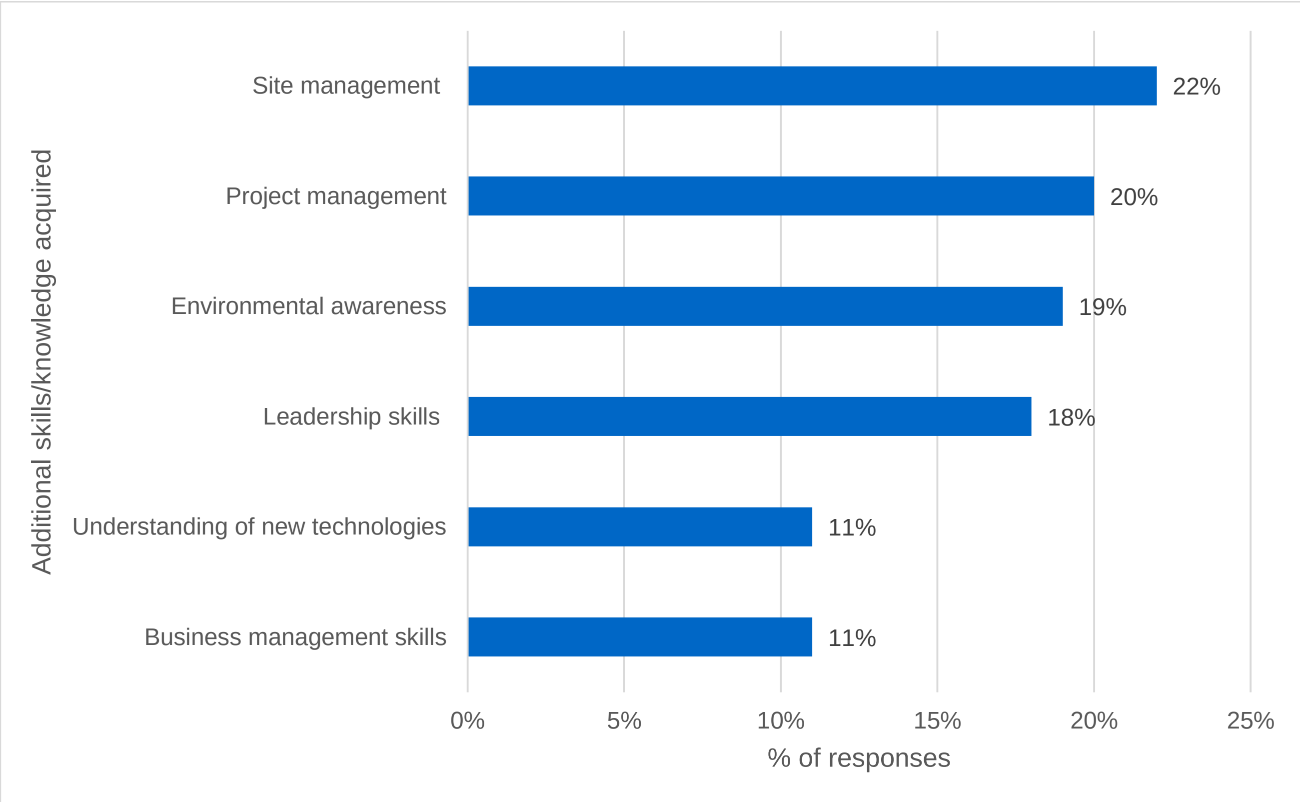
Figure 10 What additional training did people in professional/supervisory and management roles need when joining your business?



Base: 241 responses

People joining construction businesses in a professional capacity have acquired a wide range of skills, predominantly in site and project management (Figure 11).

Figure 11 What additional skills did people in professional/supervisory and management roles acquire when joining your business?



Base: 324 responses

5. Transferability: inhibitors and enablers

5.1 Inhibitors

5.1.1 Culture and image

The culture of the construction sector is a critical inhibitor of labour and skills transferability within the existing workforce. The sector traditionally trains and works in silos, which are trade-specific and do not necessarily promote multi-skilling or multi-tasking. Feedback from employers gathered for this study suggests that much of the workforce simply does not want to be more mobile or transfer their skillset into a different role.

There is also the wider challenge of attracting people to join the sector. Many respondents feel that the sector still, despite much work undertaken to overturn this issue, retains a negative image which does not help to encourage new recruits or labour/skills transferability.

"The biggest issue is that the sector is very disjointed and it is hard for contractors and individuals to know where to go for training if they need to upskill in a new specialism. The local college may not offer what they want. It's easier for new entrants but the sector still suffers from an image problem, so many people (including career changers) don't see construction as a technical and professional industry. They see it as trade orientated and for those not so able and gifted. So that works against transferability and also new entrants"

Large employer, England and Wales

"The professionalism and prestige and prospects with other jobs/other sectors can make those attractive to work in, whereas construction lacks that"

Small employer, England

For directly employed workers, employees need to bear the costs associated with mobility such as accommodation and travel expenses. Self-employed workers typically pay these costs themselves. Such costs can make the employer or self-employed worker think twice about travelling long distance/staying away from home.

Several large employers say that while it is advantageous to have flexibility in the workforce, transferability is not a long-term solution and only fills skills gaps in the short-term.

5.1.2 Barriers in demonstrating competence

The need for, and costs associated with obtaining a CSCS card, is the most commonly cited barrier to transferability between skills/occupations. Employer say there are no conversion

courses or frameworks to facilitate the transition in the quickest and cheapest way possible. Survey respondents also perceive that there is no funding available for this purpose.

5.1.3 Competition from other sectors

Some of the fastest growing industries in the UK such as IT and technology, and accounting and finance are experiencing a rapid increase in demand for skilled labour as a result. While the demand for construction workers is strong, underpinned by the likes of large-scale infrastructure commitments and the government home-building targets, other sectors have similarly high demand and are in competition for the same talent pool. The demand for accounting and finance professionals is high, not least because of the economic challenges and uncertainties associated with Brexit. Individuals that could step into some of the hardest-to-fill professional vacancies in construction, such as estimating and quantity surveying, are likely to receive higher salaries in the finance sector.

Employers in farming/agriculture, the care sector, manufacturing and hospitality also find it difficult to recruit, and are being affected by Brexit. The manufacturing association EEF has said that some EU workers in the manufacturing sector are unlikely to return to the UK after going home for Christmas. The number of EU nationals registering as nurses in England has fallen by more than 90% since the referendum, compounded by a 68% increase in the number of nurses leaving the NHS in 2016 (compared with 2014).[24] This suggests severe skills shortages are coming to the fore. These sectors will need to take steps to ensure, as far as possible, that they are able to recruit and retain the skilled labour they need – with some roles, for example those in manufacturing, requiring a similar skillset to that of construction operatives.

Feedback from specialist recruiters suggests that companies across all UK industries will be competing for a reduced pool of available workers. Construction will therefore be affected by this constricting pool of talent, with the problem perhaps compounded by the inhibitors mentioned earlier.

5.1.4 CSCS card requirements

As previously stated, the CSCS card does not take into account Continuing Professional Development (CPD) or prior learning. This can act as a barrier to transferability as employers may avoid recruiting from outside the sector due to costs incurred in training people to obtain a relevant card.

24 Nursing and Midwifery Council 2017 statistics

5.2 Why workers leave the construction sector permanently

5.2.1 Negative sector image

Respondents say that many people who consider leaving, or have left the sector, view construction as a cyclical industry lacking long-term stability. The peaks and troughs which are typical of the sector can leave workers feeling vulnerable – particularly when they are self-employed. Disagreeable working conditions – notably working outside in all weathers – are also cited as a reason for leaving the sector on a permanent basis. The recent collapse of construction giant Carillion will have not eased these perceptions.

"I think people have gone into retail, driving roles – anything that takes them away from the elements"

Medium-sized employer, Scotland

Data analysed in 2011 found that of those that had left the sector between 1991 and 2009, this was most commonly because:

- they left for a better job (22%);
- they were made redundant (21%); and
- their temporary job came to an end (13%).[25]

More recent research conducted in 2017 found the most common reasons for leaving the sector early were:

- moving for a better job offer (37%, increasing to over 50% where respondents were over 20);
- disliked the work (35%);
- low pay/higher pay in other sectors (34%);
- work did not match up to their expectations (34%); and
- perception that career development would be too slow (34%). [26]

The ageing workforce is a well-documented issue; as well as leaving because of retirement, some older workers make the decision to leave the sector before they retire to look for a role less physically demanding.

Respondents to a survey conducted by Pye Tait Consulting for this study were asked to rate the reasons why workers (skilled tradespeople as well as professionals) leave the construction sector, where 1 is not at all common and 5 is extremely common. Table 2 shows

25 Taylor Associates (2011), Analysis of movements into and out of construction industry employment and employment in construction related occupations using the British Household Panel Survey Waves 1 to 18
26 CITB (2017) Construction industry early leavers survey

that the most common reason, based on mean and median ratings, is that employees choose to pursue better career opportunities in other sectors.

Table 2 Most common reasons for leaving the construction sector

Reason	Skilled tradespeople/ operatives		Professional, supervisory/ management roles	
	Mean	Median	Mean	Median
Employer need – change to business structure e.g. size/ownership	2.4	1	2.6	1
Employer need – reduction in work available	3.5	2	3.2	1
Employee need - change in family/personal circumstance	3.7	3	3.4	2
Employee choice – sector perceived to be in decline	2.6	1	2.6	1
Employee choice – better career opportunities in other sectors	**4.1**	**4**	**3.8**	**3**
Employee choice – to gain wider experiences	3.8	4	3.4	2
Employee choice – greater stability in other sectors	3.2	2	3.0	2

Base: 321-360 respondents

Just under a third of respondents said there was another reason or reasons for leaving. The most common reasons for leaving the sector permanently according to these respondents are (listed in most to least cited):

- approaching retirement/retirement;
- health issues/stress/unable or unwilling to continue in a job requiring physical labour;
- long working hours;
- culture – fragmented nature of industry, not working together;
- foreign workers returning home because of unease associated with Brexit;
- unwillingness to travel to sites some distance away; and
- working conditions (poor weather etc.).

The available evidence thus points to an on-going issue about the perception of better career prospects in other sectors, in comparison with construction which is associated with lower pay and more limited career progression opportunities.

5.2.2 Concerns about Brexit

The number of EU-born workers in the UK fell by 50,000 between October and December to 2.3 million, with construction workers leading the way in this exodus. Research undertaken by the Royal Institution of Chartered Surveyors (RICS) suggests the construction sector

could lose over 175,000 employers as a result of Brexit[27]. Respondents to this research say some EU workers are leaving not just because of the uncertain policy climate, but because the fall in sterling has reduced the value of the earnings they are able to send home to their families. If these projections are borne out, this poses a substantial threat to the timely completion of major infrastructure projects which are underpinning the sector's future growth.

5.3 Enablers

5.3.1 Salary and working conditions

Feedback from interviews suggests that a higher rate of pay can be a strong enabler of geographical mobility, however this depends on the age group. Younger workers without family commitments are considered more readily able to move, and will be drawn by the prospect of more money. Incentives such as a tool allowance can also act as an enabler.

Employers in Scotland in particular say their working culture is a big factor in retention. Excellent site facilities, health & safety and quality entice workers.

27 http://www.rics.org/uk/news/news-insight/press-releases/uk-construction-industry-could-lose-8-of-workforce-post-brexit-new-rics-figures-reveal-/

Mactaggart & Mickel Homes Ltd: attracting and retaining skilled workers

This large house-building company is over 90 years old, and prides itself on its strong, long-standing relationships with sub-contractors. This stems from the excellent working conditions on offer. First and foremost, sub-contractors value the attention paid to health & safety – the organisation has won NHBC Awards in Health & Safety and is one of a limited number of 5-star quality rated businesses in Great Britain. People aspire to work for the business due to the great conditions and facilities on site. Maintaining a positive and supportive culture is also very important - people are treated with respect, paid within a 30-day period (real-time payments are being trialled) and retentions are not normally held. Mactaggart & Mickel Homes Ltd is therefore able to attract and retain highly skilled workers.

Forster Group – financial incentives to attract and retain skilled workers

Forster Group is a market-leading provider of roofing and solar services to Scottish house builders, public sector and community bodies, social housing landlords, farmers and commercial landlords and tenants. Working predominantly in new house-building, the company was keen to ensure high quality standards across all projects. A structured programme has therefore been implemented, providing regular training and a bonus scheme for workers. The bonus scheme has been a key differentiator for the business. It is not like traditional bonus schemes which only reward performance and pay out either a lump sum or a percentage of salary. Instead, each employee begins the year with a set amount in their own individual bonus 'pot'. The bonus is paid subject to achievement of high quality outputs, adherence to health & safety requirements, behaviour in line with expected conduct and overall productivity. Over the course of the year, if workers cut any corners, then they receive a penalty, with the value of the bonus reduced accordingly. This is a powerful incentive for the business, not just to assure quality, but to attract and retain staff.

6. Conclusions and recommendations

6.1 Conclusions

1. Few construction sector employers take any kind of action to assist with transferability of labour, on a regular/on-going basis. Primary evidence obtained for this research finds that in the last 2 years, 62% of responses show no actions were taken to encourage workers to transfer between trades. Over half of the responses show employers take no action to recruit construction workers from other parts of the UK, or from other sectors. Where actions are taken, these are prompted by specific needs, and the most common/successful is to pay for training and/or qualification/card to assist with up-skilling. Actions such as increasing salaries are more likely to appeal to younger workers without family commitments, rather than being a solution that would apply to the whole workforce.

2. Although there is potential for transferability[28] between skills/occupations and between sectors - for example good potential for transferability between skilled and semi-skilled trades[29], there appears to be little appetite for this among employees and most employers. It is thus unlikely to happen on a widespread basis, regardless of any type of intervention intended to encourage it. The culture of the sector, the way training is delivered (in silos and trade-specific) and opposition from unions act as obstructions to multi-skilling and transferability.

3. Transferability between sectors is not always successful. The most notable example of this lack of success, drawn from evidence for this study, is the transition of oil & gas workers into construction. While on paper, oil & gas workers have a transferable skillset, in practice construction sector employers have been reluctant to invest time and money into training people they expect to lose (when the oil & gas sector starts to grow again). The intervention of a dedicated and significant government training fund offering money to up-skill oil & gas workers in Scotland, has not, to date, reported any sizeable moves into the construction sector. There is a risk in investing substantial monies in supporting transferability where the returns for the construction sector could be limited, or not sustainable.

4. Dedicated schemes exist to support transferability of ex-armed forces people into construction. These tend to be limited to medium and large companies that have the time and resource to do this - either operating their own schemes or working in conjunction with third parties. There are examples[30] of where this has worked successfully, not just because of the highly transferable skillset, but also because ex-

28 See Tables 5 and 6 in Appendix 1
29 See Table 5 in Appendix 1
30 See section 4.4.4

military personnel usually have funding allocated to pay for their re-training, so the employer does not have to make that investment. However, the transition is not just about re-training, and it takes a certain amount of time and resource to support individuals as they adapt to civilian life. This is not always successful in the long-term, and so people leave.

5. It appears from the evidence that roles in site management and project management are the most straightforward transfer to construction from other sectors, because of the major need for ‘soft’ skills’ such as problem solving, effective communication, leadership and team working, which can be acquired from a wide range of occupations and sectors.

6. The motivation for geographical mobility has waned in recent years, which could prove challenging for employers in years to come. Provision of the likes of relocation expenses, accommodation or similar, is unlikely to be the deciding factor. Employees are more inclined to take into account the cultural fit, sustainability of the new role/company and above all, the impact on family life of either a temporary or permanent relocation. Employers may therefore be selling the wrong message if they typically offer a salary rise and/or fully or partially funded accommodation as the relocation ‘package’, when reassurances of a positive, supportive working culture may be of greater interest.

7. Construction is not the only sector that is, and will continue to, experience skills gaps and shortages. In the context of skills constraints in other industries, transferability cannot be viewed as the sole or main solution to help the industry with workforce planning and recruitment. There is a need to identify and capitalise upon other opportunities.

6.2 Recommendations

Recommendations for CITB

1. There appears to be limited appetite on a sector-wide basis for ***proactively*** encouraging transferability among most construction sector employers, although it is more common to see this among larger companies. It is important that CITB seeks, where possible[31], to raise awareness of the potential for transferability in the sector, so that businesses of all sizes understand how they could harness opportunities that present themselves. As the most successful action in support of transferability is to pay for up-skilling/training, it is also important that employers understand the scope of grant funding available for this.

31 Although we recommend that industry takes a leading role on this

This should be achieved by:

a. Raising awareness of the most highly transferable skills/occupations (see Tables 3 and 4 in Appendix 1), for example on GoConstruct (see recommendation 2);
b. Working directly with employers to help them maximise grant monies;
c. Working with conduits such as independent training providers and colleges who can educate employers to maximise their grant funding to access training;

2. CITB should publish a map of the routes into construction on the basis of transferable skillsets, using the mapping in this study and the information used on GoConstruct. CITB should aim for all construction sector vacancies to be published on GoConstruct (even if on other job sites), to cement its position as a 'go to' site for construction sector careers.

3. CITB should seek to understand, and maintain a watching brief, about actions being taken in other sectors which are experiencing skills gaps and shortages, and those which are anticipating notable recruitment difficulties as a result of Brexit. This will identify any actions that could be utilised in the construction sector. As a minimum this should include manufacturing, health & social care, farming and hospitality. Some employers in these sectors are already providing door-to-door transport to work and/or housing, as ways of attracting staff.

4. Alongside these actions, there is a need for CITB to maintain its efforts to attract more people into the sector, by promoting construction sector careers to young people, improving the image of the sector and seeking to attract more females into the industry. Table 2 (see Appendix 1) shows the range of construction sector occupations working in other sectors – skills that could be drawn back into the industry if employees perceived an attraction to return.

Recommendations for CITB and other industry stakeholders

5. An important recommendation to support transferability is the recognition of prior learning. CITB should consider working with industry partners such as trade federations, to develop a scheme that will recognise and accredit prior learning, to eliminate this barrier for those people who are very close to entering the sector. CITB should also consider developing 'bridging' or top-up conversion courses to enable and fund skills transition for people who possess relevant transferable skills, but may require a short training intervention, for example to obtain a CSCS card. It will be necessary for any such training to be short, sharp and focused, as the aim is to avoid the need to complete a full training course and speedily 'passport' the individual into

construction. This should only be considered where prior learning cannot be recognised – for example for health & safety reasons.

6. CITB should maintain a tracking approach to monitoring job vacancies by location and occupation, using CSN and other real-time vacancy data, to then work with colleges and training providers on an on-going basis, to share intelligence and enable them to react speedily to the demand for up-skilling. For example, forecasting a shortage of bricklayers in Hull would enable CITB to inform local/regional colleges and training providers of this need to promote existing courses and conversion courses where developed, to learners able to transition.

7. Over the medium and longer-term, CITB and the industry as a whole needs to consider the extent to which investment will need to be made in machinery, artificial intelligence and robotics to fill the employment gap, especially where there is much reliance on lower-paid migrant workers. Greater digitalisation of the sector will have an impact on skills and training needs, and CITB will need to respond to ensure qualifications and standards remain fit for purpose against this backdrop of external change.

8. The CSCS card scheme administrators should give strong consideration to enabling aspects such as prior learning and Continuing Professional Development (CPD) to be taken into account. This could be a valuable means of enabling workers from other sectors to come into construction more quickly and easily.

Recommendations for industry

9. Industry, and in particular large construction sector businesses, should raise awareness of the potential for transferability, in light of changing economic and political conditions such as Brexit, which may make it more challenging to fill skills gaps and shortages. This could include proactive promotion of the value of transferability as well as case studies to provide evidence of how this can work in practice. It should also emphasise the value of seeking to recruit people who can be trained and developed, rather than looking only for people with a precise skillset to match the company's needs.

Appendix 1: Transferable skillsets

The following table shows there is a wide range of construction sector occupations able to operate in sectors outside of construction. For example, according to the Labour Force Survey around a third of the total plastering workforce work in other sectors (such as hospitality, retail etc.)

Table 3 Employment by construction sector occupations, construction and other industries (2015-2016)

Occupation (4-digit SOC 2010)	Numbers employed in construction[32]	Numbers employed in other industries
1122 Production managers and directors in construction	146,269	35,523
2431 Architects	43,306	6,274
2432 Town planning officers	10,393	7,615
2433 Quantity surveyors	28,701	15,742
2434 Chartered surveyors	46,988	24,910
2435 Chartered architectural technologists	1,670	115
2436 Construction project managers and related professionals	53,766	15,885
3113 Engineering technicians	7,261	56,060
3114 Building and civil engineering technicians	15,998	9,694
5321 Plasterers	49,725	2,615
5322 Floorers and wall tilers	30,254	4,229
5323 Painters and decorators	87,525	43,123
5330 Construction and building trades supervisors	43,581	17,221
5311 Steel erectors	6,563	5,984
5312 Bricklayers and masons	69,546	6,477
5313 Roofers, roof tilers and slaters	37,535	2,107
5314 Plumbers and heating and ventilating engineers	140,917	33,100
5315 Carpenters and joiners	194,027	39,985
5316 Glaziers, window fabricators and fitters	19,648	20,904
5319 Construction and building trades n.e.c	216,461	36,578
8141 Scaffolders, stagers and riggers	21,667	5,262
8142 Road construction operatives	16,161	3,681
8143 Rail construction and maintenance operatives	3466	6,481
8149 Construction operatives n.e.c	51,198	43,261
9120 Elementary construction occupations	153,708	32,048

Source: Labour Force Survey Summer 2015 – Spring 2016

[32] SIC codes 41, 42, 43, 71.1 and 71.2

This study has mapped the core transferable technical and 'soft' skills used across construction sector occupations on a regular basis. Table 4 shows the skills and knowledge that are most commonly used across this sample of 25 professional, skilled and semi-skilled occupations that have been derived from this mapping.

Table 4 Top 15 most commonly used skills and knowledge in construction

#	Skillset
1	Health & safety knowledge/adherence
2	Waste management/reduction
3	Problem solving
4	Communications
5	Risk assessment
6	Time management
7	Working with precision and accuracy
8	Knowledge of building materials/fabric
9	Understand/work to building plans
10	Use of machinery/tools
11	Working to plans/specifications
12	Measurement and calculation
13	Surface preparation
14	Practical skills/manual dexterity
15	Installation of building components

Using this mapping, we have identified the potential for transferability by assessing the extent to which skills and knowledge are shared between occupations (Table 5). This should be read by identifying the relevant occupation along the top horizontal row (see key below the map), and then reading down to the second occupation identified by the number on the vertical row on the left. For example, to assess the potential of a plasterer transferring into the role of a carpenter/joiner, read down from 10 on the top row, to 18 on the vertical column – this shows good potential for transferability.

This offers no guarantee of transferability – interventions such as up-skilling and/or qualifications would be required to enable this to take place, and as outlined in the main report, without the appetite for this, movement between roles is unlikely. It is intended to show only the *potential for transferability* based on currently held skillsets *on paper i.e.* it cannot take into consideration aspects such as transferable skills from previous occupations and similar. It should be noted that it is not intended to suggest that progression between occupations, such as a Plasterer becoming a Construction Director, is not possible at all.

Table 5 Potential for transferability between occupations

	1	2	3	4	5	6	7	8	9	10	11	12	13*	14	15	16	17	18	19	20	21	22	23	24	25
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Key to mapping:

	Strong ***potential*** for transferability
	Good ***potential*** for transferability
	Some ***potential*** for transferability
	Limited ***potential*** for transferability
	Very limited or no ***potential*** for transferability

***Scope for transferability will vary, becoming higher where the supervisor was formerly a skilled tradesperson*

Key to occupations:

1 Production managers and directors in construction
2 Architects
3 Town planning officers
4 Quantity surveyors
5 Chartered surveyors
6 Chartered architectural technologists
7 Construction project managers and related professionals
8 Engineering technicians
9 Building and civil engineering technicians
10 Plasterers
11 Floorers and wall tilers
12 Painters and decorators
13 Construction and building trades supervisors
14 Steel erectors
15 Bricklayers and masons
16 Roofers, roof tilers and slaters
17 Plumbers and heating and ventilating engineers
18 Carpenters and joiners
19 Glaziers, window fabricators and fitters
20 Construction and building trades n.e.c
21 Scaffolders, stagers and riggers
22 Road construction operatives
23 Rail construction and maintenance operatives
24 Construction operatives n.e.c
25 Elementary construction occupations

Table 6 Commonly used construction sector skills and knowledge held by occupations in other sectors

	Manager	Buyer	Assistant	Maintenance Engineer	Engineering Technician	Engineering Manager	Machinist	Production Supervisor
Health & safety knowledge/adherence	✓	✓	✓	✓	✓	✓	✓	✓
Waste management /reduction	✓	✓				✓	✓	✓
Problem solving	✓	✓	✓	✓	✓	✓	✓	✓
Communications	✓	✓	✓	✓	✓	✓	✓	✓
Risk assessment				✓		✓		✓
Time management	✓		✓	✓	✓	✓	✓	✓
Working with precision and accuracy				✓	✓	✓	✓	✓
Knowledge of building materials/fabric				✓		✓		
Understand/work to building plans								
Use of machinery/tools				✓	✓	✓	✓	✓
Working to plans/specifications				✓	✓	✓	✓	✓
Measurement and calculation				✓	✓	✓	✓	✓
Surface preparation							✓	
Practical skills/manual dexterity				✓	✓		✓	✓
Installation of building components				✓				

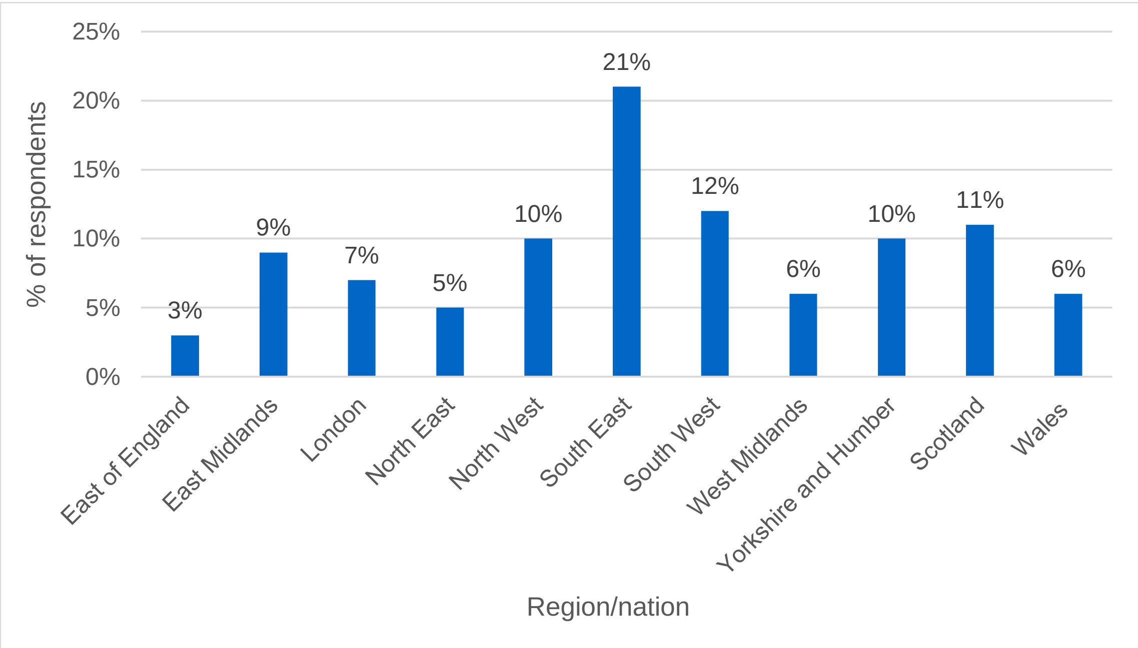
Key to sectors:

(colour: dark purple)	Retail
(colour: green)	Engineering
(colour: blue)	Manufacturing

Appendix 2: Profile of survey respondents

The following figure shows the breakdown of respondents who participated in the survey about actions typically taken in support of transferability.

Figure 12 Profile of survey respondents



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