

Skills shortages in the UK economy

October 2019

Skills shortages



This bulletin represents the culmination of two years of work drawing together and analysing the vast array of research on skills shortages and the future of work. We have taken the opportunity to step back and summarise the key messages that have emerged time and again from that research.

Skills shortages are large, growing and costly both economically and socially.

The skills that employers are looking for are overwhelmingly technical and transferable, the very skills that are being deprioritised by current education policy. Significant and ongoing change is now a feature of the labour market as we progress through the fourth industrial revolution and **these skills are what young people need to set them in the best possible stead for the future.**

Latest research from IZA Labor Economics shows that **77% of firms across Europe report the limited availability of skills as an impediment to investment**, while the Migration Advisory Committee highlights that the **majority of organisations (48%) reported that recruitment time had 'increased a lot' in the last 12 months.**

We zoom in on the construction industry in partnership with the Federation of Master Builders, whose latest data highlights that **just over half (56%) of small business employers are struggling to hire carpenters/joiners and a similar number (54%) can't get the bricklayers they need.**

Looking ahead to the digital revolution, new research by the Open University shows that **nine out of ten (88%) organisations feel that they have a shortage of digital skills**, while the Royal Society of Arts sets out *Four Futures of Work* that businesses may need to be ready to adapt to in the coming years.

On a positive note, latest research by the Careers and Enterprise Company shows that **over half of schools and colleges are ensuring that all or most of their students have an employer encounter every year** and these are linked to improved resilience and motivation. We also feature case studies of the excellent work that Career Ready and Blackburn College are doing to address skills shortages in the construction sector.

OLLY NEWTON, Director of Policy and Research, Edge Foundation

Over half of schools and colleges are ensuring that all or most of their students have an employer encounter every year.





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38% of businesses fear that future restrictions on the rights of EU nationals to work in the UK would have a negative impact on their business

Key Messages from our First Six Skills Shortage Bulletins

The Edge Foundation

The most obvious message to start with is perhaps that there is a wealth of research taking place about skills shortages and the changing shape of our economy and labour market. The value that we wanted to add through this series of bulletins is twofold. Firstly, we wanted to draw out the key messages from reports and research to make them easy to digest. Second, we wanted to aggregate and amplify those messages so that where we hear the same points again and again from different sources, they begin to build up a stronger and clearer picture. This article draws out those repeated messages from across our first six bulletins.

1. Skills shortages are large and have grown significantly

The Department for Education's *Employer Skills Survey* (Bulletin 3), which brought together data from 87,000 employers, provided the definitive figures here. **The number of skills shortage vacancies¹ has more than doubled in recent years, from 91,000 in 2011 to 226,000 in 2017.**

Data from CIPD's *Overskilled and Underused* (Bulletin 4) showed that there is also a very significant skills mismatch, with **as many as half (49%) of UK workers potentially in the wrong job to suit their skill levels.**

Research also illuminates that there are areas of particularly **acute skills shortage, one of the most frequently referenced being in digital skills.** Research by the Open University for their report *Bridging the Digital Divide* (Bulletin 6), shows that nine out of ten organisations (88%) surveyed felt that they suffered from a shortage in this area.

2. Employers do not appear to be taking significant action to address skills shortages

Surveys and analysis have repeatedly suggested that **investment in training for existing workers is low and falling.**

The *Skills and Employment Survey 2017* (Bulletin 2), which began in 1986, found that time spent learning on the job

and getting training had fallen, while CIPD's research in *Overskilled and Underused* (Bulletin 4) suggested that **a quarter of the workforce in the businesses they surveyed had undertaken no training in the last 12 months.**

The Learning and Work Institute go even further in *Time for Action* (Bulletin 5), emphasising that **falls in UK employer investment in training have taken this to half the EU average per worker – £5.1 billion less in real terms than 10 years ago.**

There is little prospect of this changing as the World Economic Forum's *Future of Jobs* Report (Bulletin 4) highlights – **the most common plan to deal with skills shortages (at 97% of businesses) is to try to hire staff with the new skills required.**

3. Skills shortages are costly

The definitive data on the cost of skills shortages comes from the Open University's annual *Business Barometer* which has been a regular feature of these bulletins. The most recent data (Bulletin 5) showed that **two-thirds (68%) of UK employers surveyed have struggled to find workers with the skills they need in the past year.**

While a quarter have opted to leave a position vacant, the remainder have **spent more on costs such as recruitment fees, higher salaries and temporary cover staff, at a total cost of £4.4 billion.**



Skills shortages



4. The skills employers are seeking are overwhelmingly technical and transferable

Of all the messages from the research captured in this series of bulletins, this is probably the most often repeated and reinforced. In our very first article, the Department for Education's *Employer Perspectives Survey 2016* (Bulletin 1) showed that almost **two thirds (65%) of employers rated relevant work experience as significant or critical when hiring**, compared to less than half (46%) for academic qualifications.

This was reinforced by CBI/Pearson's *Educating for the Modern World* (Bulletin 3), which showed that **over half of employers (60%) value broader skills such as problem solving and nearly three quarters (75%) say they prefer a mix of academic and technical qualifications** or that they view all qualifications equally.

The DfE *Employer Skills Survey 2017* (Bulletin 3) narrowed the focus down even more specifically, noting that two particular themes emerged which matched the findings of other surveys:

- **Technical and practical skills** – these are the specific skills required to perform the functions of a job role.
- **People and personal skills** – these are the 'softer', less tangible skills required to manage oneself and interact with others in the workplace.

International research suggests that in this respect, the UK is very similar to other economies. LinkedIn's *Global Talent Trends 2019* (Bulletin 5) found that **92% of employers said that so-called 'soft skills' are equally or more important than hard skills**, with creativity highlighted as of particular value.

Edge and Education & Employers report *Joint Dialogue* (Bulletin 4) helped to establish a clear framework for these skills based on meta-analysis of a wide range of recent employer surveys in the UK and abroad.

5. The skills employers are seeking are not being prioritised within the education system

Several pieces of research featured in the bulletins have highlighted that, despite the clear evidence from employers, the skills and attributes above are in some cases being actively deprioritised by current education policy.

We highlighted (Bulletin 3) that between 2010 and 2018, with the introduction of the EBacc there was a **fall of 154,000 (57%) in entries to Design and Technology GCSE and a reduction of 77,000 (20%) in entries to creative subjects**. In computer-based subjects, there was a fall between 2016 and 2018 of 17,000 entries.

Edge and Education & Employers *Joint Dialogue* (Bulletin 4) highlighted that teachers feel that recent qualification

While 76% of young people recognised work experience was valuable, only 51% had access to it, while 80% of young people surveyed had never received a visit from an employer whilst at school.

reforms are negatively impacting their ability to teach the skills that employers are looking for. **Nearly half (47%) of teachers surveyed believed that they have fewer opportunities to develop employability skills since the introduction of reformed GCSEs and A-Levels,** a third stating that the new syllabus required a focus on rote learning. This rose to two-thirds (66%) of teachers surveyed feeling that the new qualifications left less opportunity to develop creativity.

Youth Employment UK's *Youth Voice Census* has featured regularly in the bulletins and also provide a valuable insight in this area. The 2018 Census (Bulletin 3) showed that **while 76% of young people recognised work experience was valuable, only 51% had access to it,** while 80% of young people surveyed had never received a visit from an employer whilst at school. The 2019 Census (Bulletin 5) showed valuable progress on apprenticeships with 83% of students reporting having them discussed, compared to 58% the previous year.

The case studies highlighted throughout the bulletins show that despite wider policy, **some schools, colleges and universities are focusing very explicitly on developing the skills employers are asking for.**

Cardiff University's National Software Academy (Bulletin 2), the Edge Hotel School (Bulletin 3) and the Yarrow at Broadstairs College (Bulletin 3) all provide rich examples of integrating rich employer engagement and workplace experience.

6. Employer confidence in the future ability to meet skills requirements is low

Looking to the future, the CBI/Pearson *Education and Skills Survey 2017* (Bulletin 1) reported in our very first bulletin showed that 75% of employers felt that they would need more staff with higher skills in the years ahead, but 61% were not confident about accessing high-skilled employees in the future. The following year, CBI/Pearson's *Educating for the Modern World* (Bulletin 3) showed an increase to **two-thirds (66%) of businesses not confident that there will be enough people available in the future with the necessary skills to fill their high skilled job.**

This is reinforced by the RSA's *Good Work in an Age of Radical Technologies* (Bulletin 4) which pointed to widespread anxiety about mass automation and noted that **less than 5% of survey respondents felt that schools, colleges and universities are very well prepared.**

In the short to medium term, Brexit and its impact on migration has repeatedly been raised as a major concern for businesses. City and Guilds' *People Power* (Bulletin 2) showed that a fifth of employers surveyed stated that Brexit had already had a negative impact on their ability to recruit the staff they need. Looking ahead, British Chambers of Commerce research (Bulletin 1) suggested that **38% of businesses fear that future restrictions on the rights of EU nationals to work in the UK would have a negative impact on their business.**

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Some sectors are trying to become more proactive in gathering requirements from across businesses, as shown by the example of the film industry (Bulletin 3), who are using their Skills Forecasting Service to try to better match future demand.

7. There has been significant change in the labour market and this is set to continue

New research by the Centre for Vocational Education Research² shows that between 2002 and 2016, the use of manual skills in the workplace declined across all areas of employment, while **the use of analytical and interpersonal skills has increased significantly.**

Meanwhile, research by the World Economic Forum (Bulletin 2) reminds us of ten jobs that did not even exist ten years ago but are now widespread in the labour market, from app developer to social media manager, to big data analyst.

Looking ahead, although it is very difficult to predict the scale of their impact, there is no doubt that from autonomous vehicles to cancer-detecting algorithms, **every corner of the economy will continue to be transformed** by new technology as we continue to manage the impact of the fourth industrial revolution.

This will have an impact both on and within occupations as processes and roles are automated. Latest research by the Office of National Statistics (Bulletin 5) analysed 20 million jobs and suggested that **1.5 million of these are at high risk of automation**, with humans likely to be replaced by computer programs, algorithms or robots.

This research also suggested that younger workers are more likely to be affected, with **15.7% of 18-24 year olds employed in occupations that are at high risk.** This is reinforced by the Open University's *Bridging the Digital Divide* (Bulletin 6) which suggests that in the technology sector, more than a quarter (26%) of job roles held by 18-34 year olds will change significantly as a result of automation and digital advancement.

Research by the RSA's Future Work Centre (Bulletin 4) reminds us that some of the greatest changes are likely to happen within specific job roles and that we should focus as much on the evolution of jobs as their automation, with both **'high-tech' and 'high-touch' roles being likely to be those most resistant to automation.**

This is reinforced by the World Economic Forum's *Future of Jobs Report* (Bulletin 4) which shows that globally there is predicted to be a shift of 42% in workforce skills required between 2018 and 2022. What that means for the UK is that an estimated **17% of workers will require more than 6 months of reskilling and a further 23% between 1 and 6 months.**

The RSA's most recent work on *The Four Futures of Work* (Bulletin 6) set out later in this bulletin reminds us that it is very difficult to predict the future and suggests that it would be best for us to focus on preparation for a range of possible scenarios.

However, what is clear from many of the pieces of research featured is that, building on message 5, it will be high quality technical and transferable skills that put young people in the best possible place to take advantage of the opportunities of the changing labour market. As the World Economic Forum's (Bulletin 4) research points out – **as well as the growth in high-tech skills there will also be a premium on human skills like creativity, originality, persuasion and negotiation.**

You can download the other Skills Shortage Bulletins using the following links:

Bulletin 1 – www.edge.co.uk/Skills-Bulletin-1

Bulletin 2 – www.edge.co.uk/Skills-Bulletin-2

Bulletin 3 – www.edge.co.uk/Skills-Bulletin-3

Bulletin 4 – www.edge.co.uk/Skills-Bulletin-4

Bulletin 5 – www.edge.co.uk/Skills-Bulletin-5



Skill Shortages and Skills Mismatch in Europe

A review of the literature

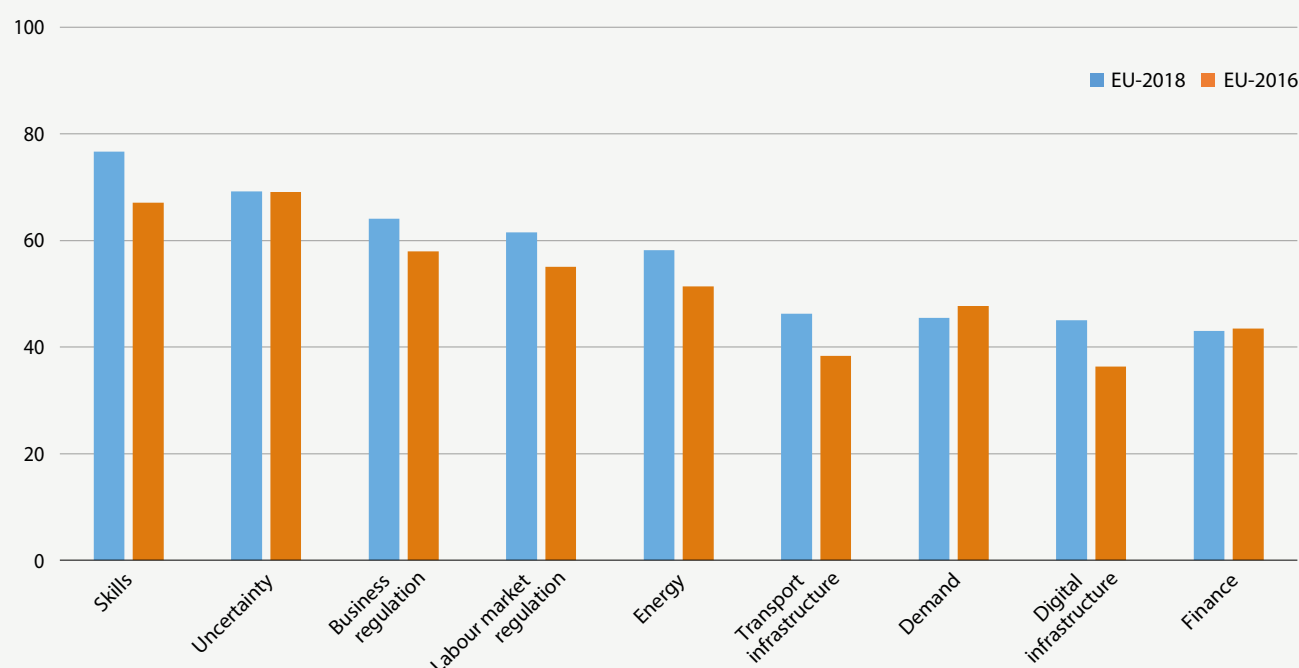
IZA Institute of Labor Economics – published May 2019

Giorgio Brunello from the University of Padua and Patricia Wruuck from the European Investment Bank have reviewed recent literature on how skills shortages have been measured across Europe. They highlight that different methods often produce quite different results and encourage us to understand the full range of factors and the context behind skills shortages and mismatches.

The EIB Investment Survey (EIBIS) shows that on average **77% of firms report the limited availability of skills as an impediment to investment.**³ The review suggests that when interpreting surveys, it is important to **connect the responses of firms to company characteristics**

and complement responses with an understanding of the operating environment. For instance, the skills shortages reported by employers may be attributed to the wage and working conditions offered as much as to the lack of suitable candidates.

Share of firms reporting different obstacles to investment, in % (2016-2018)



Notes: The question asked in the questionnaire is: thinking about your investment activities in your country, to what extent is each of the following an obstacle? The graph adds the share of firms naming the impediment as a major or minor obstacle. Sample: all firms.

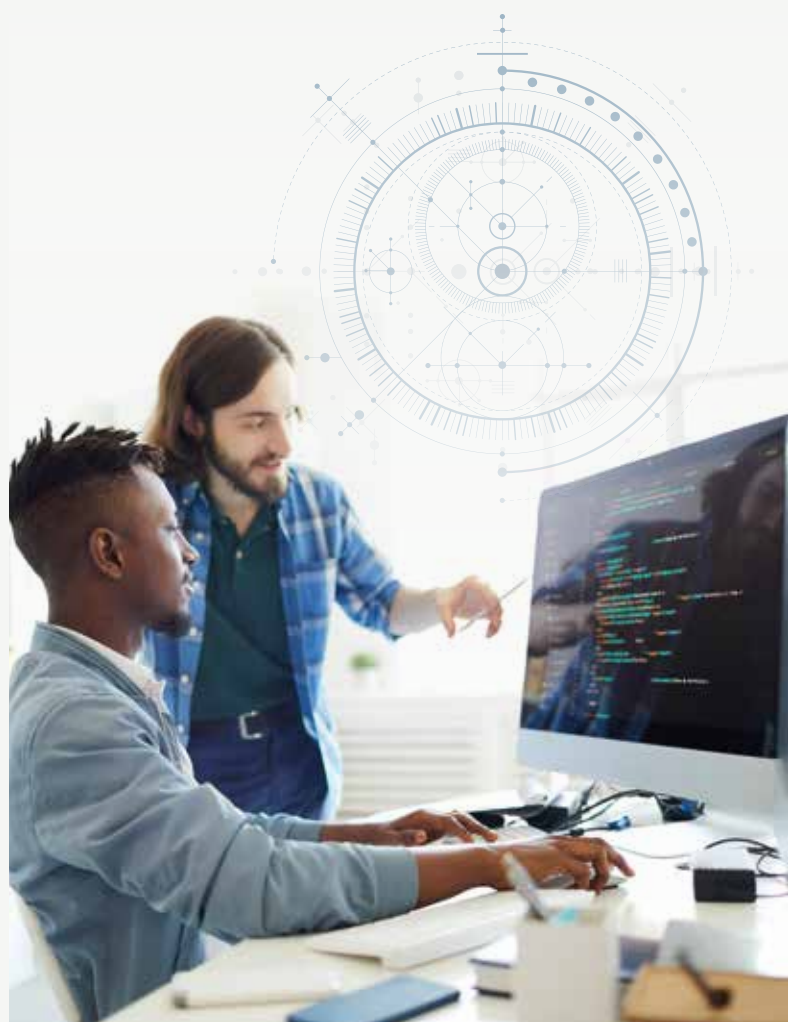
Source: EIBIS 2016 - 2018.

Skills shortages

The review looks at the effect of cyclical factors, such as economic expansion, on skills shortages and mismatches. The European Business Survey **confirms there has been an increase in average labour shortages since the 2008 financial crisis**. It makes clear that there are many factors that can affect the complex relationship between skills mismatch and the business cycle. Two important ones are:

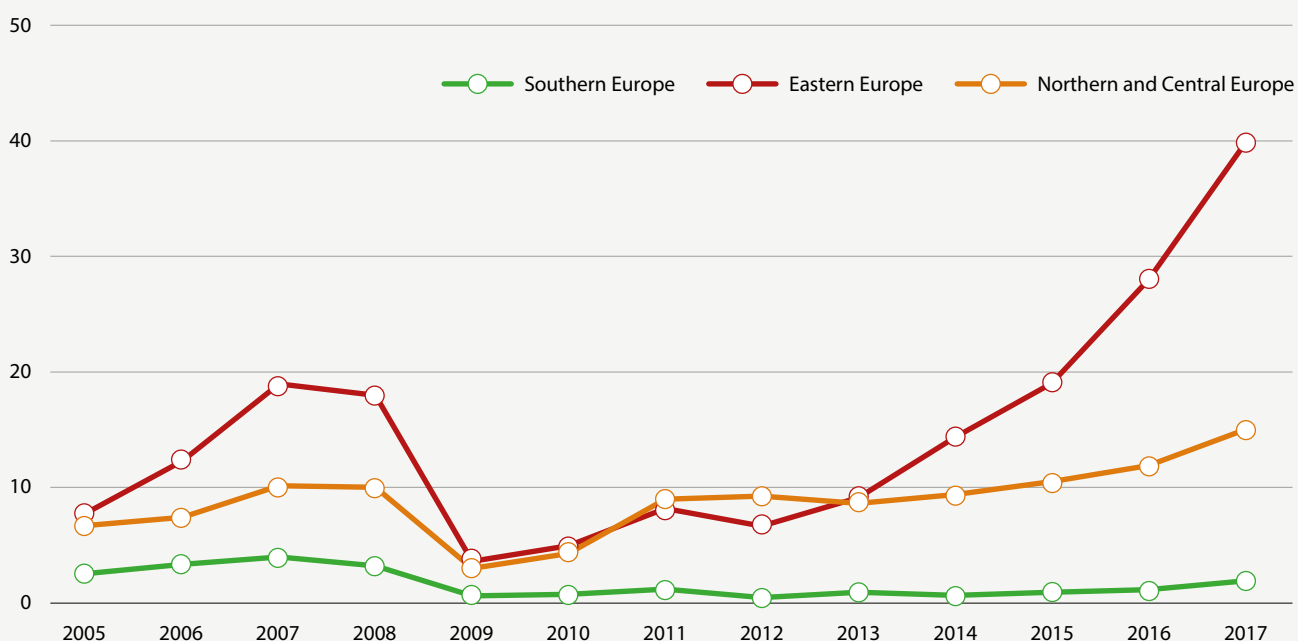
- **Cleansing**, which occurs when mismatches decline because low quality jobs disappear but high-quality roles survive.
- **Sullyng**, which occurs when mismatches increase because firms post fewer vacancies and job seekers are willing to accept less desirable jobs because of the higher competition they face.

The demand for skills can also be affected by structural factors such as technological and organisational innovation, demographic change and the expansion or contraction of different sectors and occupations. Technological change has been the factor with the highest impact in recent years, resulting in shortages where skills cannot keep pace and ‘hollowing out’ where demand for routine cognitive and manual skills is



declining. **According to the Survey of Adult Skills, 14% of jobs in participating OECD countries are highly automatable, equivalent to 66 million workers in 32 countries covered by the study, with another 32% at risk of being automated.**⁴

Incidence of companies indicating that labour shortages are a factor currently limiting their production (%)



Source: Eurostat Business Surveys, several years. Southern Europe: Italy, Spain and Portugal; Eastern Europe: Czech Republic, Hungary, Latvia, Lithuania, Poland, Slovenia and Slovakia; Northern and Central Europe: Austria, Belgium, Denmark, France, Germany, Luxembourg, Netherlands, Finland, Sweden and UK.

Full Review of the Shortage Occupation List

Migration Advisory Committee – published May 2019



The Migration Advisory Committee (MAC) is an independent public body that advises the government on migration issues. In June 2018 the MAC were commissioned by the Home Office to produce a comprehensive review of the shortage occupation list (SOL). They combined quantitative evidence on indicators such as wages, vacancies and employment with qualitative evidence from stakeholders.

To be placed on the SOL, a job must meet three requirements. Barring some exceptions, they must be **skilled, in shortage and a sensible occupation to fill through migration**.

Migration in the labour market context

The UK's **unemployment rate is at its lowest level since the early 1970s** despite the recent slow-down in GDP growth, whilst vacancy rates are the highest since the current series started in 2001.

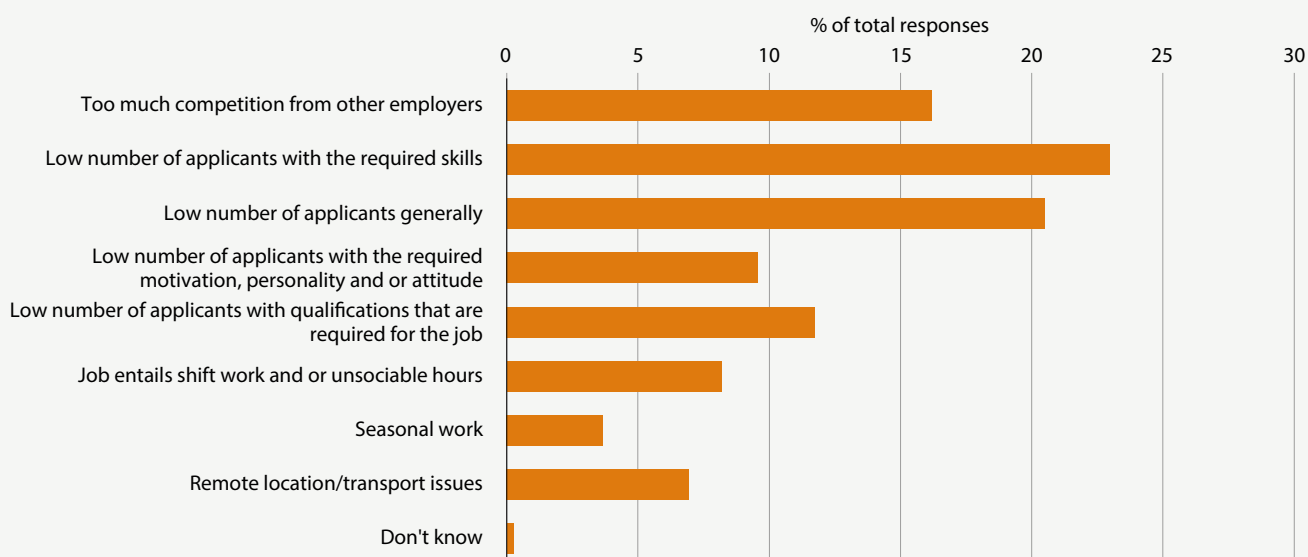
The number of EU and Non-EU born **migrants in employment has increased significantly, from about**

2 million in 1997 (7.5% of the total employment) to over 5.6 million (or 17.3%) at the end of 2018. Growth has slowed dramatically since July 2016, and there has been a slight reduction in the number of EU-born in the workforce since the Brexit referendum.

Recruitment difficulties

Nearly all of the individual organisations that responded to the MAC's call for evidence reported that there was a general lack of applicants for the roles that they had advertised for. The responses show that **low numbers of applicants with the required skills and too much competition** were the most common reasons for shortages.

Reported reasons for recruitment difficulties – individual organisations



Source: MAC Call for Evidence online form

Skills shortages

For the representative organisations, the two most highly cited reasons reported for recruitment difficulties were **Brexit uncertainty and the resulting reduced EU migration** (45%), together with growing demand for the sector (43%).

Amongst the creative arts and entertainment sector, some respondents suggested that the Governments refocus on core subjects has led to a decline in students taking up arts GCSEs at school, this in turn leads to a shortage of workers with the necessary skills to take up roles in the creative industries.

Impact of recruitment difficulties

The **majority of individual organisations (48%) reported that recruitment time had ‘increased a lot’ in the last 12 months.**

Individual organisations were also asked about the wider impact recruitment shortages have had on their organisation.

The majority reported that shortages had impacted the quality of service/work that they provided, followed by an impact on productivity and delivery times. A large proportion of responses also noted the pressure on current staff, including staff morale, higher absenteeism and turnover.

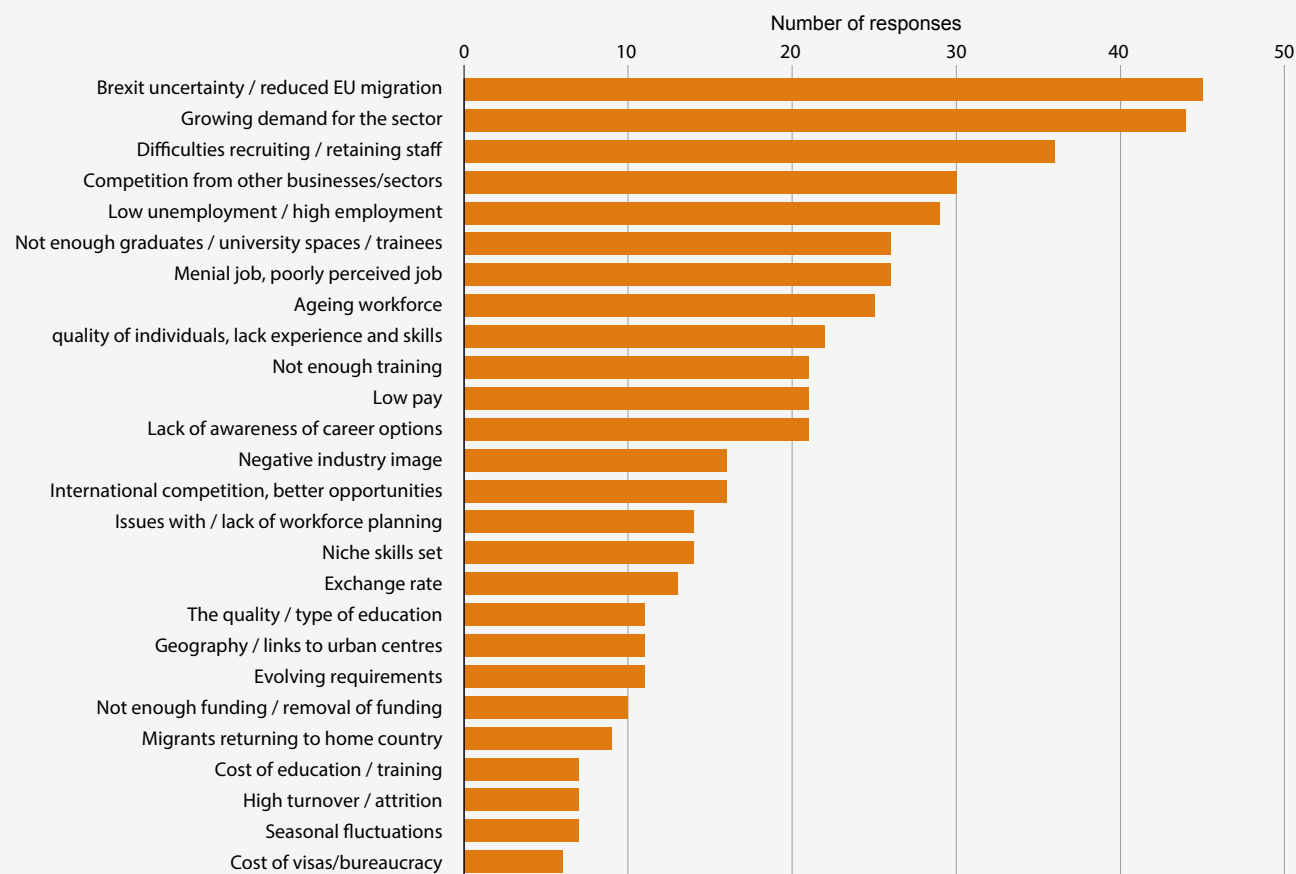
Measures taken to address shortages

The most common measure mentioned by organisations to address shortages was the use of different methods/channels for advertising vacancies, followed by increasing wages to attract candidates as well as investment on training of existing staff and an increase in recruitment *spending*.

These top responses all indicate an increased cost to organisations, which reinforces messages from other research such as the Open University’s *Business Barometer*.

Individual organisations also reported working with schools/higher education establishments to encourage interest in the profession. Another common way of dealing

Reported reasons for recruitment difficulties – representative organisations



Source: Manual classification of free-text responses to MAC Call for Evidence

Full Review of the Shortage Occupation List

with immediate recruitment shortages was to **advertise for or recruit EEA and non-EEA workers**.

The reported impact of these measures varied significantly – 35 per cent reported no impact, whilst 40 per cent reported “limited” or partly “successful”, only 15 per cent said they had been successful, while for 10 per cent it was too early to tell. As the Food and Drink Federation recognised in their response: *Pay increases have mostly led to companies and sectors recruiting staff from each other, with limited success in increasing the overall number of workers in these areas.*

Medium skilled occupations facing shortages of labour

- Butchers
- Science, engineering and technology technicians
- Health and welfare associate professionals
- Caring personal service occupations
- Skilled agricultural and related trades
- Business and public service associate professionals
- Skilled construction and building trades



Amongst the creative arts and entertainment sector, some respondents suggested that the Governments refocus on core subjects has led to a decline in students taking up arts GCSEs at school



Professor Alan Manning, Chair of the MAC:

The labour market is very different now from the last SOL review in 2013. Unemployment is lower, vacancies higher and free movement is no longer

providing the ready supply of workers it once did for some employers. In addition, there is considerable uncertainty

surrounding Brexit and the future immigration system. The SOL is a way of prioritising some jobs over others, based on where the shortages are most severe and where the consequences of those shortages are most serious. That is why we have recommended expanding the SOL to cover a range of occupations in the health, information and engineering fields.

Benefits to Young People of Improved Careers Education

Careers and Enterprise Company – published September-November 2019

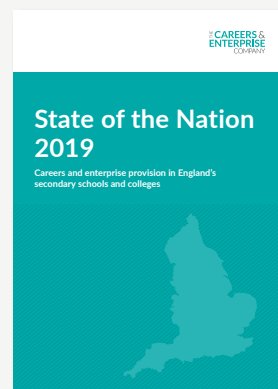
New research from The Careers & Enterprise Company shows young people are benefiting from more encounters with the world of work while they are at school or college, and essential skills are improving as a result.

Over the past two years, there has been substantial improvement across every dimension of careers education. **Over half of schools and colleges are ensuring that all or most of their students have an employer encounter every year** amounting to at least two million young people. Students are also accessing personal guidance interviews with a qualified careers adviser in increasing numbers.

Over 3,800 state-funded schools and colleges are now working towards the Gatsby Benchmarks that define world-class standards of career guidance based on international evidence.⁵ They are tracking their progress using Compass – a self-assessment tool.

Twenty-two Careers Hubs across the country are leading the way, outperforming the rest of the country on every benchmark. Their performance is driven through the strategic role of Hub Leads who build networks and coordinate activities across schools and colleges.⁶ **With the launch of 20 new Careers Hubs in September 2019, 1,300 schools and colleges are now working in this coordinated way**, providing a boost to careers education across the country.

What difference does this make to young people? Previous research has shown that young people benefit in myriad ways from employer encounters that are embedded within a wider careers programme. New research with



The eight Gatsby Benchmarks for Good Career Guidance

1. A stable careers programme
2. Learning from career and labour market information
3. Addressing the needs of each pupil
4. Linking curriculum learning to careers
5. Encounters with employers and employees
6. Experiences of workplaces
7. Encounters with further and higher education
8. Personal guidance



Benefits to Young People of Improved Careers Education

young people participating in careers activities funded by The Careers & Enterprise Company provides further evidence on the specific skills developed.⁷

The largest changes were seen in resilience and motivation. For example, before the careers activity, 53% of young people agreed with the statement, ‘When I do not understand something, I ask the teacher again

and again until I understand’. This rose to 68% following the activity. The other skills improved include planning future goals and making career choices, working with different kinds of people, problem solving and presenting – employability skills that are often cited as lacking on entry to jobs. Through employer encounters, young people are becoming better prepared for the world of work.

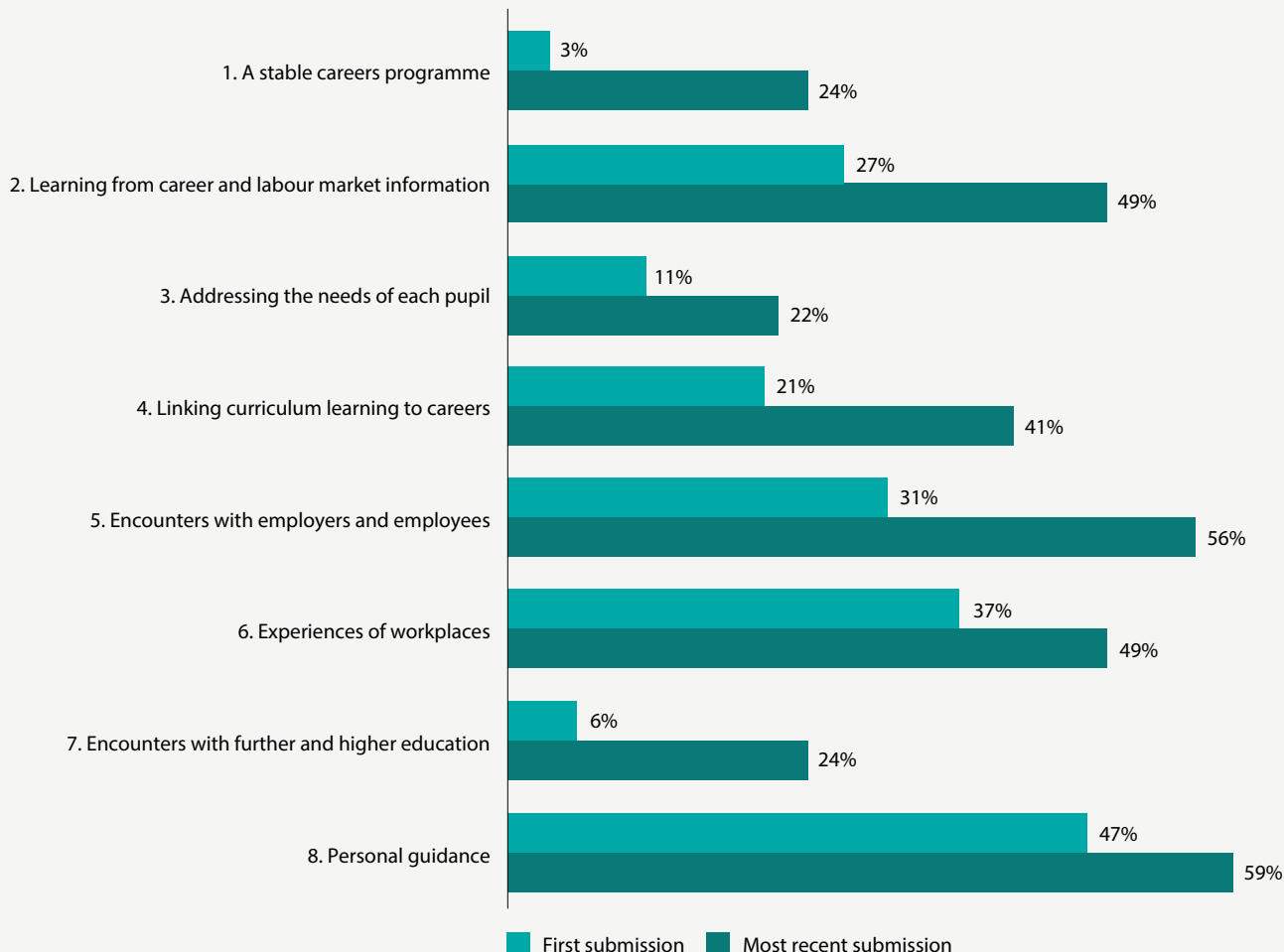


Dr Emily Tanner, Head of Research at The Careers & Enterprise Company:

Through the Gatsby Benchmarks and Compass tool, we have better evidence now than ever before on the standard of careers education across England, and the signs of

progress are encouraging. Our latest research provides further evidence that young people develop essential skills and knowledge when they engage with employers as well as gaining motivation to engage in their learning.

Percent of schools and colleges achieving the Gatsby Benchmarks (N=2,880)



The Four Futures of Work

Coping with uncertainty in an age of radical technologies

Royal Society of Arts – published March 2019



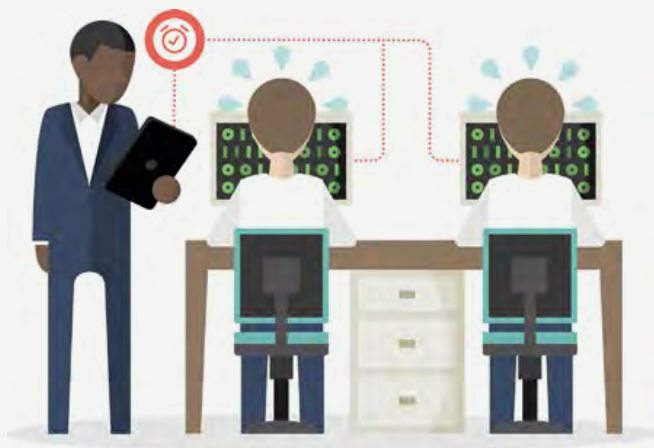
Thomas J. Watson allegedly said, when CEO of IBM in 1943, that there is *a world market for maybe five computers*. This captures something essential about our collective ability, or inability to predict the future. Namely, that we are useless at it and especially so when it comes to technology.

For that reason, the RSA Future Work Centre has **deliberately rejected the well-worn path of making quantitative predictions** about how many jobs are set to disappear due to automation, artificial intelligence and the other transformative technologies. Instead, their *Four Futures of Work* report used a morphological ‘scenario planning’ approach that wrestles with the cultural, political and economic uncertainties as well as the technological. The four scenarios that emerge – all set in 2035 - are not definitive predictions. **Each future captures a possible trajectory for society** in a way that hopes to stimulate ideas and action here in the present.

The Big Tech Economy describes a world where technology rapidly transforms society. From self-driving cars to 3D printing, a new machine age delivers huge improvements in productivity, new consumer

products and high-quality public services. However, unemployment, economic insecurity and inequality all rise, with tech companies hoarding the spoils of growth. The dizzying pace of change leaves workers and unions little time to respond.

The Precision Economy portrays a future of hyper-surveillance. Technological progress is moderate, but the proliferation of sensors and data harvesting technology like the Internet of Things allow firms to create value



The Four Futures of Work

by analysing objects, people and the environment. Gig platforms proliferate and rating systems become pervasive in the workplace. While some lament these trends as invasive, others believe they have ushered in a more meritocratic society where effort is more appropriately rewarded.

The Exodus Economy is characterised by an economic slowdown. A crash on the scale of 2008 dries up funding for innovation and keeps the UK in a low-skilled, low-productivity and low-paid rut. Faced with another bout of austerity, workers lose faith in the ability of capitalism to improve their lives. Cooperatives and mutuals emerge to serve people's core economic needs in food, energy and banking. While some workers struggle on poverty wages, others discover ways to live more self-sufficiently, including by moving away from urban areas.

The Empathy Economy envisages a future of responsible stewardship. Technology advances at a clip, but so too does public awareness of its dangers. Tech companies work alongside democratic forces to create products that work on everyone's terms. Automation is modest and carefully managed, with disposable income flowing into 'empathy sectors' like education, care and entertainment.



Alan Lockley, Head of RSA
Future Work Centre

Our aim is to encourage decision makers to think more laterally about how the future may play out, move the debate beyond mass automation and remember that humans not algorithms will ultimately take the key decisions that shape tomorrow.

This trend is broadly welcomed but brings with it a new challenge of emotional labour, where the need to be continuously expressive and available takes its toll.

Above all, these scenarios remind us that, irrespective of futurist speculation, **for now and the foreseeable future it is human beings, not algorithms, who will decide whether technology will make our lives better or worse.** The Future Work Centre is now turning its attention to the question of what policy and practice reforms are needed to enable a future of good work. This winter RSA will be developing a blueprint for a new social contract geared towards this end.



Bridging the Digital Divide

The Open University – published June 2019

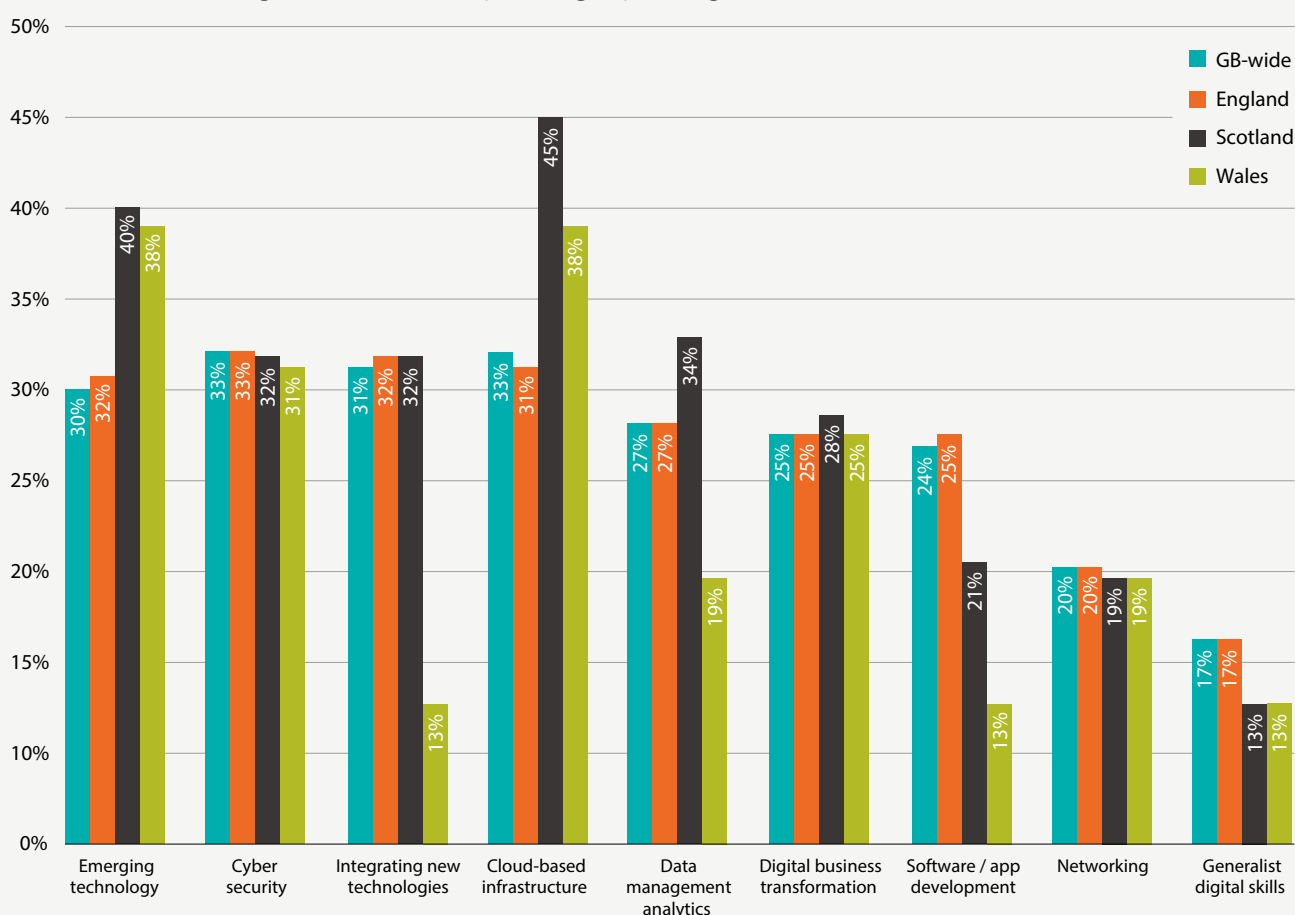


The Open University's Bridging the Digital Divide report highlights the extent of digital skills gaps and the impact they are having on organisations and their employees. It is based on a survey of 500 chief technology officers, managing directors and HR directors across Great Britain. The university also surveyed 2,000 adults to establish their experiences and attitudes.

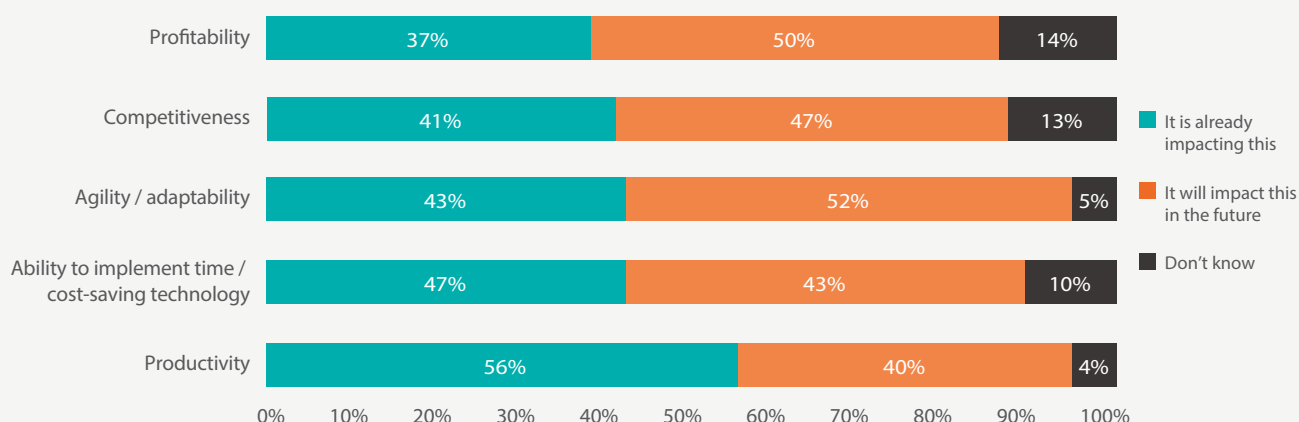
This research reinforces many of the messages from earlier Skills Shortage Bulletins, showing that **nine out of ten (88%) organisations feel that they have a shortage of digital skills**. The skills most lacking relate to cyber security, cloud-based development and emerging technologies, with mid-level and advanced digital skills in the shortest supply across all disciplines.

Organisations are clear about the impact of these shortages on their performance, with **more than half (56%) saying that skills shortages have already negatively impacted productivity** and 47% that a lack of digital skills is impacting their ability to implement new technologies. Half (50%) expect profitability to be negatively affected as a result in the next five years.

Which of the following skills are currently lacking in your organisation?



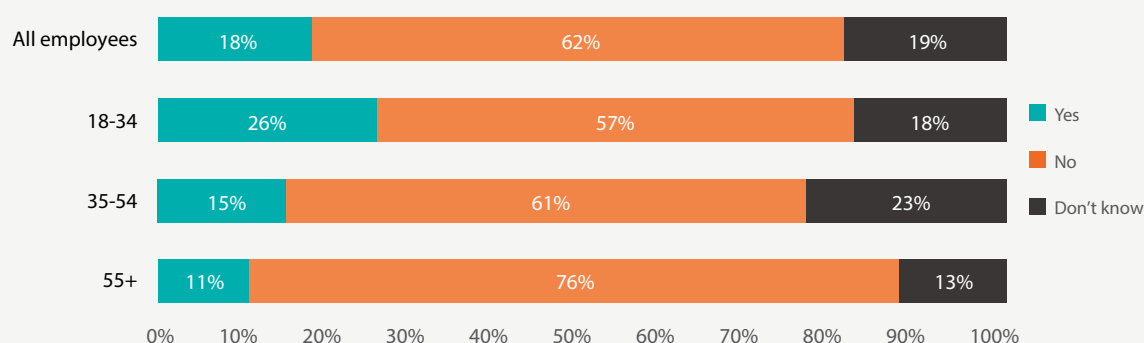
How is the digital skills shortage impacting organisations?



Looking ahead, **more than a third (37%) of workplace roles are expected to alter significantly in the next five years**, potentially affecting up to 12 million employees in the UK. One in six (18%) of the current workforce believe that they will have to change jobs at some point because of new technology and automation. This is likely to disproportionately affect younger workers.

Organisations have increased their training budgets by 13% to increase digital skills, but the report recommends that they do more to embed digital education in their businesses.

Will your job role change as a result of developments in technology and innovation?



Jane Dickinson, Digital Skills Lead at the Open University:

Digital technologies have disrupted entire industries. They power new products and services, have revolutionised customer relationships and drive a hypercompetitive business environment where innovation is prized and tech-powered start-ups can displace even the most entrenched incumbents. They also create opportunities to change the nature of work itself.

Employers must act now to establish a strong foundation of technical digital skills in order to create and maintain success. By using training budgets to develop workers, including local skills re-training funding and apprenticeship funding, organisations can build up the skills they need to become resilient, flexible and adaptable in the face of future challenges.



Spotlight on: **Construction**

The Federation of Master Builders (FMB) is the largest trade association in the construction industry, with around 8,000 small to medium-sized (SME) member companies from across the UK. These local building firms offer a range of services from repair and maintenance, extensions and refurbishments to new house building. Construction SMEs train two-thirds of all industry apprentices and will typically recruit from their local area.

The construction industry has **historically always grappled with skills shortages**, and the lack of tradespeople coming into the industry is a significant barrier to growth across all the sectors from commercial buildings to new homes. This is, in part, due to the image problem of the industry, where a minority of rogue traders tarnish the entire reputation of construction and being a builder.

The industry is now pulling together to tackle this image problem head-on through developing new competency

and quality schemes. **An industry Task Force has been established** to investigate how a mandatory licensing scheme for construction could help to transform the UK's building sector, as it has done in other countries like Australia and Germany. However, it will take time to see the impact of any initiative in this space in terms of the number of new recruits coming through.

To understand the situation we are now in, the FMB produces a **quarterly State of Trade Survey which**

Spotlight on: Construction



tracks key indicators in the SME construction sector.

This includes statistics on employment and labour which demonstrate the extent to which local building businesses are struggling to hire key trades.

The latest results from the State of Trade Survey for the third quarter of 2019, shared exclusively for this bulletin, indicate that **just over half (56%) of small business employers are struggling to hire carpenters/joiners and a similar number (54%) can't get the bricklayers they need.** Almost one in two builders (46%) can't hire site managers and just over one in three builders (39%) can't hire plasterers.

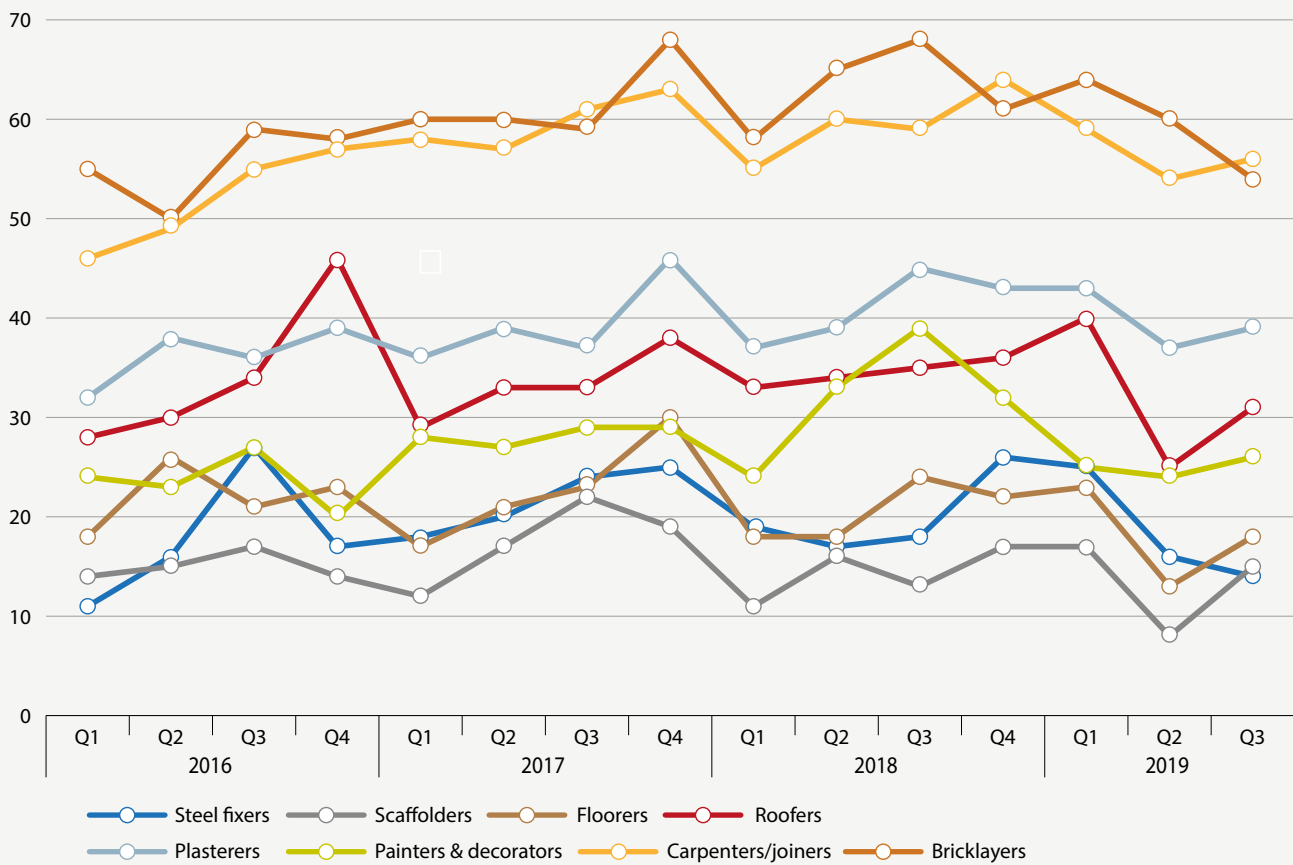
While it is **increasingly concerning that one in two builders are struggling to hire the core trades** given the high level of construction activity that both the private and public sectors are demanding, these statistics have actually dropped back down to the levels they were at

around three years ago, following a spike in shortages in late 2017 and early 2018.

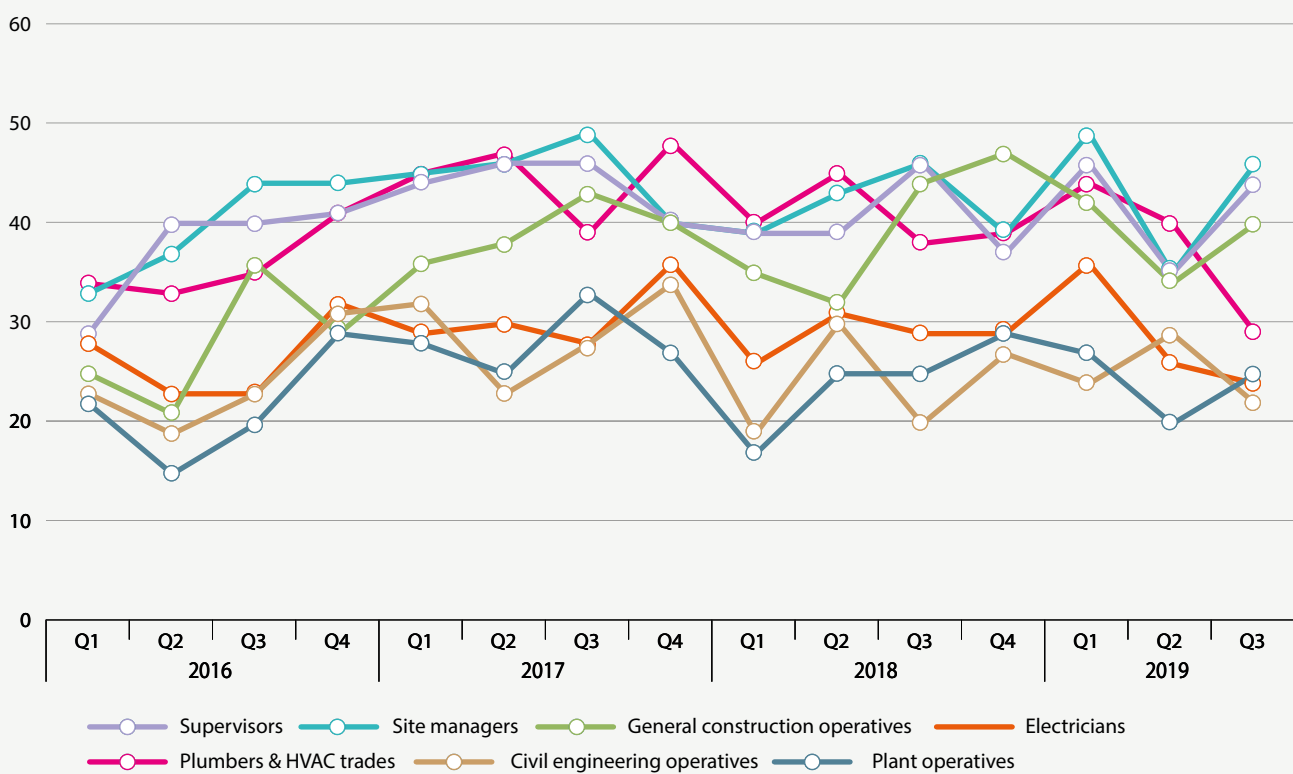
The underlying picture is more complex. Due to **political and economic uncertainty over the past two years, output in the construction industry as a whole has started to drop**, but especially the house building sector. Consumer confidence has taken a hit due to the unresolved Brexit situation, and this means people are staying put in their homes and renovating as opposed to moving on. As housebuilding slows slightly, tradespeople are diversifying into commercial and private domestic work. FMB members report that they are having more and more enquiries from self-employed tradespeople coming from the house building sector who are now looking for work on other kinds of site. **Once certainty is restored to the market and house building picks** back up, we envisage that the skills shortages will spike once again. At their worst, two-thirds of builders couldn't hire bricklayers and carpenters.

Skills shortages

% of respondents reporting difficulties recruiting selected skills



% of respondents reporting difficulties recruiting selected skills (continued)





Spotlight on: Construction

Construction on the Shortage Occupation List

The Migration Advisory Committee's work on the Shortage Occupation List featured earlier in this bulletin (pages 9-11) also provides a useful insight on this sector specifically.

Respondents from the construction sector were **most likely to cite the growing demand for the sector as well as the lack of applicants with the necessary skills and insufficient training**. As the Home Builders Federation said in their response, *these pressures are first and foremost a consequence of the 78% increase in output in the industry over the last 5 years and the loss of skills capacity suffered prior to that due to the financial recession of 2008 and its severe impact on the housing market.*

The share of the construction workforce born in the EEA (ex. the Republic of Ireland) is somewhat higher than average at around 8% compared to 7.3% across all sectors. However, this hides significant variation, with the London construction labour market being much more reliant on EU nationals (particularly those from the newer member states). A workforce survey by the Home Builders Federation in 2017 found that 17.7% of the house building workforce was from the EU with Romanian nationals representing 7.3% alone. **This survey also found that almost 50% of the housing building workforce in London was from the EU.**

An industry survey of 276 companies, representing 160,000 workers, conducted in response to the MAC call for evidence highlighted **bricklayers specifically as the occupation facing the most severe shortages** within the industry. In their response, the Construction Industry Training Board (CITB) also reported particular shortages amongst steel fixers, concreters and scaffolders.

The fact remains that there has been a historic lack of training in the industry, and trade associations like the FMB and other organisations within construction need to work together and with the Government to **develop a strategy for tackling skills shortages**, but also increasing quality and standards at the same time. If the Government is to deliver on its house building and national infrastructure targets, and if we are to maintain and upgrade our existing buildings with the energy efficiency measures that we urgently need, then there must be a **co-ordinated effort to remove the barriers to SMEs training more apprentices** and address the stereotype of the cowboy builder in order to encourage more people to choose a career in construction. We can only do this by introducing a mandatory licensing scheme for UK construction companies.



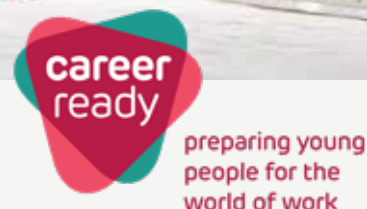
Brian Berry

Chief Executive of the
Federation of Master Builders

The construction industry must do more to rally around a shared ambition to promote the

industry and all its merits, such as innovation, design and entrepreneurship. If we don't address the skills shortage by increasing training and apprenticeships, the construction industry won't be able to expand and grow. Introducing a mandatory licensing scheme for UK construction could help create the culture change our industry needs by improving our reputation through increased quality and professionalism and thus make us more attractive to new entrants.

Case study



Career Ready

Career Ready, a UK-wide social mobility organisation supported by the Edge Foundation, is helping to address these skills shortages by connecting construction employers with young people in schools and colleges, who they can aspire to follow in their footsteps.

The team also works with businesses to provide young people aged 11-18 with a programme of employability activities. These include workplace experiences, such as paid internships, mentoring and a series of skills masterclasses. The volunteers enable students to develop

a passion for construction and gain insight into the sector's rewarding roles, while gaining essential workplace skills that will help them in any job.

The students come from diverse backgrounds - 90% of the first cohort were BAME – which employers need to tap into to ensure they have the talented range of staff necessary for success. The results speak for themselves, with 98% of young people going onto university, apprenticeships and work – and employers actively using the programme as an apprenticeship pipeline.



Kyle Princess Marzan, a student from London, said: *My time at Wates helped me to find out what I really want to do in the future. It gave me the inspiration and determination to apply for an Estimator Apprenticeship with*

Wates, which I have been accepted on to. Helen, my internship supervisor was a great source of inspiration – a woman in a male dominated environment.



Kerry Sneddon, Emerging Talent Manager at Arcadis, said about their involvement with the programme: *Working with Career Ready is a great fit for Arcadis as they support our vision of 'Improving Quality of Life'. It is vital*

that the construction industry shares as much knowledge about career opportunities as possible - especially with the skills shortage facing the industry.

Case study

Blackburn College

Blackburn College is working with construction sector employers to ensure their curriculum meets industry needs and that young people have opportunities to engage directly with employers, improving their employability.

The College is refurbishing their “bungalow” classroom which is in need of a makeover. The bungalow will be fitted with smart technologies: smart plug sockets; lighting systems; doorbells; CCTV systems and a range of new home tech, creating a centre for smart home excellence. The installation will be undertaken by learners through masterclasses and co-teaching sessions alongside industry professionals and the College’s own experienced teachers.

The two-room bungalow will have its own plant room, housing a new domestic electric boiler which supplies hot water to wirelessly controlled radiators and sinks. The retrofit underfloor heating will be controlled through wireless Android or iOS zone controllers.

Construction companies including Barnfield Construction, Darwen Terracota, Howdens Joinery, OX Tools, EU ECO



Technologies and Wates Construction have worked with the College to deliver masterclasses both on campus and on-site in areas such as energy harvesting, heritage construction, restorative brickwork, switchgear, stone masonry and surge protection devices.

Students have visited local developments, including the Reel Cinema adjacent to the College campus and Tauheedhul Boys School several times during construction to view the various stages and trades involved in the developments. Students gave positive feedback about their visits: ***I learnt about the roles and responsibilities of the Project Manager, Site Manager and how a construction site is run.***

I learnt a lot more about future career options like apprenticeships and university options. I also learnt about various construction team members, jobs and responsibilities. The strictness of site safety was also a highlight.



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- Migration Advisory Committee, *Full Review of the Shortage Occupation List* (May 2019) – www.gov.uk/government/publications/full-review-of-the-shortage-occupation-list-may-2019.
- Centre for Vocational Education Research, *The Changing Demand for Skills in the UK* (April 2019) – <http://cver.lse.ac.uk/textonly/cver/pubs/cverdp020.pdf>.
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- The Open University, *Bridging the Digital Divide* (June 2019) – www.open.ac.uk/business/bridging-the-digital-divide.
- You can find out more about the Federation of Master Builders at www.fmb.org.uk/.
- You can find out more about the work of Career Ready at <https://careerready.org.uk/>.
- You can find out more about Blackburn College at www.blackburn.ac.uk/.

Endnotes

1. Skills shortage vacancies exist where vacancies cannot be filled because individuals with the correct skills cannot be found
2. Dickerson A. and Morris D., *The Changing Demand for Skills in the UK* (Centre for Vocational Education Research), April 2019
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5. Gatsby Charitable Foundation (2014). *Good career guidance*. London: Gatsby Charitable Foundation.
6. Hutchinson, J., Morris, M., Percy, C., Tanner, E. and Williams, H. (2019) *Careers Hubs: One Year On*. London: The Careers & Enterprise Company.
7. Careers and Enterprise Company, *Future Skills* (2019)
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