

# **Skills shortages in the UK economy**

**June 2020**

## Skills shortages



As a new decade begins, we look back at trends in the labour market over the last twenty years with colleagues at The Resolution Foundation and the RSA. Britain has become **a nation of service industry workers, with significant growth in high tech and high touch roles.**

Looking internationally at the latest research from OECD shows that we are in good company in struggling with some of the rapid changes to the labour market. Across the UK, their work suggests that **13.7% of workers are in occupations at high risk of automation**, reinforcing similar messages from ONS in our last Bulletin. Latest research by the EU Commission builds on this to remind us that the fourth industrial revolution is changing the skills required within jobs and that **teaching non-cognitive skills seems to have been neglected across the EU despite its effectiveness.**

Latest research from Education and Employers shows that young people's aspirations are increasingly disconnected from the areas of job growth – **five times as many young people want to work in arts, culture entertainment and sport as projected demand in the economy**, while there is a shortfall in areas like catering and retail. Deirdre Hughes' research finds parallels in Northern Ireland with young people reporting concerns about there **not being enough jobs and not having enough experience** to get into them.

LinkedIn reports on the top emerging jobs in the UK, which are led by **Artificial Intelligence Specialist, Data Protection Officer and Robotics Engineer**. Looking to the future, the Industrial Strategy Council point to more severe skills shortages in 'workplace skills' than in 'qualifications' and 'knowledge' with at least **2.1 million workers likely to be acutely under-skilled in at least one core management skill.**

Finally, we focus down on the logistics sector, which underpins distribution of both retail and wholesale goods across the UK. Latest research shows that **54% of logistics companies are expecting skills shortages to increase over the next five years**. In terms of LGV drivers alone there is already a shortage of 51,000 and while **thirteen per cent are aged over 60 with just one per cent aged under 25**. Great examples from Tees Valley Logistics Academy and Co-op apprenticeships show some of the excellent work being done to address this.

**OLLY NEWTON**, Executive Director, Edge Foundation

***13.7% of workers are in occupations at high risk of automation... the fourth industrial revolution is changing the skills required within jobs.***





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# Overview and key trends in the UK labour market

**Laura Gardiner**, Research Director, Resolution Foundation, adapted from an article for BBC Online

There are record numbers of people in work across the UK, yet concerns have been raised about the quality of their employment and adequacy of their pay. So, what jobs do we do in Britain, and what might be on workers' minds?

## A nation of service industry workers

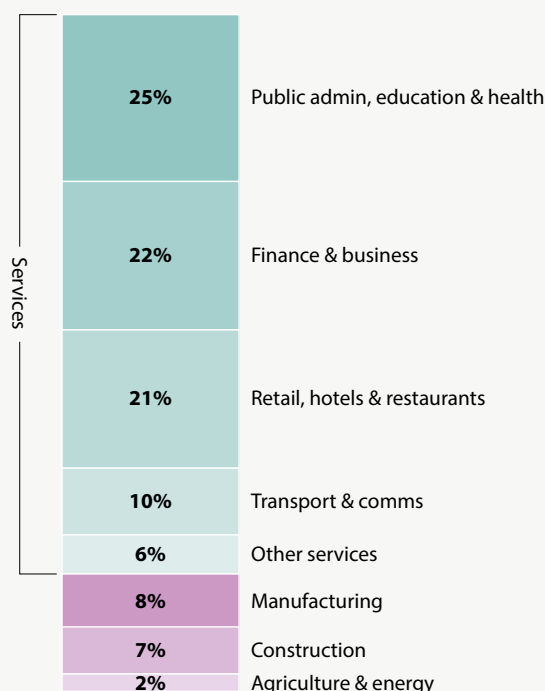
When politicians want to appeal to working people, they tend to put on hard hats and head to factories or construction sites. These workplaces may look good in pictures, but they do not chime with most people's experience of work. **Fewer than one in ten people work in manufacturing, and even fewer in construction.**

In contrast, **more than eight out of ten people work in service industries.** This covers everything from bank workers to plumbers and restaurant staff – the businesses that provide goods and services for customers, but which don't manufacture things.

**These service sector jobs have grown over time:** 25 years ago they made up three-quarters of employment. Many of these jobs have been in public administration, education and health but not all service sector jobs are growing. The recent woes of the retail sector have been well documented, but its share of the overall workforce has been shrinking since 2003.

## Most UK jobs are in the service industry

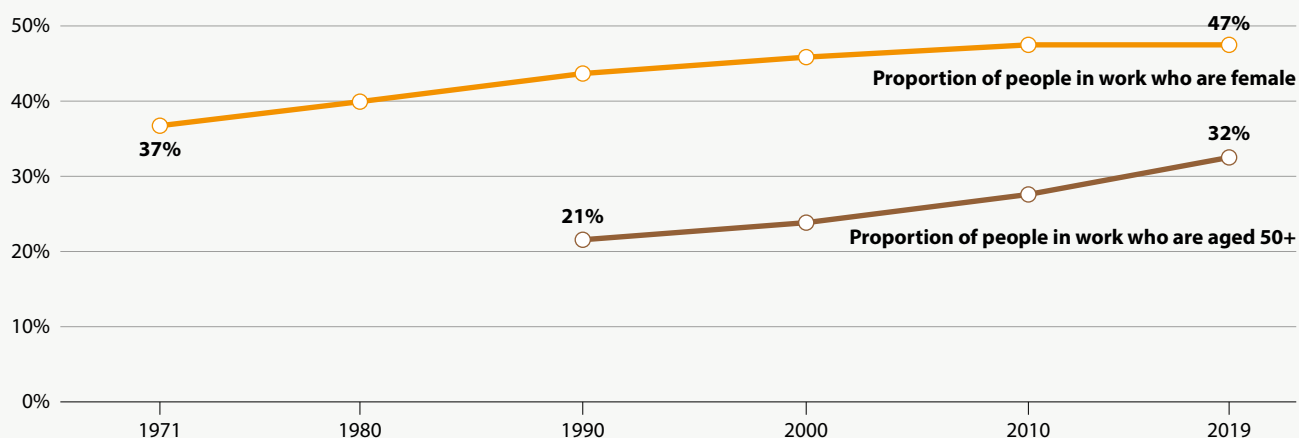
Proportion of jobs (%)



Source: Resolution Foundation analysis of ONS data from June 2019

## Overview and Key Trends in the UK Labour Market

### More women and older people are working



Source: Resolution Foundation analysis of ONS data

### Workers are older and more likely to be female

At the start of the 1970s, a little over one-third of workers were women. Rapid growth in female employment during the 1970s and 1980s means that **women now make up almost half of the workforce**.

However, there are still big challenges in terms of how men and women experience work, like the **enduring gender pay gap** - which is about 17% for all employees and 9% among full-time staff.

Rising female employment has been one of the key drivers of improvements in living standards over the past 50 years.

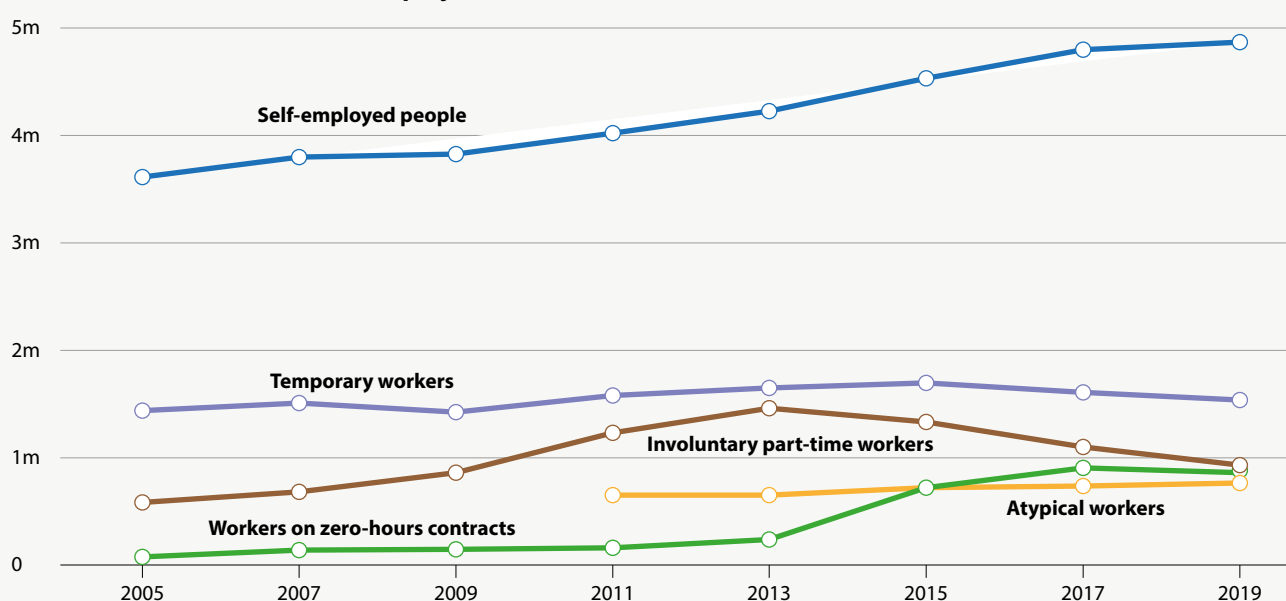
More recently, the workforce has also grown older. **Nearly one in three people in work is now aged 50 and over**, compared to just over one in five in 1992. This trend is being driven by rising life expectancy rates, the progress of the baby boomer generation through their careers and policy changes such as the increasing state pension age.

### A work life less ordinary

As this series of skills shortage bulletins shows, the changing nature of work is increasingly important.

Over the last decade, there has been a rise in zero-hours contracts and the emergence of the gig economy.

### UK workers in non-traditional employment



Source: Resolution Foundation analysis of ONS, Quarterly labour Force Survey





The gig economy is often used to describe short-term casual work, although there is some disagreement about exactly what it means and the number of jobs it includes.

However, what is clear is that ways of working that might be thought of as less traditional have increased. In the UK, there are **nearly five million self-employed people**, from highly-paid management consultants to delivery drivers - an increase of more than 50% since the turn of the millennium.

In addition, there are **870,000 workers on zero-hours contracts, 770,000 agency workers and 1.5 million temporary workers**. These forms of employment grew markedly in the mid-2010s. Their share of the labour market has fallen slightly since then, as Britain's employment rate has risen.

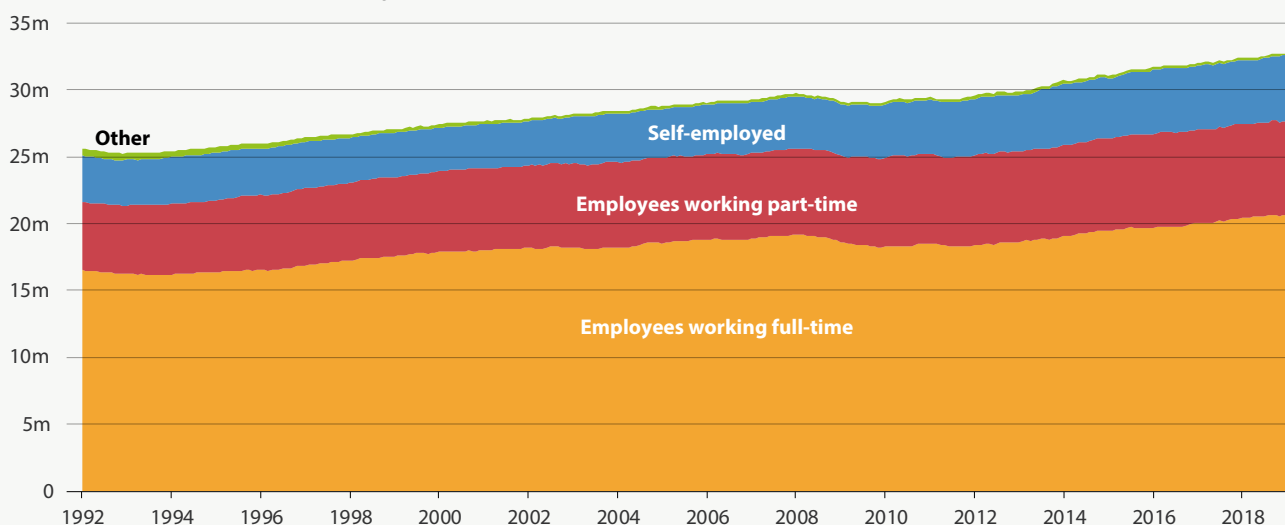
### A traditional full-time job is still the norm

Although the world of work is evolving, it is still the case that most people have what might be called traditional jobs. Nearly two-thirds of people in work have full-time roles for an employer - a proportion that has fallen only slightly since the early 1990s.

What constitutes a day's work has changed over time. For the past 150 years, people have consistently chosen to work less, as average hourly pay has risen. The average working week is now 32 hours long, down from 56 a century ago.

Since the 2007-8 financial crisis, our working week has stopped shrinking, possibly because wage stagnation has meant that workers are keen to make extra cash.

### Most UK workers have full-time jobs



Note: 'Other' includes unpaid family workers and people on government schemes

Source: Resolution Foundation analysis of ONS

# How have jobs changed over the last decade?

**Fabian Wallace-Stephens**, Senior Researcher, Economy, Enterprise and Manufacturing, RSA



As the economy has evolved over the last decade, a perfect storm of austerity, automation and e-commerce has created winners and losers, with women in particular bearing the brunt of job losses in back office and high street roles. New jobs have been created in both hi-tech and hi-touch roles. But we need to do more to ensure workers at risk of disruption can transition into the jobs of the future.

## **The future of work is coders and carers**

The RSA has analysed Labour Force Survey data to understand what the **fastest growing and shrinking jobs were between 2011-19**, in terms of their net change in total employment.

It may come as little surprise that **programmers and software developers were the fastest growing occupations**, with over 160,000 new roles created (a 72% increase from 2011). IT directors and business analysts

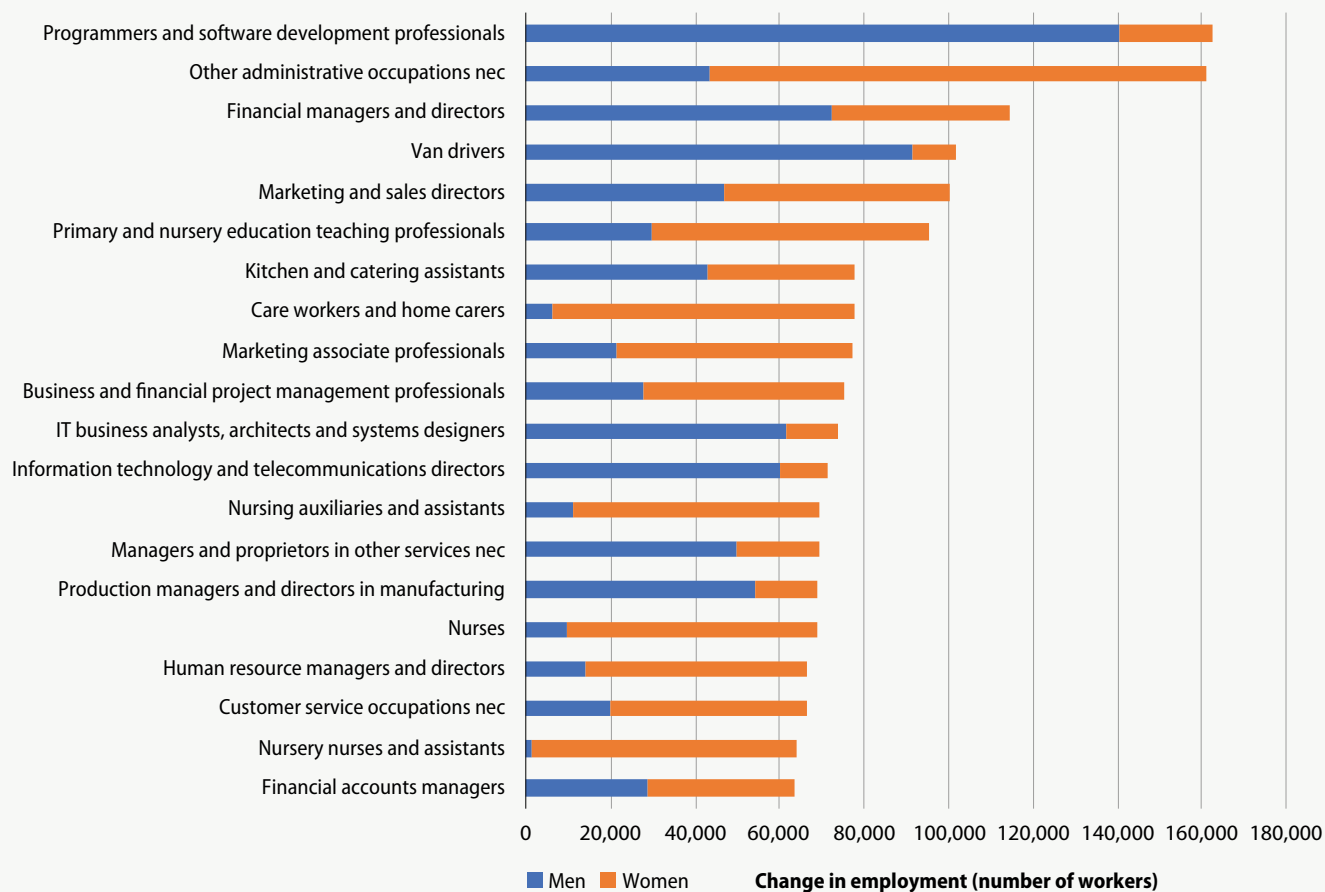
were also in the top 20 fastest growing occupations. But unfortunately, the cliché of ‘tech bros’ is entirely warranted: less than 20% of these flashy well-paid jobs were filled by women.

**We expect to see more of these hi-tech roles in the 2020s** – as the tech giants look set to disrupt traditional industries. Just last year Amazon launched a healthcare service while Google announced plans to provide current accounts.



## Skills shortages

### 20 fastest growing occupations (2011-19)



**We have also seen a growth in hi-touch jobs.** Primary and nursery school teachers, care workers and home carers, nurses and nursing assistants were also in the top 20 fastest growing occupations. These roles are also skewed in terms of gender, with the vast majority being filled by women. The growth in these roles is in keeping with changing demographics, particularly an ageing, ailing population – a trend that is almost certain to continue into the next decade.

### The death of the high street

The top 20 occupations that have seen the **biggest losses** include many traditional high street jobs, such as retail sales assistants, check out cashiers, bank and post office clerks and dry cleaners. 289,000 high street jobs were lost over the last decade, 81% of which were held by women. Previous RSA analysis suggests that the death of the high street is also having a disproportionate impact on regions outside of London. Back office roles, such as administrators in government, personal assistants,

telephone salespeople and pensions administrators are also in long-term decline.

Many of these jobs may have been lost to automation – or what Astra Taylor has described as ‘fauxtimation’ – with **tasks previously carried out by workers now completed by customers via self-service machines.** E-commerce is also to blame, which today accounts for 19% of all retail sales (up from 8% in 2011) – while van drivers were in the top five fastest growing occupations.

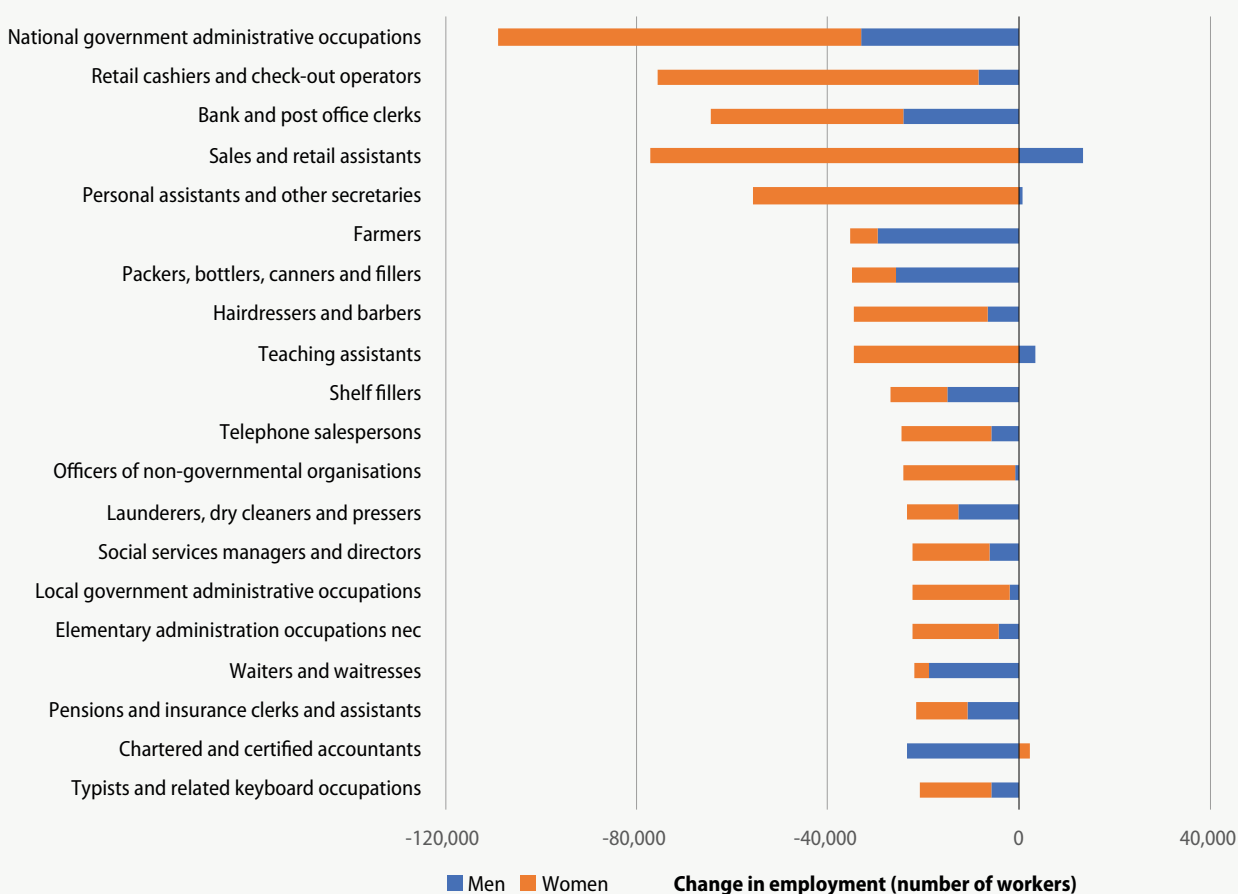
### How can we help workers transition?

Women have borne the brunt of jobs lost in the last decade, as well as missing out on the best-paid new jobs. At the same time, a recent OECD study has warned that **low-skilled workers at risk of automation are three times less likely to participate in training** than those in jobs more resilient to technological change. These workers face a double whammy. We need to do more to help them transition into the jobs of the future otherwise they will be left behind.



## How have jobs changed over the last decade?

### 20 fastest **shrinking** occupations (2011-19)



There is no silver bullet here, but the UK should **take note from best practice from around the world.**

Both **France and Singapore** are piloting **personal learning accounts**, which give all workers annual training credits that they can spend on accredited courses. Personal learning accounts are a ‘portable benefit’, independent from employment arrangements – meaning the credits accrued are retained by workers even if they move jobs or become unemployed.

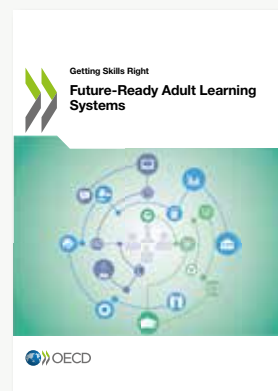
**In Sweden, employers pay into funds to provide workers with an end-to-end transition service**, following collective redundancies. Organisations known as job security councils provide displaced workers with information about their local labour market, as well as coaching, training opportunities and financial compensation. This makes Sweden’s economy more dynamic. Businesses can more easily shed unproductive labour because unions can support job cuts, knowing that workers will be protected.



For workers to transition into the jobs of the future we will need a robust approach to upskilling and reskilling. **Lifelong learning is one key pillar of the new social contract that we must build backing for.** In the next few months, the RSA will be publishing a report outlining a blueprint for this social contract: a set of interlocking rights and responsibilities, for state and society, that can drive good work and economic security, now and in the future.

# Getting Skills Right – Future-Ready Adult Learning Systems

**OECD** – published February 2019



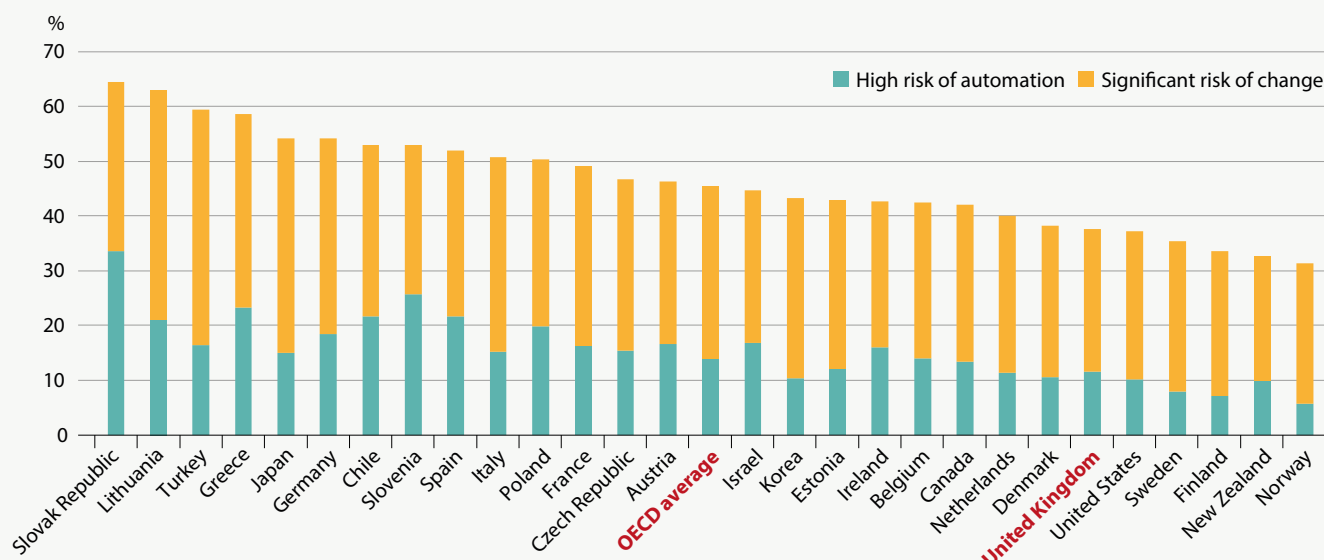
We are living through a time of unprecedented change – new technologies, globalisation and an ageing population. Not only are these factors having an effect on the types of jobs we now encounter but also on the type of people we need to do these jobs and the skills sets that are required. This report brings together results from the Priorities for Adult Learning (PAL) Dashboard which compares countries along seven dimensions of the readiness of adult learning systems to address future skill challenges.

Latest OECD research suggests that, should current cutting-edge technology become widespread, **32% of current jobs across the 32 countries analysed are likely to see significant changes in how they are carried out and a further 14% of jobs could be completely automated.**

The extent to which individuals, firms and economies can harness the benefits of these changes depends on the readiness of each country's adult learning system to

help people develop and maintain relevant skills over their working careers. Yet, many adult learning systems are insufficiently prepared for the challenges ahead. **Only two-in-five adults (41%) participate in education and training in any given year**, according to data from the OECD Survey of Adults Skills (PIAAC). Participation is ironically especially low amongst those most in need of upskilling and reskilling. Adults with low skill levels, for example, are three times less likely to participate in training than those with high-level skills (20% v. 58%).

### Jobs at risk of automation



Source: Nedelkoska and Quintini (2018)



## Getting Skills Right

- **Financial constraints are only one of many barriers to a future-ready adult learning system.** Data from the dashboard suggests that even where countries score high on the financing dimension, this does not automatically translate into achieving well on the other dimensions, e.g. Japan and Korea perform very well on the financing dimension but fail to achieve high scores on most other dimensions.

The data underpins five key recommendations for the future:

### 1. Adult learning systems should be more inclusive

– Today, only about 40% of adults in OECD countries participate in adult learning in a given year. Some of this training involves only few hours of instruction. Certain groups participate much less in adult learning activities than others. For example, across the OECD, the participation of adults with low skill levels in adult learning is 23 percentage points lower than for those with medium and higher skills. Improved information, guidance and provision is required to give all adults access to these opportunities.

### 2. Greater alignment with changing skill needs is needed

– In addition to ensuring high coverage and inclusiveness, adult learning systems also need to be well aligned with labour market needs. To achieve this, it is important that they provide the right skills and reach workers most at risk of job loss. Yet on average across the OECD only two in three firms assess their future skill needs and those who do, do not always align their training policy with this analysis. It is essential that adult learning is better aligned and targeted based on labour market need.

### 3. Training provision must be of high quality to have the desired impact

– For adult education and training to be useful for individuals, firms and societies, the training provision must be of high quality. However, many countries lack adequate quality control mechanisms at different levels of the adult learning system. As a result, on average only two-thirds of training participants think training helped them achieve positive employment outcomes. Setting and

The OECD's new Priorities of Adult Learning (PAL) dashboard facilitates cross-country comparisons on the "future-readiness" of adult learning systems across OECD countries. It presents a set of internationally comparable indicators along seven dimensions: urgency, coverage, inclusiveness, flexibility and guidance, alignment with skill needs, perceived training impact, and financing. Key findings from the report include:

- **No adult learning system is perfect and all countries face challenges.** The PAL dashboard shows that no country ranks consistently high in every measured dimension. Denmark and Norway perform well across most dimensions, yet each country still faces unique challenges.
- **Even when countries perform relatively well in one area, there is room for improvement.** For example, the three countries with the best performance on the inclusiveness dimension (Denmark, Greece and Slovenia) still have a 10 percentage point participation gap between disadvantaged and more advantaged groups.
- **Many countries are facing pressing skill challenges, but have adult learning systems that are under-prepared to address these.** Some countries with urgent skill challenges (e.g. Italy, Portugal) have comparatively well-prepared adult learning systems. Other countries are lagging behind (e.g. Greece). More generally, trends in coverage of adult learning show clear improvements in the last few years.

## Skills shortages

monitoring quality standards, and regular evaluation of adult learning programmes, can support high quality adult learning systems.

### 4. Adequate and sustainable financing is required –

Adult learning needs adequate funding to function well. Most adult learning currently receives less funding to other education areas and many countries report declining public investments in adult learning. Governments should design financial incentives for individuals and/or employers to encourage greater

investment in training, for example through training subsidies, tax incentives and loans, as well as paid training leaves and individual training accounts

### 5. Good governance mechanisms must be in place

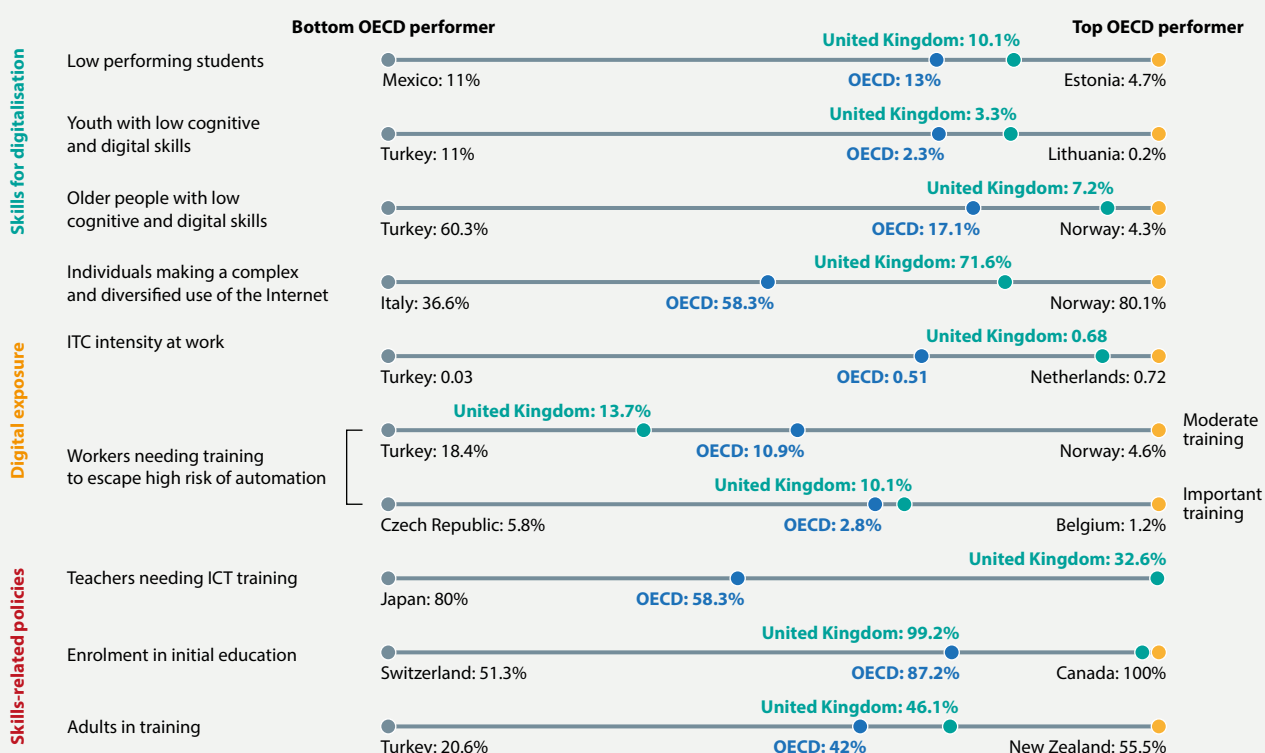
– Adult learning is a complex policy field, with responsibility often split across several ministries and other stakeholders. In this context, good coordination mechanisms are essential to ensure that policies do not duplicate, but reinforce each other. This is essential to ensure policy coherence.

## HOW DOES THE UK COMPARE?

The Skills Outlook Scoreboard assesses the extent to which the United Kingdom is able to make the most of digitalisation and the changing world of work. The UK's performance against other OECD countries is measured along three main dimensions: skills for digitalisation, digital exposure and skills-related policy effort.

The Scoreboard shows that while the share of young people lacking basic skills is relatively high, the share of older people with low skills is below the OECD average.

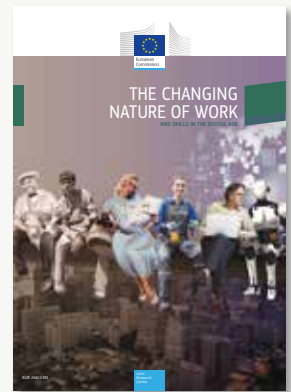
Across the UK, **13.7% of workers are in occupations at high risk of automation** and would need moderate training efforts (up to 1 year) to transit to safer occupations with low or medium risk of automation. An additional 2.6% would need important training (up to 3 years) to avoid the risk of automation. Teachers in the UK report feeling relatively well prepared – only 32% (the lowest value among OECD countries), report to be in need of training in ICT for teaching.



Source: OECD



# The Changing Nature of Work and Skills in the Digital Age



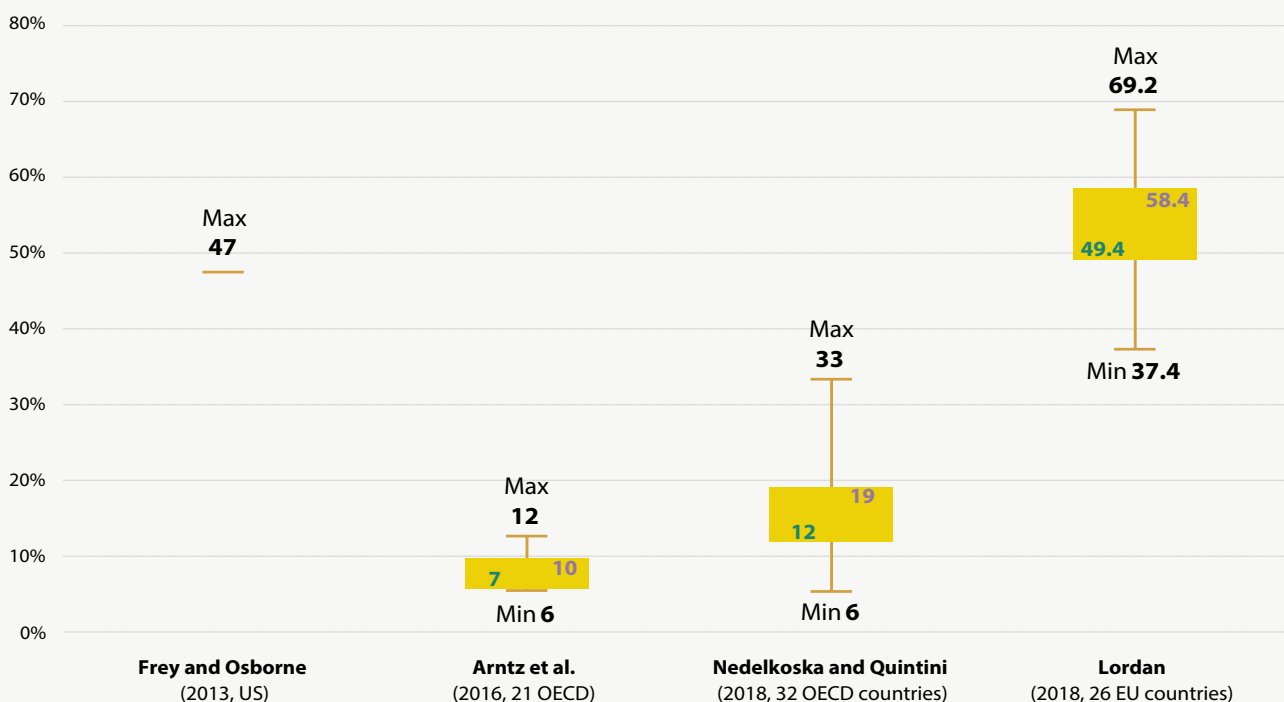
**EU Commission Joint Research Centre** – published August 2019

Social media manager, Airbnb host, influencer, app developer, Uber driver, podcast producer and drone operator - these are just some of the jobs that did not exist 10 years ago. In the European Union, the technological revolution is causing significant changes in the world of work. Some jobs are at risk of being lost to machines. Others are being transformed and new ones are being created. As a result, the skills we need are also changing.

**Some jobs are highly vulnerable to automation.** The jobs that are most exposed to automation appear to be those that require relatively low levels of formal education, those that do not involve complex social interaction and those that involve routine manual tasks.

**Technology also creates new jobs**, such as those related to the development, maintenance and upgrading of artificial intelligence (AI) technologies and big data infrastructure. Yet, it is difficult to know in advance how many jobs like these will be created, and in what sectors they will emerge.

## Estimates of the share of jobs at high risk of automation: variation across and within seminal studies



Source: JRC from Frey and Osborne (2013), Arntz et al. (2016), Nedelkoska and Quintini (2018), Lordan (2018)

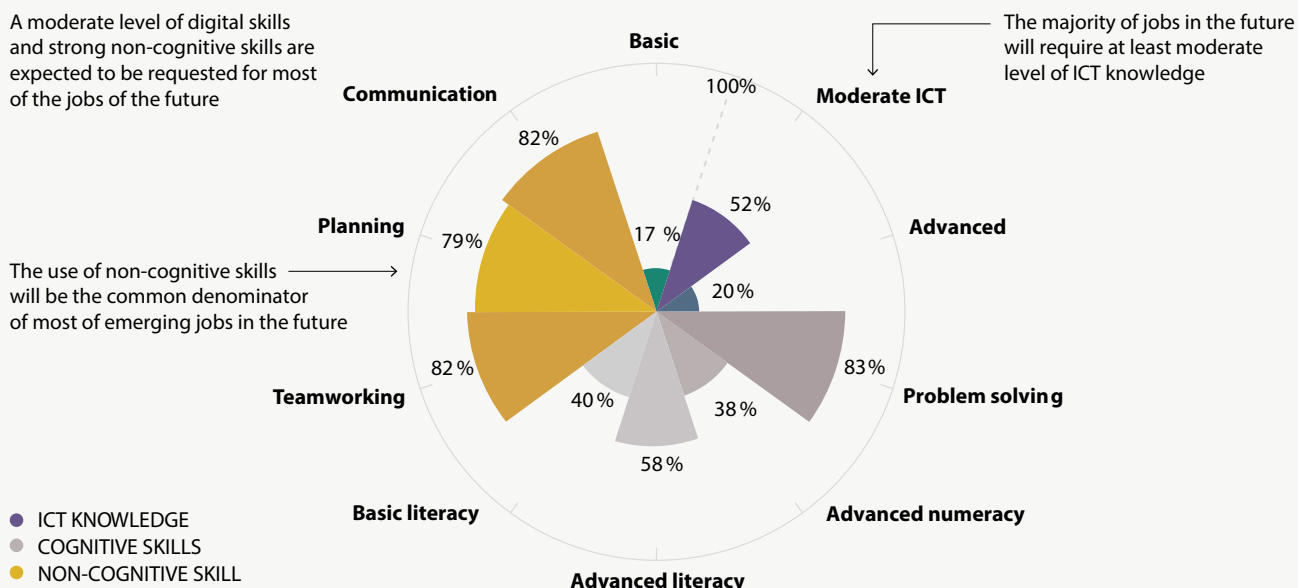
## Skills shortages

### Average degree of importance of skills across jobs with a positive employment outlook, 2015-25, EU28

A moderate level of digital skills and strong non-cognitive skills are expected to be requested for most of the jobs of the future

The use of non-cognitive skills will be the common denominator of most of emerging jobs in the future

The majority of jobs in the future will require at least moderate level of ICT knowledge



Source: JRC from Cedefop (2016a); Cedefop European skills and jobs survey; Cedefop European skills forecasts

The kinds of jobs that are predicted to grow the most in the EU-28 by 2030 appear to be **those that require higher education, intensive use of social and interpretative skills, and at least a basic knowledge of ICT.**

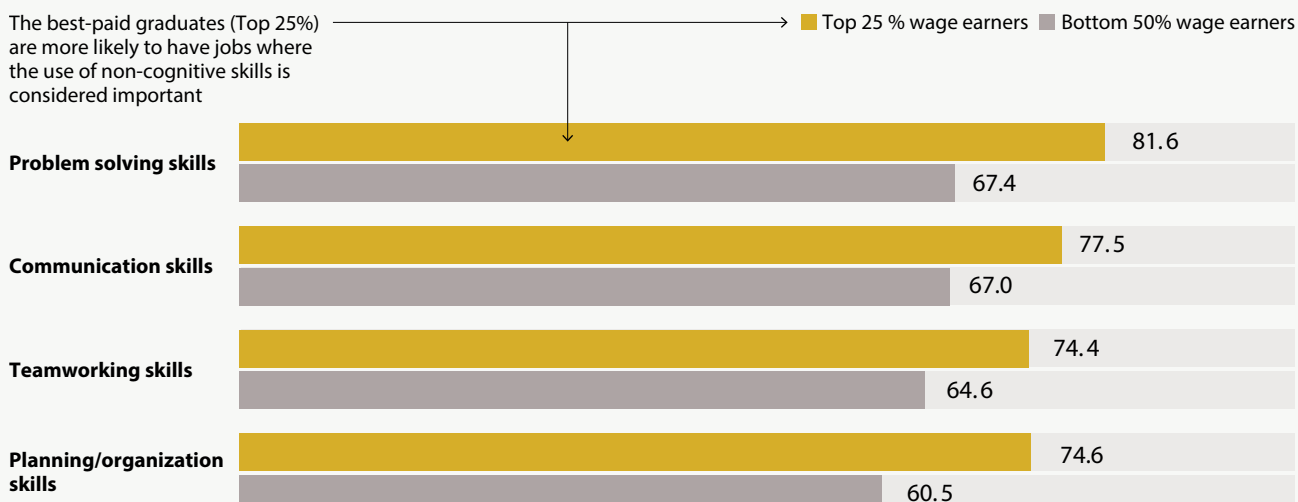
modification of existing ones, requiring workers to adapt to new working methods, work organisation and tools. **New technologies will reshape millions of jobs in the EU.**

However, digital technologies **do not simply create and destroy jobs, they also change what people do on the job**, and how they do it. Job profiles could change substantially through the addition of new tasks or the

Human-centred work organisation is the ultimate barrier to job automation. The aspects of work that require key attributes of human labour, such as **creativity, full autonomy and sociability, are beyond the current capabilities of advanced AI.**

### Share of tertiary graduates working in science, engineering or ICT who rate this skill as very important or essential in doing their job (% within each wage group)

The best-paid graduates (Top 25%) are more likely to have jobs where the use of non-cognitive skills is considered important



Source: JRC based on Cedefop's European Skills and Jobs Survey (microdata, 2016)



Any reconfiguration of jobs due to new technologies will require the adaptation, shifting and modification of roles — and thus, of skills and knowledge. In future, it is likely that a **moderate level of digital skills combined with strong non-cognitive skills** will be in greater demand. The growing importance of both digital and non-cognitive skills is already reflected in increasing wage differences.

Yet, **the digital skills shortage remains significant**. One third of the EU labour force has no or almost no digital skills. Employers in the EU report that a large number of workers are not ready to respond to the rising demand for digital skills.

It is increasingly important that, in addition to knowledge, individuals acquire skills that help them

anticipate changes and to become more flexible and resilient. However, **teaching non-cognitive skills seems to have been neglected across the EU despite its effectiveness**.

New forms of employment such as casual work, digitally-based mobile work, and digitally-enabled forms of self-employment are gaining traction across the EU. Platform work remains small but significant, involving both young people and highly educated workers. **Around 11% of the working age population have provided services via online platforms** at least once — up from 9.5% in 2017.

Most importantly, the faster-evolving world requires us to change the way that skills are provided. **Europeans will need to learn throughout their entire life**, both inside and outside of formal education.

**Percentage change in the number of employed by professional status, EU-28, 2000-17**

The number of workers in part-time jobs grew by over 36% between 2000 and 2017



Source: JRC based on Eurostat's LFS series detailed Annual Result

# Disconnected – Career aspirations and jobs in the UK

**Education & Employers** – published January 2020



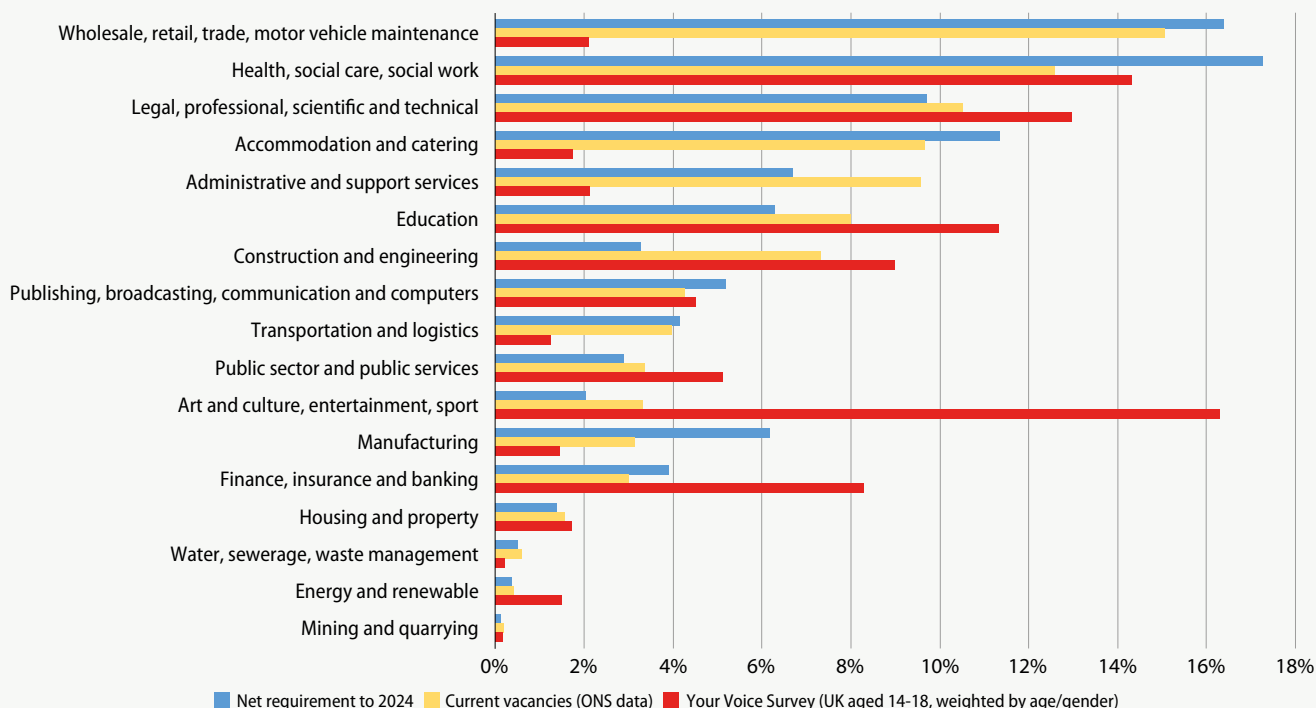
The aspirations of young people in the UK are disconnected from the realities of the job market. The sectors in which young people want to work are, in aggregate, disconnected from current and future vacancies necessary to accommodate their wishes.

These insights come from a **survey of over 7,000 young people in the UK aged 14-18**. Respondents were asked which of 21 sectors (a simplified version of the standard industrial classification categories) they wanted to work in. The results were weighted by age and gender and compared with current and projected future demand in the UK.

In the survey, 934 17-and-18-year olds identified at least one sector to work in, but **these aspirations have little connection to the reality of labour market demand today**.

The **greatest excess of aspirations relative to projected job requirements is in art and culture, entertainment and sport**, where five times as many 17- and-18-year olds want to work (15.6%) compared to the projected demand in the economy (3.3%). Half of these respondents only want to work in this sector. **The sector with the greatest shortfall, as a ratio, is accommodation and catering** which needs almost seven times as many people (9.7% of the economy) as are expressing an interest in it (1.5%). Wholesale and retail trade similarly has a large shortfall – 2.6% expressing interest against 15.1% required.

### 1: UK current and future vacancies contrasted with young people's desired jobs aged 17-18



Source: Education & Employers



Table 1: Sectors with large shortfalls or excesses in aspirations

Sector with a major shortfall of aspirations	Ratio of demand to aspirations	Proportion of net requirement to 2024
Accommodation and catering	6.6x	9.7%
Wholesale, retail, trade, motor vehicle maintenance	5.9x	15.1%
Transportation and logistics	4.6x	4.0%
Administrative and support services	4.2x	9.6%
Manufacturing	3.1x	3.1%
Sector with a major excess of aspirations	Ratio of aspirations to demand	Proportion of net requirement to 2024
Art and culture, entertainment, sport	4.7x	3.3%
Energy and renewables	3.9x	0.4%
Finance, insurance and banking	3.1x	3.0%

Table 1 shows that **almost half of the economy faces an excess of aspirations at least three times higher than demand, or an excess of demand at least three times higher than aspirations.**

We asked young people how they felt about the usefulness of their education overall and specific activities and influences on their career preferences which schools and colleges can mediate. **Schools and colleges can help to**

**reduce the aggregate disconnect**, opening minds from a young age.

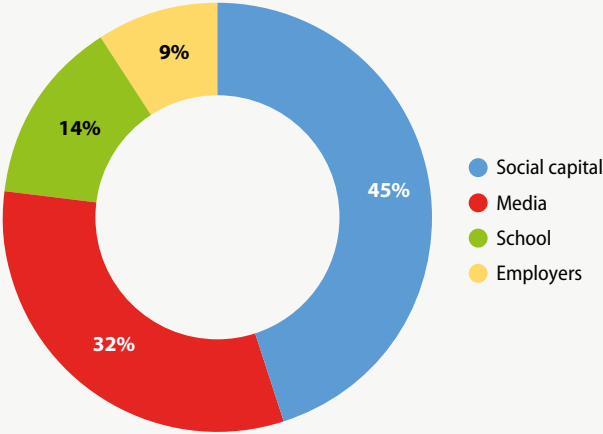
Widespread research shows that **young people's career choices are mostly influenced by those around them.**

Respondents in this survey similarly reported that parents, wider family and connections (social capital) were the greatest influences on their aspirations (graph 2).



# Skills shortages

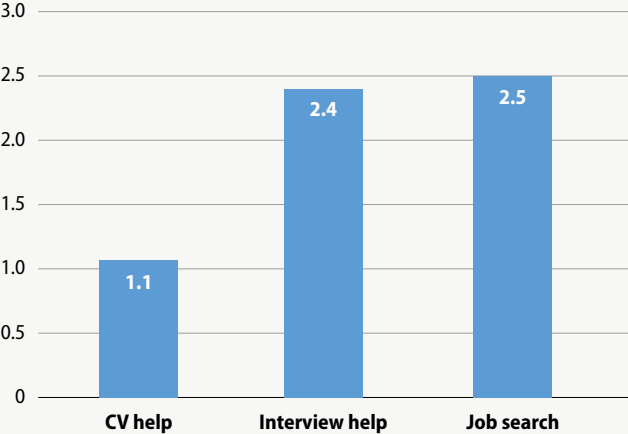
2: Frequency of influences on job aspiration (UK respondents)



Many respondents reported only limited careers support, but those who did have this support also have aspirations that are – in aggregate – better connected to the labour market.

Spreading current best practice can, even in individual cases, reduce the disconnect. For instance, **aggregate disconnect was slightly lower among respondents who received help with practical tasks** like CVs, interviews and job searches (see Graph 3).

3: Reduction in disconnection index among young people reporting careers support compared to those not reporting it [%pt]



**Aggregate disconnect is also lower among respondents who report more sources of influence on their aspirations** (Table 2). Since the proportion of young people who report being influenced by school-level activities remains low, there is potential for relatively easy wins. Only 10% describe a careers adviser as a source of influence and only 11% mention hearing a visiting speaker.

Table 2: Disconnection index by number of sources of influence on career decision

Number of sources of influence	Sample size (unweighted)	Overall disconnection index
1	2207	106%pts
2	1127	86%pts
3	750	82%pts
4	381	75%pts

\* From 5+ sources of influences reported, the sample size drops below 200 and the analysis becomes less reliable.



**Andreas Schleicher**

OECD Director for Education and Skills said:

*Young people’s career aspirations increasingly bear little relation to actual labour market demand. Aspirations are influenced by*

*background, families and knowledge about the world of work. Students cannot be what they cannot see.*

# Young people in Northern Ireland – Careers, Choices, Prospects

**Deirdre Hughes**, Research Programme Director and Chair of Skills Northern Ireland

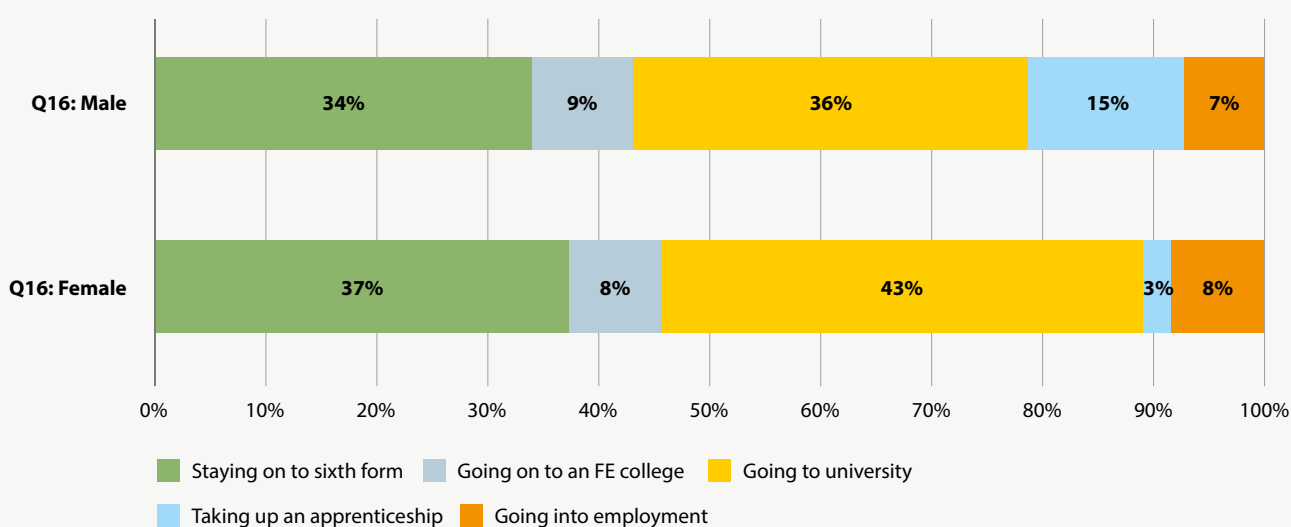
Northern Ireland is focused on building an innovative economy for future sustainability. To stay ahead of international competitors, a steady pipeline of talent will be required. This research report explores young people's (14-19 years old) perceptions of careers, choices and future preferences in Northern Ireland. It focuses on what matters to young people when they consider the world of work, the opportunities available to them, and what they think their future might look like.

In 2019, a total of **928 young people responded to an online survey**, sponsored by City & Guilds. Respondents were from 41 schools and colleges (over a fifth of the total) from across all six counties in the province.

The proportion of **respondents who stated that they knew about their career choices reached 60%**, compared with 51.5% from an earlier 2018 study, a percentage increase of 8.5%.

Top ten career preferences included: **engineering (9%)**, **followed by teaching (7.5%) and nursing (5%)**; others opted to work in medicine (4.5%), some chose hairdresser/beauty therapist and the same number selected working in the legal profession as a barrister or lawyer (4%). IT technician or software engineer was the next most popular choice followed by the building trades plumbing, electrician and/or builder.

## Comparison of male and female intentions about future pathways



## Skills shortages

Concerningly, **careers in food and hospitality and social care featured only in a few of the responses.**

Clearly, more needs to be done to educate young people and their parents/carers on the wide range of career routes in these growth sectors.

Looking at their immediate intentions, 85% of young people surveyed intend to stay on in education and **only 15% are either keen to take up an apprenticeship or go into employment.** In terms of study intentions, 38% reported they intend to go to university, while 35% have considered staying on to 6<sup>th</sup> form and 9% are going into Further Education. Only 8% declared their intention to take up an apprenticeship, and 7% have indicated a preference to go into employment.

Looking at young people's attitude to the future, **71% of respondents indicated they are confident about securing their ideal job** when they finish their education. However, comments from those less confident included:

*"I might not get the grades to get in"*

*"What if I don't get the right qualifications?"*

*"I am unsure if I'll be good enough for my ideal job!"*

*"I feel as if I'm too shy to go into it!"*

The main factors that concern young people in Northern Ireland when it comes to securing work after they complete their education include there **not being enough jobs and not having enough experience.**

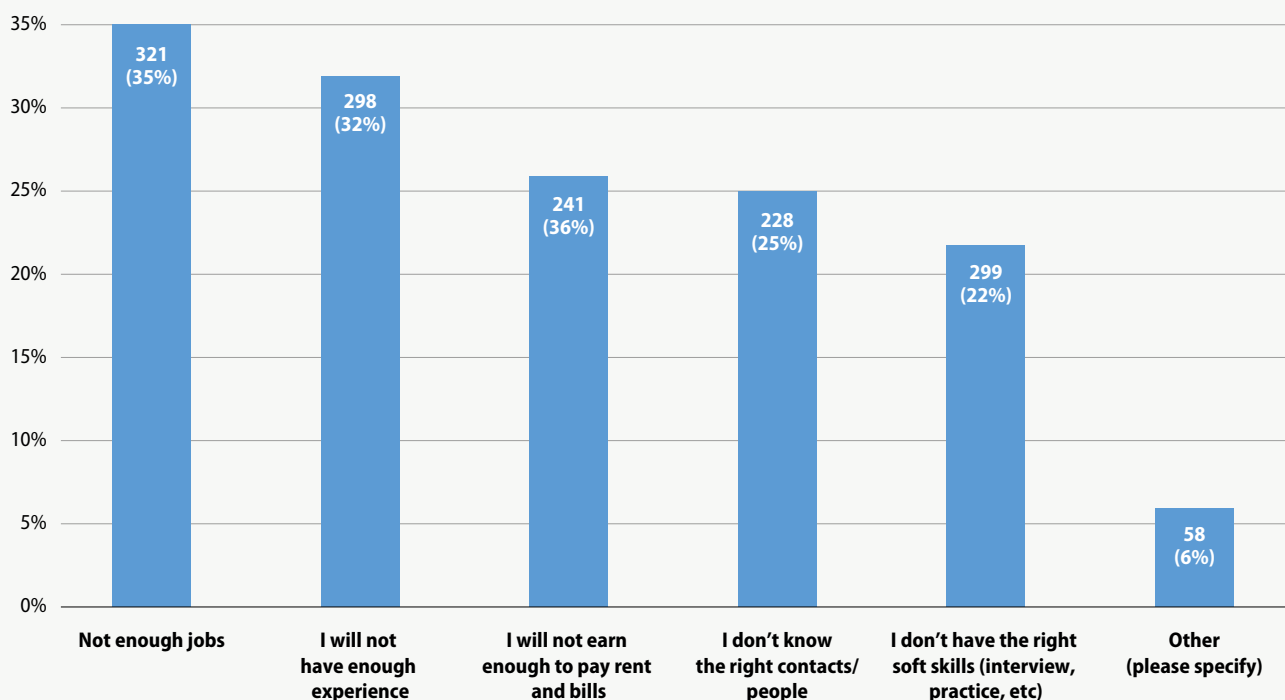


**Deirdre Hughes** said:

*Learning and work decisions are becoming ever more complex because of increasing choices and change happening in how people work and what skills employers demand.*

*These findings suggest that significantly more needs to be done to in careers education, information, advice and guidance to help young people understand the realities of the labour market and overcome concerns about getting a foothold into meaningful learning and work.*

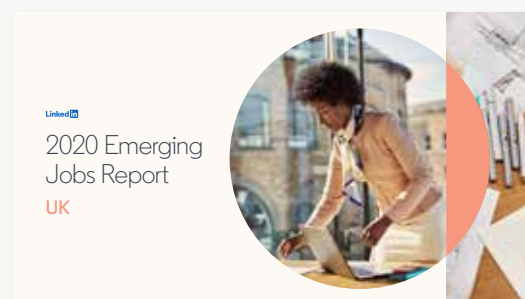
### What concerns young people about securing a career?





# 2020 Emerging Jobs Report

**LinkedIn** – published January 2020



LinkedIn have analysed the data about job adverts on their platform to identify the top 15 emerging jobs in the UK economy for 2020.

As the fourth industrial revolution continues, **Artificial Intelligence (AI) Specialist is the number one emerging job** in the UK economy. According to McKinsey research, AI could potentially deliver a 22% boost to the UK economy by 2030.

The need to safeguard data and the impact of the General Data Protection Regulation (GDPR) has seen an **increase by twenty-four times in the number of Data Protection Officers** in the UK than in 2015.

As a counterpoint to the growth of AI and technology jobs, there have also been increases in roles that require human interaction such as Customer Success Specialists and Sales Development Representatives. Within the top 15, **alongside the technology jobs, User Researcher and Content Designer** are also emerging roles.

The spread of these jobs is also broadening – while 33% of individuals working in emerging jobs are currently in the IT and software industry, it is the **pharmaceutical industry**

**that has the highest year on year growth (49%)** followed closely by consumer goods (48%) and higher education (48%).

Geographically, London is number one for emerging jobs, with over 44% of professionals working in the emerging jobs based there. Increasingly, **smaller cities are also seeing strong rises**, such as Belfast (39% growth), Cardiff (35%) and Nottingham (35%)



## The top-15 emerging jobs in the UK.

- |                                       |                                     |                                  |
|---------------------------------------|-------------------------------------|----------------------------------|
| #1 Artificial Intelligence Specialist | #6 User Researcher                  | #11 Platform Engineer            |
| #2 Data Protection Officer            | #7 Data Scientist                   | #12 Full Stack Engineer          |
| #3 Robotics Engineer                  | #8 Sales Development Representative | #13 Enterprise Account Executive |
| #4 Site Reliability Engineer          | #9 Cloud Engineer                   | #14 DevOps Engineer              |
| #5 Customer Success Specialist        | #10 Cyber Security Specialist       | #15 Content Designer             |

# UK Skills Mismatch in 2030

**Industrial Strategy Council** – published November 2019



The Industrial Strategy Council is an independent advisory group established in November 2018 to provide impartial and expert evaluation of the government's progress in delivering the aims of the Industrial Strategy. This report explores which qualifications, knowledge and workplace skills are likely to face greater or lesser mismatch by 2030 as a result of the changing nature of work.

Existing evidence suggests the UK's **demand for skills – particularly technology and interpersonal/people skills – will increase considerably over the next decade**, while the supply of those skills will be constrained. Skills mismatch can reflect both skill shortage and skill surplus.

For example, the spread of automation and AI could boost productivity in some sectors but also displace some lower skilled jobs, while the demand for highly skilled labour will increase, as research and innovation become critical in a future tech-led economy.

A skills mismatch can act as a drag on economic growth by limiting the employment and earnings opportunities of individuals and impacting on firms' performance and productivity. UK firms have previously reported that **lack of access to the right skills was the number one threat to the competitiveness of the UK labour market**.

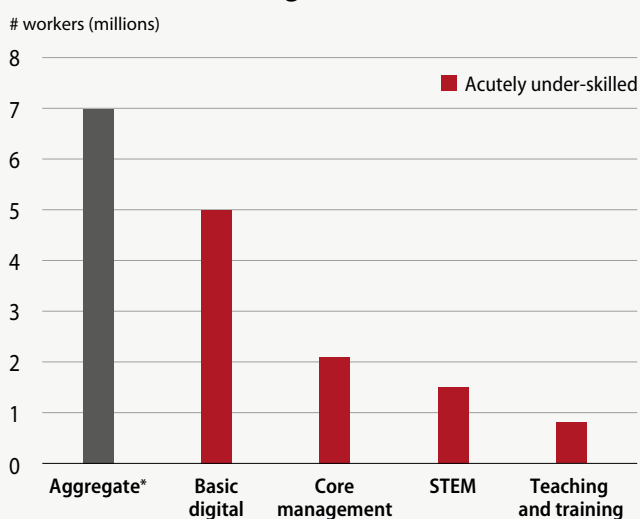
With 80% of the 2030 workforce already in the workforce today, **reskilling the existing workforce will be the major challenge between now and 2030**.

**Participation in training amongst the adult workforce has remained flat at best.** Part of the reason is low levels of both government and employer investment in adult training. There are a number of policies targeting areas where a skills mismatch could occur, but existing

commitments do not look to be sufficient in scale to address the skills gaps predicted.

The aggregate UK skills mismatch is therefore predicted to worsen significantly. **By 2030, 7 million additional workers could be underskilled for their job requirements - this would currently constitute about 20% of the labour market.** Meanwhile, 0.9 million additional workers could be over-skilled. This model captures new skills mismatch opening up within existing jobs and from transitioning to new occupations.

### Estimated under-skilling in the workforce in 2030



\* The aggregate projection includes workers that are under-skilled across the weighted skill bundle required for their job. An individual could be under-skilled in a certain skill but might not be across their weighted skill bundle. The red bar shows a subset of specific workplace skills.

Source: Industrial Strategy Council

**More severe skills shortages are predicted in ‘workplace skills’ than in ‘qualifications’ and ‘knowledge’.** The most widespread under-skilling is likely to be in digital skills. In total, 5 million workers could become acutely under-skilled in basic digital skills by 2030, with up to two-thirds of the workforce facing some level of under-skilling.

At the same time, 2.1 million workers are likely to be **acutely under-skilled in at least one core management skill** (leadership, decision-making or advanced communication) and 1.5 million are likely to be acutely under-skilled in at least one STEM workplace skill.

As we seek to learn from each other in the workplace, **800,000 workers are likely to face an acute shortage in teaching and training skills.** This under-skilling needs to be addressed or the delivery of broad-based reskilling efforts are likely to be significantly hampered.

The scale and type of skills shortfall anticipated cannot be addressed through formal education outside of the workplace alone. An urgent shift to a new norm of lifelong learning in the UK workforce is required. Employers, government and individuals will all have a role to play.



**Juergen Maier**, former CEO of Siemens and member of the Industrial Strategy Council

*The figures we have released, showing that seven million additional workers could be under-skilled by 2030 are additional to the UK's already significant skills mismatch.*

*These numbers strengthen the case for needing a radical and urgent rethink on how we provide lifelong learning for the UK workforce. With 80 per cent of the 2030 workforce already working today, we cannot rely solely on traditional school education to rectify the mismatch.*





## Spotlight on: **Logistics**

The logistics industry covers a wide range of crucial roles across our economy. These specialise in the movement and supply of all goods from their raw materials and manufacturing, right the way through to the delivery of finished products to businesses and consumers. This not only covers the transportation across road, rail, air and water networks, but also logistics, supply chain, vehicle manufacturing, transport planning and storage; providing a vital backbone to our country. This accounts for 8% of the total UK workforce, equivalent to around 2.54 million people.

As with many industries, the logistics sector is seeing many changes which inevitably reflect upon work patterns and recruitment. Factors such as changes in consumer behaviour with the rise of internet shopping and growing customer expectations; the effects of technological developments such as automation and the increasing

need for efficiency and transparency across the supply chain.

At the same time the sector is facing a worsening recruitment crisis which is set to grow over the next few years, due to a lack of relevant skills and low wages. In fact



the sector faces one of the most significant skill shortages across the economy. According to the latest report from the Chartered Institute of Logistics and Transport (CILT) and Statista, **54% of logistics companies are expecting skills shortages to increase over the next five years**, whereas 21% are uncertain as to their future recruitment ability, and only 4% expect the skills shortage to improve. For logistics firms, the shortage of skilled drivers continues to be the most important issue facing their companies, with **43.2% of respondents stating it as having the most impact on their business**, according to The UK Logistic Confidence Index 2019 (Barclays).

Current trends from the sector cite office staff, vehicle drivers and warehouse workers as being in the highest demand. Meanwhile, the hardest to fill roles are in software engineering, project managers and executives. **Forty-two per cent of logistics firms cite lack of job-specific skills as the main barrier to successful recruitment**,

with lack of work experience (29%), and low wages (25%) the other most common challenges. Another area of the sector which is witnessing a growing demand for jobs is in storage roles – there were 16,000 new jobs in the first half of 2018 alone. This is due to an increased demand for warehouse space in light of the growth in online retailing that we have witnessed over the last few years.

The FTA (2018), which represents the UK logistics industry, produce a measure of comparative job shortages across the sector. They found that **LGV (large goods vehicle) drivers are subject to the most acute skills shortages**, followed closely by van drivers. In managerial and administrative logistics occupations, storage management remained the most severe for job shortages. Transport management fell down the rankings, due to low job number growth and an increase in the proportion of younger managers, which helped to suppress average wage increases.



## Skills shortages



Results from RHA (Road Haulage Association) & Menzies (2019) survey of its members, found that dealing with recruitment concerns is at the forefront of most operators minds at present. In response to the question 'have they have had difficulties with recruitment over the past 12 months' **a resounding 75% advised they had.** Most cited difficulties where LGV drivers were concerned, while others explained problems in getting warehouse staff.

A major reason behind the shortages in the sector is an aging workforce, specifically with the LGV driver population, who are significantly older than the national average working population. Unite identified the average age of LGV drivers has increased from 45.3 years in 2001 to 48 in 2016. Furthermore, **thirteen per cent of LGV drivers are aged over 60 with just one per cent aged under 25.** The industry also relies on workers from the European Union to fill many roles, creating anxiety across the sector around the potential consequences of Brexit for recruitment. The logistics industry not only suffers a demographic problem in terms of age but also with regards to gender and ethnicity. According to the FTA (2018) the logistics industry is dominated by those who identify themselves as ethnically white (91%) and by male workers (86% of the workforce).

A lack of young people opting for careers in the logistics industry is causing a worrying void. **In 2018 the driver shortage figure stood at 51,000.** Industry experts cite a number of reasons for the lack of people considering

the industry as a career option, including the cost of licence acquisition, lack of understanding of the sector, poor sector image, working hours and lack of quality driver facilities. From RHA's research, they offer solutions including upskilling of staff, offering DCPC (Driver Certificate of Professional Competence), lead driver positions and/or extra holiday entitlement. Increasing staff skill levels is a good way to nurture employees.

Another way to draw on new talent and the young labour force is through apprenticeship schemes. Yet the **industry has voiced concern about being able to tap into the Apprenticeship Levy** pot in order to gain full benefit of what they have invested in it.



As **Richard Burnett**, Chief Executive of the Road Haulage Association says:

*The Apprenticeship Levy is fast becoming a tax. The haulage sector has paid in £120m to the Levy yet has only been able to drawdown on £10m as it tackles the shortfall of more than 50,000 drivers. Why should it be such a battle to persuade the Government to support initiatives like Road to Logistics and provide a more flexible Apprenticeship Levy that actually supports our industry?*

# Tees Valley Logistics Academy Stockton-on-Tees



The Tees Valley Logistics Academy (TVLA) helps to meet the training demands of the industry, with a particular focus on raising young people's awareness of careers in the sector.

Initially established as a Career Ready programme at Stockton Riverside College the initiative was created in response to a need identified through employer consultations and forums.

Working directly with employers and industry experts, including PD Ports and Think Logistics, the academy started delivering workshops, masterclasses, site visits, mentoring and internships to students alongside their full-time study programmes.

It did not take long for the results to show, with students going on to find work in the industry, among them former Bede Sixth Form College student, Jacob Moat. Choosing to take part in the Logistics Academy to boost his CV, he admitted that he had never previously considered a career in the sector. Enjoying the programme and going on to impress bosses during a summer internship, the 18-year-old is now working as a higher apprentice chartered surveyor with PD Ports.

As he said: *I didn't expect this to happen to me, certainly not at my age, but here I am.*

The Tees Valley Logistics Academy now offers a range of services to help meet the wider training and skills needs of the sector.

It has developed a local advisory board, made up of industry employers, experts, senior leaders, as well as representatives from the local authority. Today the TVLA has 18 organisations represented on its advisory board.

**Michael Duffey**, Head of Construction and Professional Services at Stockton Riverside College and lead of the Tees Valley Logistics Academy, said: *Logistics is the lifeblood of the Tees Valley's industrial landscape, which is why it's so important for us to work alongside employers and industry experts to offer a service that responds to real demands.*

*The results are now starting to speak for themselves, but it isn't a singular effort. It is only through our collaborative work with employers, industry leaders and our local and combined authorities that we can create solutions that work for businesses, our communities, our economy and, of course, our young people.*



preparing young people for the world of work







# Co-op Driving Apprenticeship

As a key strand of its recruitment strategy, Co-op partnered with national logistics training specialist SP Training to design a comprehensive programme aimed at creating highly skilled model drivers displaying the behaviours and culture that Co-op are looking for.

The programme provides a career path for both new starters and warehouse and other staff looking to progress in their careers. It delivers the training for drivers to acquire their truck licence and equips them with the wider skills and qualifications needed to successfully perform the role.

The apprenticeship is based on a new apprenticeship standard designed by employers and SP Training's delivery programme front-loads much of the critical skills, behaviour and knowledge to enable apprentices to obtain their truck licence within eight to ten weeks.

They quickly become productive drivers for Co-op, gaining experience by embedding their skills whilst performing the role of a professional driver. Indeed, Aron Marshall, one of

Co-op's apprentices, recently beat nearly 320 drivers at his distribution centre (based on driver performance ranking using telemetry data) despite having only acquired his licence three months previously.



**Mark Sutcliffe**, Head of Transport for Co-op said:

*Taking a proactive approach to recruitment, the professional driver apprenticeship programme is an integral part of Co-op's strategy to create new distribution drivers.*

*We wanted our new drivers to be highly skilled and become ambassadors for Co-op, displaying the correct behaviours, knowledge and service our business expects. We have worked closely with SP Training to design a course that meets all of our quality objectives and are extremely encouraged to see our apprentice drivers making an immediate impact within the business.*



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