EDGE FOUNDATION

Skills shortages in the UK economy

October 2021

Contents

Foreword

Our ninth bulletin in this series on skills shortages brings together research on a wide range of issues: championing sustainability in our education system, the benefits of strengthening our creative industries, the penalties young people are experiencing in the labour market, and the difficulties older workers face in reskilling and transitioning into different job roles. Covid-19 has amplified and accelerated many of the trends we identified in our earlier bulletins.

Evidence from the Resolution Foundation provides us with an overview of the labour market in 2021, showing the sharp impact on younger workers and those on precarious contracts. The difficulties young people particularly face are echoed in the results of Youth Employment UK's Youth Voice Census which show the significant toll the pandemic has had on the mental health of young people and their access to quality work and progression opportunities. Although on a positive note, this featured excellent results for apprentices, with nearly 80% reporting that their experience was either excellent or good.

With over 1.67 million people now unemployed in the UK, the Centre for Progressive Policy argue that boosting the basic skills of workers without formal qualifications may deliver greater economic recovery and stimulate larger uplifts in employment across the country. In the interim, frequent transitions into new job roles and sectors for workers of all ages will be increasingly commonplace, and yet research from City & Guilds shows only 16% of people understand how their skills might be transferable. All the while, an increasing number of young people feel more needs to be done at all levels of our education system to equip them with the skills, knowledge and creativity needed to help transition our economy and ways of living into a greener, more sustainable future.

Edge's series on skills shortages creates a space to reflect on such issues and challenges, and consider what could or should be done to meet the needs and future trends of our labour market and wider economy. With this is mind, Professor Phillip Brown reflects on a changing labour market in the context of the fourth industrial revolution, and the role of technology in producing a more agile, labour enhancing society. However, while the AI sector may be expanding its recruitment, 69% of businesses have struggled to recruit people with the desired technical and leadership skills. Meanwhile, the creative industries have been hit exceptionally hard by the pandemic, with a 30% reduction in available jobs during 2020. Even so, research from the Policy and Evidence Centre and Centre of Cultural Value show that creative workers are keen to support their sector to bounce-back; opting to upskill rather than reskill.

The trends and debates we bring together here consistently reinforce the rapid changes we are seeing in the labour market and the increasing need to fulfil our mission of making education relevant.

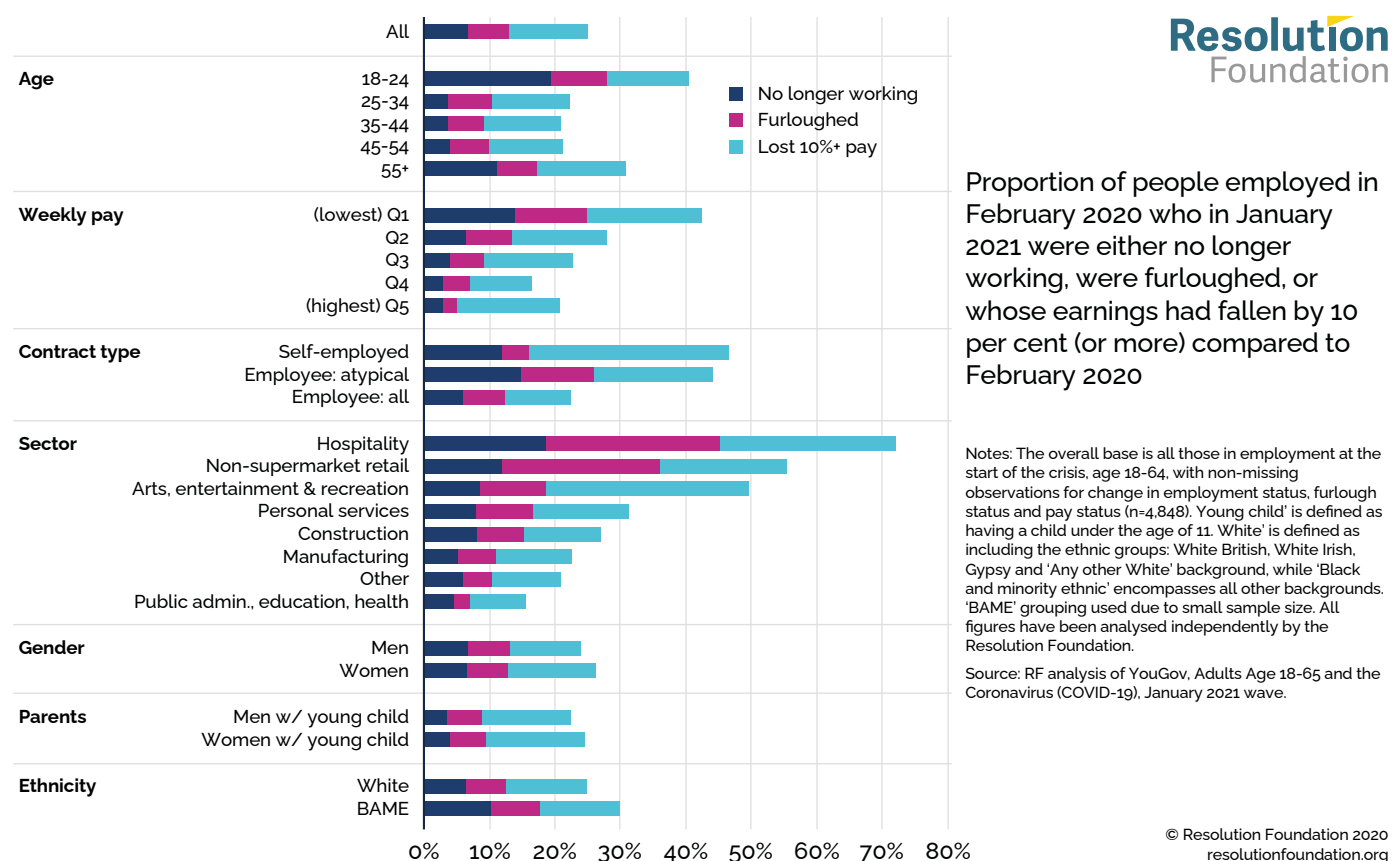**Olly Newton**
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The Impact of the Pandemic – Understanding Recent Labour Market Trends

Resolution Foundation

When the Covid-19 pandemic took hold in the UK from March 2020, it brought the country's most employment-rich, and typically lower-paid, sectors to a grinding halt, with in-person services in hospitality, retail and entertainment temporarily closed in order to reduce the spread of the virus. Thankfully, the country's **unemployment rate rose by much less than during the financial crisis in 2008 - thanks to support measures** like the Job Retention Scheme. And yet, Figure 1 shows that by the start of 2021, roughly **one-in-four adults employed before the crisis had experienced some sort of negative employment change** (having lost their job, been furloughed or received a significant reduction in pay).

Figure 1: The employment effects of the pandemic borne down most heavily on the young and lower paid

Proportion of people employed in February 2020 who in January 2021 were either no longer working, were furloughed, or whose earnings had fallen by 10 per cent (or more) compared to February 2020

Notes: The overall base is all those in employment at the start of the crisis, age 18-64, with non-missing observations for change in employment status, furlough status and pay status (n=4,848). 'Young child' is defined as having a child under the age of 11. 'White' is defined as including the ethnic groups: White British, White Irish, Gypsy and 'Any other White' background, while 'Black and minority ethnic' encompasses all other backgrounds. 'BAME' grouping used due to small sample size. All figures have been analysed independently by the Resolution Foundation.

Source: RF analysis of YouGov, Adults Age 18-65 and the Coronavirus (COVID-19), January 2021 wave.

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Young people, lower-paid workers and those previously on insecure contracts were very much at the sharp end of this change (with more than 40% of each group affected), as were those who previously worked in retail (over 50 and 70%, respectively). Older workers (those 55 and older) faced less change than their youngest counterparts, but were more likely than average to have suffered from lost work, furlough or lower pay.

By the spring of this year, the re-opening of previously shut down sectors like retail, hospitality and entertainment painted a very different picture. Seemingly, there was constant talk of firms struggling to fill vacancies and offering various perks to those willing to come on board. This **'bounce back' in jobs was borne out mostly by labour market measures** (including pay-rolled employment, shown in Figure 2). The uptick in employment ran quickest among younger workers, even though they still had some room to go before catching up their colleagues in the race back to pre-pandemic employment levels.

Figure 2: Employment improved markedly, especially for younger workers, in the wake of the spring 2021 'reopening'

Change in payrolled employees by age, February 2020 to July 2021: UK
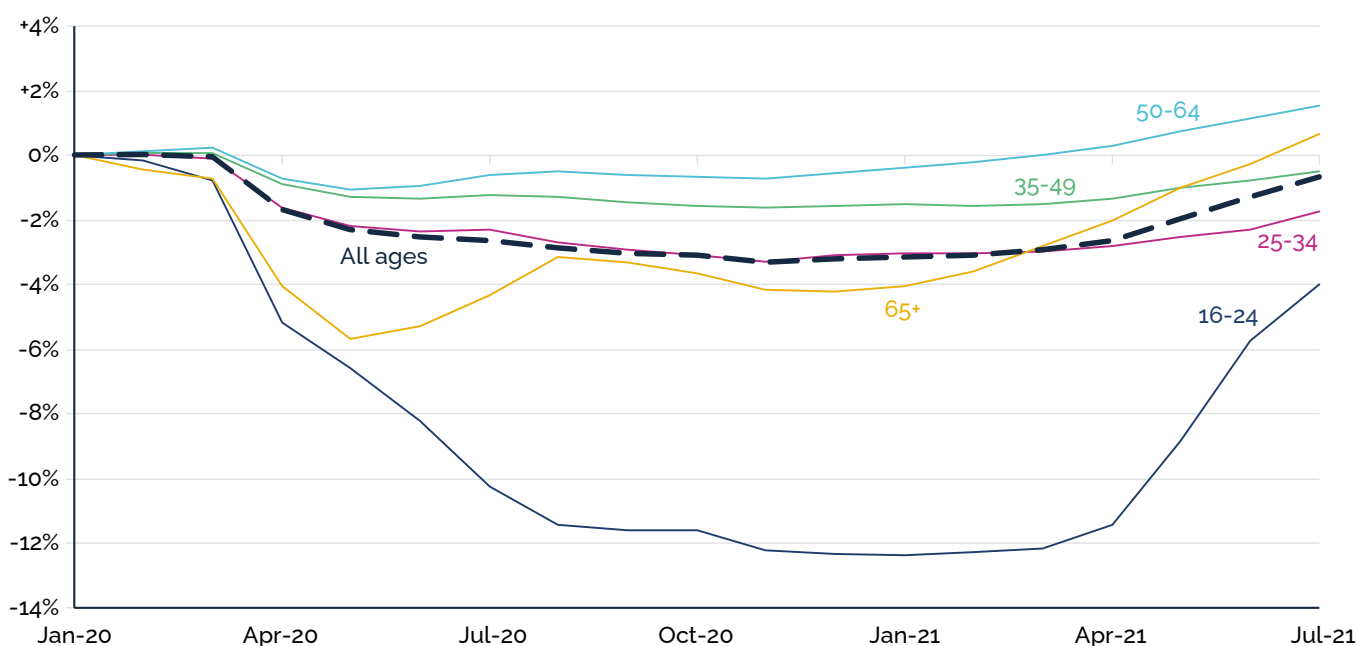
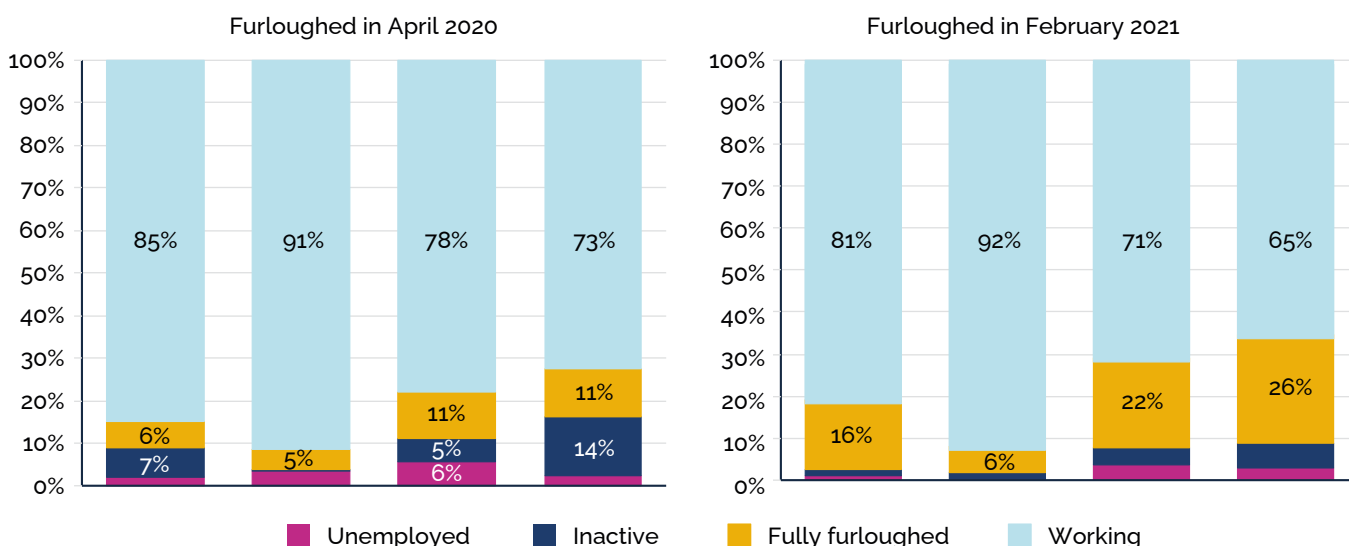**Figure 3:** Older workers transitioned out of furlough at lower rates than their younger counterparts

May 2021 employment status among respondents fully furloughed in April 2020 (lefthand panel) and February 2021 (right-hand panel): UK, data collected 3-8 June 2021

Notes: The base is all respondents who were fully furloughed in April 2020 and in February 2020 that provided their current employment information in May 2021 (excluding those who indicated that their current employment in May 2021 was "other") by age group. All figures have been analysed independently by the Resolution Foundation.
Source: RF analysis of YouGov, adults age 18+ and the Coronavirus (COVID-19), June 2021 wave.

But beneath the headline figures, challenges (of course) remain. For example, even though older workers were on average less likely than their youngest counterparts to have been furloughed during most stages of the pandemic, **data from May 2021 suggested older workers were struggling to transition back into work – despite most sectors of the economy having reopened**. For example, Figure 3 shows that while 81% of 18-34-year-olds fully furloughed during the winter 2021 lockdown had come back to work by late May, only 65% of those aged 55 and older had done so.

In fact, **by June 2021, workers aged 60-64 and 65+ became the most common age groups on furlough** (roughly 7 and 10 % of employees in these age groups), a stark reversal from earlier on in the pandemic when furlough was most common amongst the younger (Figure 4). With the Job Retention Scheme set to close by October, there are growing fears that furloughed older workers will be disproportionately likely to fall into unemployment. And unemployment among older workers is typically harder to recover from, with previous Resolution Foundation research finding that after losing a job, **older adults take longer than average to come back into work, and face a larger-**than-average pay cut when doing so. The impact of this can be particularly damaging for workers needing to make those final contributions to their retirement savings. So as the country comes to grips with wind down of furlough, policy makers should keep a close eye on outcomes for older workers, and at a minimum ensure that new employment support programmes, like Restart, offer older adults the same quality (and tailored) advice and training that is on offer to other age groups.

And while policy makers will want to keep an eye on older employment, concerns for young people should not go by the wayside. One of the **reasons why young people were hit so hard during the first stages of the Covid-19 crisis is because they are the age group most likely to work in lower-paid, customer facing roles, and on insecure and temporary contracts** – the exact jobs that are first to go in an economic downturn. Although initial news of labour shortages and the desperation of firms to hire workers led many to hope for improved working conditions (for example, better pay, more secure contracts and sufficient hours), Figure 5 shows that, at least on two measures, working conditions did not look all that different in spring 2021 from what they were in spring 2019.

Figure 4: By June 2021 employees aged 60 and older were furloughed at the highest rate

Proportion of employees furloughed, by age: February 2021 to June 2021, UK
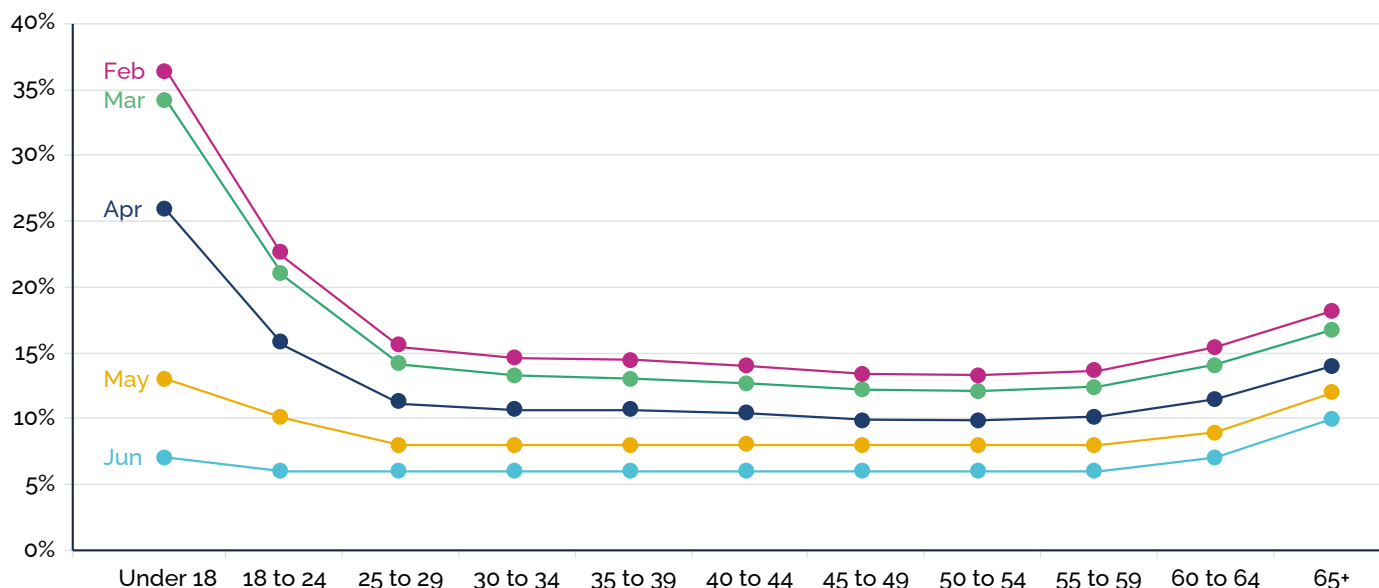

Source: HMRC, Coronavirus Job Retention Scheme statistics: 29 July 2021.

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Figure 5: The share of younger workers in lower-paid industries and the share working part-time involuntarily was just as high in June as it was before the pandemic

Proportion of workers in retail hospitality and leisure (left-hand panel) and who report working part-time because they cannot find a full-time a full-time job (right-hand panel), by age group and quarter: UK
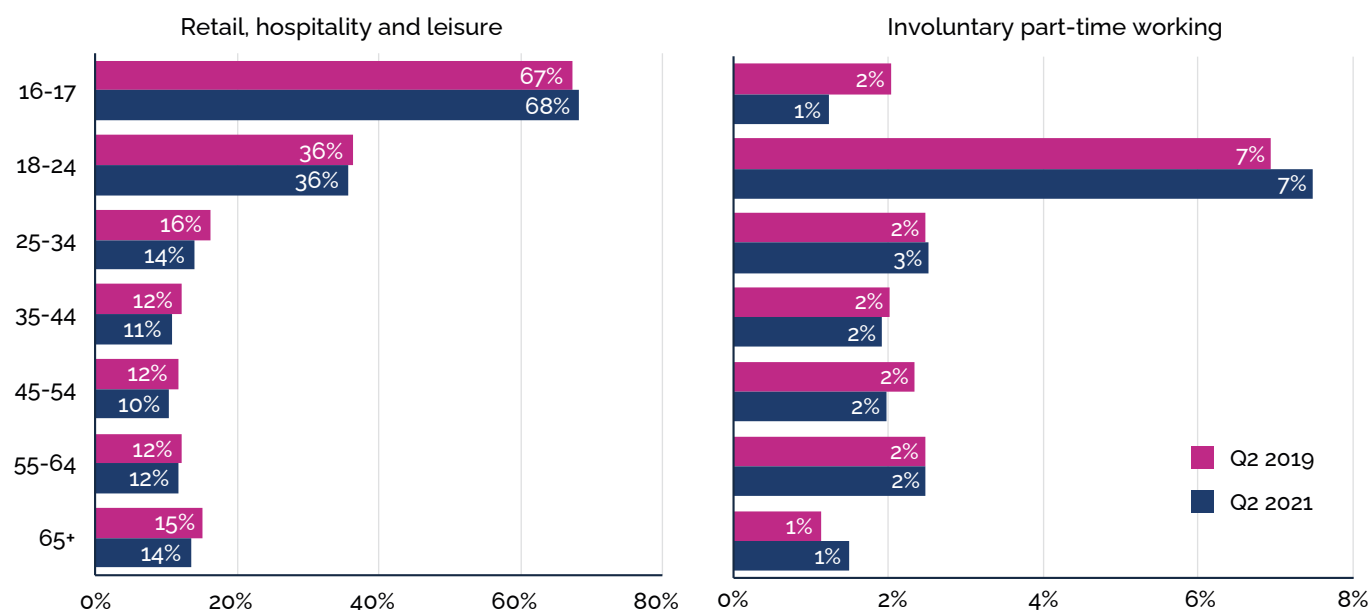
Notes: Retail, hospitality and leisure includes: Retail trade excluding motor vehicles and motorcycles, accommodation, food and beverage, travel agency and tour operator activities, creative arts and entertainment activities, sports activities and amusement and recreation. Involuntary part-time refers to the share of employees and self-employed who report working part-time because they cannot find a full-time job.
Source: RF analysis of ONS, Labour Force Survey.

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Workers aged 16-24 were still far more likely to work in largely lower-paid sectors like retail, hospitality and leisure, which offer less scope for pay progression, and for **workers of most ages, there has been little change in the proportion who report working part-time only because they are unable to find a full-time job**. Changes in the proportion of workers on zero-hours contracts have not been particularly striking either.

That is not to say that improvements are not forthcoming, and that some young people have not been able to return to work on better pay, better conditions, or in a new industry. But is it to say that **we should not be too starry-eyed about the recovery period offering a new and improved world of work**. Policy matters, not just for improving working conditions with regard to minimum pay, better shift notice period, and job security, but also for **putting into a place a ladder that allows workers of all ages, the skills and capacity to learn, progress and retrain** throughout their working lives. We should all celebrate the fact that the negative employment effects brought on by the pandemic are improving. But returning to pre-pandemic norms is not good enough: policy makers now need to focus on making longer-term gains.

Given the turnaround in the labour market and now a lack of skills in key positions, we shouldn't be too starry-eyed about the recovery period offering a new and improved world of work. Policy matters, not just for improving working conditions with regard to minimum pay, better shift notice period, and job security, but also for putting into a place a ladder that allows workers of all ages the skills and capacity to learn, progress and retrain throughout their working lives.

Kathleen Henehan
Senior Research and Policy Analyst at Resolution Foundation

Youth Voice Census 2021
Youth Employment UK

The Youth Voice Census exists to share the views and experiences of young people aged 14 - 24 across the UK. Now in its fourth year, the 2021 census saw **the largest number of responses so far** despite the challenging circumstances, with **over 3,400 young people sharing their views**. Young people were asked to open-up about their experiences in education, employment, when looking for work, where they live and, for this year, what the impact of COVID-19 has meant for them. The Youth Voice Census was open for responses from late March to June 2021, with its results published in September 2021.

This year's **Youth Voice Census tells a story of mismatch and disconnect**. Young people feel disconnected from the services, opportunities and local support systems around them. What is being created for young people is missing the mark or simply not reaching their radar. Young people certainly do not feel like they have a voice on the issues that matter to them. 81.9% of young people think there are **not enough opportunities to share their views on important issues** in their area.

The last year has left us all with a lot to catch-up on. Young people told us that they missed family, friends, exams, and proms. 27.3% of young people did not have a quiet place to do their school work, while 67% had to share their device with more than one person. We have also **seen a decrease in careers support, work experience and in the extracurricular activities** which help young people develop their skills too. Extra support will be needed for those transitioning from education and training to ensure they are supported in their next steps.

The challenges young people have faced in lost opportunities no doubt contributes to the increase of young people reporting that their **mental health, including anxiety and depression, is impacting them and their motivation for work**, but has also become their biggest barrier to gaining employment.

For employers there are three key issues to tackle: the first is that young people do not know what skills are wanted of them; second, they do not know what

skills they already have, and finally they do not believe employers have good quality opportunities for them – **only 9.9% of young people feel confident that they will be able to access quality work where they live**.

When young people are in good quality work they feel supported, they believe their employers value them and are youth friendly. We caveat this with the acknowledgement that many young people completing the Youth Voice Census would have been employed within the Youth Employment UK network of **Good Youth Employment Charter** employers and providers. Something here is clearly working, which is driving our commitment in the coming years to increase the number of employers in our network, and the support available to them.

Growing Mental Health Concerns

Young people told us of **the resilience they had to find to adjust to the continuous change** in their throughout the coronavirus pandemic. Anxiety, depression and mental health concerns were in the top five responses for young people when asked about the barriers to finding work.

> The level of **disruption for young people has been high** - 66.4% of those in education said their learning was disrupted either 'A Lot' or 'A Great Deal'; and 40.5% of those in work stated that their work had been disrupted 'A Lot' or 'A Great Deal'.

> Those looking for work were hardest hit with 56.2% of young people stating that coronavirus had impacted their mental health 'A Lot' or 'A Great Deal', and 42.1% of young people reported that their motivation to apply for opportunities had been impacted 'A Lot' or 'A Great Deal.'

Careers Education in Secondary Schools

Whilst young people have remained adaptable, they have missed out on key moments that help them establish who they are, where they are, what skills they have and what their next steps should be.

> Careers **activities have decreased in schools this year**. The most common careers support being 'face to face careers advisor' sessions were received by only 42.1% of young people. 43% of those in college had access to a careers advisor.

> Only 28.5% of young people rated the careers advice they had received in secondary school so far as 'Good' or 'Excellent'.

> **Young people rely on the people around them for careers support**. The most common sources of support were; Parents/Guardians (72.1%), Teachers (45.2%), and Friends (38.5%).

> Parent/Carers/Guardians, Teachers, and Careers and Employability Websites were rated as the '*most useful*' sources of careers advice however.

> Young people do not think that Youth Workers (68%), National Careers Service (62%), Mentors (57.8%) and Apps (51.5%) are applicable to them.

Choices

We have seen a positive change in the number of young people hearing about apprenticeship opportunities in school; 85.8% had had apprenticeships discussed with them. However other vocational options are discussed less.

> **Traineeships (65.6%) and T Levels (72.7%) were never discussed with young people.**

> 28.6% of young people are 'Likely' or 'Very Likely' to apply for an apprenticeship, while 6.6% of young people are 'Likely' or 'Very Likely' to apply for a T Level.

> Only 19% of young people currently in an apprenticeship had support from their school or college when applying.

> **Gender, eligibility for free school meals and additional needs still impacts which choices young people hear about most frequently.**

Work Experience in School

Work experience and exposure to the world of work is lower too, with only **37.5% of young people in secondary school having access to work.** However, 52.1% of young people had support in finding work experience. Work experience has value for young people and could be improved by offering more and a wider variety of opportunities:

> 72.8% of young people who undertook work experience rated it as 'Good' or 'Excellent'.

To what extent do you agree with the following statement: "Work experience helps you to…"

	Disagree or Strongly Disagree	Neutral	Agree or Strongly Agree
Build useful skills	5.8%	17.9%	76.3%
Build networks and contacts	12.9%	27.7%	59.4%
Understand what it feels like to be at work	5.6%	14.5%	79.9%
Build experience that helps you get a job	5.7%	17.8%	76.5%
Make decisions and choices about your future	8.6%	22.5%	68.8%

University Experiences

> 30.4% of students felt their university had been 'Unhelpful' or 'Very Unhelpful' in helping prepare them for their next steps.

> Access to careers support has plummeted across universities this year, with half of students not accessing any support.

> 43.5% of those in university had had their work experience plans impacted by coronavirus.

Volunteering, Social Action & Extracurricular Activities

> 65% of young people thought it was 'Important' or 'Very Important' to take part in social action and extracurricular activities

> Those who were eligible for free school meals were:

> – 10% less likely to have taken part in arts or music club

> – 11% less likely to have been part of a sports club

> – 20% less likely to have taken part in the Duke Of Edinburgh's Award

> – However, they were also 12% more likely to have joined a youth club.

Skills for Life and Work for those in School

- 33% of young people thought they understood the skills employers are looking for, and 57.5% believe they have some idea.

- **Teamwork (76.9%), Listening (67%) and Problem Solving (66.9%) were rated as the most important skills for work** amongst young people in secondary education.

- 55% of those who did not receive free school meals were 'Confident' in their problem solving skills compared to 44.4% of those who had received free school meals.

- White respondents were the least likely to be 'Confident' in staying positive with 28.2% scoring this way.

- Black, African, Black British or Caribbean respondents were most likely to rate themselves as 'Very Confident' in resilience; 35.6% of respondents scored this way

- **64.7% of young people had an idea of the career or types of jobs they would like to do**, with a further 4.3% both agreeing and currently in it. Black, African, Black British or Caribbean respondents were most likely to say they had an idea.

Which of these skills do you think are most important for work?

Skill	%
Teamwork	76.9%
Listening	67%
Problem solving	66.9%
Staying positive	42.8%
Leadership	39.1%
Creativity	36.7%
Aiming high	32.3%
Literacy skills	23.3%
Numeracy skills	21.1%
Presenting	20.8%
Digital skills	20.8%
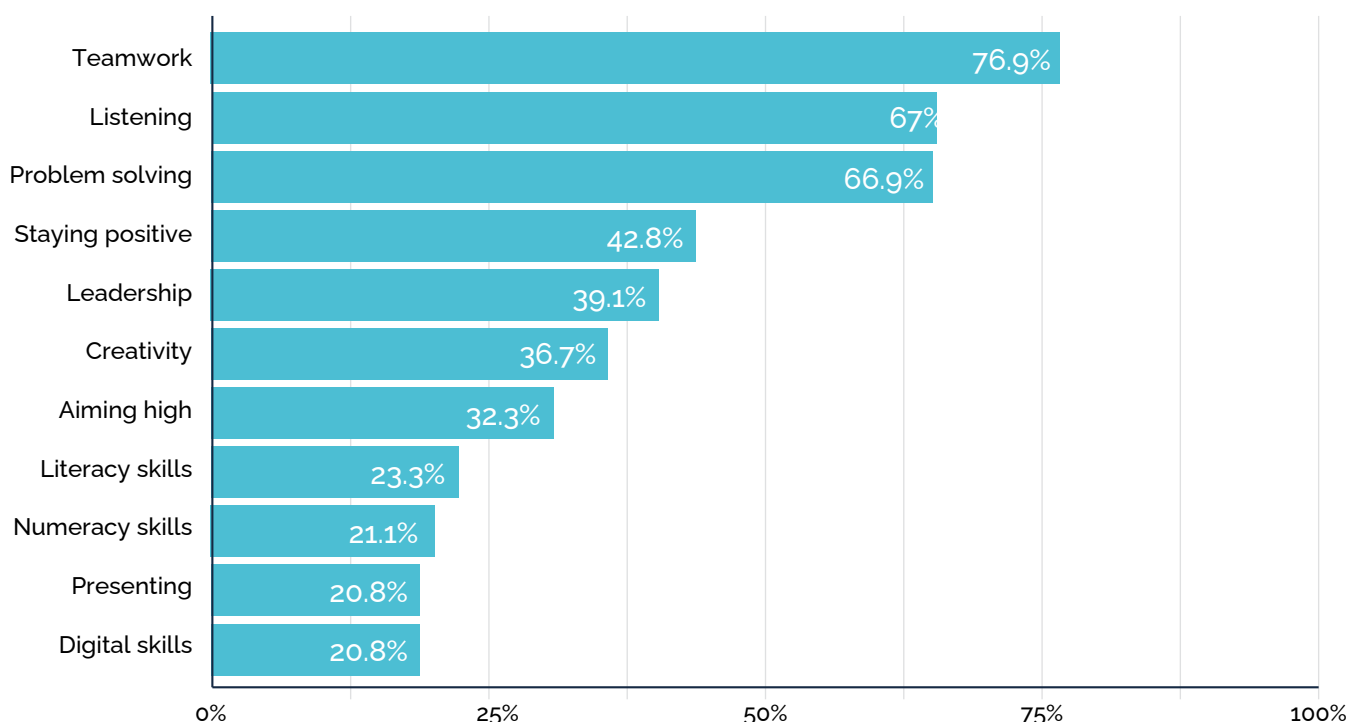
To what extent do you agree with the statement: "My school supported me sufficiently to develop the skills I need for the future"

9%	21%	36.7%	28.9%	4.3%
Strongly disagree	Disagree	Neutral	Agree	Strongly agree
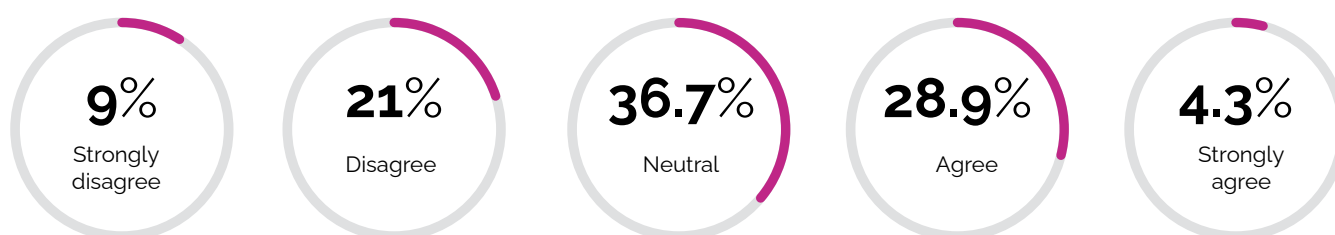
Finding Work

> **Only 9.9% of young people are confident they will be able to find quality work where they live.**

> 47% of young people are 'Not So Confident' or 'Not Confident at All' that there were quality jobs in their local area. Age, race and eligibility for free school meals impacted confidence.

> **Just 25.9% think employers are supportive of hiring young people.**

> 54.1% of those aged 19 plus were 'Confident' or 'Very Confident' that they would be able to progress into a good job. 16.8% were 'Not Very Confident' or 'Not Confident at All' that they would be able to. Confidence is impacted by gender, race and ethnicity and eligibility for free school meals.

> Only 41.1% of apprentices rated the availability of apprenticeships near them to be 'Good' or 'Excellent'.

Preparing for Work

Those aged 19 plus were asked about the skills they have, their confidence and how prepared they feel to navigate and access work:

> Young people were most confident in preparing for and attending an interview with 48.9% 'Agree' or 'Strongly Agree' responses.

> **Only 29.3% of young people feel confident that they have the knowledge to prepare for and attend an assessment centre.**

> Those eligible for free school meals were 6% less likely to agree that they have the skills to write CVs, cover letters and attend assessment centres.

> For Asian or Asian British respondents **'lack of work experience', 'anxiety' and 'having no contacts'** were the top reported barriers to gaining work. For Black, African, Black British or Caribbean respondents, the top reported barriers were 'lack of work experience', 'having no contacts' and **'racial discrimination'**.

> Many students felt that having better careers advice such as CV writing, understanding how their skills matched jobs and how much experience was required in different sectors, as well as life skills such as budgeting, mental health support and, understanding rights and responsibilities in employment was important.

Young People in Work

> 65.6% of young people would rate their employer as 'Youth Friendly'.

> 79.9% 'Agree' or 'Strongly Agree' that they are building useful skills in their job.

> **25.7% rated their opportunities for promotion as 'Poor' or 'Very Poor'.**

Apprentices

> 74.7% of apprentices found the accessibility and inclusiveness of the recruitment process 'Good' or Excellent'.

> 77.6% felt that they had made the right career choice in choosing an apprenticeship.

> **84.7% would rate their apprenticeship as 'Good' or 'Excellent' overall.**

> 54.7% would rate their salary as 'Good' or 'Excellent' overall.

> **29.5% feel 'Prepared' or 'Very Prepared' for their end point assessment.**

Naturally, experiences have been affected by COVID-19; there were less career experiences in schools, colleges and universities, but it was only in school and in employment that young people felt supported. Young people feel let down by universities and the employment services they need to access. Out of work support is misunderstood and mismatched making the transition to employment even harder for young people.

Young people's final call to us in the Youth Voice Census this year was that they wanted their contributions to mean something; they told us they hoped this work would make a difference. What steps will you now take to work with us or within your own network to make the change young people need to see? At what point in time will the UK feel like a place where all young people can look forward to a bright, safe and rich future?

Laura-Jane Rawlings
Chief Executive Officer, Youth Employment UK

Building Bridges towards Future Jobs
City and Guilds

It's been over a year since the UK first went into lockdown as a result of the Covid-19 pandemic and the feeling of uncertainty about the long-term impact of the virus on the country's economy is stronger than ever. **Unemployment today is nearly a full percentage point higher than the previous year** with **1.67 million people now unemployed**, a figure which is predicted to keep rising throughout 2021. This will not be an easy economic recovery for any business or sector and many people are facing an uphill struggle to get back into work.

The Great Covid Career Pivot

The **Building bridges towards future jobs report** launched by City & Guilds Group and global labour market trends experts **Burning Glass Technologies** reveals that **at a time of rising unemployment a third of Britons (34%) want to change careers**. But almost two thirds (65%) of Britain's working population expect the job market to be worse in 2021 than it was in 2020, and worryingly, **only 16% of respondents understand exactly how their skills would be useful in another career**.
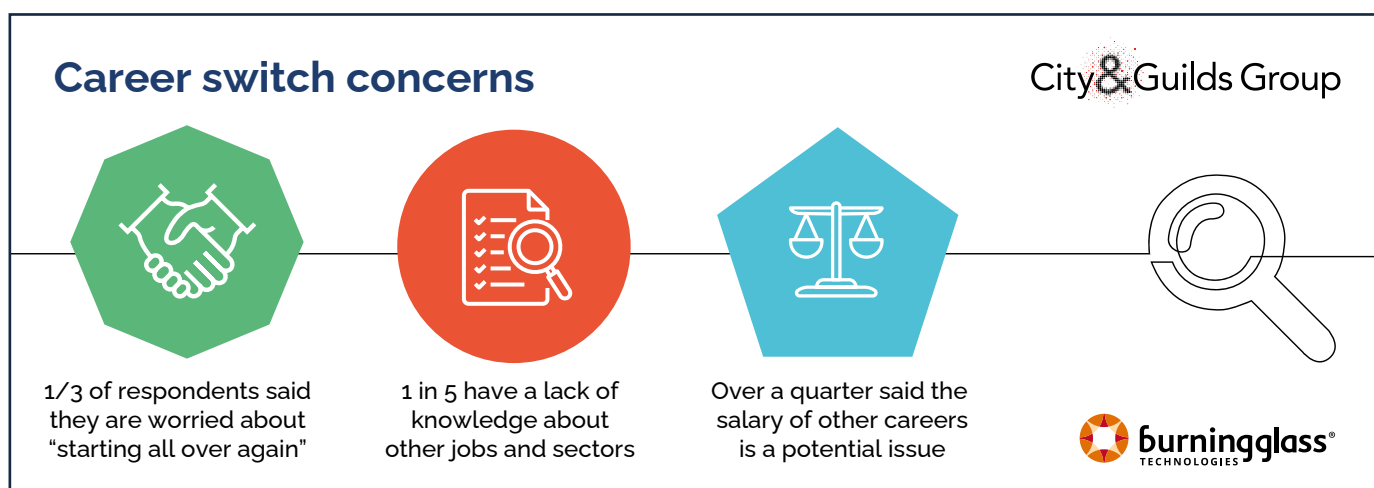
According to the report, it would appear many Britons **lack the confidence and know-how when it comes to recognising the potential of transferable skills** as a route to changing careers. In fact, a third (32%) of those surveyed had no idea where else their current skillset might be useful and, when asked to consider changing careers to move into new industries, a third (34%) were concerned about starting over again, a fifth (21%) said they

lacked knowledge of other sectors, and around the same number (19%) expressed an overall lack of confidence.

Those **aged 25-34 are most reluctant to change careers**, finding the lack of knowledge of other jobs (31%), worries about starting all over again (41%), the cost of retraining (21%), and the salaries of other careers (32%) more concerning than any other age group. And one in ten (11%) are seeking change because the pandemic has fundamentally altered their current jobs.

Building Bridges

Despite the large number of employers reducing their workforces currently, in some sectors, demand for certain roles is surprisingly on the up. Working with Burning Glass Technologies, the report identifies the skills needed for some of the most in demand jobs in the UK and matches these skills with those of jobs that are declining as a result of the pandemic, Brexit or other workplace changes.

Career switch concerns

City & Guilds Group

1/3 of respondents said they are worried about "starting all over again"

1 in 5 have a lack of knowledge about other jobs and sectors

Over a quarter said the salary of other careers is a potential issue
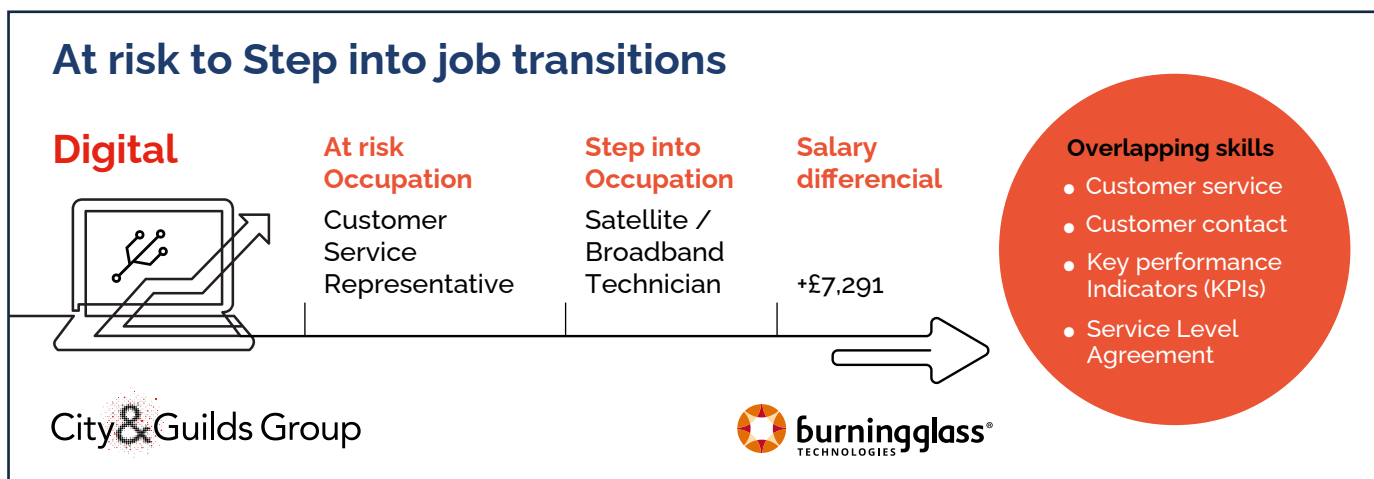
burningglass TECHNOLOGIES

For example, the report notes that a customer service representative is an 'at risk' occupation however, someone working in this role could step into the role of satellite/broadband technician and could potentially be £7,291 better off. This is because there are overlapping skills characteristics between the two roles such as customer service, key performance indicators and service level agreement.

Throughout the report these 'step into' roles are uncovered. These are jobs that can serve as a progression route into a new career for those who have lost work and that allow them to build upon existing skills.

Skills Bridges

City & Guilds has launched 'Skills Bridges' to turn the tide on unemployment in the UK and help individuals who work in industries impacted by Covid-19 to switch careers into growing industries or those facing skills shortages.

The first phase of **Skills Bridges is a series of three short courses** focused on the **social care**, construction and **digital & IT** sectors. The Step into courses, developed in partnership with FutureLearn are **available online and promote the jobs and progression opportunities on offer** in these sectors. We strongly believe that Step Into jobs and Skills Bridges will be a market-leading demonstration of the innovation required to help ensure that the UK has the skills and ecosystem to respond to the post Covid changing job market.

At risk to Step into job transitions

Digital	At risk Occupation	Step into Occupation	Salary differencial	Overlapping skills
	Customer Service Representative	Satellite / Broadband Technician	+£7,291	• Customer service • Customer contact • Key performance Indicators (KPIs) • Service Level Agreement

City & Guilds Group

burningglass TECHNOLOGIES

The UK faces a new reality, where a job for life is no longer 'the norm'. But Covid-19 has accelerated some of the changes happening in our economy and brought new ones into play. In this context, it's not easy for people to understand where their current skills and experience can be put to good use. We want to help people realise the potential of their transferable skills, so they are able to match these up to the jobs that are still available. Our Skills Bridges programme will help people that might find themselves out of work or looking for a change to identify the transferable skills that could help them unlock a completely new career path.

If you're an employer from a growth industry, we would encourage you to take a more flexible approach to recruitment and recognise the untapped potential in people working in industries with related or transferable skills. This can offer a new lease of life for businesses and those affected by changes to our labour market, and help kickstart the economy.

Kirstie Donnelly
CEO of City and Guilds Group

The Importance of Narrative Skills in Big Business

Oxford University Centre for Skills, Knowledge and Organisational Performance (SKOPE)

A recent report (**Storycraft: the importance of narrative and narrative skills in business**) from the Oxford University Centre for Skills, Knowledge and Organisational Performance (SKOPE) has highlighted how prominent business leaders view 'narrative' as an integral part of doing business in the 21st century. The report details findings from a research project funded by the UKRI Arts and Humanities Research Council. Based on extensive interviews with business leaders, mostly CEOs and Chairs, from nearly a third of FTSE100 companies, the study fills a gap in our understanding of narrative. It describes the role that narrative plays in business, the skills business leaders associate with narrative, and how these skills may best be developed.

Narrative underpins all business activity

The term 'narrative' has become increasing common in business contexts and the business leaders interviewed in this study emphasised that narrative underpins all aspects of the work of their organisations. They highlighted that all business, at some level, involves persuading an audience, whether internal or external, to do something: buy into an idea, buy a product or service, or change a behaviour. From devising and communicating the company's strategy to motivating employees, developing advertising material, presenting financial reports, working with industry stakeholders, and even engaging with wider society, **narrative was emphasised as the key way in which businesses persuade people to embrace an idea and act on it**.

Participants highlighted how the storied nature of narrative has the power to take audiences on personalised journeys, linking key facts and figures with emotional content, to develop both credible and compelling arguments. This was particularly highlighted as the essential means by which businesses communicate their purpose and values – their 'grand narrative'. Participants described how the nature of business is changing, with **an emphasis on values-led approaches and a need to engage with a growing and increasingly diverse set of stakeholders**. Narrative was seen as the means by which businesses could establish a role for themselves within society by developing and sharing a clear vision rooted in social values.

However, business leaders were keen to emphasise that narrative exists in action, rather than as a static message. They described it as an **active process of audience engagement across multiple mediums and digital platforms**. Business narratives, are co-constructed between the communicator and the audience as they collaboratively envision shared futures. The authors of the report refer to this complex process of narrative co-construction, collaborative envisioning, and persuasion as *'Storycraft'* and provide a wide range of examples to illustrate how important this process is in driving and managing change, particularly the rapid social, economic and political shifts caused by Covid-19.

Narrative Skills Framework

The report details a specific **set of 'narrative skills' which business leaders saw as fundamental and indispensable to storycraft, arguing that the ability to devise, craft**, and deliver a successful narrative is not only a pre-requisite for any CEO or senior executive, but is also increasingly becoming necessary for all employees at all levels in any organisation. The report outlines a Narrative Skills Framework, to describe this set of skills. It comprises:

> Narrative communication skills

> Empathy and perspective taking

> Critical analysis, synthesis and managing complex data

> Creativity and imagination

> Digital skills

Business leaders emphasised that it is the combination of these skills that make the narrative skillset so distinctive and so valued in their organisations. These skills enable employees to engage with rapidly changing contexts in an agile manner, combining data, fact and figures with a meaningful understanding of what it means to be human.

Interdisciplinary skills formation

Business leaders highlighted that narrative skills should not be thought of as devoid of content. Instead they are rooted in knowledge and action and developed both within formal education and training contexts

and through real world experience of the workplace. Participants highlighted that narrative skills are often associated with arts and humanities subjects, but emphasised that high quality education and training in any subject, at any level, should help individuals form narrative skills. They argued that **narrative skills should underpin all education and training**.

In fact, business leaders were overwhelmingly critical of siloed approaches to academic disciplines and argued that the complexities of the contemporary world **increasingly require multidisciplinary approaches in education and training and greater collaboration** between employers, schools, colleges and universities.

This research provides important new insights into how big businesses operate and shows how some of the most senior business leaders emphasise the importance of narrative skills. It highlights how narrative skills should form a critical part of the skills economy as we recover from Covid-19 and how multidisciplinary thinking and close collaboration between employers and education and training providers underpin the most successful skills eco-systems.

Dr James Robson
Deputy Director of SKOPE and Principal Investigator on the project

Basic Skills as a Driver for Inclusive Economic Recovery

Centre for Progressive Policy

A well skilled local population has proven to be a vital driver of economic renewal following previous recessions. The economic recovery from Coronavirus will be no different.

As we begin to emerge from the pandemic, new research from the **Centre for Progressive Policy** (CPP) has shown that **boosting basic skills – by reducing the share of people who lack any formal qualifications – can be the engine of employment growth**. We estimate that improving skills coverage in this way can boost employment by more than half a million.

The analysis builds a new model of local economies across England. It establishes a statistically robust relationship between basic skills coverage and employment, controlling for differences in health, population size and demographics. The headline finding is that a 10 percentage point drop in the share of the local working age population who lack any formal qualifications is associated with a 2.6 percentage point rise in the employment rate. Importantly, this rises to 3.3 percentage points in the most deprived areas.

Using this relationship, **we can estimate the potential employment uplift if we were able to improve basic skills coverage across the country** to levels seen in the best performing areas. Let's take the example of Birmingham; in many ways a dynamic and prosperous economy, but one which still suffers from high levels of deprivation and low basic skills. About 13% of the working age population in the city lacks any formal qualification. If we were able to reduce this to about 3% – the rate enjoyed in places like Windsor or Bath – our model suggests employment in Birmingham would be up to 28,800 higher.

As Table 1 shows, the highest employment uplifts are in large towns and cities in the midlands and the north – areas with large populations and low basic skills coverage, held back from reaching their economic potential. Summing the uplifts in each area gives a total employment boost of up to 573,000. Of this, more than half are concentrated in the most deprived 20% of areas. The potential for skills to drive forward the government's levelling up agenda is clear.

Table 1: Estimated employment rate uplift: the ten highest modelled estimates of the employment uplift associated with reducing the share of residents without a formal qualification to the rate in the top 10% of local authorities. (The range represents the 95% confidence interval).

Local Authority	Employment rate uplift (PP)	Employment uplift
Birmingham	2.5 – 3.9	18,700 – 28,800
Bradford	2.8 – 4.3	9,300 – 14,300
Sandwell	4.5 – 6.9	9,200 – 14,300
Leicester	3.6 – 5.5	8,500 – 13,100
Manchester	2.0 – 3.0	7,700 – 11,800
Liverpool	2.2 – 3.4	7,300 – 11,200
Wolverhampton	3.7 – 5.7	6,000 – 9,300
Dudley	3.0 – 4.8	5,800 – 9,300
Leeds	0.9 – 1.4	4,800 – 7,400
County Durham	1.5 – 2.2	4,700 – 7,300

What can we do to boost basic skills in these places? Adults without any formal qualifications are – almost by definition – hard to reach, given that the pre-16 education system failed to equip them with any certified skills. This means **effective outreach and comprehensive support is at least as important as the actual learning**. In this context, non-learning interventions, such as careers counsellors and free childcare have proven to be highly effective.

These sorts of programmes cannot be done on the cheap. But **they are an investment not only for the individual learner, but for the Treasury too**. **Per Scholas**, a training programme in the US, created net benefits per

participant of $11,370 for the Treasury, thanks to learners subsequently being less likely to claim benefits and more likely to pay taxes. This was in addition to the $14,000 in net benefits which accrued to the learners. The **lesson from successful programmes like Per Scholas is that investment in comprehensive wrap around support for learners pays for itself** many times over.

For ministers and mayors wanting to boost both employment and shared prosperity, basic skills should be the first port of call. **High coverage of basic skills is the foundation upon which our inclusive recovery can be built**.

Written by
Andy Norman, former Research Analyst, at the Centre for Progressive Policy.

Education Skills and Work in the Fourth Industrial Revolution

Edge Foundation

The 6th International Conference on *Employer Engagement in Education and Training* took place online in July 2021. Hosted in partnership with Education and Employers and Edge, the theme of the conference centred on **preparing young people for the future of work**.

To begin conference proceedings, Distinguished Research Professor Phillip Brown (School of Social Sciences, Cardiff University) delivered a keynote on the fourth industrial revolution and future of work and education. Throughout the presentation, Prof Brown stressed that we are **at a pivotal point of innovation and change in the labour market**, and so crucially, policy makers and institutions need to think more carefully about the future of work and how best to prepare our young people for it.

Professor Brown began by defining what is understood as the 'fourth industrial revolution' by first emphasising that whatever our understanding of it may be, we are in the very early stages. While we may be tempted to herald it as a unique age of invention - **the fourth industrial revolution relates more to the social transformation of institutions, businesses and public services.** It marks the emergence of new digital technologies applied across industries to create not only new products and services, but also *'new ways of doing old things.'* For example, the Covid-19 pandemic has accelerated the use of digital platforms which Prof Brown described as the *'new production lines of the 21st century'* as they are reshaping markets and fuelling business competition.

However, he argued that the power of technology (e.g. artificial intelligence, automation, genomics), can often be overplayed in our perceptions of the future of work, contrary to the evidence. **Fears of mass unemployment are exaggerated but it does not promise new *mass* employment.** There is also little evidence to suggest lower skilled jobs or sectors of work will be particularly targeted. This is contrary to the '**labour scarcity**' view, that typically dominates policy discussions on the fourth industrial revolution, rooted in theories of human capital

and skills development. It typically positions education in a 'race' with technological advancements and its persistent need to 'catch-up.' It assumes a rapid increase in the demand for higher level skills with an emphasis on STEM.

Prof Brown questioned this standpoint, urging us to consider the evidence. **What the evidence does suggest is that the economy many not need as many 'knowledge' workers as widely assumed. The distinction between regular employment and 'gig' work may also become less clear-cut as companies seek to impose 'agile' models of workforce innovation.** This may lead to increasing job insecurity and fewer working hours but at the same time lead to an extension of working life as people live longer and pension rules change. Prof Brown suggested that these trends support a **'job scarcity'** rather than labour scarcity view. This does not mean that education is not in urgent need of reform but the major problem is one of job quality and problems associated with labour demand not matching the employment expectations of a more educated workforce.

The key challenge to address in this context, is **how do we move economies to be labour enhancing and productive?** For example, this could mean investigating how AI could be used to restructure ways of working and business processes – to free up time to do more interesting work tasks rather than deskilling or automating jobs. Therefore, Prof Brown cautioned that **we must not assume new technology inevitably result is a 'win-win' for all concerned**. Rather we need to think about how we engineer collaborative, human-centred approaches, and engage SMEs/businesses along this journey. As part of this, **we need to communicate the 'needs' of young people, as well as those of employers, in discussions about the future of work. This is particularly important for young people looking to gain access to work, when employers are only looking for people who are 'job ready' which leads young people being screened out for lacking work-related experience. We also need to make sure that hiring algorithms does automatically reject anyone that doesn't 'match' the profile of the existing workforce, especially when this leads to exclusion based on gender, race or social class.**

Moving forward, the challenge facing education will continue to be addressing institutionalised inequalities. Prof Brown emphasised that **we cannot hide behind social mobility and the 'race to higher education' as the favoured progression route**, as it may be more difficult to create more room 'at the top'. And while more attention is correctly being given to apprenticeships and *'applied education'*, to date we have never been able to resolve the problem of 'parity of esteem' for the simple reason that top vocational prizes are typically reserved for those with a university degree, often from an elite institution. As **labour markets cannot solely resolve distributional issues – we must extend the focus to include 'equality of condition' for all in education and the workforce**, as well as 'equality of opportunity'. Currently, budget cuts in lifelong learning threaten human flourishing and are counter-productive in an age of increasingly 'smarter' machines. The future of work is not just about teaching students coding or learning higher-skills, but also **about re-thinking what it means to be human and our relationship to technology in society today** and tomorrow.

We need to shape technology and services in ways that are fair and inclusive.

We are not at the will of technology, it does not determine our individual or collective fate.

We have the power to make **decisions to help direct what the future** could look like.

As such, Professor Brown reminded us to continually consider, whose needs are we serving and what should our focus be moving forward?

Digital innovation is a game changer. We confront major challenges but also have new opportunities to improve the quality of education and to create better jobs. This cannot be achieved by doing more of the same, we need to reimagine the future of education and to find ways of making the economy work for everyone in a sustainable and inclusive way.

Professor Phillip Brown
Distinguished Research Professor at Cardiff University

Skills Shortages in Artificial Intelligence

Aunam Quyoum, Edge Foundation

In 2018, the **World Economic Forum** reported that **by 2022 at least 54% of employees in all industries will require significant reskilling or upskilling to meet the expected growth in artificial intelligence (AI) and automation** technologies.

Often referred to as a fourth industrial revolution; whether through robotics integrated into warehouse and manufacturing processes, or the use of machine learning for decision-making – AI and data driven technologies are being increasingly adopted across workplaces. As the disruptive effects of the Covid-19 pandemic continue to shift ways of working towards digital platforms, **AI is predicted to play a significant role in aiding the economic recovery of businesses and wider society**. On the release of the **National AI Strategy** in September 2021, Nadine Dorries (Secretary of State for Digital, Media, Culture and Sport) described it as a *'signal to the world [of] our intention to build the most pro-innovation regulatory environment in the world;*

to drive prosperity across the UK and ensure everyone can benefit from AI; and to apply AI to help solve global challenges like climate change.'

Supporters of AI argue it has the potential to boost UK economic productivity and GDP, but only if businesses invest in the necessary skills training and infrastructure needed to foster a competitive global advantage (Microsoft, 2020). Currently, the UK faces a looming AI skills gap. **Research on AI and skills by Microsoft** (2020) surveying 12,000 people across 20 countries, revealed only 17% of UK employees are being re-skilled for AI, compared to the 38% global average. Despite the level of 'readiness' the UK has with available technology,

strong policy support and its academic expertise, **the UK is behind globally in its AI maturity and skills training**. Although the number of businesses, industries and public sector organisations using some form of AI is increasing, research has warned of current and future skills shortages in data science and AI across the UK.

Why is there a Skills Shortage?

A study of the **AI labour market** by IPSOS Mori (2021) found that 66% of the 118 UK organisations surveyed said there had been an **increase in recruitment specifically for candidates with AI skills in the last two years**, although 69% of businesses reported finding vacancies difficult to fill. Firms, public sector organisations and recruitment agencies have reported that barriers to filling current vacancies included applicants lacking: technical skills and knowledge (65%), work experience (40%), or industry knowledge (25%). However, **a third of employers also described recruitment issues related to a lack of communication skills, commercial awareness, and leadership or management skills**. For recent graduates and school leavers emerging from the Covid-19 pandemic, it may be increasingly challenging to develop such skills, given work experience opportunities have been disrupted and employers often lack resources for adequate supervision and coaching (IPSIS Mori 2021, p.33).

A **report by the Learning Work Institute** (LWI, 2021) argue skills shortages in AI and digital sectors reflect **pipeline issues in schools**. Fewer students are choosing to study ICT at GCSE, schools lack resources to invest in digital equipment, and digital skills training at school, further education and in apprenticeships is declining overall. This is further worrying when we consider the **reality of digital poverty across the UK**. Yet encouraging young people to work in AI will not be enough to meet the demand for skills both now and in future. The upskilling, retraining or redirecting of careers will be crucial in fostering AI ready cultures.

Reproducing Inequality?

However, while AI and automation can facilitate some positive improvements to services, goods and ways of working – **there are concerns that it may further an already polarised labour market**. For instance, the majority of AI related jobs are currently confined to larger cities such as London, Manchester, Bristol, Cambridge and Edinburgh (IPSOS Mori, 2021). This is while automated technologies threaten job security among lower-skilled workers in small to large towns such as Harlow, Scarborough and Pendle. The **sectors considered most at risk of automation are retail and the hospitality sector** - sectors already worst affected by the Covid-19 pandemic and job furloughs (Fabian Society, 2020).

To add to this, there are general concerns around the misuse of data, the surveillance of employees, informed consent and privacy, as well as algorithmic data bias (Fabian Society, 2020; Dencik et al. 2018). Biases disproportionately negatively affect women and people of colour e.g. racial profiling through facial recognition software (Criado-Perez, 2019; Noble, 2018). Currently, **only 20% of employees in the AI sector are women** (Young et al., 2021). There are further disparities between men and women in terms of pay, seniority and job roles despite women often having higher levels of formal education and qualifications relative to men. Young et al. (2021) at the **Alan Turing Institute** argue greater data on the characteristics of the AI workforce should be collected and analysed, while the LWI (2021) recommend broadening the appeal of digital careers to a diversity of young people and equipping teachers with greater knowledge of digital careers. Overall, **increasing the diversity of the AI workforce** in terms of gender, ethnicity, social class and educational background will be key in ensuring systems are fair and ethical and do not further patterns of inequality in society.

Looking to the Future

The AI industry is dynamic and perpetually changing, meaning it can be challenging for education institutions or employers to keep up-to-date in terms of skills, training and recruitment. This has led some to coin the phrase 'AI readiness' which denotes a general workplace culture and aptitude, as opposed to specific skills with a single implementation technology (Microsoft, 2020). Regardless, **the future of work is set to change for the majority of workers in some form as a result of AI, with continuous learning in some form being necessary**.

In response, some call for tech companies to be more involved in designing curricula at school, college or university level (Russon and Hooker, 2021), while others recommend building a social partnership between **government, employers, trades unions, businesses and employees to work collaboratively on the adoption of new technologies in the workplace** and identify training needs (Fabian Society, 2020). This should necessarily include providing time and opportunities for older staff and/or those with less formal qualifications to access upskilling opportunities, as well as developing an emerging talent pool.

The fourth industrial revolution has re-imagined the future of work. While there are many jobs available in the Tech world, many cannot be filled because key skills are missing such as interpersonal or team working skills and creative thinking. Furthermore, given AI can be prone to bias, we also need to recruit people with a holistic education in subjects such as history, philosophy, and ethics, in order to problem solve and build more equitable solutions in the workplace.

Meeta Vouk
Director Product Management, AI for IBM Z at IBM

CASE STUDY

01 Founders Project-Based Learning Model

In June this year, <u>**01 Founders**</u> launched an **innovative coding** school, providing free education and a job guarantee. The unique model is **based on peer-to-peer learning**, centred on collective intelligence and driven by the creativity of learners. The difference of this approach makes 01 Founder's educational experience more engaging, relevant and personalised. At their Regent's Park campus, they are producing high quality, full-stack developers with a range of skills, including creativity, collaborative problem solving, communication and critical thinking.

The project-based model which is built on a gamified platform, personalises learning based on the skills and interests of individuals. It currently operates in over 40 countries worldwide. In the UK, CEO Joysy John and her team, **have moulded this platform to help also bridge the diversity gap**. 01 Founders are committed to creating 100,000 software engineers from diverse backgrounds by 2030. This includes representation from 50% female, 50% from disadvantaged backgrounds, with at least 30% of these future engineers being from ethnic minority backgrounds. They believe this can have a transformative effect on the tech talent scene in the UK and give companies the much-needed support to transform their diversity of staff.

01 Founders are already working with various organisations to **build talent pipelines**. For example, Peloton Interactive, Nominet and Faculty, are their founding partners. It is an entrepreneurial, inclusive and innovative brand at heart, building on the values of the three partners that brought the initiative to life.

> Founders Forum - Europe's most successful start-up and innovation network.

> Capital City College Group - one of London's largest FE and Adult education providers.

> 01 Edu - the creators of the learning methodology that underpins the programme.

They have already welcomed learners on-site. So far, 130 individuals have started their campus selection process; they have applied through a single game, testing their resilience, logic, and creativity. They will welcome around 75 of these learners to the full Fellowship in October, and a further 175 will join them in January 2022.

They have the ambition to grow to 20 schools around the UK and Ireland. Their **partners and stakeholders advise on the curriculum**, ensuring it is fit for purpose and will challenge learners to become the best. They can deploy changes in just two weeks, so it means they can keep abreast of the latest developments and incorporate them into the programme in real-time.
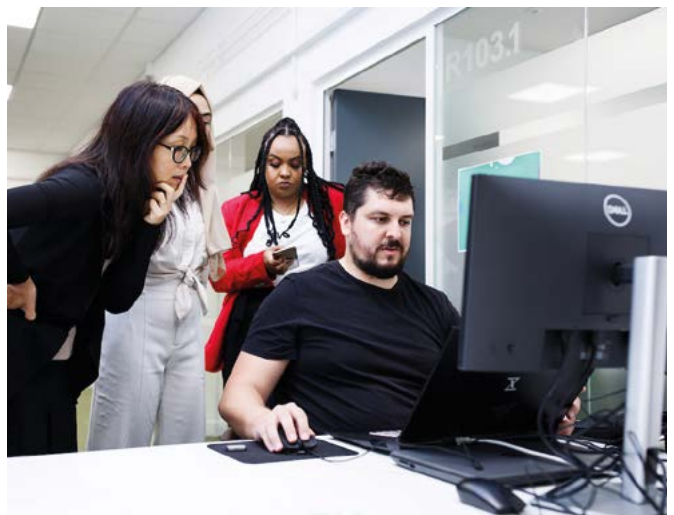
Once people discover that learning to code is theirs to control and experience through interacting with their peers, it immediately shifts their mind-set. It allows them to push themselves further, work harder than they ever have, and achieve more than they thought possible. They take the concept of learning as an experiment and use it to teach themselves and help each other. I believe this is the power behind the 01 Founders model, and it's why it's perfect for helping us improve diversity in technology teams because, at heart, it's a social mobility model that empowers learners to take control of their careers. That, for me, is the best part of seeing this all come to life.

Joysy John
CEO of 01 Founders

Education for Sustainable Development: Listening to the next generation

Kat Emms, Edge Foundation

The current generation of young people, particularly those aged under 24 are a group characterised by greater political activism and motivation to make valuable changes to the world around them. Now more than ever, these young people are increasingly concerned by the threats posed by continued climate change - they are motivated to protect the planet, and wish to make world leaders listen to the dawning scenarios which will substantially affect the majority of their lives. Global Action Plan (2021) found that 89% of young people (aged 7 to 18) said caring for the natural world was 'quite' or 'very important' to them.

Environmental causes are consequently playing into many aspects of young people's lives; from shaping how and what they want from their education (including the knowledge and skills they are gaining), to expectations around what their educational institutions are doing to address climate change, and gaining an understanding of the more sustainable jobs and employers they could progress into. With regard to other aspects of their lives, such as shopping and consumption for instance, Gen Z people (those born from around late 1990s to early 2010s) in the UK are 1.4 times more likely to pay a premium for eco-friendly products (**YouGov, 2020**).

What young people want from their future.

Aside from earning an income, many people look for meaning and purpose in their work. Indeed, recent surveys of final year students and recent graduates by Students Organising for Sustainability (SOS-UK) found that **a sense of meaning and satisfaction from work was the most important factor when considering what job to apply for, ahead of wanting a good salary/ financial benefits** (SOS-UK, 2017). This desire for a sense of meaning was significantly more important for those aged 26 and under. The study also found that 57% of final year graduates and 52% recent graduates mentioned that when applying for a job *'having a positive impact on the world'* was important.

An organisation's sustainability strategy is therefore likely to have an increasing role within their recruitment processes. **A study by Total Jobs** (2019) discovered that a quarter (26%) of workers would be willing to take a pay cut to work for a company working towards protecting the environment. In practice, they found **workers were willing to accept a salary reduction of over £8,000 on average per annum to take up an environmentally**

friendly role. This finding is amplified for the younger workers as millennials were willing to drop their salaries by an average of £11,400 per annum.

However, preparing for a future that helps tackle climate change goes beyond the jobs that young people will do. Following a process of consultation with young people involving more than 300 people across the UK, Our Bright Future (Nash, 2020) found young people wanted three key changes for them and the environment. As well as 'support to get environmental jobs', young people also want 'more time spent learning in and about nature' and 'government, employers, businesses, schools and charities to pay more attention to the needs of young people and the environment'. This suggests that education establishments need to be supported to develop their curriculum and pedagogies which include learning in and about the environment, as well as support for their staff to provide the up to date and relevant careers information, advice and guidance to their students.

This preparation for a more sustainable world, including greener jobs, starts in education. But are young people being adequately prepared for this?

Universities

Universities are in a strong position to address some of the challenges around sustainability, not just through their teaching practice, but also through their research, public engagement activities and - given that they are typically such large institutions – producing lower impact in terms of campus operations and facilities. Many universities are aligning their practices to bring about some sustainable changes our world needs. Since 2019 Times Higher Education (THE) have been running the **THE Impact Rankings which assess and compare universities' performance against the United Nations' Sustainable Development Goals (SDGs)**, creating an additional motivator for universities to make real impact. And the majority of students seem to agree with this responsibility for universities. The Student Pulse survey (THE, 2021) found 79% of students think universities have an important role to play in achieving the United Nations' SDGs.

In the 2021 **Student Academic Experience Survey** by HEPI/Advance HE (Neves & Hewitt, 2021) students were asked: *'Which areas of university spend are the most reasonable use of tuition fees?'* Even after a year of turmoil caused by the Covid-19 pandemic and many students wanting refunds on their tuition fees, **a quarter of respondents (25%) said they wanted their university to spend fees on transitioning the institution towards sustainability** – a new category introduced only in 2021 in the latest year of the survey. In fact, when the question of tuition fees is not considered, **SOS's survey** of college and university students found that 80% want their institution to be doing more on sustainable development (SOS-UK, 2021a).

Students at both colleges and universities also expect their institution to support their development of sustainability skills as part of their courses. The number of students agreeing this to be the case has grown slightly from 76% in 2015-16, to 81% of students now expecting this. There are a number of skills and competencies that are associated with education for sustainable development. SOS-UK set out 12 key skills shown in Figure 1.

Some students feel like they are already learning sufficiently about climate change and how they can take action. However, **around 60% of students want to learn more about sustainability** (SOS-UK, 2021a), so that they are empowered with the knowledge and skills to make personal changes in their lives as well as being better equipped to pursue their career aspirations. This can be achieved in a number of ways, including linking existing course content or the subject area to sustainability, through offering relevant linked placements or work experience, and through linking coursework or dissertations directly to sustainability issues.

Figure 1: Sustainability 'skills', SOS Student Skills Survey (2021a, p.11)

Skills for sustainable development...	Looking at global problems from the perspective of people from around the world	Considering ethical issues linked to your subject	The causes of inequality in the world
Understanding how to create change	Understanding how human activity is affecting nature	Challenging the way we do things now (like business, politics, education)	Solving problems by thinking about whole systems including different connections and interactions
Communicating complex information clearly and effectively to different types of people	Using resources efficiently to limit the impact on the environment and other people	Looking at a problem using information from different subjects or disciplines	Planning for the long term, as well as the short term

Colleges

When thinking about colleges, vocational courses tend to be more closely aligned with industry needs, and more now than ever, **business and industry require FE to equip their learners with the competencies and skills needed to contribute to the sustainability of organisations** and to prepare learners to move into green jobs. As Dora Martínez Carbonell from West Suffolk College emphasises:

> In FE, we must bring sustainability expert voices on board to advise course directors on how best to embed sustainability into their programmes.

For instance, colleges should be including local businesses so as to better understand their skill needs to contribute to college planning and course development. The **Guide for Sustainability in Further Education** produced by the Alliance for Sustainability Leadership in Education advises that **education for sustainable development should be interdisciplinary and holistic** – it should be embedded across the whole curriculum, not as a separate subject. It should also include critical thinking and problem solving, which can allow students to develop confidence in addressing the dilemmas and challenges of sustainable development. Furthermore,

education for sustainable development should be fostered through a variety of pedagogies, such as through art, drama, debate and experience.

Schools

Sustainable education and skills development needs to be embedded and developed from an early age and therefore schools must play this vital role in supporting this. **At this earlier age, young people are still keen to learn about the environment and how to do more to support sustainable development**. Currently, just over half (58%) of pupils (from Year 5 up to sixth form) say they have learnt a lot or quite a lot about the environment at their current school or college. Yet, 71% of pupils are interested in learning more about the environment (SOS-UK, 2021b).

It is not just pupils who wish to be learning more about environmental issues, teachers also want to see more change towards teaching climate change. Sixty-nine percent of **primary and secondary school teachers think there should be more teaching in UK schools about climate change**, its implications for environments and societies around the world and how these implications can be addressed (Teach the Future, 2021). Many teachers (41%) however state that climate change is rarely or never mentioned in their schools. Where it is currently mentioned however, this tends to primarily be limited to science and geography lessons (*ibid.*). Climate

change does and will affect all aspects of young people's lives and needs to be linked across the curriculum, not in a narrow range of subject silos.

One of the issues holding back more sustainability-focussed teaching is that **most teachers (70%) feel they have not received adequate training** to educate students on climate change and its implications (Teach the Future, 2021). Another reason can be attributed to **recent changes to the curriculum, particularly those made to KS3, GCSE and A level curricula in 2014/15**, which included the removal of assessment methods such as coursework and practicals, and a full move to end of course exams. It also included the introduction of the EBacc, narrowing KS4 pupils' course choices to the detriment of creative, artistic, and technical subjects. Research (Kashefpakdel et al., 2018) with **teachers after these changes, believe it has resulted in fewer opportunities for students to develop valuable skills that are important to a good education in sustainable development**, such as creativity and team working skills. One teacher explained: "[The] *school ethos has changed enormously so that didactic teaching is expected, potentially due to enormous subject knowledge required. Creativity and independent thinking has been completely scrapped from lessons.*" (Science teacher) (*ibid*., p.44).

Moving forward

Students need to be equipped with a **range of knowledge, skills, and values in order to be better prepared for a more sustainable future and for jobs that promote sustainability**. We have seen many schools, colleges and universities integrate sustainability into the core of their education to equip and inspire young people for the future. For instance, **problem or project-based leaning approaches can equip students with real world knowledge of contemporary issues but also equip them with creativity and critical thinking skills needed to find solutions to problems**. These pedagogies can also develop the communication skills needed to explain and persuade audiences, so messages about the challenges of climate change can be shared effectively. Yet, currently only 7% of teachers have reported that climate change is a core part of their problem based approaches in lessons across the curriculum (Teach the Future, 2021). Ultimately our **teachers and educators need to be supported and empowered** to teach for a strong sustainable education, whether this be through support for curriculum development, continuing professional development opportunities, support to develop links with industry, and through initial teacher training.

The Creative Industries - Crisis or Renaissance?

Ann de Caires and Kat Emms, Edge Foundation

It is no surprise to hear that lockdown and Covid-19 have had a dramatic impact on the creative industries. However, **do we understand the sector fully, appreciate its importance and have the resources to enable a renaissance?** How does the journey look for many young people who, prior to Covid-19, saw their destination within the creative and cultural sector?

The Sector

As **McKerrell** (2021) explains, the terms 'creative industries', and now the 'creative economy', are often used to refer to an **expansive group of commercial and professional fields of practice**; from the more lucrative services which include game design, advertising, marketing and TV production, to the less economically stable areas such as visual art, museums, musical performance, dance and crafts, where it tends to be harder to make a stable living from, particularly as the effects of the pandemic have shown.

Creative occupations include many jobs in the creative industries, for example writers, film makers and game designers, but also include people doing creative roles in other industries such as designers working in manufacturing companies. Furthermore **the creative industries also include many important roles within the wider sector deemed as 'non-creative occupations'**, for example hospitality staff working in museums.

The grouping and use of certain terminology when referencing the 'creative industries' benefits political and economic debate but such **terminology can mask the much more significant role the arts and creative sector provides that go beyond GDP or economic gains**. The **Cultural Learning Alliance**, which champions a right to art and culture for every child, argues that:

> There is a wealth of evidence to show that studying the arts fosters creativity, innovation, empathy, and resilience; that the arts are crucial for our economic prosperity; and that the arts enrich lives, making us happier and healthier.

Impact

Dr Gwilym Owen, Dr Dave O'Brien & Dr Mark Taylor (PEC and the Centre for Cultural Value) 'A jobs crisis in the cultural and creative industries' (December 2020)

The Policy and Evidence Centre at NESTA and the Centre for Cultural Value are looking to understand what has happened to employment in the creative industries and to creative occupations since lockdown, by using Labour Force Survey (LFS) data from the Office for National Statistics (ONS).

In the six months following the beginning of lockdown there has been;

> A collapse in working hours across the creative industry

> 55,000 job losses (a 30% decline) in music performing and visual arts

> Significantly higher than average numbers of people leaving creative occupations compared to the previous year.

Figure 1: Percentage of workers leaving creative occupations, per quarter
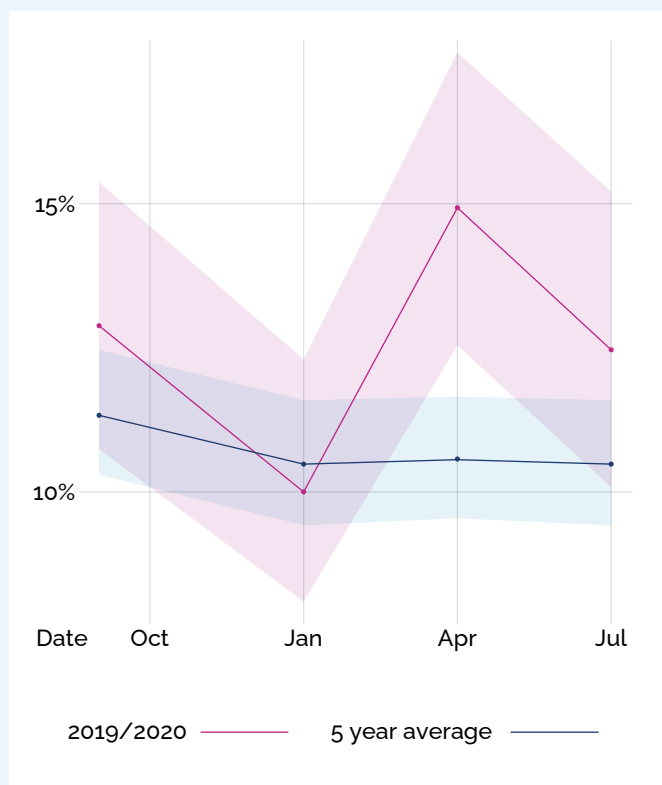

Figure 1 shows two things. The five year average proportion of people leaving creative occupations in each quarter; and the proportion leaving in each quarter between Q4 (October-December) 2019 and up to Q3 (July-September) 2020. The comparison allows us to see how unusual the 2020 employment patterns are.

Using the ONS dataset, they found that 15% of people who worked in creative occupations in January-March in 2020 were no longer working in creative occupations in April-June (see figure 1). This is significantly greater than between the same period in the previous five years, where on average we see around 10.5% of creatives leave the sector.

They also found that the percentage of workers who left creative occupations between April to September in 2020 was higher than normal, at 12.5% compared with 10.5% - although in this case the difference is not statistically significant.

Of those who reported having left creative occupations between Q1 (January-March) and Q2 (April-June) around two thirds (69%) were now working in other occupations, while 10% of those who left creative occupations were classified as unemployed.

Creative industries

PEC and the Centre for Cultural Value also used the ONS data to look at the experience of the creative industries as a sector, as distinct from creative occupations. The 'creative industries' includes those who work in what are termed 'non-creative occupations' within the wider sector but does not include those working in creative roles in other sectors. For workers in the creative industries they saw a similar pattern to those in creative occupations, although the number of people who left the creative industries was smaller in both percentage terms and as a raw number. Approximately 110,000 people left the creative industries between Q1 (January-March) and Q2 (April-July) in 2020, around 8% of workforce.

Cultural sector

Looking in more detail at specific sub-sectors in the creative industries, or occupational groups, we see that the shift in numbers working in music, performing and visual arts occupations is clearly significant. The number of workers in these occupations dropped from around 200,000 in January-March to around 160,000 in April-June and then again to around 145,000 in July-

September, a decline of almost 30% since pre-lockdown. When we looked at it from the industry-wide perspective mentioned earlier, rather than an occupational perspective, we found similar results.

This is a particularly important finding as over the last few years the number of people working in music, performing and visual arts had increased, albeit with some variation in number from month to month. The post-lockdown decline clearly breaks this pattern.

Is the sector recovering?

The loss of jobs in the creative industries has led many people to reconsider their futures, with many enrolling in educational programmes. **Feder et al**. (2021) used the Office for National Statistics (ONS) Labour Force Survey to explore how creative workers responded to the pandemic. It found they were developing their qualifications and education, but rather than **reskilling** (acquiring skills to change their occupation), creative workers were more likely to be **upskilling** (building their skills *within* their profession). The results suggest that these workers are passionate about their profession and keen to support its recovery.

Despite the Department for Education denying devaluing the arts (Weale, 2021), the announcement of funding cuts for university based arts courses in England, has led to an outpouring of fury, disappointment and rebuttal. **We must ensure that there are sufficient education opportunities for anyone who is wishing to pursue or continue a role in the creative industries**, whether these options are short part-time courses, higher education opportunities, or a broader choice of courses at a younger age in school or college.

Covid-19 has gravely impacted the creative industry causing a loss of income and jobs, along with all the social, mental and health implications associated with a reduction in the arts for those directly involved in its production, as well as its consumption. With the right investment and support the industry can be put on the road to recovery. Creative Industries Federation and Creative England (**July 2021**) estimate that with the right investment:

> The sector could grow by over 26% by 2025 and contributing £132.1 billion to the economy in GVA – over £28 billion more than in 2020, and more than the financial services, insurance and pension industries combined. Not only a major driver of economic growth, the data reveals that by 2025 the Creative Industries could create 300,000 new jobs, bouncing back from the impact of Covid-19 and surpassing pre-pandemic employment levels: generating enough new jobs to employ the working-age population of Hartlepool and Middlesbrough twice over.

Is this now not an opportunity to consider a more innovative strategy, vision and new approach to learning that values the multiple benefits associated with a thriving creative sector?

We already knew about the astonishing growth of the creative industries; four times the rate of the UK economy as a whole pre-pandemic. However, participation in arts and culture is not equitable - those losing their jobs are more likely to be from the global majority and have a disability . Children experiencing disadvantage participate in less arts activities and are less likely to have an arts-rich education. Who you are and where you live affects far too much of your experience of culture and your ability to enter the creative industries workforce. Alongside creative industries changes, our education system can play a role in fixing this problem, and increase the employability of pupils; studying the arts improves young people's employability, developing the skills and aptitudes employers want. To deliver this arts-rich education we need parity of esteem for arts subjects within the curriculum, delivery of the Arts Premium – a conservative manifesto commitment, and a national plan for cultural education

Sam Cairns
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