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The **Skills Research Digest** monitors recently published skills and labour market research relevant to the work of the Department for the Economy and to the strategic and policy issues that we face in Northern Ireland.

In each case, we provide a short summary of the key points and web links to the full article or report\*. A full list of sources can be found at the end of the publication.

### Highlights this quarter include:

- Transitions from education: to post-school education or for graduates, to training or employment; influencing factors and characteristics; providing support.
- AI: its use in training, recruitment and the workplace; its impact on the labour market and skills; ethics and fairness.
- Net zero transition: climate change education; green skills needs and forecasts; green apprenticeships and jobs.
- The gender pay gap and the impact of: subject choice; job application differences; employment structure, sector and firm; occupation.

*\* Links are correct at the time of publication; however it is likely that some will break over time. The list of sources has more general links, which should help the reader to track down the original report.*

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*The research summarised here presents the views of various researchers and organisations and does not represent the views or policy of the Northern Ireland Executive or those of the authors.*

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# Preparing Young People for Work

## SCIENCE, TECHNOLOGY, ENGINEERING & MATHS (STEM)

EngineeringUK published [Engineering Brand Monitor: STEM secondary school teachers](#), based on 528 responses from across the UK.

- 85% agreed that it was part of their role to help students understand possible STEM careers.
  - 81% agreed that they knew about the different types of things that engineers can do in their jobs; male teachers, white teachers and those in schools with low free school meal (FSM) eligibility were more likely to agree.
  - 75% associated engineering with good opportunities; over 60% viewed it as well-paid, respected, varied and rewarding (60%); 51% thought it an exciting profession; only 31% thought it secure.
- 84% agreed that they knew what qualifications students would need to become an engineer.
  - 73% agreed that their school supported students to develop the skills to pursue engineering.
- 59% agreed that they had opportunities within the curriculum to link information about careers into their lessons; 17% disagreed.
  - Around 50% actively embed careers information into their lessons, signpost students to the school's careers advisers and actively engage with their school's careers lead.
- 29% of teachers in high-FSM schools carried out STEM activities at least once a week; 49% in low-FSM schools.
  - Popular responses for options that would help them bring STEM subjects to life were: externally run STEM engagement events to help support the curriculum (69%); additional support and/or funding (66%); more training (62%); more competitions and/or challenges (55%).

## EMPLOYABILITY & CAREERS

### Covid related

England's Careers & Enterprise Company published [Trends in Careers Education 2021](#), based on data from nearly 4k secondary schools/colleges, looking at changes during the pandemic.

- 64% of schools linked parts of the curriculum to the world of work for most students (+20ppt on 2019); 65% taught English this way (+20ppt).
  - Colleges are further ahead, with 90% reporting that most of their students experienced career-relevant learning (+16ppt).
- Innovation helped young people engage with employers despite the pandemic.
  - 39% of schools reported that most students had access to a workplace experience by the end of Year 11 (-18ppt); in colleges it was 40% (-6ppt).
  - However, 57% of schools and 77% of colleges reported that most of their students had an employer encounter each year (+2ppt/4ppt).
  - Interaction included online talks, dedicated online events and virtual careers fairs; employers were able to reach a wider area and provide opportunities in harder-to-reach industries.
  - Some started providing exposure to a wider array of teams and longer-form programmes; others used mobile phones and virtual technology.
  - 90% expect a blend of virtual and face-to-face to stay, the latter being particularly important for learning about hands-on, practical professions.
- Over 600 school/college careers leaders took part in formal training and more informal masterclasses; the majority drew on support from a business volunteer.
  - Training was shown to make a positive difference to performance against the [Gatsby Benchmarks](#) for high-quality careers provision.
- 45% of schools/colleges reported stronger provision across every Gatsby Benchmark.
  - In the first year that destinations could be linked to data returns, there was a positive link between the Benchmarks and the likelihood of a student being in education, employment or training after Year 11.

**The Learning & Work Institute (L&W) and the EY Foundation published [The impact of moving employability training online: A review of EY Foundation programme delivery during lockdown](#).**

- The EY Foundation supports young people from low-income backgrounds to get paid work experience, employability skills training and career guidance.
- The programmes attracted a diverse range of young people both before and during the pandemic; the proportion from ESOL (English for Speakers of Other Languages) households, and Black and Asian backgrounds increased slightly during the pandemic.
  - Pandemic participants were experiencing more challenges, such as racism or bullying.
- Aspects of online provision that worked particularly well:
  - Employers developed innovative work experience tasks; participants learnt the skills they needed for online working.
  - The programme was more accessible for young people and employers; some less confident young people found it easier to participate; mentoring transferred well and was more convenient for young people and volunteers.
- Less successful aspects:
  - It was hard to keep young people engaged and online participation was tiring for everyone; stakeholders found it challenging if young people did not use cameras; it was more difficult to see who needed feedback and support.
  - Some had problems with wifi, lacked a suitable place or did not know how to use the digital tools.
  - It was more difficult to learn about organisational culture, to build networks and to form friendships.
- The pandemic cohort generally started with lower confidence in skills and greater barriers to employment; by the end they generally felt the same or better about their skills than pre pandemic, but their confidence in addressing barriers had not improved as much.
  - Some seemed to benefit less from online provision, particularly Black and ESOL young people.

**The Institute for Employment Studies (IES) published [A better future: Transforming jobs and skills for young people post-pandemic](#), findings from research with the Institute for Public Policy Research, commissioned by Youth Futures Foundation and the Blagrave Trust.**

- Young people in the UK are over-represented in jobs in sectors that are expected to see lower employment growth in the long term, and vital 'stepping stone' mid-skill jobs are in decline.
  - They want: secure, full-time jobs with decent pay near where they live; to work with like-minded people, in jobs and companies they believe in, in work well matched to their skills and capabilities.
  - If required, and with support, they are willing to change career direction; however, they perceive that a lack of local jobs and local inequalities could prevent them from achieving their aspirations.
  - Barriers preventing them from entering good jobs include: lack of work experience, connections and training; difficulties travelling outside their local area; and the competitive jobs market.
- Regional disparities in access to jobs for young people have remained high during the pandemic.
- Over 425k jobs were lost one year into the pandemic and there has since been a significant contraction in the youth labour market.
  - Youth participation in full-time education has risen to its highest rate on record (48% vs 43% pre pandemic), and the youth employment rate has fallen to near its lowest rate (53% vs 55%).
  - There are ~200k more young people in education and not looking for work than before the crisis; this is contributing to employer difficulties in filling entry-level jobs.
- Increased participation in education masks the widening of pre-existing inequalities in the youth labour market.
  - The pandemic has intensified the trend towards increased polarisation in the youth labour market between high- and low-skill jobs, leading to fewer mid-skill jobs and more young people in insecure and part-time work.
  - Long-term unemployment among young people has risen – 170k were unemployed for over six months, particularly those with a health condition or disability and young parents.
  - Falls in employment during the pandemic have widened the ethnicity employment rate gap from 22ppt to 26ppt for Black and to 25ppt for Asian people.

- The shift to green jobs provides an opportunity to generate 'future-proof' jobs for young people, including those from disadvantaged groups.
  - Assuming £30b additional climate and environmental investment annually plus £17b in 'low emission' jobs in health and care services, an extra 1.6m jobs could be created, including 176k for young people.
  - In all regions, youth employment under this trajectory grows by 4–5%, particularly in: skilled trades; caring, leisure and other service occupations; and professional occupations.
- Eight recommendations for government and its partners [*some applying to England*]:
  - Create new 'green and clean' job opportunities for young people through Levelling Up and 'Net Zero Transition' investments.
  - Massively scale up apprenticeships and establish skills pipelines for disadvantaged young people.
  - Extend and reform Kickstart, creating opportunities for long-term unemployed and disadvantaged young people to get into work.
  - Put in place a meaningful 'opportunity guarantee' to ensure that no young person is long-term unemployed (six months).
  - Establish new local youth employment and skills boards as part of the new Levelling Up strategy.
  - Introduce a commitment to new trailblazers of 'Universal Youth Support' to test more extensive devolution and integration of employment and skills services.
  - Introduce new labour market regulations to reduce job insecurity among young people in the postponed Employment Bill.
  - Promote new forms of non-work income to bolster security for young people.

**The Prince's Trust published [Confidence Crossroads: The path ahead for young people](#), based on a Censuswide survey of 2k UK 16–25 year-olds in August 2021, including 626 who were not in education, employment or training (NEET) or were from 'poorer backgrounds'.**

- Due to the pandemic:
  - Young people have lost faith in their skills for work and future prospects, with young women significantly more affected than young men.
  - 52% have lost confidence in themselves, rising to 60% of those from lower-income backgrounds.
  - 44% don't know how they'll get their life back on track.
  - Only 22% feel confident in their future career and 19% have confidence to go for the job they want.
  - 24% worry they don't have the skills for the jobs that are available to them.
  - 44% have lost confidence in their ability to do the job they are trained to do.
  - 21% said the unstable jobs market makes them fearful for their future.
  - 45% said that taking time to retrain and gain new skills made them feel optimistic about their future.

**Eurofound (European Foundation for the Improvement of Living & Working Conditions) published [Impact of COVID-19 on young people in the EU](#) – research into their employment, wellbeing and trust in institutions, and an assessment of policy measures introduced to alleviate the effects.**

- Young people have been hardest hit by job losses during the Covid-19 crisis: they are over-represented in the sectors most impacted by restrictions and more likely to work on temporary contracts or part-time.
  - 12% of 18–29 year-old respondents to at least two rounds of the 'Living, working and COVID-19' survey had lost their job, with 12% of students also facing unemployment.
- The crisis also had a disproportionate impact on young people's life satisfaction and mental wellbeing compared to older groups.
  - The lowest point was spring 2021 when restrictions and school closures returned, contributing to almost 66% being at risk of depression.
- Unless young people can participate actively in education and the labour market there is a high risk of their long-term disengagement with serious implications for their and society's future.

- However, young people's trust in institutions remained higher than for other groups; policymakers need to build on this social capital and ensure investment in youth remains top of the policy agenda.
- Measures introduced to support young people included a strengthened European Youth Guarantee and national initiatives aiming to keep young people in education and reduce barriers to financial support and social protection.
  - Many policy responses were temporary; to ensure greater resilience in future crises, policymakers need to prioritise long-term measures for young people, e.g. permanent improvements in access to work and apprenticeships, and those that increase job security.

## Other research

**England's Department for Education published [Young people's experiences of careers information, advice and guidance \[IAG\]](#), using data from the Longitudinal Study of Young People in England 2, comprising responses from 6,922 of those who were aged 18/19 in 2018.**

- 93% of 18/19 year-olds said that they had received IAG in the last 12 months; those more likely not to have received any: were eligible for FSM; went to state school; had special educational needs; had been in care; had a long-term disability; had entered paid work post 16.
- At age 13/14 (Year 9), 22% found the IAG received from their family to be most useful, compared with 10% who cited the IAG they received from teachers.
  - At age 18/19, 90% cited friends and relatives, 53% teachers, 32% trained careers advisers.
- 18/19 year-olds were more likely to seek out IAG from government sources if they had been eligible for FSM, attended a state school or were NEET.
- Of those who identified formal provision (e.g. teachers or government-provided careers guidance) as the most useful, 86% said that the amount was about right, 84% that it was given at about the right time and 95% that it was suitable for their needs.
  - All these figures were higher in 2018 than they had been for a similar cohort in 2009.
  - In the same group, 78% said that degrees had been raised as an option, 64% an apprenticeship (+21ppt on 2009).

**Warwick Institute for Employment Research (IER) published [Labour market information \[LMI\] and its use to inform career guidance of young people: An overview of the LMI system for careers guidance in England](#), supported by the Gatsby Charitable Foundation.**

- The research aimed to broaden knowledge of the production, supply and dissemination of LMI and intelligence in the careers landscape.
- Findings include:
  - The LMI system in England is well developed and is taking advantage of technical developments, e.g. data linking, big data analysis and web scraping.
  - However, the current LMI system for young people, especially those in technical education, is inadequate, with a lack of hard LMI disaggregated at sectoral level.
  - The lack of expertise among intermediaries (e.g. career practitioners, careers teachers and leaders) in mediating LMI for young people has the potential to compromise even the highest-quality data.
  - Approaches to collecting, analysing and disseminating LMI for young people vary according to the priorities of different organisations, resulting in a complex and confusing system.
- Recommendations include:
  - Increasing expertise and resources at the regional and sectoral level to take advantage of the data available.
  - Creative use of different data sources, especially post Covid, to help make sense of a dramatically changed and changing landscape.
  - Strong governance, policy stability and identifiable central responsibility for management of LMI – models from Canada and Wales are proposed as worth exploring.
  - Effective continuing professional development (CPD) for intermediaries is essential.

**The Organisation for Economic Cooperation & Development (OECD) published [How youth explore, experience and think about their future: A new look at effective career guidance](#), providing data and insights from its Career Readiness project.**

- Students who explore, experience and think about their futures in work often experience lower levels of unemployment, receive higher wages and are happier in their adult careers.
- To visualise and plan their futures, students need to actively explore the jobs market, with particular focus on engaging directly with employers and workplaces to provide authentic insights.
- There are three ways that teenagers can gain valuable experience of the workplace while still in school: part-time employment; work placements/internships; volunteering in the community.
- The report identifies five aspects of teenage attitudes to their futures in work that often link with better actual employment outcomes:
  - **Career certainty:** knowing the type of job they expect in 10–15 years
  - **Instrumental motivation towards school:** believing their education is relevant to their imagined working future
  - **Career alignment:** educational plans are typically sufficient for desired careers
  - **Career ambition:** they expect to work in managerial or professional careers
  - **Career originality:** they aspire to occupations outside the top ten most popular jobs among fellow teenagers in their country.

**Cedefop (European Centre for the Development of Vocational Training) published [Digital Transitions in Lifelong Guidance: Rethinking careers practitioner professionalism](#), a collection of papers by CareersNet experts.**

- The collection is structured in four parts, on the broad theme of professionalising the career guidance workforce and on the competences fit for the digital and wider societal context.
  - Attention is also paid to other changes surrounding or triggered by the Covid-19 pandemic.
  - Theoretical/conceptual and overview papers are included, and several papers present updated illustrations of national and regional systems and particular service developments.

## YOUNG PEOPLE'S TRANSITIONS

**The Government of Ireland published [Growing Up in Ireland: The lives of 20-year-olds: Making the transition to adulthood](#), by the Economic & Social Research Institute (ESRI), based on interviews in 2018/19 with 5,190 20 year-olds.**

- Findings related to transition into post-school education and training include:
  - 87% had taken part in at least one education/training course since leaving school – 70% a higher education (HE) course.
  - 86% of those whose parents had degree-level qualifications went on to HE compared to 48% of those whose parents had the equivalent of Junior Certificate qualifications or lower.
  - 91% from families with a professional background participated in HE compared to 51% of those in the lowest socioeconomic group.
  - 11% of those on HE courses dropped out – 16% of those whose parents had Junior Certificate qualifications or lower compared to 9% for those whose parents held degree-level qualifications.
  - 18% on further education (FE) courses dropped out; non-completion was not strongly related to social background but was strongly related to family type – 24% of those from single parent families dropped out compared to 15% from two parent families.
  - The most highly rated factor in choosing an FE or HE institution (HEI) was whether it provided the young person's desired course or subject; being able to live at home while studying was very important for 31%, and for 44% of those from less advantaged families.
  - Young women were more likely to study social science, health and education; young men were more likely to study agricultural science and engineering.
- Findings related to transition to employment include:
  - 26% were in employment as their main economic activity – 71% on full-time permanent contracts, most in unskilled (e.g. cleaning 43%) or non-manual jobs (e.g. clerical 36%); 15% were in skilled manual roles; 7% in managerial positions.
  - 66% of students also had a job in term time – 85% up to 20 hours/week.
- Future expectations of work include:

- 45% hoped to be in a managerial/technical position by the age of 30; 22% hoped to be in a professional role.
- 25% of men expected to be in a professional role in ten years compared to 20% of women; those from wealthier families had much higher expectations than those from low-income families.
- 27% of those in education hoped to be in professional employment by age 30 compared to 14% of their peers in employment.
- Important qualities of a job were that it is 'interesting' (63%) and offers 'job security' (52%).
- Those already working were more likely than those still in education/training to rate as important: gaining promotions (41% vs 34%); having a job which is 'a step on the career ladder' (42% vs 35%); and 'being your own boss' (22% vs 14%).

**The Institute of Labor Economics (IZA) published [Does Relative Age Affect Speed and Quality of Transition from School to Work?](#), based on data from a longitudinal survey in Flanders, Belgium, where compulsory education is from age six to 18.**

- In recent years, the interest in relative age effects (RAEs) on educational and labour market outcomes has increased; this study focuses on school-to-work transition speed and transition quality, based on educational attainments and students' jobs.
- **Transition speed:**
  - Relatively older individuals are more likely to be employed one year after graduation, e.g. a one-year increase in relative age increases the likelihood of being employed by 3.5ppt.
  - This RAE is partly mediated by intermediate outcomes, e.g. having had a schooling delay at age 16 or taking on student jobs.
- **Transition quality:**
  - There was no evidence of RAEs on the likelihood of being employed according to educational level.
  - However, relatively older individuals are more likely to have permanent or full-time employment, e.g. a one-year increase in relative age increases the likelihood of obtaining permanent employment by 5.1ppt and of working full-time by 6.5ppt.

**IZA published [The Duration of the School-To-Work Transition \[STWT\] in Italy and in Other European Countries: A flexible baseline hazard interpretation](#), drawing comparisons in particular with the UK, Austria and Poland.**

- Evidence of the duration of the STWT is important for policymakers, academic research and educational institutions at all levels, e.g. in determining investment in and returns from HE.
  - STWT estimates are provided by levels of education, gender and European regimes.
- In all countries studied, women are more educated than men but usually experience longer STWT – i.e. despite a higher level of education, they are less likely to complete the transition and are more heavily penalised in terms of the duration of STWT.
- Long durations are the consequence of a rigid and sequential STWT regime (e.g. in Italy) and explain low enrolment into HE and low – especially tertiary – educational attainment.
  - In the UK, a young person typically graduates at age 22 and finds a stable job at 23.
  - In Italy, on average a young person graduates at age 24/25 (but can be 28) and finds a more or less stable job at age 27/28; however a large proportion do not achieve this until 30/31.
  - The consequences are dramatic, e.g. at age 30/31, the UK peer of an Italian has already acquired an average 7–8 years of work experience and their human capital is superior.

**The Health Foundation published [Not Just Any Job, Good Jobs! Youth voices from across the UK](#) by the IES, based on the views of 1,345 16–25 year-olds.**

- Young people don't believe the work available to them is of good quality; they value work that is stimulating, good for their wellbeing and allows them to grow.
  - Prioritising quality of work is viewed as a 'privilege' only open to those with sufficient financial security.
  - Place, deprivation, lack of support, lack of experience and employer attitudes are key barriers; previous work experience and knowing the right people are key enablers.
  - Mental and physical health are important influencers; 57% said their mental health and 36% physical health had an impact on their ability to access good-quality work.

- A large minority find vocational routes very useful; 42% believe apprenticeships and 33% traineeships are very useful.
- There is little awareness of schemes such as Kickstart; they feel let down by the quality of careers support.
- Good practice includes mentorship and employability programmes, school–employer engagement and tailored careers support.
- Feeling valued and supported and that their employer cares about wellbeing are key, but stress, anxiety, low mood and lack of motivation and confidence are all common.
- There is little awareness of rights and responsibilities, only a small minority have been part of a union and they don't feel comfortable speaking up about issues.
- The pandemic has negatively affected: the extent to which they value the quality of work; their learning, prospects, aspirations and confidence; their choices and priorities for education and work; their employment conditions.
- There are four key areas of action: strengthening employment regulation; investing in good-quality jobs; supporting a culture shift among employers; making quality core to partnership approaches.

**CW Jobs published [The Digital Generation: Tapping into future tech talent](#), the report of a survey of 500 16–24 year-olds and 500 IT decision-makers in the UK. [An email address is required to access the full report.]**

- Only 24% of **young people** surveyed feel their age is an advantage when applying for tech roles; 56% agree that a career in the sector seems complicated, with young women more likely to think so.
- 34% of those interested in pursuing a career in tech cite a good salary as influencing their decision; 30% cite education; 28% family/friends.
  - 55% of those interested would like more advice from education on what it entails, while 57% would like more clarification from businesses.
- 69% say it is important that carbon net zero ambitions are part of a company's values, with workforce racial diversity (65%), gender diversity (63%), neurodiversity (62%) and LGBTQ+ representation (60%) all important too.
- 79% of **IT decision-makers** believe young people will bring the different perspectives that their business needs, and 72% that young people are the answer to their skills shortage.
- 69% of **businesses** surveyed have apprenticeship schemes, but 37% say this aspect of recruitment needs improvement.
- 53% say young people lack the experience needed, suggesting there's an opportunity for them to find tech roles without work experience.

**CESifo published [The Work-To-School Transition: Job displacement and skill upgrading among young high school dropouts](#), examining how and why returning to education fosters recovery from negative employment shocks for this group, based on data from the US.**

- Employment has become increasingly skilled over time; total hours worked by the non-college educated in the US fell from over 70% in the 1960s to 40% by 2017.
  - High school dropouts increasingly lack relevant skills in the labour market; job loss and other labour market shocks cause persistent earnings losses, particularly for the lower educated.
- Recent work focuses on isolating the factors that determine the persistence of earnings losses, distinguishing between lost hours worked, declining wages and employer factors.
  - However, far less is known about how low-educated workers can recover from negative employment shocks and the underlying mechanisms that foster such recovery.
- Comparing early career workers who were displaced both before and after the expansion of a second-chance certification scheme reveals that attaining a vocational high school diploma in the aftermath of job loss significantly reduces earnings penalties.
  - By leading young workers to certify their practical skills, job displacement has long-lasting consequences for young high school dropouts.
  - In contrast to the displacement literature, which identifies persistent earnings losses following job loss, early career displacement may be beneficial to workers through increases in education.



- The availability of opportunities to formally certify skills matters: an expansion of the certification scheme to include additional fields caused women displaced after the expansion to certify at significantly higher rates, leading to strong income recovery.
- Data on labour market outcomes far later show that, by returning to the education system, displaced workers are able to retain their industry-specific human capital after job loss.
  - Indeed, certification significantly increases the probability of remaining in the same industry that workers were displaced from early in their career.
- Displaced workers benefit from their retention of industry-specific human capital in terms of increased job stability over 20 years later in life.
  - They are less reliant on unemployment insurance benefits, have a less volatile income and shift away from routine tasks whose importance has declined.
  - Given the declining demand for routine tasks, such changes reduce the probability that workers displaced at young ages are afflicted by additional mass-layoff events.
- The work-to-school transition in vocational education is an important option for young workers who joined the labour market after dropping out of high school; expanding second-chance opportunities enables displaced workers to return to the education system.

## The Institutional Landscape

### THE FURTHER EDUCATION & SKILLS SECTOR

**The Sutton Trust published [Going Further: Further education, disadvantage and social mobility](#) – research by the Centre for Vocational Education Research (CVER) on the relationship between FE participation, and access to HE and well-paid employment.**

- In addition to a literature review and analysis of published statistics, two cohorts of pupils who took their GCSEs in 2002/03 and 2010/11 were tracked into university and the workplace.
- Among the findings:
  - 16–18 participation in full-time education was 73% in 2019, up 16ppt on 2000; 47% were in sixth form schools/colleges (mostly state sector) and 37% in general FE or specialist colleges.
  - 37% of those eligible for FSM were at sixth form school/college and 43% at FE colleges (non-FSM: 56%/32%).
  - FSM students were more likely to move into employment and less likely to go on to HE, but the gap was smaller for FE college students than for those in sixth form schools/colleges.
  - Most of GCSE students tracked who went on to study at Level 1/2 (L1/2) or for a vocational L3 had not reached a higher level more than ten years later; by contrast, those studying for A levels were more likely than not to have attained a degree by 2015.
  - Those who achieved 5+ GCSEs were most likely to progress to A levels and then to a degree; FSM students who achieved 5+ GCSEs were also most likely to study for A levels, but were less likely to proceed to degree level, particularly if attending sixth form schools/colleges.
  - Only a small minority of those who didn't achieve 5+ GCSEs gained a degree, even if they still took A levels.
  - There are no differences in the average earnings of graduates at age 28 who studied at FE college and sixth form school/college when controlled for characteristics and ultimate level of qualification – all of the observed difference in earnings is accounted for by the characteristics of the students.
  - However, controlling for characteristics of institutions and students, FSM students who went to sixth form school/college earned 11% less at age 28 than their more advantaged peers, increasing to 15% for those who attended an FE college.
  - Even with the same prior attainment, FE college students are less likely to proceed to HE than their sixth form counterparts; the gap is smaller for FSM students, and there is no gap for FSM students progressing to a Russell Group university.

**The CVER published [The Effects of College Capital Projects on Student Outcomes](#), focusing on large projects in England.**

- Capital projects take about three years to complete – as shown by the evolution of fixed assets after investments take place – and changes in student outcomes take place at that time or the year after.

- FE colleges see a marked change in student composition after the completion of capital projects: they attract students with higher prior achievement and a higher proportion of students who did not receive FSMs when in school.
  - Even controlling for the change in composition, more students progress to a good upper secondary qualification (L3) or to degree-level education at a university.
  - After investment, students are also more likely to achieve sustained employment.
- Achievement does not change conditional on enrolment, suggesting that marginal students are not more likely to drop out.
  - Effects are usually larger for the largest grants.
- Overall, investing in capital infrastructure can benefit many cohorts of students and is best considered a long-term investment; however, for large capital projects, the benefits materialise as soon as the project is complete.

**The Education & Training Foundation (ETF) published [Outstanding Teaching, Learning & Assessment \(OTLA\): Anthology of practitioner action research reports \(2020–21\)](#).**

- The report features 53 reports across English, maths and Essential Digital Skills, illustrating how FE practitioners in English colleges have worked together to improve quality.
  - Many of the reports include a focus on supporting learners remotely and in isolation.
- Projects include:
  - A learner-led strategy incorporating the universal language of emojis to ignite learner motivation and engagement, boosting progress in GCSE, Functional Skills and ESOL courses.
  - 'Word Up', designed to increase GCSE English resit students' vocabulary; it has boosted overall confidence and demonstrated a clear correlation between vocabulary use and rate of progress.
  - Work focusing on learner resilience and self-efficacy in GCSE English Language and Functional Skills English.
  - 'Busy on the bus', which has enabled maths students to engage successfully in online learning between lessons by changing terminology and consulting with learners and adapting tasks.

*There have been over 200 OTLA collaborative projects since 2015.*

**ETF published [Leadership for Education for Sustainable Development \(ESD\) in the FE Curriculum](#), reviewing ESD approaches and content in post-16 qualifications in England.**

- Only 0.5% of post-16 enrolments are studying for qualifications with strong ESD coverage, with only 3.4% studying for qualifications with partial ESD coverage; 90% are in science and geography.
  - Many curriculum leaders are bringing relevant ESD into their teaching, seeing it as their responsibility to empower learners and prepare them to act as leaders, influencers and advocates for sustainability.
- Common themes in successful ESD delivery include: use of scenario-based exercises; field trips; bringing in external expert speakers from community and corporate settings; building links between global and local issues; skills development; and promotion of further study routes.
- Recommendations are made for providers and relevant sector bodies.

**The Gatsby Foundation published [Review of the Potential for E-Assessment in Technical Education in England](#), a 'think-piece' based on a literature review and discussion with 'a few' key contacts, focusing mainly on L3,4 and 5, with a clear link to employment.**

- Assessing technical education is inherently complex and difficult, and it is often challenging to achieve both reliability and validity.
- Significant resources are expended on a range of assessment methods, but there is limited robust evidence for the effectiveness of current practices.
- There are also practical concerns, particularly about the amount of time and effort absorbed by assessment activities that don't contribute to teaching and learning.
- Many technology-based approaches can enhance existing assessment practices, but don't necessarily change the nature of the assessment process itself, e.g. automated multiple-choice tests, e-portfolios and e-credentials and badging.

- Others appear to have greater transformative potential, e.g. adaptive assessment using artificial intelligence (AI); data capture and performance analysis; simulations using virtual and augmented reality (VR/AR); and games technologies.
- Using such technologies could enable a move to a more continuous process embedded in teaching and learning, and in the workplace itself.
  - Take-up of more transformative technologies is, however, currently very limited within the centrally regulated system in England, which is also not conducive to transformative change.
- There needs to be more concerted system leadership – leaving it to the market with individual awarding organisations responding to a hands-off regulatory framework is unlikely to work.

## HIGHER EDUCATION (HE): APPLICANTS & ADMISSIONS

**The House of Commons All-Party Parliamentary University Group published [Is university worth it? Young people's motivations, aspirations and views on student finance](#), based on a poll of 1k new and aspiring students, plus focus groups and in-depth interviews.**

- A university education is seen as a general route to something bigger and better – a way of securing a good career, but the right job rather than good pay.
  - Many therefore plan to take courses designed to take them into a particular career, whether 'vocational' or those that will broadly position them for a career.
- While English students consider university to be a massive cost, most conclude that the benefits outweigh the debt; particularly those from less affluent families, who think hard about the pros and cons.
- Modern English students, particularly the less affluent, are extremely clear about why they want to go to university and what they think they will get out of it.
- They don't support limiting the number of people that can access university, although there is a strong sense that a university education should be taken seriously.
  - They are divided on whether there should be any form of minimum entry level other than existing academic requirements.
- Many students are simply 'muddling through' as they apply for student finance – they assume that, because their family and friends didn't suffer financial catastrophe in HE, they probably won't either.
- Students believe there is insufficient formal advice available on the student finance system; or they don't know where to find such advice and are not accessing it.
  - Students from less affluent families are much better informed about the costs associated with university and the financial help available to them to get through university.
  - Across the board, knowledge of tuition fees is high, but less advanced when it comes to cost of living and how to meet those costs.

*The research focused on England; however, many of the conclusions are applicable across the UK.*

**The British Council published [Measuring the cultural dividend: How does interest in UK culture affect Chinese study decisions?](#), based on focus groups and surveys in 2019 and 2021 and analysis of posts on Chinese social media.**

- Chinese interest in overseas culture has risen, particularly among those living in smaller cities.
  - Chinese students interested or very interested in overseas culture were three times as likely to say they were considering studying abroad as those who were less interested in overseas culture.
- 78% of Chinese students who saw the UK as having the most attractive culture – particularly in terms of literature and history – said it was their first-choice study destination, compared to just 26% of all surveyed students.
  - The UK overtook the US as a first-choice destination in 2019 and has maintained this position, although interest in overseas study is lower than pre pandemic.
- All Anglophone countries fell in popularity in terms of culture between 2019 and 2021, with Japan, France and Germany more likely to be named as the favourite overseas country for culture.
  - However, when Chinese people are asked specifically about their attitude towards media, celebrities or sports, the US is still seen as more attractive than any other country.

## HE: THE STUDENT EXPERIENCE

Advance HE published [UK Engagement Survey 2021](#), the seventh annual report, measuring the levels of engagement of 11,905 UK undergraduates from 19 institutions.

- Seven categories of engagement comprise 29 individual questions; over the last two years, much of the progress made since 2015 appears to have been lost:
  - Course challenge scored 91% in 2015 and varied little until 2020, when it fell to 86%.
  - Critical thinking rose from 77% in 2015 to 79% (in 2017 and 2019) and then fell back to 75%.
  - Reflecting & connecting rose from 64% to 67% (2018) and fell back to 63%.
  - Research & inquiry rose from 61% to 67% (2019 and 2020) and fell back to 64%.
  - Learning with others rose from 54% to 56% (2016–2018) and fell back to 52%.
  - Staff–student partnership rose from 38% to 43% (2018) and fell back to 37%.
  - Interacting with staff rose from 32% to 38% (2018) and fell back to 33%.
- Previous analysis linked engagement with staff very strongly to the development of career skills and to retention, while peer collaboration is connected to academic achievement.
- In the skills section, working effectively with others has fallen markedly, from 75% in 2016 to 60%.
  - Other skills have fallen by ~2–4ppt; only independent learning and analysing were unchanged.
  - Remote and blended learning did not appear to have a major impact on the acquisition of skills, apart from for skills linked directly to communication.

Advance HE published [Ethnicity awarding gaps in UK higher education in 2019/20](#), on the difference in white and Black, Asian and minority ethnic students awarded a first/2:1.

- In 2019/20, the awarding gap between white and Black, Asian and minority ethnic students was 9.9ppt, down 3.4ppt from 2018/19, the largest decrease since the first report in 2005.
  - 38.9% of white and 28.6% of Black, Asian and minority ethnic qualifiers were awarded a first class degree (10.2ppt gap).
  - The gap was particularly pronounced for Black qualifiers (18.7ppt overall); it was narrower for Chinese (2.8ppt), 'mixed-ethnicity' (3.9ppt) and Asian Indian qualifiers (2.8ppt).
  - Overall, awarding gaps were larger for qualifiers who studied part-time, who studied a non-science, engineering and technology subject, and who entered their first-degree undergraduate programme with an HE qualification (e.g. a foundation degree).
- The awarding gap varied considerably across institutions, ranging from non-existent or very small at three institutions to more than 20ppt at 16 institutions.
  - The gap was larger for qualifiers studying at an institution in England, at smaller institutions and at institutions with a higher overall proportion of students from Black, Asian and minority ethnic backgrounds.

England's Office for Students (OfS) published [Degree attainment: Black, Asian and minority ethnic students](#), case studies of how providers are tackling the degree awarding gap.

IZA published [Does Multitasking Affect Students' Academic Performance? Evidence from a longitudinal study](#), based on the activities and performance of students at two Belgian universities.

- Multitasking is a regular habit for many students; however, research literature emphasises its negative association with academic performance, including increasing the number of errors made and reducing productivity.
- For three years, 1,673 students in 11 different study programmes were surveyed on their multitasking preferences and academic performance, and then compared with their exam scores.
  - No significant negative effect of multitasking on academic performance was found.
  - Indeed, multitasking could be having positive effects, e.g. making them more capable of switching between tasks and filtering out unimportant information.
  - The positive and negative aspects of multitasking could therefore be cancelling each other out.

England's Department for Education published [Employability programmes and work placements in UK higher education](#), exploring the value work placements and work experience offer individuals, HEIs and employers.

- Placements and work experience included: placements abroad; sandwich placements, with evidence of an increase in 'thin' (six-month) rather than 'thick' (one-year) placements; entrepreneurial ventures; work-based projects with an external organisation; and placement options as part of career management modules (not connected to a subject).
- Although associations between work placements and student outcomes appeared to be positive, only a few studies addressed the problem of self-selection, finding a lower, but still positive association.
  - Positive outcomes related to skill development, academic attainment, labour market destinations and career development.
  - Work placements were perceived to have improved 'employability skills' but not to be associated with positive labour market outcomes, suggesting different benefits to different groups.
- In terms of HEIs, benefits were mainly around spill-over effects and community reputation from working with local organisations.
- There was almost no empirical evidence on the benefits to employers offering placements or opportunities.
  - Those mentioned included: covering short-term staffing issues; identifying future employees or trialling potential workers; a source of cheap labour; ensuring students develop the skills they need; a source of new ideas; and raising community profile.

**The Higher Education Policy Institute (HEPI) and Kaplan published [Paying more for less? Employability support for international students at UK universities](#), based on focus groups and a survey of 1,051 students (26% from the EU) at 118 universities.**

- 82% said the careers support they thought they would receive was 'important'/'very important' when choosing a UK university; 92% said the same of employability skills.
  - 52% thought their university was doing well in supporting their needs.
- 75% of those who said employability skills were part of their course were happy with their course and university, compared with 43% of those who said employability skills were not part of their course.
- Students who felt their course had not covered employability skills were twice as likely to say they should have picked a different institution to do the same course (18% vs 8%) and three times as likely to say they should have gone to a different institution to do a different course (12% vs 4%).
- Students who felt their university gave them sufficient information on relevant career prospects before coming to the UK were three times more likely to feel 'very confident' about their chances of finding employment than those who hadn't been given enough information (31% vs 9%).
- 61% had undertaken work experience during their time at university.
  - 19% had undertaken paid experience related to their degree, 23% unrelated to their degree.
  - 16% had undertaken unpaid experience related to their degree, 3% unrelated to their degree.
- 71% said they planned to stay in the UK to work after graduation, at least for a while, although 25% of them were unsure.
  - 77% of them were concerned about whether they would earn enough to support themselves.

**The National Union of Students and Unipol published the UK-wide [2021 Accommodation Costs Survey](#).**

- Average UK rents have increased by 16% (£1k+) since 2018/19 and by 61% over the last decade, from £4,581 to £7,374.
- For students in England living away from home and outside London, the maximum loan this year is £9,488 and the average annual rent is £6,707.
  - This means that those least likely to get family support spend 72% of their loan income on rent, leaving them with £69.52 a week during term time.
- Within overall expansion of 29.9%, university provision has fallen by 49.6% and privately-owned bed spaces have grown by 153.9%; in 2021/22, institutions account for 23.6% of the sector.
  - Private accommodation is 25% more expensive than university-provided; the supply of expensive studios has risen 206% in nine years, while the supply of the cheapest rooms has halved.
  - This loss of university accommodation means less flexibility and security and higher-risk financial commitments.

- While private providers are less concerned in general about offering more affordable accommodation, they are innovating more in this area.
  - This may be linked to the objective to continue to serve the mid market, to think about the next generation of students who are most likely to be from different international and non-traditional backgrounds.
- Providers themselves believe that market forces will make rent rises inevitable and the private share of the sector will continue to grow.
  - Affordability will be brought into even sharper focus as participation increases among those from lower-income households.
  - University influence over the private sector will continue to diminish but needs to increase; more and better targeted bursaries and accommodation funds will be needed.

**HEPI published [Hidden Voices: Graduates' perspectives on the student loan system in England](#), based on the thematic analysis of in-depth interviews with 48 graduates from the 2006 funding regime (cohort 1) and 50 from 2012 (cohort 2).**

- **What works for graduates:**
  - Income-contingent loans are seen as both an enabler and an equaliser, making HE accessible regardless of background.
  - Three repayment features make it more manageable: the repayment threshold, which acts as an insurance policy against low earnings or unemployment; affordable monthly repayments; and automatic repayments deducted at source.
- **What doesn't work for graduates:**
  - Tuition fees of £9k+ are considered excessive – increases were not justified by changes in their HE experience; they also question whether degrees provide value for money.
  - The size of the debt is so large it becomes meaningless and will probably never be repaid; graduates purposely distance themselves from it as a way of coping with the stress.
  - Both cohorts, particularly cohort 2, think interest rates are high and unfair.
  - The repayment period appears never-ending; they are sometimes confused about the 'write-off' feature.
- The 2012 funding reforms exacerbated the features that graduates already found problematic, resulting in cohort 2 being considerably more negative about their loans and factoring them into many life choices.

*Although the report focuses on England, the lessons are also likely to resonate in other nations.*

## HE: WIDENING PARTICIPATION

### Covid related

**The Institute for Social & Economic Research (ISER) published [University access: The role of background and Covid-19 throughout the application process](#).**

- Gaps in access to university and to more 'competitive' courses (as measured by the UCAS entry tariff) emerge between applicants from different groups at different stages of the application process.
- Low socioeconomic status (SES) students are less likely to access high-tariff institutions and courses because they:
  - have lower prior educational performance and are less likely to choose an academic educational track (e.g. studying for A levels or Highers rather than BTECs) than high-SES students (Stage 0)
  - receive lower predicted grades (Stage 1) and make less 'ambitious' applications (as measured by the difference between the entry tariff and the student's own predicted grades) even after accounting for these earlier disadvantages (Stage 2).
- Black students:
  - have lower prior educational performance and are less likely to choose an academic educational track than white students (Stage 0)
  - receive lower predicted grades (Stage 1), but also face a lower probability of receiving an offer (Stage 3) or of being accepted on their firm choice (Stage 5) than white applicants for the same course in the same year who have the same prior educational attainment and predicted grades.

- South Asian students:
  - have similar prior educational performance to, and are equally likely to choose an academic educational track as, white students (Stage 0)
  - receive comparable predicted grades (Stage 1)
  - are more ambitious in their application choices (Stage 2) but are less likely to receive an offer (Stage 3) or to be accepted on their firm choice (Stage 5) than white applicants with the same prior educational attainment and predicted grades.
- Among those not admitted to their firm or insurance choices, Black and South Asian students were historically more successful at finding a place through Clearing than white students (Stage 6).
  - The main impact of Covid-19 on the admissions process was to reduce their scope to do so: grade inflation meant fewer unfilled places with restricted access, particularly to low-tariff institutions.

## Other research

### **The Higher Education Statistics Agency (HESA) published [Using \[2011\] Census data to generate a UK-wide measure of disadvantage](#), on the development of an area-level measure of socioeconomic disadvantage with UK-wide applicability, to support decision-making.**

- Existing measures (e.g. Participation of Local Areas [POLAR] and Indices of Multiple Deprivation) vary in relevance and usefulness among UK nations, and there is currently a paucity of measures that adequately enable statistics to be compared across domains.
- It is important for providers to be able to identify those areas most beneficial to support.
  - Appropriate area-based measures can be helpful in enabling providers to pinpoint the localities in which they should prioritise their outreach activities.
  - However, there are aspects of the widening participation agenda where drawing upon individual measures may not be possible or practical, e.g. forms of outreach in disadvantaged communities.
- Using the key statistics disseminated about each output area in the UK:
  - HESA derived the proportion of residents in an output area: aged 16+ with below L4 qualifications; and aged 16–74 in National Statistics Socioeconomic Classification (NSSEC) groups 3–8 (those that couldn't be classified were excluded).
  - Disadvantaged localities were identified as areas situated within the bottom 20% – those with the highest average proportions of residents with below L4 qualifications/in occupations that fell within NSSEC groups 3–8.
- The HESA measure could be used by HEIs for contextual admissions and to identify priority areas for outreach activities, however its limitations and possible next steps to development are outlined.

### **The Nuffield Foundation published ['First in family' \[FiF\]: Higher education choices and labour market outcomes](#) by the UCL Centre for Longitudinal Studies.**

- The study draws on 'First Steps' longitudinal data collected from 7,700 participants born in England in 1989; 18% of the study cohort were FiF graduates; 68% of graduates were FiF.
- Conditional on early education attainment, having higher academic self-concept and work ethic is associated with an increase in HE participation for potential FiF students.
- FiF students are less likely to apply to and be accepted by Russell Group universities than their peers with university-educated parents and are more likely to attend 'other' universities.
  - FiF students are more likely to take law, economics and management courses at university than non-FiF students, and less likely to take other social sciences, arts and humanities courses.
- FiF students are 4ppt more likely to drop out of university than non-FiF students, conditional on their prior attainment and a range of demographic characteristics.
  - Prior attainment remains an important predictor of graduating from university.
- Conditional on important background control variables, those from Black and minority ethnic groups are more likely to outperform their parents in achieving a degree than those who are white.
- FiF women earn on average 7.4% less than non-FiF graduate women, net of the effect of earlier educational attainment and other measures of family background; for men, being FiF is not associated with lower wages.

- The female pay gap is partially explained through: pre-university educational attainment and elite university attendance; working in smaller firms; working in jobs that don't require a degree; and motherhood.
- Comparing cohorts born in 1989, 1998 and 2000, although the share of potential FiF has decreased over time, in more recent cohorts the proportion of students with HE aspirations has increased.
  - The university aspirations of potential FiF women increased more than those of potential FiF men.
  - The share of potential FiF students is stable across each UK nation.
- As a measure, FiF status captures additional disadvantage over and above other widening participation measures; having non-graduate parents is an important barrier to participation and graduation, even after controlling for other sources of disadvantage.

**Universities UK (UUK) published [Delivering a fresh approach to access and participation](#), highlighting examples of what universities in England are doing to support access, participation and success for all students, including those from disadvantaged backgrounds.**

**Prospects published [Exploring widening participation student perceptions of the barriers faced in considering, sourcing, and applying for an undergraduate placement year](#) by the University of Warwick.**

- Four barriers were identified, around: authenticity of self; a general trepidation around workplace etiquette and individuals within a workplace; the representation of individuals within a professional environment; and having to adjust to another new environment so soon after adjusting to university.
- Two financial barriers – expense and time – were also identified, plus lack of skills and experience.
  - Lack of (particularly relevant) experience as a barrier was a theme in all student conversations; this was linked to student backgrounds and any lack of connections compared to their peers.
- Students were aware of a knowledge gap at their point of entry to university: others had greater awareness of their opportunities, and the existence of, and early application for, 'spring weeks'.
- There was a common misconception that to undertake work experience you should know what career you wanted to pursue.

**The Edge Foundation published [National Scholarship Programme](#), a 'learning from the past' paper looking at a programme that provided support for home/EU undergraduates from low-income families studying in England.**

## GRADUATES & GRADUATE EMPLOYMENT

**The Institute of Student Employers (ISE) published the [Student Recruitment Survey 2021](#) based on responses from ISE members. [The full report is available to members or to purchase.]**

- Competition for graduate jobs is high: there were 91 applications on average for every job – the highest since the first survey was conducted in 1999.
  - There was less competition for school leavers (67 applications for every job), interns (83) or work placements (82).
- Recruitment recovery was substantial for all types of hires, and growth is predicted to continue in 2021/22; however, recruitment levels are not yet back to their pre-pandemic levels for graduates, interns and placement students.
  - 93% of employers have shifted their recruitment (attraction and selection) processes online; 48% expect them to still be online in five years' time.
- 13% do not require student hires to live where they work and 24% say student recruits will be mainly home-based.
  - 69% say their internships will be online or hybrid and 76% say the same of work placements.

**The HESA published [Graduate Earnings Premia in the UK: Decline and fall?](#)**

- The average graduate earnings premium relative to non-graduates by age 26 for a cohort of young people born in 1990 is estimated to be 10%, compared with 17% for those born in 1970.
  - The decline appears to have impacted only those born between 1988 and 1993, suggesting that the previous constancy of the premium over a long period of rising HE participation may no longer hold.



- The premium for an upper honours over a lower degree class is estimated to be 10% by age 26 for those born in 1990, compared with 6% for those born in 1970.
  - This increase is associated with those born between 1970 and 1982 and is at least partly due to the rapid growth in the HE participation rate among early 1970s' birth cohorts resulting in a need to 'stand out from the crowd'.
- The premium for those with lower degree classes relative to non-graduates is estimated to have fallen by 11ppt, from 14% for the 1970 birth cohort to just 3% for those born in 1980.
  - This is a result of the 'scarring' caused by the combination of higher HE participation rates and an increase in the share of graduates awarded upper honours degrees.

**The Institute for Fiscal Studies (IFS) published [Gender differences in subject choice leads to gender pay gap immediately after graduation](#), a short analysis.**

- There is much focus on the role of unequal childcare responsibilities in understanding the gender pay gap, but even before they have had their first child, women are paid less than similarly qualified men.
  - At age 25, the average male graduate earns 5% more per year than the average female graduate, despite women being more likely to get a first class or 2:1 degree; by age 30, the gap is 25%.
- Women are over-represented in degree subjects with low financial returns, although medicine and law are notable exceptions.
  - 55% of the pay gap at age 25 can be accounted for by university subjects, with A level choices making up a further 5%.
  - By age 30, however, subject choice explains only 20%, with factors such as motherhood, risk attitude, hours worked, propensity to wage bargain and ask for promotion and discrimination potentially coming into play.

**The ISE published [Black Careers Matter: Improving the early careers of people from Black heritage backgrounds](#), based on an evidence review, interviews, a survey of 399 ISE members and 30 case studies of promising practice. [The full report is available to members only.]**

- Employers recognise that there is a problem and are keen to do something about it.
- Most employers consulted have developed a strategy to improve the recruitment, selection and retention of Black and ethnic minority hires.
  - They have developed a range of approaches to attract Black heritage candidates and ensure selection processes are fair, but these are patchily implemented.
  - Candidates from Black heritage backgrounds are not always able to access dedicated support.
- 13 main strategies are being used by organisations, including: creating dedicated career education programmes and events; providing access to role models; improving access to internships and placements; targeted recruitment campaigns; changing recruitment processes; providing dedicated recruitment support; listening to Black students or employees; and building supportive networks.
- A five-step process is outlined to ensure 'Black careers matter', including:
  - **For institutions:** prepare all students for diverse workplaces – address racial injustice as part of career education; build strong links with employers to challenge racial injustice; provide access to mentoring, internships and placement opportunities; recognise and address the needs of Black heritage students; attend to diversity and inclusion within the education system.
  - **For student recruiters:** turn recruitment into a force for equality – avoid exacerbating existing inequalities in recruitment; go where the Black candidates are; build a strong relationship with educators and career services; make sure people from Black heritage backgrounds are involved in the recruitment process.
  - **For employers:** maximise the potential of hires from Black heritage backgrounds – create a positive and inclusive culture; provide role models, access to sponsorship and mentoring and help to create support networks.

**Prospects published [Are graduates willing to relocate for a job?](#), findings from a survey of 190 graduates undertaken in October 2021.**

- 62% said they would be willing to relocate for a job in the future, while 16.0% said they wouldn't.
- The main reason to relocate was better job prospects (75%), followed by earning a higher salary (64%); 46% cited lack of opportunities where they lived, and 45% planned to move abroad for work.

- Those who didn't want to relocate cited wanting to stay close to family/friends (74%), the expense of relocation (55%) and the stress involved (52%); 48% simply wanted to stay in their local area.
  - 32% said they wanted to work remotely, so didn't need to relocate; only 7% felt their area had the best job prospects.

**England's Department for Education published [Which university degrees are best for intergenerational mobility?](#) by the IFS with the Sutton Trust, ranking universities in England.**

- The Longitudinal Education Outcomes dataset is used to derive a 'mobility rate' for the mid-2000s cohort from the number of students eligible for FSM in Year 11 (access) and the proportion in the top 20% of earnings at age 30 (success).
- Overall, 1.3% of graduates were eligible for FSM and in the top 20% of earnings at age 30.
  - If there was equal access to university for all income groups, and graduates from all income backgrounds had the same chance of making it into the top 20%, the rate would be 4.4%.
- The Russell Group rate is 1.0%: FSM students do very well on earnings, but very few are admitted.
  - The rate for the least selective post-1992 institutions is 2.0%: they often combine high FSM access rates with top 20% earnings rates only slightly below average.
  - The rate for more selective post-1992 institutions is 0.9%: they admit fewer FSM students and have far worse outcomes.
- There is a lot of variation within the groups; London-based institutions do particularly well, making up the entire top ten.
  - They admit significant numbers of disadvantaged students and see a significant share attain the top 20% because so many go on to live and work in the capital.
  - Students from low-income families in London – including non-white students – also have high prior attainment, hence high access rates.
- The top five: Queen Mary University of London (the only Russell Group university in the top ten) (6.8%); Westminster (5.6%); City (5.3%); Greenwich (5.0%); London South Bank (4.6%).
  - The top five outside London: Bradford (3.3%); Aston (3.3%); Newman (1.8%); Birmingham City (1.7%); Liverpool John Moores (1.7%).
- Pharmacology, computing and law are the best performing subjects; most universities with low overall mobility have some courses with high rates.

The Sutton Trust published a separate [briefing](#) on the research.

**Prospects published [Tailoring Careers Provision to meet the needs of Postgraduate Taught \[PGT\] Students](#), the report of a project by Lancaster University.**

- 28% of PGT students were 'decision-making' at the time of registration in early October, when many graduate application cycles are open and deadlines approaching.
  - Of those who were 'competing', 21% were ready to apply for a postdoctorate, whereas 70% were ready to apply for work and 9% had already been applying for work.
  - Almost 20% of PGT students were already employed or had secured a future employment within their chosen career on registration or continued postgraduate-level study.
- Students in the decision-making and action-planning stages required support in transitioning through the different stages of career readiness as swiftly as possible within the early stages of PGT study.
- The perception was that a PGT degree would narrow down career thinking while widening the range of opportunities the student may successfully apply for, due to having a higher-level qualification.
  - Regardless of motivation to pursue PGT study, all participants expressed some career thinking within their decision to undertake a postgraduate degree.
  - As undergraduates, students reported feeling lost and considering a variety of options; in selecting and progressing through a PGT course, they reported discovering their true interests and gaining more direction.
- Unless career planning is presented to students as a vital part of the PGT experience, perceptions may persist that it is less important than coursework, leading to panic during summer months and lack of engagement with all the opportunities and resources offered throughout the year.

## HE: TEACHING, RESEARCH & INSTITUTIONS

### Covid related

**UUK published [Lessons from the pandemic: Making the most of technologies in teaching](#), based on discussions with 13 institutions and wider data.**

- One survey found that 57% of students would prefer to learn 'mostly in person', another that 66% want a blended approach and 21% want mostly online.
- The move to digital teaching and learning has coincided with a narrowing of attainment gaps.
  - Between 2018/19 and 2019/20, gaps in upper awards reduced for: female vs male students from 4ppt to 2.7ppt; disabled students by 50% to 1.4ppt; Black vs white students by 3.4ppt to 20.1ppt.
- Institutions reported:
  - Student participation in previously one-sided lectures via chat boxes or discussion boards; improved laboratory demonstrations using video streaming; increased attendance due to unlimited 'room' capacity.
  - There was better: communication with students; access to support services; access to local, national and international speakers and networks; opportunities to share practice.
  - There was significant digital upskilling among staff and students.
- **Plans** being considered for 2021/22 and beyond include:
  - Exploring how blended learning can be used appropriately in different subject areas
  - Moving in-person lectures online to free up timetables for more in-person tutorials
  - Alternating online and in-person lectures to suit preferences, or mixing wholly online and wholly onsite modules with some where students can choose
  - Hybrid learning, where sessions can be run simultaneously online and in person, so that students can choose on the day
  - Considering what is meant by 'lecture', 'teaching' and 'assessment', and discussing with students the different ways of connecting learning outcomes to content and assessment
  - Continuing to offer services online, e.g. virtual open days, because of the benefits seen
  - Re-integrating a sense of connection, e.g. keeping pre-arrival and induction activities online.
- **Strategic considerations** include: investment; increasing staff/student digital literacy and updating skills; curriculum design, assessment methods, quality assurance and portfolio reviews; redesigning spaces to be more flexible, including more open study/meeting spaces.
- **Challenges** include: digital poverty and accessibility; practical courses; the requirements of professional, statutory & regulatory bodies; academic integrity and standards; funding constraints; continued Covid-related disruption.

**The Scottish Funding Council (SFC) published [Resilience and Recovery: Colleges and universities response to COVID](#), a collection of case studies to highlight the work of institutions during the pandemic.**

- Themes include online and blended learning, fair access and transitions and student mental health and wellbeing.

### Other research

**The COP26 Universities Network of over 80 UK universities and research centres published [Mainstreaming Climate Change Education \[CCE\] in UK Higher Education Institutions](#) plus a set of [case studies](#) from network members.**

- Mainstreaming CCE across learning and operations activities enables HEIs to better prepare learners.
  - Student and employer demand for CCE is growing in specialist and all degree pathways.
  - All disciplines have a role to play in educating for the net zero transition.
  - Student-centred CCE, including peer-to-peer learning, is a powerful tool.
  - HEIs should develop CCE learning outcomes.
  - Approaches to teaching CCE should enable learners to engage with, and respond to, climate change as a 'real-world' problem.

The Network's mission was 'to ensure that the UK academic sector plays its role in delivering a successful UN COP26 Climate Change Conference' in Glasgow 2021, and 'to create lasting partnerships and legacies'.

**McKinsey & Company published [Setting a new bar for online higher education](#), outlining how online education pioneers have improved operations and the student experience.**

- To engage most effectively with students, the leading online HEIs focus on eight dimensions of the learning experience, which can be organised into three overarching principles:
  - **Create a seamless journey for students**, by: building the education road map; enabling seamless connections
  - **Adopt an engaging approach to teaching**, by: offering a range of learning formats; ensuring captivating experiences; utilising adaptive learning tools; including real-world application of skills
  - **Create a caring network**, by: providing academic and non-academic support; fostering a strong community.
- Three steps are set out for HEIs in the early stages of rethinking their online offering: assess current offerings; set a strategic vision for the learning experience; design the transformation journey.

**The National Centre for Universities & Business (NCUB) published [State of the Relationship 2021: Analysing trends in UK university-business collaboration](#), its eighth annual assessment of partnerships, based on data from 2019/20.**

- **UK-wide:**
  - The total number of interactions between universities and businesses fell between 2018/19 and 2019/20 due to the initial impact of Covid-19: there were over 78k, down 31% – those with SMEs fell by 39% and with large businesses by 2%.
  - Investment in university R&D: by UK businesses was down 7%; and by foreign sources by 6% – each falling for the first time since 2011 and 1999, respectively.
  - 812 Innovate UK grants were awarded to universities (down 1).
  - However, universities' contribution to research commercialisation grew in 2019/20, with the number of licenses granted up by 30%.
- **For universities in Northern Ireland:**
  - Interactions with large businesses and SMEs grew compared to the four-year average.
  - The number of patents granted and income from licensing fell, but the number of licences and academic spinouts grew.
  - The percentage of university income achieved in 2020 through collaboration was 28.2%, down 2.9ppt from 2019.
- Despite the pandemic causing numbers of apprentices at most levels to fall across the UK, there was an overall increase in higher and degree apprenticeships; however the number of CPD and continuing education courses run for business fell.

**MillionPlus published [Innovate and generate: Modern universities supporting local businesses](#) – a set of case studies.**

- 97% of modern universities identify the development of local partnerships as one of the principal ways in which they contribute to the local economy.
  - Many play a role as an anchor institution in their town or region, providing infrastructure and services to local businesses, as well of being a hub of expertise and translational research.
  - In 2019/20, they provided services to 21,585 SMEs, while 93% provided bespoke courses for business on their campus.

**PA Consulting published [A Differentiated Future: 11<sup>th</sup> survey of heads of UK higher education institutions](#).**

- Universities are increasingly building their identities in terms of their social and economic engagement and impact in their local region, rather than their competitive standing against peers.
  - 60% of leaders place 'recruiting from under-represented and/or local student groups' as their first or second priority.
  - 45% rank 'supporting local or sectoral economic and workforce needs' as their institutions' first or second priority.

- Only 23% give their top rankings to 'recruiting only the academically most able students', and just 5% make 'leading in advanced and international research developments' their top priority.
- A growing number are securing student recruitment, research and business services income through direct arrangements with local employers, businesses and development agencies.
  - 63% consider a reduction in regulated home undergraduate tuition fees and 31% possible constraints on admissions as their single greatest risk.
- 90% plan to incorporate lessons learnt from Covid-19 into hybrid mixes of online and personalised approaches.
  - Many expect patterns of study to change – especially through increased recruitment of part-time, working and commuting students – and see hybrid learning as key to this.
  - 63% rank investment in new learning and teaching technologies as their top priority for digital transformation.
- There is an exceptionally high number of newly appointed and/or soon-to-retire leaders across the UK – many spoke of their role becoming more onerous.
  - The emerging new generation of leaders, including an increase in the proportion of women, is adopting a different style of leadership, focusing less on short-term political pressures and more on the interests and strategies of their institutions.

**HEPI published [\*The One Nation University: Spreading opportunity, reducing division and building community\*](#), by the director of the UPP Foundation.**

- In recent years, universities have faced questions about their purpose and whether they provide value for students, graduates and the wider public; the increasing division within society has spilled over into the debate about universities too.
  - Universities play a significant role in shaping society and the economy; HEIs mould who we are as a people and face constant scrutiny and challenge, so the period of scepticism isn't surprising.
- Caps on what or where students can study should be abandoned in favour of more active policies to support flexible HE.
  - A new director or 'office for HE and place' should encourage new provision in left-behind places and intervene in the market when HEIs are negatively impacted by market forces beyond their control.
  - There should be a Birkbeck-style evening university in every region of the UK.
  - More universities should establish subject-specialist free schools in order to ensure young people, whatever their background, can study vulnerable subjects such as modern languages.
- A pervasive monoculture within HEIs affects how they cope with cultural clashes and free speech.
  - An English version of the US's Heterodox Academy would provide resources, develop training and support universities in tackling the problems around hostile and unprofessional online behaviour.
- To transform social capital and student wellbeing, revitalise communities and help bridge town-gown divides, the Government should create an AmeriCorps-type student community service programme.
  - Students would volunteer 100 hours of service in their local communities during an academic year for a paid honorarium, with disadvantaged students receiving a student premium.
  - In order for all students to benefit from the immersive community student experience, One Nation universities should embed community service learning throughout their curricula.

*Although mainly focused on England, many issues and recommendations are relevant across the UK.*

**Jisc published [\*A pathway towards responsible, ethical AI\*](#) – a guide for universities, colleges and research institutes, developed with the British & Irish Law, Education & Technology Association.**

- It includes guidance on combatting 'unfairness' or 'unexpected effects' of AI for students and staff.

**UUK International published [\*The scale of UK higher education transnational education \[TNE\] 2019/20\*](#), the fifth edition.**

- 156 HE providers reported students studying through TNE, up 14 on 2018/19; 453,390 students were on UK TNE programmes, down 32.0% largely due to changes in reporting by one provider.
  - 20 providers reported 59.8% of UK TNE students.

- 83 providers reported more than 1k TNE students, compared with 69 in 2015/16.
- 39.1% of students were studying via collaborative provision, followed by: distance, flexible or distributed learning (31.2%); registered at an overseas partner (21.7%) or overseas campus (6.9%).
  - Distance, flexible or distributed learning experienced the greatest proportional growth (17.5%).
  - 68.3% of students were undergraduates; the number of postgraduates was up 21.2% on 2015/16.
- UK TNE was reported in 225 countries and territories.
  - Asia hosted 50.3% of students; the EU 16.5%; Middle East 13.1%; Africa 10.7%; North America 5.1%; non-EU Europe 3.2%; Australasia 0.6%; and South America 0.6%.
  - China hosted the most TNE students (49,800 – 11.0%), followed by: Malaysia (49,375 – 10.9%); Sri Lanka (30,825 – 6.8%); Singapore (27,885 – 6.2%); and Hong Kong (22,400 – 5.0%).
- Most students in overseas campuses are located in Asia (63.2%) and the Middle East (26.3%).

## WORKFORCE ISSUES

**Jisc published two reports based on findings from its *Teaching staff digital experience insights survey 2020/21* – one for [UK further education](#)\*, based on responses from 2,822 staff from 29 FE and sixth form colleges, and one for [UK higher education](#), based on responses from 3,729 staff from 24 universities and one college.**

- 65% of FE and 73% of HE staff said teaching online added significant new stress to their workload, leading to anxiety and exhaustion.
- 67% of FE and 66% of HE staff had been offered support with online teaching in the pandemic.
  - 50% of FE and 44% of HE staff received guidance on the digital skills needed in their role.
  - Only 30% of FE and 15% of HE staff were assessed on their digital skills and training needs.
  - 36% of FE and 55% of HE staff said they weren't given enough time to explore new digital tools.
  - 67% of HE staff felt they were not rewarded and recognised for the digital skills they had to develop.
- 83% of FE and 82% of HE staff said online teaching created technical challenges: not all were able to access the online systems and services they needed and 52% of FE and 51% of HE had wifi issues.
- Despite the challenges, 78% of FE and 84% of HE staff rated the quality of online and digital learning for students as above average.
  - Many from both sectors reported positive experiences of teaching online, including increased productivity, improved work–life balance and better engagement with less confident learners.

\*The FE survey excluded Wales.

**The Nuffield Foundation published [Managers and academics in a centralising sector: The new staffing patterns in UK higher education](#) by King's College London.**

- Expansion over the last 20 years has resulted in some universities now enrolling over 40k students, and numbers in the high 20ks and 30ks are widespread.
- The number of 'managers and non-academic professionals' has increased 60% over 12 years, to almost 51k; they now make up over 25% of all non-academic staff, up from 20%.
  - Increased competition for students, especially overseas students, has led universities to expand their marketing departments and improve student services.
  - There has also been an ongoing centralisation of professional services, as well as highly and increasingly centralised approval of academic posts.
- In terms of academic staff, teaching-only posts are up 80%, particularly among the research-intensive Russell Group; this compares with a 16% rise in those who do both teaching and research.
  - Teaching-only staff tend to be part-time, although the proportion of full-timers is increasing.
- There is no evidence of any deliberate strategy of rebalancing the academic workforce; growth has occurred in a more haphazard way.

- Teaching-only appointments have covered for permanent staff bought out by research commitments or taking up their entitlement to regular sabbaticals, especially in research-intensive universities.
- When academic posts were not filled or not approved, continuing growth in student numbers ensured that short-term staff, often on teaching-only contracts, were appointed instead.
- The UK has experienced less of a divisive 'dual labour market' than some other marketised systems, particularly the US and Australia.
  - The research funding system in the UK encourages universities to employ those with both teaching and research capabilities and probably places some limits on the growth of teaching-only staff.
  - Some universities have improved working conditions and created promotion pathways for those on teaching-only contracts, plus better opportunities for moving to 'teaching and research' contracts.

**The Republic of Ireland's (RoI's) Higher Education Authority published [Race Equality in the Higher Education Sector](#) – findings from a survey of 3,323 staff in Irish HEIs held from December 2020 to January 2021.**

- 72% of respondents were white Irish, 17.5% 'white other'; 8.6% were of other ethnic backgrounds including 1.7% Asian (Indian/Pakistani/Bangladeshi), 1.4% Black African and 1.7% mixed.
- Experiences of collegiality are generally positive across all ethnic groups, however, a majority across all groups agreed that 'race inequality exists in Irish higher education'.
  - Respondents from minority ethnic groups were more likely to have experienced discrimination, and staff across all groups had reported and witnessed racial or ethnic discrimination against minority ethnic staff.
- There were significant differences between white and minority ethnic staff contracts and pay:
  - The percentage from minority ethnic groups on permanent contracts was lower than from other ethnic backgrounds.
  - The percentage from minority ethnic groups earning less than €60k a year was higher (66%) than white other (58%) and white Irish (45%), and only 17% of minority ethnic staff earn over €75k compared to 38% of white Irish and 25% of white other.
- There was awareness of policies on race/ethnicity, however these policies were less visible as part of broader equality policies, and there is no real implementation or visible outcomes in the staff body.
- Policy recommendations are made under eight themes: leadership; supporting diversity in staffing; making race/equality policies transparent; reporting mechanisms; awareness and training; fostering diversity; supporting diversity in student recruitment; and data collection.

**HEPI published [Who owns online lecture recordings?](#), examining intellectual property (IP).**

- While recordings have become standard practice in UK universities, there is still significant ambiguity over how and when these recordings can be used.
  - Academic practice has not kept pace with technological changes in pedagogy; actors, for example, charge more when their performances are being recorded.
- More work is needed, plus more conversations between staff, students and university management.
  - Legal precedent suggests that copyright likely still rests with the academic who created the recordings; licensing is murkier and could hinge on what was either agreed or implied in emails.
  - University IP policies often make claims to ownership, but these can be objected to on several fronts, e.g. being too vague or an affront to academic freedom.
  - GDPR (General Data Protection Regulation) issues are of particular concern when students are involved in recordings, but less so when the academic is the only person present.
- Three recommendations are made:
  - University management and lecturers should be explicit about when and for what purposes any teaching materials may be used, ideally in writing.
  - University IP policies should be developed in collaboration with staff and students; universities without IP policies should develop them and those with policies should revisit them.
  - Lecturers should be familiar with existing IP policies; if they are concerned or unclear about them, they could consider drawing more explicitly on their research in their teaching materials to strengthen their IP claim or consider removing access at the end of term to hinder their reuse.

## RECRUITMENT

IZA published [\*The Gender Application Gap: Do men and women apply for the same jobs?\*](#), based on data from job application data for Danish unemployment insurance recipients.

- Gender differences in job outcomes may arise at different stages of the labour market, e.g.: via gender differences in wage bargaining or promotion rates; at the hiring stage, due to how firms select among applicants or seek out candidates; or at the application stage when male and female job seekers decide what to apply for.
- There are substantial gender differences in applied-for jobs, even among men and women with similar labour market characteristics.
  - Women and men apply for different jobs because they have different valuations of non-wage job characteristics, e.g. hours, commuting time and family-friendliness.
- Gender gaps in applications closely mirror those in actual hiring outcomes.
  - The gender application gap can explain over 70% of the residual gender gap in wages – women apply for systematically lower-paying jobs.
- There is an important role for policies aiming to influence the types of jobs and careers women seek.

The IES and the University of Sussex Business School published [\*Artificial Intelligence \(AI\) in the job interview process: Toolkit for employers, careers advisers and hiring platforms\*](#) on how to support young people's\* transitions to work in the context of new technologies used in recruitment and selection processes.

- The research is based on interviews with young job seekers, an evidence review and analysis of material published by hiring platforms and of technologies used in asynchronous video interviews (AVIs).
  - Interviews took place with university students who were also looking for work.
- The pandemic has accelerated employers' use of AI in the recruitment process – many more people, including young people with least experience, are being interviewed in this mode than ever before.
- Commercially available video interviewing platforms use AI-assisted technologies to schedule, track, conduct and assess interviews.
  - The promise is that the platforms will reduce bias and increase fairness and reduce the challenges of shortlisting the high volume of applications received.
  - There is growing awareness that bias can inadvertently be built into AI systems, however there is little information about how the platforms function and produce recruitment recommendations.
- Materials published by platforms to support candidates to use AVIs were minimal, and sometimes included links to outdated or incomplete documents.
  - Many research participants said they did not know who to contact or where to look for more information or could not get timely replies to their questions.
  - Participants had a poor understanding of how this interview format worked and of the technology.
- Reflecting on their experiences of AVIs, job seekers expressed discomfort compared to when they were interviewed by people:
  - **Feelings of diminished humanity:** they felt they needed to hold a fixed gaze and an unnatural posture, speaking with a monotonous voice and holding their hands still.
  - **Lack of understanding:** candidates embraced unnatural behaviours, believing this would satisfy the AVI 'bot'; however, they often did not know how they were going to be assessed by the AVI – some thought there was face recognition involved when there was none.
  - **Glorification of AI technology:** they saw their changed behaviour as inevitable in the recruitment experience due to a belief that AI technology is superior to human decision-making.
  - **Feeling emotionally and cognitively exhausted:** resulting from behaving in the way they believed was necessary for the bot, but which was highly unnatural.
- The AI systems and employers rarely offered any feedback, so candidates were left to their own devices on how to improve their performance at their next interview.



- Relying on AI without understanding it creates disadvantages for candidates, even well-educated ones; young people with less experience or who are more marginalised face particular obstacles.
  - Companies hoping to establish or maintain a diverse workforce should be aware of these limitations before making decisions about AVIs in recruitment.
  - Synchronous, face-to-face or video-facilitated interviews are better understood by employers and candidates, and recruitment platforms do not fully emulate these.
- Adopting a 'glass box' approach (transparent about the technology and how it is used) would enable: **candidates** to perform at their best; **employers** to ensure fairer support to candidates and to access a wider talent pool for their vacancies; **careers and employability advisers** to better support job seekers to prepare for AVIs; and **hiring platforms** to signal their ethos and values.
- Recommendations include:
  - Employers should be curious about whether and how far the platforms will help them achieve the mix of candidates they need, linked to their priorities for equality, diversity and inclusion.
  - Employers should provide clear information to candidates about how the AI process works.
  - Employers should balance the use of AI tools with human approaches to build relationships during recruitment and ensure selection of candidates with the attributes and values required.
  - Careers and employment services need to ensure they are well informed on the role now being played by AI in recruitment processes to better support their client groups.
  - Platforms should be explicit on the capabilities of their technologies and what the AI can assess on employers' behalf.

*\*Although focused on young candidates, the findings and recommendations are more widely applicable.*

**IZA published [Interview Sequences and the Formation of Subjective Assessments](#), examining how and why the outcomes of an interview depend on other candidates seen by the same interviewer.**

- The study is based on data from ~29k one-to-one interviews from a study grant admission process in which candidates were randomly assigned to evaluators and time slots.
- It explores:
  - how the assessment of a candidate changes if the quality of another candidate increases
  - the impact of the candidate's relative position in the interview sequence
  - how the interplay between the evaluator's memory and attention generates contrasts with the previous candidate.
- Minor changes in candidate sorting and ordering can have major consequences on the outcome.
  - A candidate's assessment decreases compared to the quality of the other candidates seen by the same evaluator, and most strikingly in the quality of the previous candidate.
  - The effect is strongest when candidates have similar observable characteristics.
- To mitigate these effects, organisations should consider:
  - combining several assessments of a candidate while ensuring their independence
  - minimising the overlap and order of candidates seen by different evaluators
  - combining subjective assessments with more objective screening devices, e.g. algorithm-based job-testing technologies
  - ordering interviews so that subsequent candidates are not similar in appearance to each other.

## APPRENTICESHIPS & TRAINEESHIPS

**The Sutton Trust published [Apprenticeship Outreach \[in the UK\]: Engaging with under-represented groups to improve social mobility](#).**

- An increasing number of degree apprenticeships are going to older apprentices and to those in more affluent areas; opportunities for young people overall continue to decline.
- 68% of surveyed apprentices aged 25–54 were already working for their employer and were also more likely to have come from higher socioeconomic backgrounds.

- Young apprentices received information about their apprenticeship from a variety of sources, including: careers workshops; meetings with careers advisers; visits from employers or apprentices; visits to a workplace; and work experience placements.
  - However, 14% of apprentices aged 16–24 had not received any information or outreach before starting their apprenticeship; this was higher for those starting with a new employer.
  - The main information they would have liked was on salaries, followed by post-apprenticeship career opportunities, the apprenticeship experience and the balance between work and study.
- 25% of young apprentices found the application process difficult to navigate, particularly those from a working-class background and those undertaking a higher-level apprenticeship.
- 22% said that their friends and family were not supportive of their decision to do an apprenticeship, particularly those from a working-class background.
- Interviews with employers found that:
  - Apprenticeship outreach is much less developed than outreach conducted by universities, and is undertaken in a variety of ways, with little evidence as yet on effectiveness.
  - Apprenticeship outreach spending is very low when compared to graduate outreach and recruitment costs.
  - Employers who were not using all their apprenticeship levy allowance thought spending it on access and outreach activities would be beneficial.
  - Apprenticeship outreach is a key method by which employers seek access to a wider talent pool.
  - Partnerships with other organisations are key for reaching larger numbers of young people and those from specific group, but such partnerships come with inevitable challenges.
  - There is still a disconnect between employers and schools in their experience of working together to enhance knowledge and awareness, particularly around the timing of outreach activities.
  - Views differ between employers and universities on who should run degree apprenticeship outreach.
  - As long as students can get online, virtual outreach is a good process and allows more conversations to take place with teachers and parents, but virtual fatigue and low turnouts have proved to be a challenge.

**The Welsh Government published [Evaluation of the Degree Apprenticeship Programme: Scoping Report](#), including a literature review of international approaches.**

- Internationally (Germany, Switzerland and the US) there has been increasing recognition of the value of vocational education and the need to offer different routes and promote greater parity between vocational and academic training and education.
  - This has led to significant reforms, including the expansion of programmes that incorporate higher-level skills that traditionally formed part of HE courses.
  - These reforms have varied in nature and extent, leading to significant variation in the structure, content and focus of apprenticeship models internationally, as well as variation within countries.
- In terms of the initial phase of Wales’s programme:
  - Initial evidence would suggest that there has been a programme-wide over-allocation of places.
  - The governance structure appears to be a particular success and has strengthened the partnership between the Welsh Government and the HE Funding Council for Wales (HEFCW).
  - The programme is facilitating increased engagement between HEIs and employers and has also cemented partnerships between HEIs, FE colleges and work-based learning providers.
  - Existing employees predominate rather than those enrolling in degree apprenticeships, in contrast to the evidence in England.

**The Quality Assurance Agency for Higher Education (QAA) published [Review of Degree Apprenticeships in Wales: Overview report](#), funded by HEFCW for the Welsh Government, an overview of eight provider reports, a summary of the provision and recommendations.**

- There are four overarching recommendations:
  - Full recognition should be given to the distinctive nature of degree apprenticeships.
  - Apprentices should be provided with support and guidance materials tailored to the distinct nature of the provision and its delivery.

- Providers should ensure the implementation of formal progress reviews at least every two months.
- Providers should give greater opportunities for employer involvement in the design and delivery of programmes and for employer-led assessment.

**The Edge Foundation published [Graduate Apprenticeships \[GAs\]: Developing Scotland's Future Workforce](#), commissioned by the Scottish Apprenticeship Advisory Board (SAAB), exploring current policy, the future of the labour market and international examples of degree-level work-based learning.**

- Introduced in 2017/2018, the GA programme supports 3,500 apprentices across 13 frameworks.
  - GAs are designed collaboratively by employers, HEIs, Skills Development Scotland (SDS) and the SFC and are industry recognised and accredited.
  - 13 HEIs offer GAs; they are available from diploma to master's in response to perceived current and future skills needs.
  - In 2020/21, 1,158 learners started a GA, working for 500 employers; the largest age group was 25–34s, highlighting the appeal to those who may not yet have had the opportunity to study at degree level.
- Employers are keen for the programme to grow in terms of frameworks and learner numbers.
  - 100% of responders to a recent survey were willing to take on another GA in the future, citing workforce sustainability, increased productivity, talent development and improved service delivery as key benefits.
- In contrast to England's market-based approach, the Scottish Government and the SFC are more able to inform and 'steer' institutional priorities and negotiate with providers.
  - The funding system is complex, raising questions around agility in a rapidly changing labour market and whether it should move to a more demand-led model.
- Five key opportunities could help to consolidate and grow the programme: a more flexible system of provision; an agile funding system led by employer demand; greater certainty and clarity of provision; more diverse future frameworks; and increased awareness of the programme.

*Different approaches to higher vocational education are illustrated from Norway, Lithuania and Wales.*

**Skills Development Scotland (SDS) and SAAB published [Sustainability in Scottish Apprenticeships: A system-level approach to the net zero transition](#), based on findings from IFF Research on how to embed 'green competencies/skills' into apprenticeships.**

- With some sectoral differences, there was consensus that sustainability concerns should be considered and embedded in all apprenticeships, rather than siloed within certain 'green' occupations.
  - A number of associated and complementary skills were noted by employers, including: teaching general climate change literacy/awareness and risks; situating climate impacts within the specific occupation and working practices of the apprentice; and sector-relevant skills on using 'green' technologies, processes or products that support the transition to net zero.
- Challenges to be addressed include: a need for clear terminology; enabling all apprentices to develop sustainable work practices; responding to emerging, specific industry needs that support net zero transition; urgency in reflecting sustainability; and building awareness, capacity and capability among stakeholders, including employers, providers and assessors.
- The report makes five recommendations to further develop apprenticeships:
  - Refer to 'sustainability' in apprenticeships and confirm key components.
  - Use a multistakeholder approach to guide skills development, include industry to focus on relevant competencies, and engage with other skills bodies internationally to learn best practice.
  - Support employers to develop and reflect sustainable work practices in apprenticeships.
  - Take a phased or iterative approach to reflecting sustainability.
  - Ensure stakeholders receive necessary support, e.g. in developing the skills of trainers.

## SKILLS GAPS & SHORTAGES

**The Open University with the Institute of Directors published the fifth annual [Business Barometer 2021](#), investigating skills shortages, based on the views of 1,500 business leaders in UK organisations in September [An email address is required to access the full report.]**

- Findings for 208 businesses in **Northern Ireland** include:
  - 69% reported a skills shortage, up 5ppt from 2020 and highest in the UK (63% UK, up 7ppt), and 44% have left a position vacant because they could not find a suitable candidate (33% UK).
  - Due to Covid-19, 59% reported difficulty finding candidates with the relevant skills, while Brexit uncertainty has made 32% not hire for vacant roles.
  - Covid-19 disruption (57%) and Brexit (43%) are predicted to have the biggest impact on skills within the next 12 months.
  - 43% have introduced training to boost the employees' skills (32% UK) and 56% plan to increase spending on training in the next 12 months.
  - 66% are trying to make their workplace more diverse and inclusive, and 30% are actively trying to recruit candidates from ethnic minority backgrounds.
- **UK-wide:**
  - The main applicant skills lacking are: industry-specific (37%, +17ppt); technical/operational (33%, +9ppt); IT (32%, +6ppt); managerial (28%, -6ppt); leadership (24%, -10ppt); and soft (22%, +3ppt).
  - There is optimism around the potential for remote working to fill skills gaps.

**The Resolution Foundation and Centre for Economic Performance (CEP) published [Business time: How ready are UK firms for the decisive decade?](#), as part of the [Economy 2030 Inquiry](#).**

- Private sector firms face: new arrangements for international trade and migration; new emissions requirements; changes to worker and customer behaviour; demographic and technological change.
  - However, low levels and poor growth of productivity are pervasive in most sectors of the UK economy compared to other countries.
- Despite rising tertiary education attainment, there are gaps in basic and technical skills that hold back the productivity of workers and firms in the UK.
  - Moreover, research has shown that skilled workers and managers are more likely to successfully adopt productivity-enhancing technologies and management practices.
  - There are also troubling patterns of attainment across generations: literacy and numeracy skills of the young in the UK have slipped relative to previous cohorts.
  - Management practices are, on average, worse than in the US and Germany; the extent of digitisation is middling compared to other countries.

**The Chartered Institute of Personnel & Development (CIPD) published [Addressing Skills & Labour Shortages Post-Brexit](#), based on sector-specific focus groups in low-paying industries, jobseeker focus groups, regional roundtables and a survey of 2k UK employers.**

- Shortages are rising but are restricted to a narrow range of occupations and industries, e.g. hospitality, arts & recreation and transport & storage; in many low-paying sectors shortages have not increased.
- There are positive signals that some – mainly larger – employers have become better at sourcing domestic labour.
  - Upskilling and apprenticeships, raising wages, flexible working, entry-level career paths and relationships with local education institutions are all popular tactics.
  - However, there is a tail of employers who are in denial or 'wait and see' mode.
- There is a perception among some employers that the quality of labour supply has fallen, with some pointing to the reduction in EU workers as a factor.
- Many young jobseekers have negative perceptions of low-paying industries, despite the pandemic, believing that they involve hard work, low pay and insecure work, with little prospect of progression.
  - Some young people, however, are prepared to endure low pay for a period, providing suitable training opportunities and promotion possibilities are available.
- Some employers could improve their human resources (HR) practices: those in low-wage industries are constricted to a narrow range of recruitment channels and labour pools; inadequate people management and development practices are a key under-reported factor behind some shortages.

- Relatively few employers have the knowledge or resources to take advantage of government initiatives such as Kickstart; very few have engaged with local colleges or introduced apprenticeships to offset the fall in interest.
- Government intervention and policy changes are needed, including:
  - **Boosting the supply of apprentices** by: increasing pay rates; increasing and better targeting apprenticeship incentives to encourage the hiring of people under 25
  - **Reforming the apprenticeship levy** into a broader, more flexible training levy
  - **Improving business support**, particularly for SMEs, focusing on HR and people management and development.

**The Institution of Engineering & Technology (IET) published [IET skills and demand in industry: 2021 survey](#), based on research conducted with 1,039 respondents across the UK.**

- Engineering employers have had to deal with staff: ill/self-isolating due to Covid-19 (55%); being furloughed/made redundant (51%); shifting to remote working (50%).
  - 12 months ago, their key priority was cutting costs (44%); now it's increasing profitability (67%).
  - 79% are confident in their organisation's economic prospects over the next 12 months.
- 27% report that their UK staff are mostly high skilled (university level or higher); 28% mostly intermediate skilled (L3); 14% mostly lower skilled (L2 or below); 26% a range of skills.
- 67% of those with a skills gap say it is in engineering/technical skills, of which 41% are at professional level; 44% technician/skilled craft level; 36% at operative/semi-skilled level.
  - 40% respond by upskilling or retraining existing employees and 39% by recruiting new staff.
- 34% overall report a lack of applicants for their roles.
  - 63% of those who think applicants lack technical skills cite specialist skills/knowledge; 49% of those who think they lack 'soft' skills, cite teamwork.
- 51% think that government should be providing more support to train/reskill, preferably by more apprenticeship funding nationally (54%) or in their local area (45%), or through better careers IAG in schools/colleges.
- 38% think their organisation can't achieve net zero by 2050; 50% think they can.
  - 51% have a sustainability strategy, of which 81% need additional skills to implement it.
- 36% say that design and manufacturing skills are important for growth in the next five years; 35% cite energy & environmental sustainability.
- 46% say that young people entering the workforce have few/none of the necessary technical skills, and 46% say they have few/none of the necessary soft skills.
  - 45% of these provide additional training; 25% recruit fewer apprentices/graduates as a result.
  - 29% – up to 36% of large employers – use apprenticeships to engage with the education system.

**The IES published [Career Deflection: Exploring diversity, progression and retention in engineering](#), an assessment commissioned by Atkins and supported by Good Relations.**

- The report explores how diverse groups progress in the UK engineering profession and examines what factors hold some people back and encourage others.
  - The workforce is dominated by white males: women comprise only 16%, Black, Asian and minority ethnic employees 10%.
- The anticipation of barriers can lead to individuals selecting themselves out of certain industries and professions, in favour of more viable ones with fewer obstacles and more opportunities.
- Barriers to engineering or related sectors and professions include:
  - Stereotyping; macho cultures; unchallenged discrimination and bias; norms of overwork, excessive workloads and expectations of constant availability; isolation; concerns over disclosure (of disability, sexuality or gender identity); and a culture perceived to reward those who fit the mould of the 'ideal engineer'
  - Lack of: flexibility in working patterns and arrangements; career resources or opportunities; role models; support, mentoring or networks.

- 'Career deflection', e.g. stereotyping, isolation and bias, is resulting in 70% of women leaving engineering compared to 35% of men.
  - The lowest retention rates for women are for 20–24 year-olds (career entrants), the highest rates are for those aged 40–44.
  - Women have lower retention rates in engineering than many other professions (e.g. law, business & finance and architecture).
- Retention rates for ethnic minorities are now on a par with those from white backgrounds.
- Recommendations for the engineering profession include: improving data collection, analytics and research; modernising diversity policies, training and development; and focusing on creating a culture of diversity and an inclusive corporate character.

**The Edge Foundation published its ninth [Skills Shortage Bulletin](#), focusing on skills in the digital, green and creative sectors.**

- It brings together its own previously published research plus that by the Resolution Foundation, Youth Employment UK, City & Guilds, SKOPE and Centre for Progressive Policy.
- Key points include:
  - Only 9.9% of young people feel confident they will be able to access quality work where they live.
  - At a time of rising unemployment, 34% of Britons want to change careers.
  - The skills shortages in AI and the digital sector reflect pipeline issues in schools: fewer students are choosing to study information and communications technology (ICT) at GCSE, while schools lack resources to invest in equipment and digital skills training.
  - 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'.
  - By 2025 the creative industries could create 300k new jobs, surpassing pre-pandemic levels.
  - Creative subjects are declining in schools in England because of the narrow curriculum underpinned by the English Baccalaureate.

## TRAINING & DEVELOPMENT

**Cedefop published [Workplace Learning: Determinants and consequences – Insights from the 2019 European company survey](#).**

- A continuum of five distinct types of workplace learning environment has been identified in EU organisations: extensive, encouraging, typical, traditional, restrictive.
  - 'Traditional' companies have much lower skill demand and slightly fewer learning practices and opportunities.
  - 'Encouraging' companies have higher levels of informal\* learning opportunities and management encouragement for employee engagement.
  - Larger, younger and service companies are more likely to offer conducive learning environments than smaller, older and manufacturing companies.
- Different workplace aspects have very varied influences on employee and organisational outcomes.
  - Employee wellbeing has by far the strongest relationship with informal learning opportunities, while formal and non-formal learning opportunities have little substantive effect on wellbeing.
  - Job autonomy and open and constructive communication are also strong determinants of wellbeing, along with the national context and establishment characteristics.
  - Skill demand is found to have slight negative correlation with employee wellbeing, and extrinsic motivation does not seem to influence it much.
  - Company innovativeness is the strongest predictor of its performance, followed by organisational characteristics, especially its age.
  - Informal learning opportunities and job autonomy are also important predictors of company performance; formal and non-formal learning opportunities don't have a substantial influence.
- The strongest predictor of the volume of informal learning opportunities is managers' perception of its value and importance.
  - Skill demands are the strongest predictor of formal and non-formal learning.

- Informal learning is the key aspect of workplaces in terms of performance and employee wellbeing.

*\*Formal learning: structured; classroom-based; instructor-led; conceptual knowledge; separate from work; curriculum based; certified.*

*Non-formal: semi-structured; work-based; mentor-led; practical knowledge; participative; mostly non-certified.*

*Informal: non-structured; work-based; informal interaction; tacit knowledge; immersive; experiential; not certified.*

**The Edge Foundation published [Train to Gain](#), a 'learning from the past' paper looking at the Labour government's flagship employer training programme introduced in 2006.**

- The programme, managed by the Learning & Skills Council, comprised two main components: skills brokerage to provide employers with 'impartial, independent advice on training needs'; full public funding of training for eligible employees including NVQs and leadership and management training.
  - Training was provided by FE colleges, private providers and voluntary organisations.
- The programme was scrapped by the 2010 coalition government due to its 'massive deadweight cost', as it focused on lower level skills and funded profitable employers who could pay for training.

**The OECD published [Opportunities and drawbacks of using artificial intelligence for training](#), based on a literature review and expert insights.**

- Technological developments are a major force behind the need for retraining but can also be part of the solution.
  - In particular, AI has the potential to increase training participation, including among under-represented groups, by lowering some barriers to training and by increasing motivation to train.
  - Certain AI solutions for training may improve the alignment of training to labour market needs and reduce bias and discrimination in the workplace.
- However, potential drawbacks of using AI for training include the risk of decreasing the inclusiveness of adult learning systems due to the digital skills needed to use the AI tools, and the large amounts of data and high-quality technological infrastructure needed to develop them.
  - Using AI for training may also lead to significant changes in skill requirements in jobs related to training and recruitment, causing resistance and negative employment effects for professionals.
  - AI also brings about important ethical issues.
- Realising AI's full potential and ensuring that using it for training benefits all requires more research and policies that address the need for digital skills, the costs and the development of trustworthy, human-centred explainable AI tools for training.

**First Polymer Training Skillnet, RoI, published [Spatial Skills Development for Industrial Training](#), findings of research funded by Skillnet Ireland.**

- Spatial skills development has been shown to be an effective means of improving the retention, success and future career progression of early stage undergraduate engineering education students.
  - Spatial ability is defined in various ways, including as 'the ability to generate, retain and manipulate abstract visual images'.
  - Spatial ability, in particular the visualisation factor, is predictive of educational performance in engineering and more broadly in STEM.
- The research explores whether spatial skills training can increase the effectiveness, efficiency and experiential value of reskilling and upskilling training for adults in technical and engineering roles.
  - The performance of industrial personnel was measured before and after spatial skills training.
- There was no evidence that spatial ability develops as a result of time spent in the polymer industry, or that the training intervention had an effect on participants' levels of spatial ability.
  - However, discipline-specific training (in this case, an online advanced injection moulding theory module) can significantly benefit related knowledge.
- Recommendations:
  - Spatial skills training is beneficial for STEM-related career development and progression and should be addressed in undergraduate engineering education programmes.

- Spatial skills development should be incorporated into industry-led study programmes for school leavers.
- Industrial training for adults with engineering qualifications and/or industrial experience should remain focused on specific engineering knowledge training interventions.

**QinetiQ published [Longer-Term Employment Outcomes of Ex-Service Personnel](#) in partnership with Warwick IER, commissioned by Forces in Mind Trust, looking at challenges beyond veterans' first two years of resettlement.**

- Although the majority of ex-Service personnel maintain employment over time, it can often involve numerous jobs and periods of unemployment.
  - Only 44.5% of veterans felt that they found the 'right job' in the longer term which maximises their potential (42.5%) or provides them with opportunities to progress (42.4%).
  - Women, ethnic minorities, those who are wounded, injured and sick and older Service leavers are more likely to experience unsuccessful employment in the longer term.
  - A lack of transferable skills, unrealistic expectations of the civilian job market and an inability to adapt to civilian environments can reduce the chances of a successful transition.
- Recommendations to better prepare Service leavers for the civilian labour market and to ensure that employers can take advantage of their skills include:
  - Access to civilian work placements for all Service personnel, building knowledge for transition and innovation within the Armed Forces.
  - Mandatory transition support for all Service leavers.
  - Training in commercial, marketing and financial skills as part of the resettlement package for all.
  - Improved data collection on the employment outcomes of ex-Service personnel and their families to ensure government and support services can identify challenges and respond effectively.

## **AUTOMATION & AI: IMPACT ON WORK**

**The UK Department for Business, Energy & Industrial Strategy published [The Potential Impact of Artificial Intelligence on UK Employment and the Demand for Skills](#) by PwC.**

- Past research suggests that AI and related technologies should boost UK GDP by up to 10% by 2030; however, other studies have pointed to varying degrees of potential displacement of human workers.
- Around 7% of existing UK jobs could face over 70% probability of automation over the next five years, rising to around 18% over ten years and almost 30% after 20.
  - But increased productivity and economic growth will also create many jobs, some linked directly to AI, but mostly in harder-to-automate services (e.g. health and personal care) that will be in greater demand due to additional real incomes and spending.
  - An overall neutral long-term net effect on employment is the most plausible assumption.
- Health & social care has the largest estimated net employment gains over the next 20 years, followed by information & communications and other professional, scientific & technical services.
  - Significant net reductions are projected in wholesale & retail and finance & public administration in the short-medium term, and in transport in the long term.
- Managerial and professional occupations with higher median earnings levels tend to see positive estimated net employment effects.
  - Less well-paid clerical and process-oriented roles will experience negative estimated effects, although only in the longer term for manual workers such as truck or taxi drivers.
  - This suggests that AI will drive a continuation of skill-biased technological change with the potential to widen existing earnings differentials.
- In terms of UK regions, somewhat more positive net effects are projected in higher-income areas and more negative net effects in some cities in Northern England and the Midlands.
  - There are also considerable variations within regions, reflecting different occupational mixes.
- Combining employment estimates with online job advert skills data from Burning Glass Technologies suggests particularly strong increases in demand for skills related to health care.
  - There are also smaller but still significant increases in demand for science & research and IT skills, although this latter group will probably change substantially as digital technologies evolve.



- Demand for skills relating to administration, finance and customer support may see net decreases over time as tasks are increasingly automated.
- Almost all occupations on the current government shortages list are projected to show net employment increases due to AI.

**The OECD published [Artificial intelligence and employment: New cross-country evidence](#).**

- Recent years have seen impressive advances in AI, and this has stoked renewed concern about the impact of technological progress on the labour market, including on worker displacement.
- Between 2012 and 2019, employment grew in nearly all occupations analysed; overall, there appears to be no clear relationship between AI exposure and employment growth.
  - However, in occupations where computer use is high, greater exposure to AI is linked to higher employment growth.
  - Among occupations where computer use is low, there appears to be a negative relationship between AI exposure and growth in average hours worked.
- It is possible that partial automation by AI increases productivity directly as well as by shifting the task composition of occupations towards higher value-added tasks – further research is needed.
  - This increase in labour productivity and output counteracts the direct displacement effect of AI automation for workers with good digital skills, who may find it easier to use AI effectively and shift to non-automatable, higher value-added tasks within their occupations.
  - The opposite could be true for workers with poor digital skills, who may not be able to interact efficiently with AI and thus reap all potential benefits of the technology.

**The OECD published [AI and the Future of Skills, Volume 1: Capabilities and assessments](#), the first step in its Artificial Intelligence and the Future of Skills project.**

- The report comprises contributions that review skills taxonomies and tests in different domains of psychology, and efforts in computer science to assess AI and robotics.
  - It provides extensive discussion on the strengths and weaknesses of different approaches, and outlines directions for the project.

**McKinsey & Company published [The state of AI in 2021](#), based on findings from its latest Global Survey.**

- 56% of all respondents reported AI adoption in at least one function, up from 50% in 2020.
  - AI adoption has increased most at companies headquartered in emerging economies – including China, the Middle East and North Africa – where 57% reported adoption up from 45%.
  - AI adoption is most common in service operations, product and service development and marketing and sales, although the most popular use-cases span a range of functions.
- 27% of respondents reported at least 5% of earnings attributable to AI, up from 22%, while significantly greater cost savings were reported in every function.
- Organisations seeing the highest returns from AI were more likely to follow both core and more advanced best practices, e.g.:
  - Use design thinking when developing AI tools
  - Have well-defined processes for data governance
  - Have protocols in place to ensure good data quality
  - Have well-defined capability-building programmes to develop technology personnel’s AI skills.
- Nearly 66% said their company’s investments in AI would continue to increase over the next three years, similar to 2020.

**Eurofound published [Anticipating and managing the impact of change: Digitisation in the workplace](#), a qualitative exploration of the impact of the internet of things (IoT), 3D printing, and VR/AR, based on case study research.**

- Innovation clusters are important in enabling the implementation of digitisation in the workplace; highlighting the business case and raising awareness of the opportunities provided by digitisation technologies is critical to the increased uptake of new technologies.

- The work area most impacted by new technologies is task definition and content: the IoT puts a greater emphasis on managerial and analytical tasks, 3D printing reduces physically demanding tasks and VR/AR enriches or simplifies tasks.
  - This drives the upgrading of skills and a rise in job discretion, mainly among managerial and engineering professionals, and less so for lower-skilled and blue-collar workers.
  - Public support, e.g. funding, incentives and advice, can help companies and smaller businesses with fewer resources to identify skills gaps and assist with measures to meet the skills required for digitisation technologies.
- Management decisions play an important role in how digitisation technologies impact on work organisation and job quality.
  - A phased digitisation strategy, based on experimentation and piloting supported by a high level of employee involvement in the innovation process, can contribute to more positive outcomes for both workers and organisations.
- Social dialogue plays a critical role in workplace digitisation at many different levels:
  - At company level, a digitisation approach that disregards employee participation and engagement will amplify negative impacts on working conditions.
  - It also encourages greater acceptance of new technologies by employees.
- IoT is the most pervasive of the three, raising the greatest concerns when used for employee performance monitoring and requiring greater safeguards to protect workers' fundamental rights.
  - At EU level, the EU social partners' negotiation of a specific framework agreement can be used to address employee monitoring for the collection and use of personal data in employment.

**Eurofound published [The digital age: Implications of automation, digitisation and platforms for work and employment](#), as part of its *Challenges and prospects in the EU series*.**

- Policymakers should explore ways to further support the digitalisation of European businesses, e.g. financially, and facilitating cooperation on the development and implementation of technologies.
  - Attention should be paid to supporting SMEs and specific sectors and member states that need to increase their pace of digitalisation.
- Tools to anticipate skills needs, e.g. Cedefop's [Skills Intelligence](#) website, should be maintained and developed further to focus on skills needs in the digital age.
- Pathways to equip vulnerable groups (e.g. older workers and those with low formal educational attainment) and managers with relevant skills should be explored; reskilling/upskilling of those made redundant can be supported via the European Globalisation Adjustment Fund for Displaced Workers.
- Early warning tools should be used to alert policymakers to signs of decreasing employment quality due to the adoption of digital technologies, including potential misclassification of employment status.
  - Policymakers should explore the causes of such developments and their impact on businesses and workers, to inform policymaking.

## SKILLS POLICY

**The Work Foundation published [Striking a balance: Engaging employers in the skills system to achieve better outcomes for learners](#) – a briefing to aid policy development following the publication of England's FE white paper [see Skills Research Digest Q1 2021 pp. 50–51].**

- The study is based on an evidence review plus interviews with FE college principals and senior employer engagement leads.
- The FE white paper expects employers to play a more prominent role within the skills system; this can help to support better outcomes for learners and ensure key future skills gaps are addressed.
  - Recent reforms, e.g. 'trailblazer' groups responsible for the establishment of industry-specific standards in the apprenticeship systems, have sought to provide a greater role for employers.
- Findings include:
  - Employers, particularly smaller businesses, can still struggle to engage with the skills system in a meaningful way due to it being fragmented and complex to navigate.
  - Colleges with close working ties with local bodies such as Local Enterprise Partnerships, could take advantage of these relationships in building a strong strategic view.

- Deep consultation with a broad range of employers is vital to ensuring educational provision is well matched to local needs.
- Policy recommendations include:
  - The establishment of SME/microbusiness panels within Local Skills Improvement Plan processes with government ensuring evidence of extensive engagement across a range of employer types.
  - England's Department for Education to develop new skills funding and accountability measures to enable delivery of more specialist training provision, including criteria focused on priority groups.
  - In following national guidance, colleges should have the remit to identify which groups they will prioritise, through consultation with strategic partners such as relevant local authorities.
  - Employer validation panels for qualifications should include a mandatory and minimum representation of smaller firms.

**The OECD published [\*Incentives for SMEs to Invest in Skills: Lessons from European good practices\*](#).**

- To remain competitive and adaptable to the challenges of globalisation, technological progress and demographic and climate change, SMEs must maintain and expand their access to skills and talent.
  - However, SMEs are less successful in attracting and retaining skilled workers; they face higher direct and indirect training costs; and they tend to lack information on the state of the labour market and the available training opportunities and support mechanisms.
  - Extra public intervention is therefore needed to facilitate training and provide greater access to the existing talent pool.
- Measures identified as good practices include:
  - **Financial incentives:** subsidies and vouchers are the most common and suitable instrument; schemes can target SMEs exclusively or provide them with more comprehensive or greater support or simplified procedures.
  - **Pay-back clauses:** non-financial measures that strengthen the incentive to offer training by decreasing the risks associated with poaching; to be effective, they need to strike a good balance between the employee's right to move and the employer's need to recover expenses incurred.
  - **Learning on the job:** the most common form of training but mostly not formally recognised; recognition helps employers and workers to reap its benefits and allows policymakers to support it financially.
  - **Skill assessment and anticipation services** that assess skills gaps relative to current and future needs; can be offered by external operators or developed in-house with public support.
- The attitude of managers and entrepreneurs towards learning is crucial; investing in their competences and understanding of human capital as a productive investment can enhance SME growth and survival.
  - Coaching, mentoring and peer learning among managers promote knowledge sharing and transfer and build on concrete practices from successful entrepreneurs.
- Cooperation among companies, and between companies and other stakeholders, allows for the pooling of resources, economies of scale and the building of a critical mass in demand for training, lowering the cost per worker.
  - Learning and training networks often subsidise companies to develop the networks and/or for the training activities themselves and provide guidance on finance available to cover training costs or direct expertise through public skills assessments.
  - Similarly, the promotion and strengthening of skills ecosystems and of partnerships between companies can be successful in promoting digitalisation and knowledge transfer to SMEs.
- Many of these policies reach a limited share of SMEs; however, there are a number of common elements of policy design that can increase their take-up and effectiveness:
  - Low administrative burden and certainty of funding
  - For financial instruments, private-public co-funding or cost-sharing models remain the most effective and most common
  - Factoring in the indirect costs of training and supporting informal learning activities as well as formal and non-formal ones [see p. 30 for definitions]
  - Combining financial and non-financial support: non-financial tools help firms that don't recognise the need to invest or are uncertain about how to set up the investment

- Responding to specific needs of individual companies; measures that include good practices and knowledge sharing are most suitable for SMEs
- Allowing for flexible delivery – especially for training managers – e.g. modular courses and online training
- Open and proactive communication between companies and the agencies managing training
- Using strategies such as awareness-raising activities, early and personal contact with companies and peer learning activities for managers and entrepreneurs.

**CEP published [Are 'Green Jobs' Good Jobs?](#), with the Grantham Research Institute on Climate Change & the Environment and the Programme on Innovation & Diffusion, to inform policy and future research in the UK and European economies.**

- There is currently no agreed definition of a 'green job', which makes comparisons difficult.
  - Narrow definitions are based on employment in a set of industries or activities directly relevant for decarbonisation.
  - Broader definitions – adopted by this study – include jobs that are directly and indirectly affected by decarbonisation.
- 'Directly green jobs' require more education, involve more non-routine analytical tasks and tend to be at lower risk of automation than non-green jobs.
  - 'Indirectly green jobs' tend to be more similar to non-green jobs.
- In 2019 an estimated 17% of UK jobs were 'green': 12% of green jobs were directly green (5% green new and emerging; 7% green enhanced skills) and 5% indirectly green.
  - The highest share was in utilities, construction, manufacturing, the primary sector and transport.
  - Enhanced skills directly green jobs were most prevalent in Wales, the Midlands and South East England; new green enhanced skills jobs appear to be most concentrated across the Midlands.
- A similar proportion of jobs are green in the EU (from 17% in Greece to 22% in Germany).
  - Workers in new and emerging jobs are more likely to have a university degree in some countries (e.g. Belgium, Greece, Luxembourg, the Netherlands and Spain).
- Environmental regulation tends to increase demand for more high-level analytical or technical skills.
- Jobs in high-carbon sectors (e.g. in fossil fuel power plants) are often secure and well-paid in the UK and EU; the quality of green jobs will therefore need to be considered to secure the willingness of workers to take them up.
- Green jobs:
  - provide good-quality employment and pay higher wages than non-green jobs, especially for middle- and low-skilled workers
  - are at lower risk of automation than non-green jobs
  - are performed by fewer women than men, and fewer younger than older people.
- Training and skills programmes will be key for a just transition:
  - Changing skill requirements will have implications for how education systems produce the future workforce; education programmes must create a balance between general and specific skills, building worker resilience and flexibility to change.
  - On-the-job training will be an important route for reskilling or upskilling existing workers.
  - Firm-level investments in skills will need to be incentivised, e.g. by making government support packages conditional on training provision or introducing (enhanced) human capital tax credits.
- Targeted transition policies will be needed to address regional and demographic imbalances, e.g.:
  - Targeted recruitment policies or information campaigns for specific sectors, locations or demographic groups
  - Improved clarity on career paths at different stages in the transition to ensure that new opportunities are available to under-represented groups, and transitions are managed effectively.

**PwC published [Green Jobs Barometer: Monitoring the fair transition to a green economy](#) covering Q4 2021, a tool tracking job creation, employment benefits, job loss, carbon intensity of employment and worker perceptions.**

- The tool is based on five pillars and is interactive and broken down into regions and sectors.
  - Pillar 1 Green job creation: the relative density of 'green' job adverts as a total of all adverts
  - Pillar 2 Wider benefits from green jobs: the multiplier effect of new green jobs in creating additional employment
  - Pillar 3 Sunset jobs to disappear: the distribution of jobs lost due to transition, in the absence of worker reallocation or upskilling
  - Pillar 4 Carbon intensity of jobs: CO<sub>2</sub> emissions per employee across sectors/regions
  - Pillar 5 Green workplaces: worker sentiment about how well their employers are enabling their role and workplace to become green.
- From July 2020 to July 2021, only 1.2% of jobs met the broad definition – an encouraging start, but a low base; it highlights the work needed to meet the Government's target of 2m by 2030.
  - Vacancies are concentrated in a small number of sectors, e.g. energy (21.1% of advertised jobs) and water, sewerage & waste (19.4%).
- The lowest ranking regions on the index are Yorkshire & the Humber, Northern Ireland and Wales; Scotland, London and the South West score highest.
  - Even in highly ranked regions, the picture is not universally bright: e.g. Scotland has the highest projected share of 'sunset jobs'.
- 5.3% of 2,085 UK employees surveyed thought their job wouldn't exist following the transition to net zero – the equivalent of 1.7m jobs across the full UK labour market.
  - The actual number is likely to be considerably lower – 71% of workers projected to lose their jobs are likely to find similar jobs in another industry.
  - However, those who can't transition easily are likely to need new skills.

**Cedefop published [\*The green employment and skills transformation: Insights from a European Green Deal \[EGD\] skills forecast scenario.\*](#)**

- The expected 1.2% additional employment growth up to 2030 associated with meeting EGD targets, translates into approximately 2.5m additional jobs in the EU.
  - Becoming 'greener' will lead to such profound changes in technology, design, production, services, consumption and investment that it is impossible to achieve without sufficiently skilled people.
- Unsurprisingly, there are 'winners' and 'losers', with sectors more directly linked to sustainability and climate change being more affected.
- In sectors with mainly indirect implications from the EGD (e.g. legal, accounting, consulting), only small positive employment effects are forecast, but they still signal important priorities for reskilling and upskilling: e.g. the renovation wave creates a need to train environmental lawyers and architects.
- The EGD scenario results demonstrate the importance of sectoral approaches in vocational education & training (VET) and skills policy and for integrated initiatives such as active labour market policies.
  - Significant reskilling and upskilling potential needs to be translated into action to ensure workers gain the skills to remain current in changing occupations or to transition from sectors in decline to greener jobs.
- The EGD scenario also urges policymakers to pay attention to high-skilled occupations involved in developing green technologies, such as scientists and researchers; although relatively small, they are indispensable for achieving the green transition.
  - Employment is also forecast to increase in occupations that support such work or greening more generally, e.g. administrators, chief executives, senior officials and legislators, administrative and commercial managers and ICT professionals.
- The findings also have relevance for other policy areas:
  - The forecast employment increase for low-skilled occupations calls for measures to attract workers and policies to alleviate precarious employment.
  - The significant increase in jobs for high-skilled workers in the computing sector clearly shows digital skills not only enable the digital transition, but also the green transformation.

- This hints at the importance of taking a holistic perspective to VET and skills, which incorporates all relevant megatrends; silo-thinking is a barrier to making a success of the complex socioeconomic transformation that is the green transition.

**IZA published [Education Quality, Green Technology, and the Economic Impact of Carbon Pricing](#), exploring the role of skills in carbon emissions of EU countries.**

- The OECD has argued that the path to a green economy can only be made by developing the right skills; this study examines data on industrial emissions linked to the OECD's Programme for International Assessment of Adult Competencies (PIAAC) data for EU countries.
- Cognitive skills are positively associated with employment in industries that rely less on emissions for production and in industries that have been able to reduce their reliance on emissions for production.
  - Having higher-quality education (defined as the level of cognitive skills attained by workers per unit of cost) increases the elasticity of skill supply, mitigates a carbon tax's economic costs and enhances its effect on emissions reduction.
  - Better education quality can reduce the negative economic effects of an increase in carbon prices as well as reducing emissions.
- Investments in education quality are therefore needed to better enable green technological innovation and adaptation and to reduce inequality that results from carbon pricing.

**The RoI Expert Group on Future Skills Needs published [Skills for Zero Carbon: The demand for renewable energy, residential retrofit and electric vehicle deployment skills to 2030](#).**

- The report explores the new and emerging skills required and reflects on lessons learnt from past initiatives to facilitate the zero carbon transition.
  - 'Programme management skills' to manage the transition at society level are highly significant.
- 30 recommendations relate to six categories: renewable energy; residential retrofit; electric vehicles; promotion of career pathways in zero carbon economy activities; alternative sources of skills supply for zero carbon economy activities; and public sector programme management and carbon accounting skills.

**SPICe (Scottish Parliament Information Centre) published [Social dialogue in Scotland: Experiences of employers and their representative organisations in policy making around skills and training](#), based on interviews with employers and employer organisations in 2019 and 2020, with case studies from Denmark, Singapore and Wales.**

- 'Social dialogue' is the structures and systems put in place to support workers' and employers' representative organisations discussing, and sometimes negotiating, issues around work, employment and the economy.
- The engagement of employers is crucial to the effective delivery of key areas of policy, e.g. Developing the Young Workforce, the Future Skills Action Plan and apprenticeships.
  - However, as with the wider UK, the structures to ensure employers are engaged in the design and delivery of skills and training initiatives are patchy and inconsistent.
  - This raises questions about the representational legitimacy and effectiveness of those structures.
- Three recommendations are outlined:
  - Put social dialogue at the heart of policymaking for skills and training; this could include a legal duty on public bodies to engage.
  - Clarify and strengthen the structure of social dialogue in Scotland, ensuring coverage of all sectors in the economy and labour market.
  - Strengthen the legitimacy and capacity of collective representatives.

## ADULT & LIFELONG LEARNING

**L&W published [Adult Participation in Learning Survey 2021](#), which asked 5,058 UK adults in October about their learning participation, experiences and intentions.**

- 44% have participated in either formal or informal learning in the last three years – the highest level since 2001 and the first increase since 2015:
  - 40% in Northern Ireland (+18ppt on 2019); 41% in Scotland (+3ppt); 45% in England (+12ppt); 38% in Wales (+8ppt).

- Younger adults, those who left full-time education later, and those in work are all significantly more likely to have taken up learning in the last three years.
  - Those who stayed in education until age 21+ are twice as likely to be learning (56%) than those who left aged 16 or under (28%).
- Adults in socioeconomic groups D/E are twice as likely as those in A/B to have not participated in learning since leaving full-time education.
- Adults are most likely to take up learning for reasons related to their work or career; however, the proportion learning for leisure has increased from 20% in 2019 to 44%.
  - 55% of full-time workers are taking part in learning, compared to 45% of those who are unemployed.
  - The most common reason for taking up learning is interest in the subject or personal development.
  - Key benefits include: enjoying learning more; improved self-confidence; and improved skills for employment.
- Those who haven't engaged recently in learning are most likely to list age, cost and time pressures as barriers; 29% said nothing had prevented them from doing so.

*[Interactive charts](#) provide trend data from the past 20 years, including on learning methods, motivations, benefits and barriers, broken down by demographics, learning status and other variables.*

**L&W published [Getting the basics right: The case for action on adult basic skills \[in England\]](#), exploring: the role of basic skills; needs, participation and funding; and what works for provision.**

- Basic skills include literacy, numeracy, ESOL and digital skills – key to supporting adults' life chances.
- Learning below L2 can result in a 7ppt increase in individuals' employment rates and support learners to access better-quality work, including increased job satisfaction, pay and security.
  - For every £1 invested in entry-level provision for 19–24 year-olds, the social return is £17 and £22 for L1.
- An estimated 9m working-age adults in England have low basic skills in literacy or numeracy, of which 5m lack both; 11.7m lack digital 'life skills'.
  - England ranks 15<sup>th</sup> out of 31 OECD countries for literacy and 19<sup>th</sup> for numeracy.
- Since 2012, adult participation in English has fallen 63%, in maths 62% and in ESOL 17%, partly due to the halving of the Adult Education Budget between 2011/12 and 2019/20.
  - While much policy is focused on L3+, 18% of 19–64 year-olds aren't qualified to at least L2.
- Recommended measures to increase participation focus on: recruitment and engagement; motivation and retention; individual needs; and workplace provision.

**The Centre for Research on Learning & Life Chances in Knowledge Economies & Societies (LLAKES) published [Models of Lifelong Learning and their Outcomes. How distinctive is the 'Nordic Model' now?](#).**

- The internationally recognised Nordic Model of lifelong learning has three distinguishing characteristics: universal preschool education; a comprehensive and relatively egalitarian secondary system; and high levels of participation in adult learning.
- The last two decades have seen the rise of the 'neo-liberal' paradigm in international education policy, and Nordic countries have responded in different ways to the new demands on education.
  - Nordic systems are perhaps less distinctive than before such policy changes and widespread policy-borrowing between countries.
  - However, despite substantial policy changes and significant differences between their systems, the characteristics of the Nordic Model have largely survived.
  - Preschool and adult education remain more universal than in most countries; upper secondary systems, while far from identical, still share a number of common and distinctive characteristics that research suggests have positive effects on outcomes.
- Nordic education systems retain much in common that distinguishes them from those in other regions; they remain relatively egalitarian.

- Inequalities in skills outcomes for adults are now closer to the average for OECD countries, but they remain lower for 18–20 year-olds than in most other countries.
- Inequality of skills opportunities for 15 year-olds have declined or remained stable (depending on the measure used), remaining on average lower than in other country groups, except East Asia.
- The same applies for the social gap in numeracy skills among adults.

## EMPLOYMENT: WORKING PRACTICES

### Covid related

**ISER published [Understanding Society COVID-19 Survey: Briefing note – Working at home](#), based on four of eight UK-wide waves conducted between April 2020 and February 2021, each comprising over 12k responses.**

- The number of employees working at home increased significantly in the pandemic but the share of employees working at home only exceeded 50% at two points.
- Industry and type of duties were the most important factors associated with working at home, due to the nature of the tasks most employees in these industries do and/or established sectoral practices.
  - In some industries, 85–90% were working at home (IT, financial & insurance activities); in others, it was as low as 20% (wholesale & retail trade, accommodation & food service activities).
  - People with managerial duties are more likely to work at home.
- Having children, higher household income, longer travelling time to the workplace and more home space per person are positively related to working at home.
- Individual characteristics are less important overall with some exceptions:
  - Female employees and employees aged below 55 are more likely to work at home.
  - Employees of Bangladeshi-Pakistani and mixed ethnic background are less likely to always work at home compared to white UK employees.
- The overwhelming majority of those who worked at home during the pandemic would like to have an opportunity to work at home in future and this preference is largely uniform across different categories of respondent and household.

**IZA published [Remote Working and Mental Health during the First Wave of COVID-19 Pandemic](#), based on data from the Survey of Health, Ageing & Retirement in Europe (SHARE) covering the EU-27, UK and Israel.**

- In 2020, an estimated 48% of employees in Europe worked remotely at least some of the time compared to roughly 10% of employees and 30% of self-employed workers in 2018, pre Covid.
- SHARE data from a representative sample of Europeans aged 50+, interviewed immediately before and after the first wave of the pandemic, were analysed to investigate whether working from home rather than at the usual place had a causal impact on mental health.
  - Understanding the relation between remote working and mental health is important because the share of people in remote working is likely to remain high.
- Findings include:
  - Mental health improved over the first wave for men and respondents without co-residing children who worked remotely, but did not change for women, and worsened for those who worked from home with co-residing children.
  - The mental health of respondents who perceived remote working as health protecting – i.e. those in countries exposed to a high number of Covid-related deaths and with strict containment measures – improved or did not change.
  - Those who worked remotely in countries where the pandemic was not so severe and containment measures not particularly strict experienced a significant worsening in mental health.

**Eurofound published [What just happened? COVID-19 lockdowns and change in the labour market](#), describing the employment and working-time developments in the EU in the first year of the crisis, the categories of workers most affected and the buffering role of remote working.**

- Across the 27 EU member states (EU-27), employment fell most sharply early in the pandemic, with over 5m fewer jobs than a year earlier.



- Temporary workers were particularly affected, with over 75% of net job losses in 2020.
- Demographically, low-paid women and younger workers suffered the sharpest employment declines during the early, most severe period of the pandemic.
- The peak of the pandemic saw an increase in the share of employed workers not working, with state intervention and fiscal support proving crucial to protecting economies and labour markets.
  - 'Furloughed' workers accounted for ~66% of the decline in hours worked at the crisis height.
- The sectoral impact was uneven and shaped largely by government lockdowns and social distancing measures.
  - High social interaction, non-teleworkable jobs in e.g. hotels, sales, restaurants and accommodation saw the biggest declines in hours worked; even sectors identified as essential saw working hours drop.
  - However, jobs in knowledge-intensive services grew as these sectors rushed to transform or digitalise work processes in response to social distancing measures and remote working.
- The most vulnerable workers in the pre-pandemic labour market experienced worsening socioeconomic conditions during the crisis.
- In the recovery phase, policymakers need to reflect on how more inclusive social protection schemes can serve as a buffer against an intermittent job recovery.
  - Robust public and social partner support will also be required as more vulnerable workers face greater challenges in adjusting to the digital and green transition.

**Eurofound published [Working time in 2019–2020](#), a review of national or sectoral developments introduced in the EU-27, the UK and Norway to address Covid-19 challenges.**

- The pandemic led to three main changes in working-time regulation: greater flexibility in short-time working schemes; the adaptation of working-time regimes to telework; and temporary relaxation of working-time regulations.
- The usual working week was 39.7 hours in 2020, higher than the average collectively agreed normal full-time working week in the EU-27 of 37.8 hours; between 2019 and 2020, the usual weekly working hours of full-time employees decreased in most member states.
- The minimum paid annual leave entitlement in the EU is 20 days, however some member states increased it through legislation or by collective agreement; the average annual paid leave was 24.5 days for the EU-27.
- If collectively agreed annual working hours are considered, full-time workers in the EU-27 should have worked 1,703 hours on average in 2020; Hungary and Poland had the longest working hours, equivalent to nearly seven weeks more than Germany, which had the shortest annual working hours.

**CIPD published [Responsible business through crisis: Senior leaders on building new cultures of trust](#), based on the perspectives of over 80 senior leaders.**

- Senior leaders are swinging between: pre-pandemic legacies; routines and rituals that have emerged during Covid-19; and new approaches to organising and performing, such as hybrid working.
  - This is a five- to ten-year transition and will require new forms of resilience and reinvestment in trust.
- Different experiences are generating different challenges, although many organisations have workforces experiencing all of the following:
  - Those that had to stop or make major changes to their operations are now attempting to renegotiate a new normal.
  - Those that 'never stopped' through the pandemic, e.g. those on the front line or key workers, are frustrated that they are not represented by the media narrative of 'returning to the office', while many grapple with exhaustion and burnout.
  - Those that are struggling to restart operations or continue to face new phases of crisis, such as mass resignations or continuing Covid-19 outbreaks.
- Leaders are seeing people at all levels and across all sectors reconsidering the role that work plays in their lives, and renegotiating relationships with their employers.
  - For some, the fear of attrition is disrupting the foundations of the traditional employer–employee relationship; for many, however, this is an opportunity to do things differently.

- HR leaders are overseeing the movement from strict policies to principles-based approaches; many are rethinking management practices, moving from performance management to coaching; many are changing workspaces and schedules.
- Responsible business practices and strategies are being accelerated and organisations are being more ambitious around sustainability and inclusion and diversity; there is a necessary doubling down on mental health and wellbeing.
- Senior leaders have developed new responsible leadership behaviours: comfort with uncertainty; balancing strategic thinking with day-to-day problems; 'directive empathy'; continuing two-way, authentic communication; leading with humility; being empowering and experimental; and taking time to reflect on what they have learnt about individual and organisational resilience.

**L&W published [Fast forward? Where next for the labour market](#), exploring issues around post-pandemic unemployment and profound changes to the way we live and work.**

- It identifies five priority policy areas to ensure an inclusive recovery and renewal of the labour market, economy and society.
  - Support businesses to implement **flexible and hybrid working**, e.g.: a Flexible Working Hub of best practice and engaging employers through chambers of commerce, accountants and colleges and training providers; extend the right to request flexible working to day one of employment.
  - Grow **good-quality local jobs**: the Government should invest in infrastructure, build in good work and training requirements and enable local leaders to join up investment, regeneration and employment and skills support in their areas, including linking to local Good Work Charters.
  - Widen **employment support**: despite record vacancies, unemployment and long-term unemployment remain higher than before the pandemic; ensure active support for all those unemployed, particularly groups such as disabled people and young people not on benefits.
  - Improve **retraining support**: fast tracking support for furloughed staff who lost their jobs; extending the Lifetime Skills Guarantee to support retraining and modules of learning; exploring the best way to help those retraining with living costs.
  - Effective **financial support and safe workplaces**: restore the £20 uplift to Universal Credit and review eligibility and generosity of sick pay and general support for self-isolation and health; provide clear guidance and enforce safety standards to encourage employees to be vaccinated.

**Timewise published [The Timewise Flexible Jobs Index 2021: An annual index of the proportion of UK jobs advertised with flexible working options](#)\*.**

- This seventh index is based on an analysis of over 5m UK job adverts during two periods: 1 January to 11 April 2021; and 12 April to 31 August 2021, when lockdown restrictions were lifted.
- 24% of jobs offered flexible working at the start of 2021, up from 17% the previous year; the increase is mainly driven by lockdowns – the rate of increase has slowed since lockdown.
  - While 75% of adverts fail to offer flexible working, 50% of all employees work flexibly, and 90% want flexibility.
  - Those with caring commitments, older workers and those with health conditions are most likely to need flexibility, suggesting companies are missing out on building a more inclusive workforce.
- Access to flexible working is 28% among low-paid roles, dropping to 20% for those paid £20k–£34k; above £35k, it's around 22–25%.
- 33% of health and social services roles are advertised with flexibility; office-based roles are catching up, e.g. IT (28%), HR (28%) and marketing (27%).
  - Roles that can't easily offer homeworking are being left behind, e.g. engineering (14%), construction (12%) and manufacturing (6%).
- Since lockdown restrictions were lifted, offers of homeworking have returned to just 8%; part-time is at 10%.
  - Generic offers of flexible working are also at 10%, but are less helpful to candidates, who are usually seeking a specific type of flexibility.
  - With the current crisis in recruitment, employers can use the offer of flexible working – particularly homeworking – to maximise applications.

\*'Flexible' means any job that offers part-time or homeworking, flexible start and finish times or shift patterns, remote working, term-time or job-share. Jobs that generically offer 'flexible' or 'agile' working are also tracked.

## Other research

### Acas (Advisory, Conciliation & Arbitration Service) published [Beyond hybrid: The current state of flexible working](#), a discussion paper.

- There remain some fundamental barriers to effectively introducing flexible working, including understanding of the law, corresponding rights and obligations and the practicalities of managing requests.
- In considering further reconfiguring of working life, the following are urgent:
  - **Revisit the basics** of all forms of flexible working, including: raising awareness of rights and responsibilities; having open, meaningful discussions about the possibilities; and reaching consensus on what will work in certain organisations, teams and different roles.
  - **Review workplace policies, procedures and practices**, particularly whether and how these are being communicated and implemented; this involves careful consideration of a matrix of issues, such as business benefits and greater work–life and work–wellbeing balance.
  - **Recognise flexible working as a key driver of gender equality**: women are more likely to opt for homeworking arrangements than male counterparts; changes in organisational culture are needed to challenge old assumptions around flexible working and create positive outcomes for all.

### The Work Foundation and Chartered Management Institute (CMI) published [Making hybrid inclusive – Key priorities for policymakers](#), research into the impact of hybrid working on different worker groups.

- The study is based on a survey of 964 CMI managers and 1k UK workers who were working remotely in August–September 2021, plus interviews with organisations working with specific groups, including women, disabled people and those with parental or caring responsibilities.
- The majority of workers would prefer to spend their working week combining days on site and working from home; however employer plans do not always align with worker preferences.
  - Almost 90% of workers don't want to return to pre-Covid working patterns, and on average, want to work remotely for up to three days per week.
  - 46% of managers expect staff to work in an organisationally hybrid way (some onsite, some fully remote); 38% expect staff to work in an individually hybrid way, coming into the workplace at least once a week.
- However, 'traditional' views of the workplace still stand – managers expect access to stretch projects and workplace networks to decrease with remote or hybrid working, and to exacerbate existing inequalities in the workplace.
  - Disabled workers, women and parents/carers are at risk of particular challenges when working remotely, due to isolation and possibly missing out on opportunities for learning and development.
- Manager behaviour and decision-making can be pivotal in enabling or limiting access to hybrid and flexible work.
  - Line manager support for remote working is considered particularly important by disabled workers – 61% felt comfortable asking for remote working because their line manager was supportive.
  - Women are less comfortable than men in discussing a remote working request with their manager, and less likely to feel their organisation is inclusive of remote workers.
- **Recommendations for policymakers** include:
  - Develop an employer campaign and accreditation programme to promote inclusive flexible working practices, including strategies for consultation with staff on: how time is spent on site; training for managers in managing a hybrid workforce; and introducing measures such as an organisational 'right to disconnect' policy.
  - Require large employers to publish information on their approach to flexible and hybrid working and their progress in encouraging take-up.
  - Support the development of management capability in providing inclusive hybrid work, e.g. modules on equality, diversity and inclusion.
  - Make flexible working the default position for all employees, with flexible options in all job adverts, unless employers have a sound business reason for an exemption.
  - Prioritise inclusive employers within funding and procurement exercises.
- **Recommendations for managers and leaders** include:

- Communicate and consult continuously with staff.
- Ensure managers are trained to manage hybrid teams and to role-model hybrid working.
- Develop action plans for hybrid and remote working that prioritise diversity and inclusion.

The Work Foundation and CMI also published [Making Hybrid Inclusive – A guide for employers](#).

**The Global Institute for Women’s Leadership at King’s College London, Working Families and University of East Anglia published [Working parents, flexibility and job quality: What are the trade-offs?](#).**

- What workers value in a job shifts significantly after having children – increased priority is given to flexibility in particular, plus job security, job control, financial security and support from managers.
- Gendered assumptions by employers – e.g. that mothers do not value training and progression, and that fathers do not have family responsibilities – can limit job quality.
- Barriers to effective flexible working include: employers denying requests due to unsubstantiated ‘business needs’; unsupportive workplace cultures; and lack of knowledge on dealing with requests.
  - Employers sometimes define flexibility in narrow terms and do not always offer the forms of flexibility parents need.
- Working parents, especially mothers, sometimes sacrifice important elements of job quality – e.g. pay and progression – to secure other elements, particularly flexibility.
  - Other job quality trade-offs vary between industries: some working parents give up job security in favour of flexibility; others sacrifice career progression in favour of job security.
  - Single parents have fewer options and face acute challenges in achieving job quality due to the dominance of financial concerns.
- Parents want to see lasting changes to improve their working lives following the pandemic, including: more creative thinking around flexible working; ensuring a gender-inclusive approach; trust and understanding from employers; and strengthening employee voice.

**Demos published [Inside Jobs: The experience of low-paid homeworkers in Britain today](#).**

- Low earners (<£20k p.a.) are generally as positive about the impact of homeworking as high earners.
  - 76% of all homeworkers and 72% of low-paid homeworkers say that homeworking is good for flexible working; 74%/75% for their productivity; 73%/69% for their work–life balance; 72%/68% for family relationships.
  - 94% of all homeworkers and of low-paid homeworkers would prefer to work from home at least some of the time in the future.
- 34% of homeworkers report working more hours, of whom 76% say they are unpaid, but this affects the high-paid rather than the low-paid.
  - All homeworkers, and slightly more low-paid homeworkers, report: employers using monitoring tools (34%/35%); feeling lonely (25%/28%); lack of space at home (21%/23%).
- Hybrid working is the most popular option for the future, but hybrid workers are more likely than full-time homeworkers to report negative aspects, such as feeling uncomfortable on video calls.
  - Low-paid homeworkers report saving ~£22 per month; however, 46% of low-paid hybrid workers report spending an average of £39 more per month, mainly on utilities, broadband, equipment and food.
- Although the benefits are shared, only 37% of low-paid workers work from home at least some of the time, compared with 73% of high-paid workers (earning £50k+).
  - 87% of low-paid non-homeworkers say it would be impossible for them to work from home.

**CIPD published [Working Lives Northern Ireland: A framework for measuring job quality](#).**

- The report analyses seven dimensions of good work, conceptualised five years ago by CIPD: pay and benefits; contracts; work–life balance; job design and the nature of work; relationships; voice and representation; health and wellbeing.
- Findings include:
  - Employee preferences point to a hybrid future; however, 32% of all employees work in jobs that can’t be done from home.

- Homeworkers have seen some benefits, but those working fully from home report poorer relationships with colleagues and a more negative impact of work on health.
- There is correlation between life and job satisfaction and pay levels: 37% of employees feel they are not getting paid appropriately, rising to 50% for the lowest earners.
- 12% of all employees would like to work more hours than they currently do; those in the lowest occupational groups report the highest levels of underemployment.
- Those who work flexibly report higher job satisfaction, are more likely to be motivated by their organisation's purpose and have better skills development opportunities, but there are significant gaps in the availability of formal flexible working arrangements across Northern Ireland.
- 40% of all employees report their workload as too high in a normal week.
- 12% of those working fully from home say they don't have a suitable space to work effectively.
- Skills and career development opportunities are significantly lower for those in lower paid jobs and for older workers.
- 26% of all employees have experienced at least one type of conflict at work, with 15% saying they have experienced two or more types.
- 21% say they have no voice channel at work at all.
- 31% feel their work impacts negatively on their mental health; 28% report negative impacts on their physical health.
- 45% of all employees report going to work despite not being well enough to do so, rising to 52% for key workers and 61% for those with adult caring responsibilities and 64% with disabilities.

## EMPLOYMENT: PLATFORM WORKING

**IZA published [Crowdwork for Young People: Risks and opportunities](#), an investigation of earnings and job satisfaction from an International Labour Office survey of crowdworkers.**

- Crowdsourcing platforms allow employers to post online tenders for small tasks that job seekers may accept.
  - Employers benefit by being able to offer piece-rate rewards that are only paid if the work is of the desired quality.
  - Crowdworkers benefit by having relatively discrimination-free remote labour market access, the ability for self-management and a diversity of tasks.
- Crowdsourcing is likely to continue growing and the Covid-19 pandemic may have accelerated the trend even further.
  - Understanding how this growth can benefit its users and what risks need to be prevented should be an important policy issue.
- There is evidence of a global crowdsourcing market with a unique price for labour at ~\$1.95/hour.
  - Comparison with the hourly wage of employees in lower and lower-middle income countries (\$0.80) explains why some find great potential in the development of these platforms for the wellbeing of workers in developing countries.
- 'Choice' has a role as a determinant of job satisfaction in crowdsourcing platforms; e.g. crowdworkers are much more likely to be very satisfied when the platform pays more than their outside options or when the worker is able to do crowdwork while having other jobs.
- There are marked differences in the returns for young people and their older peers – the former are able to learn faster and more efficiently.
- Current educational systems do not appear to prepare people for the gig economy.
  - Formal education plays no role in shaping the earnings of crowdworkers; in fact, HE attainment produces lower levels of job satisfaction due to overqualification.
  - The question for policymakers is whether or not they should be preparing workers for this new economic model.

**Eurofound published [Initiatives to improve conditions for platform workers: Aims, methods, strengths and weaknesses](#), a policy brief for EU member states.**

- Initiatives to support platform workers have better visibility and access to resources when embedded in wider strategies such as national digitalisation policies; it is essential that they are designed to achieve adequate protection for workers without hindering innovation and technological progress.
- To ensure the effectiveness and enforceability of legal initiatives, clarity on the definitions of platform work and platforms, and on the scope of legislation, is important.
  - A broad framework that covers all platform work is also critical, while encouraging more tailored approaches to individual types of platform work and workers, including the self-employed.
- Broader strategies and individual initiatives to improve conditions for platform workers can benefit from closer cooperation between stakeholders; in particular, joint activities by established trade unions and grassroots organisations can improve effectiveness.
- Initiatives to improve platform workers' working conditions are unevenly distributed across the EU; it is important to share experiences via social media, proven to be a useful tool for their dissemination.
- The social protection of platform workers is a priority, especially for those for whom it is their main job or who combine it with other precarious employment.
  - It is crucial to ensure that these workers are informed of their eligibility for benefits and that the process for accessing services is straightforward.

**The European Commission published [Study to support the impact assessment on improving working conditions in platform work](#) for a new EU legislative initiative, based on analysis including activities in the EU-27 and seven non-EU countries.**

- Since 2016, revenues for the platform economy in the EU have seen an estimated six-fold increase; ~28.3m people in the EU-27 work through platforms and growth is expected to continue.
- There are three main concerns:
  - Up to ~5.51m of platform workers are at risk of misclassification of their employment status, leading to unpredictable earnings, working long hours to earn decent wages, lack of professional development, inappropriate social protection and risks to occupational health and safety.
  - The algorithmic management practices applied by platforms can reduce fairness and transparency for workers in terms of surveillance and control, bias and accountability; algorithms incentivise risky behaviours, increase stress and diminish work-life balance, income stability and autonomy.
  - There is a lack of consistent, comparable data on the development of platform work as platforms are not obliged and are reluctant to share information about workers and their conditions; this creates obstacles for workers' rights, collective action, informed policymaking and enforcement.
- The policy mix that produces the most effective, efficient and coherent solution combines:
  - **For potential misclassification:** a certification procedure and 'rebuttable presumption of employment' applied to platforms that exercise a certain degree of control.
  - **For those experiencing algorithmic management:** rights related to transparency, consultation, human oversight and redress for employed and self-employed platform workers.
  - **For the enforcement, transparency and traceability of platform work:** guidance or clarification, with certain publication requirements for platforms.

## EMPLOYMENT: FAIR WORK & WAGES

### Covid related

**The Resolution Foundation published [An intergenerational audit for the UK](#) – analysis of economic living standards across generations, including a section on jobs, skills and pay.**

- Covid-19 arrived during a period of record high employment (76.6% for 16–64s), but the structure of the pre-pandemic labour market left some age groups more exposed to its economic effects.
  - 18–29 year-olds were more than twice as likely as their older counterparts to work: on a zero-hours contract; for an employment agency; part-time only as they couldn't find a full-time job.
  - There was an age-related 'U-shape' when it came to sectors: 41% of working 18–24s and 31% aged 65+ worked in hospitality, leisure, retail and administrative services, compared with 18–22% of 25–64s.
  - As a result, young people and, to a lesser extent, the oldest workers experienced the highest rates of furlough and unemployment.

- As the crisis progressed, these age differences began to narrow, and, by summer 2021, it was the oldest workers who were most likely to find themselves out of work or on full furlough.
- Despite this, the rate of unemployment has remained remarkably low: the 18–24 rate reached 13.8% in July–September 2020 (10.8% at the start of 2020), considerably lower than the 20% following the financial crisis.
  - At the same time, in the two years since May–July 2019, the proportion of 16–17 year-olds and 18–24 year-olds in full-time study rose by 4ppt and 2.5ppt.
- However, the quality of work – as measured by indicators like security and pay – looks to be little different for young workers than before the pandemic, when it left much to be desired.
  - Young people unemployed over the past year, especially those from disadvantaged backgrounds, are at risk of employment and pay scarring over the longer term.
  - There is also a risk that education interruptions, employment shocks and income loss could hamper social mobility for today’s young people.
- Older workers will also need support, and the Government will need to ensure that those who have been out of work or on furlough for a long period are not left to move into premature retirement.
- In the longer term, these risks form part of a wider challenge for economic strategy; improving labour market rights and job quality for all workers will play a role in moving towards a high-skill, high-wage economy.

**The Living Wage Foundation published [Employee Jobs Paid Below the Living Wage \[LW\]: 2021](#).**

- In April 2021, the LW was £9.50 across the UK and £10.85 in London.
  - The data include employees still furloughed (3m jobs), with 80% of their income guaranteed before employer ‘top ups’.
  - The pandemic has also resulted in many workers on lower pay losing their jobs; this means there are fewer low-paid workers in the labour market and pay appears to have risen.
- Findings include:
  - 17.1% (4.8m) of employee jobs were paid below the LW, down 20.2% on 2020 (5.4m).
  - Northern Ireland had the highest proportion (21.3%), followed by the East Midlands (20.2%), the North East (19.6%) and Yorkshire & the Humber (18.5%).
  - The lowest proportion was in the South East (12.8%) followed by Scotland (14.4%).
  - 20.4% of jobs held by women were paid below the LW, compared to 13.9% by men; the gap has narrowed slightly since 2012, but has remained broadly consistent between 2020 and 2021.
  - 33.2% of part-time jobs were paid below the LW compared with 11.0% of full-time; the gap has narrowed over the decade but has widened slightly since 2020.
  - Hospitality had the highest proportion (69.7%), followed by ‘arts, entertainment & recreation’ (34.8%) and ‘wholesale & retail trade’ and ‘administrative and support services’ (both 29.0%).

**Other research**

**CIPD published [Has Work Become Less Secure? Examining the evidence on employment security](#).**

- Since the 2010s, unemployment, long-term unemployment and inactivity have all decreased, as have redundancies and competition for jobs.
  - Fewer workers have variable hours, work part-time involuntarily or are underemployed; low pay and variable pay have both declined.
  - Although Covid-19 has reversed many of these trends, the labour market is fast resembling its pre-pandemic shape.
- There are nevertheless substantial pockets of insecurity, e.g. 18.6% of working people are in some way not permanent; however, the figure has remained broadly stable over the last 25 years.
  - Most non-permanent workers, who include the self-employed, are choosing non-permanent employment because it suits their lives or working preferences.
  - Attempts to limit choice risk eroding welfare or even access to employment.
  - Once atypical ways of working – including part-time, self-employment and homeworking – have facilitated much wider entry into the labour market of traditionally under-represented groups.

- Concerns over employment security and quality should not be disproportionately focused on non-permanent, atypical workers, but should have a broader scope across the labour market, and a broader focus on job quality.
  - Policy change is recommended in three key areas: enforcement; skills and progression; and measuring job quality.

**IZA published [Zero-Hours Contracts \[ZHCs\] in a Frictional Labor Market](#), using a structural model with data from the UK Labour Force Survey to understand the pros and cons of ZHCs.**

- In 2020 there were almost 1m zero-hours workers in the UK.
  - Simulations of a rise in the minimum wage increases firms' propensity to post ZHCs.
  - Both workers and firms may prefer ZHCs due to their flexibility, however, many workers would prefer more stable working hours provided by 'regular' contracts, and the high turnover of zero-hours workers may lead firms to consider replacing ZHCs with regular contracts.
- The research model highlights three channels through which ZHCs affect labour market outcomes; their relative importance in shaping the equilibrium and welfare effects of ZHCs can be quantified.
  - **A job-creation effect** – firms with more volatile business conditions can enter the market and/or are able to post more vacancies using flexible contracts.
  - **A substitution effect** – some jobs that would be viable under regular contracts become advertised as ZHCs.
  - **A participation effect** – workers who prefer flexible work schedules join the labour market to take advantage of ZHCs.
- A ban on ZHCs would lead to an increase in unemployment rate in the low-pay labour market of 1.7–3.8ppt; it would also make the employment rate of the low-pay labour market drop by 6.5–8.5ppt.
  - ~4% of workers in this jobs market segment would prefer not to participate if there were no flexible contracts, such as ZHCs, that provide access to a shorter work schedule.
  - Even at the higher end of the role of substitution effects, a ban on ZHCs would have a large impact on job creation.
  - The effect of a ban would be a substantial reduction of workers' welfare; however, if these workers' ZHCs were replaced by regular contracts, they would experience a welfare gain.
- Regulations should clarify the extent and sharing of flexibility of all employment relationships and target the use of flexible contracts to segments of economic activity and the workforce where firms may not be viable without the ability to adjust working hours at no cost.

**The OECD published [The Role of Firms in Wage Inequality: Policy lessons from a large scale cross-country study](#).**

- While there is growing evidence that widening gaps in business performance contribute to low aggregate productivity growth, little is known about its implications for wage and income inequality.
- Analysis of comprehensive new evidence and use of administrative data in a cross-country context reveal:
  - 33% of overall wage inequality can be explained by gaps in wage-setting practices between firms, rather than differences in workers' skills; high-wage firms typically pay about twice as much for comparable workers.
  - When workers cannot easily move from one firm to another, wages are not only determined by workers' skills but also by firms' wage-setting practices.
  - High-productivity firms generally offer higher wages to attract the workers required to grow their businesses; policies aimed at promoting productivity in low-performing firms would therefore promote economic growth by raising productivity and wages and also reduce wage inequality.
  - Low job mobility reinforces the link between productivity gaps and pay gaps, since workers facing high barriers to mobility cannot take advantage of better opportunities in higher-paying firms.
  - In contrast, high mobility ensures that productivity gaps mainly translate into differences in employment rather than wages, and therefore reduces wage inequality.
  - Gaps in firms' pay practices also reflect disparities in their wage-setting power, which is partly shaped by the degree to which employment is concentrated in a small number of large firms.



- About 75% of the wage gap between similarly skilled women and men reflects pay differences within firms, mainly due to differences in tasks and responsibilities but also due to differences in pay for work of equal value.
- The remainder of the gender wage gap is explained by differences in pay between firms due to higher employment shares of women in low-wage firms.
- The gender wage gap within and between firms tends to increase over the life-course and particularly during the initial phase of women's careers, due to the role of motherhood.
- Covid-19 has hit low-qualified workers particularly hard, with possible adverse consequences on their wages in the long term; it may also widen gaps in business performance by exacerbating the digital divide between firms and winner-takes-all dynamics.

## EMPLOYMENT: GENDER & RACE

**IFS published [Women and men at work](#) as part of the IFS Deaton Review of Inequalities.**

- The average working-age woman in the UK earned 40% less than her male counterpart in 2019 – a 13ppt smaller gap than 25 years ago.
  - Of this decrease, 10ppt would have been expected from the rapid catch-up of educational attainment of women, who are now 5% more likely to have graduated from university than men.
  - This suggests that the additional contribution from other changes in policy, the economy and society over the past 25 years has been muted.
- Inequalities in all three components of labour market earnings – employment, working hours and hourly wages – remained large.
  - In 2019, working women still earned 19% less per hour than men, down 5ppt from the mid-90s.
  - Gaps in all three components are linked: the fact that women have more career breaks and years working part-time contributes to them having lower hourly earnings further down the line.
- In a big break from the past, the hourly wage gap between men and women is now bigger for those with degrees or A level-equivalent qualifications than for those with lower education.
  - The introduction of, and increases to, the UK's minimum wage have been an important factor in helping low-paid women; more highly educated women have not made comparable progress.
  - In 2019, women at the top (90<sup>th</sup> percentile) earned per hour only 77% of what their male counterparts did, while that figure was about 90% for women at the bottom (10<sup>th</sup> percentile).
- In the UK, working-age women on average do 1.5 fewer hours of paid work and 1.8 more hours of unpaid work per day than men.
- Inequalities in earnings and its three components increase vastly after parenthood, suggesting that unpaid care work is central in shaping inequalities in the labour market.
  - Even mothers who earn more than their male partners before childbirth are more likely than their partners to reduce hours of work in the years after childbirth.
  - The existing policy environment (including parental leave, childcare, and the tax and benefit system) often sustains and incentivises a traditionally gendered division of labour, even when policies are ostensibly gender-neutral.
- At the level of the whole economy and society, these heavily gendered patterns of paid and unpaid work strongly suggest that the talents of women and men are not being used most productively.
- Norms, preferences and beliefs appear central to the choices of families: 40% of both men and women in the UK agree that 'a woman should stay at home when she has children under school age'.
  - Internationally, there is huge variation in the proportion of the population who hold traditional gender attitudes.
- However, these constructs are not immutable: an accumulation of policies consistently supporting a more equal sharing of responsibilities between parents (or large policy reforms challenging gender roles) may help build up a change in attitudes that leads to permanent change in norms.
  - Given the huge economic costs associated with the status quo, even expensive policies could potentially pay for themselves if they successfully ensure that the talents of both women and men are put to their most productive uses, whether in the labour market or at home.

**The Scottish Government published [International Mechanisms to Revalue Women's Work: Research exploring and evaluating international mechanisms that aim to revalue or result in](#)**

**[the revaluation of women's work](#), based on desk research, interviews and case studies by the University of Greenwich Centre for Research in Employment & Work.**

- The report's focus is on traditionally low-paid jobs in social care, early learning and childcare, retail, catering and cleaning.
- Findings include:
  - Undervaluation is a key driver of the gender pay gap; it may mean that women are paid less than men for the same level of efficiency in the same job, and/or that women are heavily over-represented in jobs that tend to be lower paid and undervalued compared to male dominated jobs.
  - The wholesale, retail and health and social care sectors, employing high proportions of women, have the lowest collective bargaining coverage.
  - In Scotland, despite gender pay gap reporting, there are no sanctions for employers who fail to comply with equal pay legislation and remedies for women generally rely on lengthy and expensive individual legal action, making pay justice for most women unattainable.
  - Across Europe, existing equal pay legislation is not being fully utilised as a vital tool to help women achieve equal pay for work of equal value.
  - Use of job evaluation based on equal value principles is key to the revaluation of women's work across all areas, but particularly in the private sector where job evaluation schemes have not generally been designed to comply with equal pay legislation.
  - Across Europe, including Scotland, lower government expenditure on public sector pay under austerity negatively impacted the gender pay gap, highlighting how public sector pay policies affect the valuation of women's work.
  - Privatisation and contracting out public services have had adverse outcomes for women, who form the majority of the workforce in public services; privatisation has removed women from collective bargaining coverage and the ability to use equal pay legislation to address pay inequality.
  - Women's position in the labour market has been weakened by Covid-19 and many mothers who were working at the start of the pandemic are now unemployed or working reduced hours.
- Recommendations are made for: collective bargaining; job evaluation; privatisation and procurement; gender pay gap reporting; expertise, education and training; and the law.

**Eurofound published [European Jobs Monitor 2021: Gender gaps and the employment structure](#), on the impacts of changing labour supply in Europe 1995–2019, focused on gender and age.**

- 66% net new jobs in the EU over the last 20 years have been taken up by women, particularly among 30–49 year-olds and those aged 50+.
  - Although this has narrowed the gender employment gap, it still persists in nearly every EU member state.
  - Women's employment will have to grow at least three times faster than that of men by 2030 to meet EU gender and employment targets; boosting women's employment must remain a priority for policymakers as the gender employment gap has scarcely changed since 2014.
- The rise in women's employment has had the greatest impact on the top and bottom of the wage distribution, leading to low-paid jobs, formerly dominated by men, becoming dominated by women.
  - The first employment impacts of Covid-19 were most sharply felt by low-paid workers, especially low-paid women.
- The state's role as an employer has been crucial in boosting women's employment: women have benefited more than men from employment growth in well-paid jobs, with public administration, health and education accounting for the majority of recent employment growth among women.
- More dynamic education and training systems and other incentives will be required to encourage men and women aged 15–29 to engage in occupations dominated by the other gender.

**Eurofound published [Understanding the gender pay gap: What role do sector and occupation play?](#), a policy brief.**

- In 2019, the average hourly wage of women in the EU was 14% lower than that of men, from around 20% in Estonia, Germany and Latvia to less than 5% in Italy, Luxembourg and Romania.
- Although women outperform men in educational attainment, this remains largely unrewarded in terms of higher pay; however, women's high educational achievement is preventing an even larger pay gap across nearly all EU member states.

- The EU gender pay gap is larger among higher earners, highly educated employees and those with privileged labour market status related to age, job tenure, contract and supervisory responsibilities.
  - The proposed EU directive to introduce binding pay-transparency measures and enforcement mechanisms aims to address opaque pay differences in well-paid jobs, in particular, where the gender pay gap is largest and where policy-based improvements may have the greatest impact.
- To help women avoid the pay penalty of working part-time and have the opportunity to earn more, it is critical to remove the barriers to full-time employment, e.g. the availability and affordability of care services and the rebalancing of paid and unpaid work between men and women.
  - Caring and family responsibilities are the main reasons women work part- rather than full-time.
- There is an urgent need to encourage young men and women to engage in sectors and occupations identified with the other gender, via education and training systems and other incentives.

**The ESRI published [Measures to combat racial discrimination and promote diversity in the labour market: A review of evidence](#), analysis of international literature funded by the Government of Ireland.**

- The most effective strategy is likely to involve the introduction and evaluation of a range of measures, as well as clear communication of their aims and effectiveness.
- There is little evidence that short-term unconscious bias training leads to sustained changes in behaviour and outcomes in the workplace; changing recruitment and workplace practices is likely to be more effective.
- Diversity initiatives (e.g. diversity training programmes) are most effective when staff understand why they are being introduced and when they are supported by both majority and minority workers.
- Anti-discrimination legislation is not self-enforcing: implementing legislation is challenging and its effectiveness in deterring discrimination is difficult to assess.
- Social networks within and outside organisations play a significant role in recruitment and progression, but informal hiring practices can disadvantage minority groups.
  - Measures to combat low application rates from minority groups include targeted outreach to schools, colleges and universities.
  - Within an organisation, cross-group mentoring and sponsorship can facilitate the progression of ethnic minority groups.
- New technologies, e.g. the use of algorithms and machine learning in recruitment and selection processes, can reduce labour market discrimination and increase diversity, as long as the algorithms do not replicate previous biases.
- The challenges and constraints of SMEs are often overlooked; they can learn from initiatives introduced in large organisations but may need extra support to promote diversity.

**Business in the Community published [Race At Work 2021: The Scorecard Report on progress against recommendations from the 2017 McGregor-Smith Race in the Workplace Review](#), commissioned by the UK Government.**

- 24,638 employees across the UK completed a YouGov survey on the 'six-point roadmap for success' set out in the McGregor-Smith Review: gather data; take accountability; raise awareness; examine recruitment; change processes; and government support.
- Findings include:
  - In 2021, 19% of employers voluntarily captured ethnicity and pay gap data (up 8ppt from 2018).
  - 44% of executive sponsors at the 'top table' were promoting equality, equity, fairness and inclusion (up 11ppt).
  - 39% of Black, Asian, mixed race and other ethnically diverse employees want a mentor at work compared to 20% of their white peers; however, 28% have a mentor, down from 32%.
  - 41% of employees said their employers are comfortable talking about race (up 3ppt); and 33% said their employers are helping them to talk about race (up 11ppt).
  - 29% of Black and 27% of Asian employees say that they have witnessed or experienced bullying and harassment from their managers; 38%/29% from customers, clients and service users.
  - Those of Black Caribbean (71%) and African (67%) backgrounds are more likely to use a recruitment agency, but less likely to believe they are being treated fairly (34%); white people are less likely to use a recruitment agency (47%) but more likely to feel they are treated fairly (49%).

- 69% of Black, Asian and minority ethnic employees say that career progression is important to them (-1ppt), including 85% of Black African employees; this compares to 47% of white employees (+5ppt).
- The following calls to action are made to build on the momentum and improve areas of concern:
  - **Employers:** chief executives to sign up to, and refresh commitment to, the expanded Race at Work Charter; senior leaders to act as mentors and sponsors; increase transparency and accountability; set performance objectives for managers linked to pay and reward; embed actions on inclusion within environment, social and governance reporting.
  - **Recruitment agencies:** increase the diversity of their own teams and ensure bias awareness training to reverse negative trends in perception of fair treatment from Black clients.
  - **Government:** strengthen protection for employees against racial bullying and harassment from customers, clients, service users and contractors in the Employment Bill.

## International Comparisons

The European Commission published [The Structure of the European Education Systems 2021/22: Schematic diagrams – Eurydice facts and figures](#) for 39 systems from 37 countries participating in the Erasmus+ programme [the first year without the UK].

- Information is presented on the structure of mainstream education from pre-primary to tertiary level.

The European Commission published [Education and Training Monitor 2021](#) plus 27 country reports, with the focus on wellbeing in education.

- This is the first annual edition under a new ten-year [Strategic framework for European cooperation in education and training towards the European Education Area and beyond \(2021–2030\)](#).
- The EU's Recovery and Resilience Facility (RRF) is the 'centrepiece of NextGenerationEU', its main financial support for recovery in education and training from the pandemic.
- The share of early leavers from education and training decreased steadily over the past decade, but the pandemic risks reversing the trend.
  - In 2020, the rate was 9.9% on average across the EU, 0.9ppt above the new target of below 9%.
  - It is 3.8ppt higher among young men (11.8%) than among young women (8.0%).
  - There are striking disadvantages for foreign-born young people and wide regional discrepancies in many member states.
  - There are considerable differences between countries, ranging from over 15% in Spain and Romania to 2.2% in Croatia.
  - Some member states took action to prevent early school leaving in the pandemic, e.g. in France compulsory education and training was extended from 16 to 18 years.
- The attainment rates in tertiary education have been increasing steadily over the past decade, but there is still considerable variation between countries and within countries.
  - In 2020, the rate was 40.5% in the EU, with 11 countries reaching the target for 2030; rates ranged from 24.9% in Romania to 60.6% in Luxembourg.
  - The average share of 25–34 year-olds with tertiary educational attainment is 10.8ppt higher for women (46%) than men (35.2%).
  - There is a clear urban–rural divide: the average rate in cities is 50.9% compared to 28.9% in rural areas.
  - Over 50% of countries will use the RRF to support transformation in HE, e.g. modernising study programmes, expanding places, micro-credentials, developing quality assurance and governance mechanisms, developing graduate tracking mechanisms and supporting internationalisation.
- In 2018, underachievement in digital skills ranged from 16.2% in Denmark to 50.6% in Luxembourg, and the pandemic emphasised the importance of basic and advanced digital skills for all; significant effort is needed to reduce underachievement in all member states.
- The pandemic interrupted slow progress in adult learning across the EU; the new target is for at least 47% adult learning by 2025 and 60% by 2030.

The European Commission published [Structural Indicators for Monitoring Education and Training Systems in Europe 2021: Overview of major reforms since 2015](#) for 37 countries participating in the Erasmus+ programme [the first year without the UK].

- The report contains data with over 20 indicators on education policies in four areas: early childhood education and care; achievement in basic skills; early leaving from education and training; and HE.

Eurofound published [Industrial relations landscape in Europe: Central government administration, education, human health, local and regional government, and social services sectors](#), analysis and comparisons across the EU-27 and the UK.

- The report aims to contribute to a better understanding of the industrial relations landscape of employers and trade union organisations in these sectors and provide guidance on how best to support dialogue with and between them.
- The public services sectors employ over 57m workers representing 25% of the total workforce; they are supported by over 500 national trade unions and around 400 employer organisations.

UNESCO published [Reimagining Our Futures Together: A new social contract for education](#), developed by an International Commission, drawing on the inputs of over 1m people.

- The starting point is a shared vision of the public purposes of education, assuring the right to quality education throughout life, and strengthening education as a public endeavour and a common good.
- It includes a call for a worldwide, collaborative research programme focused on the right to education throughout life, and for universities and other HEIs to be active in every aspect.

## Government

### NORTHERN IRELAND

The Northern Ireland Department for the Economy published [Survey of Further Education College Leavers Report: Academic year 2019/20](#), the seventh annual snapshot of the immediate added value of completing a qualification at L3 or below.

- 43.6% were in employment six months after completion, up from 40.9% before the course.
  - Linked to Covid-19, this was down 4.1ppt for the 2018/19 cohort at the equivalent stage and included 2.9% on furlough.
- 15.6% of those who had studied at entry level/L1 were unemployed; 8.5% L2; 4.7% L3.
- 34.3% of those in employment had not been in employment before they started, of whom 74.8% had been in learning.
- The most important reasons for taking the course were: to improve career prospects (21.9%); interest in the subject (17.3%); learning something new/gain new skills (15.6%).
- 73.3% of those in employment said the course had prepared them well for employment.
- Most of those in employment were in jobs classified as: skilled trade (21.0%); caring, leisure or other service (20.8); sales and customer service (13.5%).
- 29.6% of leavers in learning had started university; 67.2% had continued learning in the FE sector.
- 34.8% said they would be likely/very likely to choose a different subject if they were to do their course again; 15.9% to study at a different college; 25.3% to do a different kind of qualification; 19.0% to do something completely different.

L&W published [Working Together: How learning and skills support can create an inclusive labour market in Northern Ireland](#), supported by Open College Network Northern Ireland.

- Employment in Northern Ireland has long been lower than in the UK as a whole: 60k more people would be in work if it matched the UK's employment rate.
  - The key difference is the higher proportion of people who are economically inactive, with the largest numbers being those who are long-term sick or looking after family or home.
  - Long-term unemployment is forecast to remain above pre-pandemic levels through to 2025.
- The Executive's skills strategy and programme for government should prioritise:

- **Limiting rises in long-term unemployment**, building on the Work Ready Employment Services programme and fast tracking previously furloughed workers into support
- **Extra support** for those who are long-term unemployed, including a Jobs Guarantee
- Continuing to focus on **reducing economic inactivity** by helping people plan to prepare for and find work, including developing cross-agency plans through Local Labour Market Partnerships
- **Supporting retraining** for long-term unemployed people needing to switch careers, including by working with Local Labour Market Partnerships to develop joined-up retraining programmes
- **Expanding flexible working** to open up new opportunities for those with caring responsibilities or health problems and disabilities; building support for job design and flexible working into employer engagement.

**The Productivity Institute published [Northern Ireland's Productivity Challenge: Exploring the issues](#), on the key role of productivity in improving prospects for growth and prosperity.**

- Among Northern Ireland's strengths is having a younger population than the UK average.
- Among its weaknesses: relatively poor educational attainment – 16.3% of the population have no formal level of qualification (double the UK average); 66% have no tertiary education degree (UK 51%; RoI 48%).
  - A managerial skills gap may be exacerbated by issues around culture, leadership and ambition.
  - A 'brain drain' may have added to the low presence of highly skilled workers.

## ENGLAND

**Pearson published [Spotlight on Workforce Skills: A policy report into the changing face of post-16 education policy in England](#).**

- Desk research, roundtables and public polling over the last six months explored the impact of the *Skills for Jobs* white paper and the forthcoming Skills & Post-16 Education Bill.
  - Four papers cover: 16–19 qualifications; Higher Technical Education; Lifetime Skills Guarantee; and Lifelong Loan Entitlement.
- Among the recommendations:
  - The post-16 system risks misalignment with the demands of the labour market and needs to be more agile to respond to shifting skills and employment patterns; L3 reforms could exacerbate this by removing high-quality qualifications recognised and valued by employers.
  - Extending training funding to those looking to reskill, not just upskill, will help meet the rapidly changing needs of firms in a particular region.
  - Currently only those without a L3 (A level-equivalent) qualification can access the funding entitlement to take a L3 course – this needs to change so that those already qualified can also have the opportunity to reskill.
  - Giving local leaders more say over the allocation of funding will support the education and training system in better meeting the needs of employers and jobseekers in regions across England.

**England's OfS published [Evaluating the delivery of the OfS investment in the Centre for Transforming Access and Student Outcomes \[TASO\]: Results of the Mid-term Survey with higher education providers 2021](#).**

- The use of evidence in Access & Participation Plans (APPs) increased between 2020 and 2021.
  - 93.2% of providers use narrative evidence to inform their APPs (Type 1); 83% use empirical enquiry evidence (Type 2); 33% use causality-type evidence (Type 3).
  - The most significant difference between universities and FE colleges is in the use of Type 2 evidence, used by 92% of universities but only 63% of colleges.
  - Regional differences range from over 40% of providers using Type 3 evidence in some parts of England compared with less than 20% in others.
- 92% of universities and 60% of colleges intend to implement learning from TASO in their APPs.

**England's OfS published [Place matters: Inequality, employment and the role of higher education](#), an insight brief on the impact of growing up in different regions of England.**

- 42.7% of young people from state schools have entered HE by age 19, but the rate varies by region, from 54.2% in London to 37.4% in the South West.

- Intra-regional disparities are often more substantial than those between regions.
- Most graduates in the north live in areas with the lowest proportions of graduates in highly skilled employment, well-paid jobs or in further study; many coastal regions have similar patterns.
  - Graduates living in and around London are most likely to live in areas with the highest proportion of graduates earning over £24k a year or in further study.
- Many universities/colleges are already: working with schools and colleges in their local communities; introducing more flexible courses; working with local businesses to increase employment for local graduates; promoting entrepreneurship.

## SCOTLAND

### Covid related

**The Scottish Government published [Covid Recovery Strategy: For a fairer future](#), aiming to 'address the systemic inequalities made worse by the pandemic, make progress towards a wellbeing economy and accelerate inclusive person-centred public services'.**

- Skills-related actions include:
  - Adult upskilling and retraining opportunities for workers in areas particularly impacted by the pandemic and the transition to net zero.
  - A skills guarantee for workers in carbon-intense sectors, implemented via the Green Jobs Workforce Academy.
  - A student mental health action plan.

### Other research

**SDS published the following papers as part of its [review](#) of all age careers services in Scotland:**

- [Exploring Scotland's Career Ecosystem](#), commissioned research on the career services for young people up to age 25, drawing on a literature review, interviews, a survey of 135 organisations, and SDS data and materials.
  - It includes: a 'map' of the service; estimated size and costs; challenges, e.g. where its focus should be; gaps in support and the distribution of professionals; duplications and overlaps; and options for the development of the services.
  - Comparisons are made with six other countries: Austria, Canada (Newfoundland), Estonia, Finland, New Zealand and Singapore.
- [The evidence so far: Career Review Whitepaper](#) based on the above research. It states Scotland will need services that:
  - are lifelong, person centred and designed to include all young people in their individual context
  - consider young people's aspirations, feelings, situations and behaviours, and involve them in co-design, governance and quality assurance
  - are experiential and connected to the world of work through awareness, exploration and experiences that build aspirations and ambitions
  - are integrated within the classroom
  - involve employers in curricula design and delivery.
- Three other 'Whitepapers' based on the research: [International Best Practice in Career Services](#); [Careers Ecosystem of the Future](#); and [OECD Report on Curriculum for Excellence: Implications for career services](#) by Rocket Science UK.

**The Scottish Government, Space Scotland and the Scottish Space Academic Forum published [A Strategy for Space in Scotland](#), 'consistent with and supportive of' the UK's [National Space Strategy](#) published in September 2021.**

- Almost 20% of all UK space sector jobs are in Scotland; the number of space businesses has increased by over 65% since 2016.
- Three challenges include 'education and STEM', ensuring that the talent pipeline is providing the right mix of skills, in the right quantities, at the right time.
- Six strategic actions include establishing a National Space Access Centre and addressing space sector diversity and accessibility.

## WALES

[No relevant material sourced for this quarter's release.]

## REPUBLIC OF IRELAND (RoI)

The Government of Ireland published [National Development Plan 2021–2030](#) as part of its Project Ireland 2040 strategy, with priority areas including climate ambitions, jobs growth and economic renewal.

- 'A strong economy, supported by enterprise, innovation and skills' is one of ten National Strategic Outcomes, including green and digital transition funds and investment in Technological Universities.

The Government of Ireland Department of Social Protection and SOLAS (Further Education & Training Authority) published [An Examination of the Employment Exposures to Brexit](#).

- The report provides insights into the characteristics of workers in exposed sectors and regions, to inform the development of targeted interventions – including skills provision – which may be required.
  - There is limited evidence of overlap between those sectors exposed to Brexit and those most impacted by Covid-19.
  - Analysis at a regional level, 'unsurprisingly perhaps given its geographic proximity to Northern Ireland', shows Ireland's Border to have the highest proportion of 'severely' exposed sectors.

SOLAS published two reports on behalf of the National Skills Council, examining the labour market and the skills needs of the economy:

- [National Skills Bulletin 2021](#)
  - The report supports policymaking in employment, education and training, and immigration (particularly the sourcing of skills in short supply in the Irish and EU labour market) and informs careers guidance and choices.
  - Covid-19 continues to cause substantial disruption to the labour market.
- [Monitoring Ireland's Skills Supply 2021](#), a companion report to the *Skills Bulletin*.
  - In further education and training (FET), the largest number of awards were in health and welfare, followed by social science, business and law.
  - In HE, the largest number of awards were in social science, business and law, then health and welfare.
  - Between 2018 and 2019 there was 18% growth in awards in ICT.

SOLAS published [Non-Irish Nationals in FET: A study into further education and training in Ireland](#), based on 2020 data.

- FET provides a mechanism for the inclusion of non-Irish nationals.
  - Approximately 22% of those enrolled in the FET sector were non-Irish, of 197+ nationalities.
  - ESOL accounted for 58% of all non-Irish learner enrolments.
  - 37.8% of non-Irish nationals (35.7% of UK and 35.5% of EU nationals) were unemployed on enrolment in a course compared to 27.4% of Irish nationals.

Separate FET in Numbers 2020 reports were published on [Lifelong Learning](#), the [Traveller Community](#), the [Roma Community](#) and [Learners with Disabilities](#).

Skillnet Ireland published [Ireland's Sustainable Finance Roadmap](#), with Sustainable Finance Ireland and stakeholders across the RoI, as part of the [Ireland for Finance Action Plan 2021](#).

- Developing talent is one of five 'pillars' (the others are industry readiness, leveraging digital, enabling environment and promotion and communications).
  - Its aim is to 'build the knowledge and capability required to meet future workforce needs for sustainable finance skillsets'.
  - Priority actions include accelerating access to sustainable finance knowledge and skills.

## EUROPE

[No relevant material sourced for this quarter's release.]



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**Advance HE**

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**British Council**

[www.britishcouncil.org](http://www.britishcouncil.org)

**Business in the Community (BITC)**

[www.bitc.org.uk](http://www.bitc.org.uk)

**Careers & Enterprise Company**

[www.careersandenterprise.co.uk](http://www.careersandenterprise.co.uk)

**Cedefop (European Centre for the Development of Vocational Training)**

[www.cedefop.europa.eu](http://www.cedefop.europa.eu)

**Centre for Economic Performance (CEP)**

[cep.lse.ac.uk](http://cep.lse.ac.uk)

**Centre for Research on Learning & Life Chances in Knowledge Economies & Societies (LLAKES)**

[www.llakes.ac.uk](http://www.llakes.ac.uk)

**Centre for Vocational Education Research (CVER)**

[cver.lse.ac.uk](http://cver.lse.ac.uk)

**CESifo Group Munich**

[www.cesifo-group.de/ifoHome.html](http://www.cesifo-group.de/ifoHome.html)

**Chartered Institute of Personnel & Development (CIPD)**

[www.cipd.co.uk](http://www.cipd.co.uk)

**Chartered Management Institute (CMI)**

[www.managers.org.uk](http://www.managers.org.uk)

**COP26 Universities Network**

[www.gla.ac.uk/research/cop26](http://www.gla.ac.uk/research/cop26)

**CW Jobs**

[www.cwjobs.co.uk](http://www.cwjobs.co.uk)

**Demos**

[demos.co.uk](http://demos.co.uk)

**Department for Business, Energy & Industrial Strategy (BEIS), UK**

[www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy](http://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy)

**Department for Education, England**

[www.gov.uk/government/organisations/department-for-education](http://www.gov.uk/government/organisations/department-for-education)

**Department for the Economy (DfE), Northern Ireland**

[www.economy-ni.gov.uk](http://www.economy-ni.gov.uk)

**Economic & Social Research Institute (ESRI), RoI**

[www.esri.ie](http://www.esri.ie)

**Edge Foundation**

[www.edge.co.uk](http://www.edge.co.uk)

**Education & Training Foundation (ETF)**

[www.et-foundation.co.uk](http://www.et-foundation.co.uk)

**EngineeringUK**

[www.engineeringuk.com](http://www.engineeringuk.com)

**Eurofound (European Foundation for the Improvement of Living & Working Conditions)**

[www.eurofound.europa.eu](http://www.eurofound.europa.eu)

**European Commission**

[ec.europa.eu/commission/index\\_en](http://ec.europa.eu/commission/index_en)

**Expert Group on Future Skills Needs (EGFSN), RoI**

[www.skillsireland.ie](http://www.skillsireland.ie)

**First Polymer Training Skillnet, RoI**

[www.firstpolymerskillnet.com](http://www.firstpolymerskillnet.com)

**Gatsby Foundation**

[www.gatsby.org.uk](http://www.gatsby.org.uk)

**Global Institute for Women's Leadership, King's College London**

[www.kcl.ac.uk/giwl](http://www.kcl.ac.uk/giwl)

**Government of Ireland**

[www.gov.ie/en](http://www.gov.ie/en)

**Health Foundation**

[www.health.org.uk](http://www.health.org.uk)

**Higher Education Authority, RoI**

[hea.ie](http://hea.ie)

**Higher Education Policy Institute (HEPI)**

[www.hepi.ac.uk](http://www.hepi.ac.uk)

**Higher Education Statistics Agency (HESA)**

[www.hesa.ac.uk](http://www.hesa.ac.uk)

**House of Commons All-Party Parliamentary University Group**

[appg-universities.org.uk](http://appg-universities.org.uk)

**Institute for Employment Studies (IES)**

[www.employment-studies.co.uk](http://www.employment-studies.co.uk)

**Institute for Fiscal Studies (IFS)**

[www.ifs.org.uk](http://www.ifs.org.uk)

**Institute for Social & Economic Research (ISER)**

[www.iser.essex.ac.uk](http://www.iser.essex.ac.uk)

**Institute of Labor Economics (IZA)**

[www.iza.org](http://www.iza.org)

**Institute of Student Employers (ISE)**

[ise.site-ym.com](http://ise.site-ym.com)

**Institution of Engineering & Technology (IET)**

[www.theiet.org](http://www.theiet.org)

**Jisc**

[www.jisc.ac.uk](http://www.jisc.ac.uk)

**Learning & Work Institute (L&W)**

[www.learningandwork.org.uk](http://www.learningandwork.org.uk)

**Living Wage Foundation**

[www.livingwage.org.uk](http://www.livingwage.org.uk)

**McKinsey & Company**

[www.mckinsey.com](http://www.mckinsey.com)

**MillionPlus**

[www.millionplus.ac.uk](http://www.millionplus.ac.uk)

**National Centre for Universities & Business (NCUB)**

[www.ncub.co.uk](http://www.ncub.co.uk)

**National Union of Students (NUS)**

[www.nusconnect.org.uk](http://www.nusconnect.org.uk)

**Nuffield Foundation**

[www.nuffieldfoundation.org](http://www.nuffieldfoundation.org)

**OECD (Organisation for Economic Cooperation & Development) iLibrary**

[www.oecd-ilibrary.org](http://www.oecd-ilibrary.org)

**Office for Students (OfS), England**

[www.officeforstudents.org.uk](http://www.officeforstudents.org.uk)

**Open University (OU)**

[www.open.ac.uk](http://www.open.ac.uk)

**PA Consulting**

[www.paconsulting.com](http://www.paconsulting.com)

**Pearson**

[www.pearson.com/uk](http://www.pearson.com/uk)

**Prince's Trust**

[www.princes-trust.org.uk](http://www.princes-trust.org.uk)

**Productivity Institute**

[www.productivity.ac.uk](http://www.productivity.ac.uk)

**Prospects**

[luminare.prospects.ac.uk](http://luminare.prospects.ac.uk)

**PwC**

[www.pwc.co.uk](http://www.pwc.co.uk)

**QinetiQ**

[www.qinetiq.com](http://www.qinetiq.com)

**Quality Assurance Agency for Higher Education (QAA)**

[www.qaa.ac.uk](http://www.qaa.ac.uk)

**Resolution Foundation**

[www.resolutionfoundation.org](http://www.resolutionfoundation.org)

**Scottish Funding Council (SFC)**

[www.sfc.ac.uk](http://www.sfc.ac.uk)

**Scottish Government**

[www.gov.scot/Publications](http://www.gov.scot/Publications)

**Skillnet Ireland**

[www.skillnetireland.ie](http://www.skillnetireland.ie)

**Skills Development Scotland (SDS)**

[www.skillsdevelopmentscotland.co.uk](http://www.skillsdevelopmentscotland.co.uk)

**SOLAS (Further Education & Training Authority)**

[www.solas.ie](http://www.solas.ie)

**SPICe (Scottish Parliament Information Centre)**

[digitalpublications.parliament.scot/ResearchBriefings](http://digitalpublications.parliament.scot/ResearchBriefings)

**Sutton Trust**

[www.suttontrust.com](http://www.suttontrust.com)

**Timewise**

[timewise.co.uk](http://timewise.co.uk)

**UNESCO**

[en.unesco.org](http://en.unesco.org)

**Universities UK (UUK)**

[www.universitiesuk.ac.uk](http://www.universitiesuk.ac.uk)

**Universities UK International (UUKi)**

[www.universitiesuk.ac.uk/International](http://www.universitiesuk.ac.uk/International)

**Warwick Institute for Employment Research (IER)**

[www2.warwick.ac.uk/fac/soc/ier](http://www2.warwick.ac.uk/fac/soc/ier)

**Welsh Government**

[gov.wales](http://gov.wales)

**Work Foundation**

[www.theworkfoundation.com](http://www.theworkfoundation.com)