Department for the Economy
www.economy-ni.gov.uk

Skills Research Digest
Quarter 3 2023

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:

- Detailed skills forecasting for the next decade, including proposals for a 'skills first' approach to HR.
- Ongoing research into the skills needed for the green transition amid concerns at the lack of progress in addressing the barriers.
- A focus on the young workforce, impacted by the pandemic and the cost of living crisis, and needing support and guidance to find their way into the right jobs.
- Continuing speculation about the risks and rewards of digital technology – including in education – automation and, increasingly, generative AI.

** 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.*

Contents

The Skills Research Digest is issued by:

Analytical Services, Department for the Economy ✉ analyticalservices@economy-ni.gov.uk

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.

The Digest is prepared by:
Elaine Hendry
elaine@emhconnect.co.uk

Angela Gardner
www.ajenterprises.co.uk

emh connect EDUCATION · BUSINESS · GOVERNMENT

aj enterprises

Preparing Young People for Work

16–19 EDUCATION

The Institute of Labor Economics (IZA) published *Can Vocational Education Improve Schooling and Labour Outcomes? Evidence from a large expansion*, evaluating the impact of a reform in Portugal that greatly increased the availability of upper secondary vocational education.

- A large-scale, staggered introduction of vocational education and training (VET) courses took place in Portuguese schools from 2005.
  - Most schools in the study were introducing VET for the first time and experienced limited demand at first, which could lead to small or even negative VET graduation and labour market effects.
  - There were large gender differences with many courses chosen almost only by either boys or girls.
- Drawing on student–school matched panel data, findings include:
  - VET take-up increased upper secondary graduation rates dramatically, typically by 50+ppt; these effects were even stronger for low-achieving students, children of low-schooling parents and welfare recipients, and apply to females as well as males.
  - VET appears to be an important upper secondary route to increasing school attainment among those who otherwise tend to leave earlier.
  - Regional youth employment growth followed VET expansions, suggesting that VET courses supported school-to-work transitions.
  - VET graduates also benefit from higher wages and other positive outcomes over several years, compared to both academic-track and lower secondary graduates.
- Countries that are struggling with high dropout rates or difficult school-to-work transitions may want to pay more attention to the enhancement of their VET systems.

EMPLOYABILITY & CAREERS

Youth Futures Foundation published *Apprenticeships, basic skills training, life skills training, mentoring/coaching, off-the-job training and on-the-job training*, findings from a rapid evidence assessment and a literature survey of 60 studies.

- The study was commissioned as part of the development of a Youth Employment Toolkit; a 'network meta-analysis' was used to assess the effectiveness for improving youth employment outcomes, particularly with disadvantaged young people, of six common interventions.
  - The six interventions are: apprenticeships; basic skills training; life skills training; mentoring and/or coaching; off-the-job training; on-the-job training.
  - It summarises evidence from evaluations in high-income countries whose labour markets and economies are broadly similar to those of England and the wider UK.
- Key findings include:
  - On- and off-the-job training are likely to have a moderate average impact on youth employment; for every 17 on- or 19 off-the-job participants, one will be employed who wouldn't be otherwise.
  - Both on- and off-the-job training are likely to have a high average impact on youth employment outcomes for those who face additional barriers to employment, such as disability, history of involvement with the justice system, or having been in care.
  - Apprenticeships are likely to have a positive impact on youth employment outcomes.
  - Basic skills training, life skills training and mentoring or coaching are likely to have low/no impact; however, they have other beneficial outcomes and are part of other interventions that are likely to have a moderate/high impact.
  - Basic skills training combined with off-the-job training, and mentoring/coaching with life skills training are likely to have a high impact.
- Common factors that can support the success of many approaches include:
  - Alignment of skills interventions with job opportunities and skills needs in the local economy.
  - Strong partnerships between stakeholders, including community organisations and employers.
  - Personalisation of approaches, especially for those facing marginalisation or other barriers to work.

The Prince's Trust and LADbible Group published *Gen Z redefining dream jobs*, based on a survey of 223 16–24 year-olds across the UK, plus views via the LADnation research panel of over 55k 18–34 year-olds.

- The top characteristics Gen Z want in a 'dream job' are doing something that makes them happy (64%), doing something they enjoy (60%) and feeling financially secure (49%).
- Only 7% said they were in their dream job; the main obstacles include lack of: opportunity (36%), money (35%), experience (33%) and self-confidence (32%).
- 40% have changed their career plans in the past year; 57% said they had lowered their long-term aspirations over the past two years.
  - The cost of living (57%), the UK economy (44%) and their mental health (39%) have had the biggest impact on their future plans.

Gen Z is usually used to describe those born between 1997 and 2012.

Skills Development Scotland published *Young People in Scotland Research 2022/23: Key findings briefing paper*, based on an Ipsos Scotland survey of 1,533 11–18 year-old school students in September to December 2022.

- Young people tend to base their subject choices on interests and strengths and on what they think will be most useful for their future career.
- After school, 42% (50% of girls) plan to go to university, 15% to college; only 8% plan to get a job and 4% to start an apprenticeship.
- Their plans are most likely to be influenced by the type of job they want (76%), the subjects they're interested in (74%) and those they're good at (72%), and the amount of money they think they'll earn (60%).
- Girls are most likely to consider a career in medicine & health, creative industries, teaching or childcare; boys, a career in sport, engineering, computing & ICT or construction.
  - Young people still tend to have gendered views on science, technology, engineering & maths (STEM) and caring careers.
- Young people have little knowledge of net zero jobs, skills and opportunities, particularly girls and those living in the most deprived areas.
- 49% don't know much about apprenticeships, but 66% like the idea of being able to work while getting qualifications; 26% say they haven't received information on apprenticeships (28% of girls).
- 59% say they understand how their experiences and learning can help them make career choices; they are less confident in getting information needed to make informed career decisions.

Infographics look at differences based on ethnicity, gender, disability, deprivation, urban/rural and age.

New Zealand's (NZ's) Ministry of Education published *Exploring young people's experience of limited employment*, analysing the characteristics and pathways of 16–24 year-olds in and out of limited employment.

- Limited employment:
  - provides a broader concept than the existing standard 'NEET' (not in education, employment or training) measure
  - captures a range of situations in which young people have no or limited connections to full-time, well-paid employment, or to education likely to move them into such employment
  - can also persist over time, rather than only at points in time (in NZ, around 30% of the population are in limited employment at each age from 24 to 34 years).
- Understanding limited employment and its prevalence provides a starting point for identifying the persistent barriers that can prevent young people from reaching their goals and aspirations.
  - The young people concerned are those: who are NEET; in low-paid, part-time or casual work; with low-level tertiary qualifications.
  - The report considers the inter-related factors that influence young people's lives, e.g. socioeconomic disadvantage in childhood, poor experiences of education and later-life experiences.
  - About 60% of young people in limited employment at age 17 end up in long-term limited employment.

- There is a relationship between work experience, tertiary study and limited employment:
  - Having at least two years' work experience in the earlier years may reduce the likelihood of being in limited employment at age 26 more than having one or more years of tertiary education.
  - Being engaged in tertiary education for at least three to four years in the earlier years also significantly reduces the likelihood of limited employment at age 26.
- The key factors most strongly associated with high-intensity limited employment (i.e. spending more than half of their years aged 16–24 in limited employment) include:
  - Social and economic disadvantage and inequality, low attainment and becoming a mother before age 19
  - Having parents with low educational qualifications and/or with ongoing experiences of limited employment.
- There is a strong relationship between early- and later-life limited employment:
  - If young people were in limited employment at ages 20–24, there is a high chance they will be in limited employment in later years.
  - Most people who were never in limited employment at ages 20–24 experienced little to no limited employment in later life.

The Institutional Landscape

THE FURTHER EDUCATION & SKILLS SECTOR

The All-Party Parliamentary Group (APPG) on Students and the APPG on Further Education (FE) & Lifelong Learning published *The impact of the cost-of-living crisis on FE students: Inquiry report*, focusing on students in England, but with wider relevance.

- Most FE students are feeling the effects, causing many to have to work in insecure jobs and excessive hours alongside their studies; some have had to drop out of studies to make ends meet.
  - Unlike those in higher education (HE), many are under pressure to provide financial support to wider family members, meaning that continuing in education is no longer a viable option.
- Many FE students aim to complete technical education and studies that would enable them to fill essential skills gaps in the current UK workforce.
  - Ongoing cost of living pressures plus the longer term pressure on FE funding is likely to impact not only a generation of students but skills that are essential to the UK workforce.
- Recommendations for government:
  - Provide additional funding so that providers can increase bursaries and target those most in need.
  - Review the mandated eligibility criteria for bursary funds to provide colleges with more flexibility to determine who is eligible and the support they need.
  - Consider extending free meal eligibility and increasing the rate (in England, £2.41 per student).
  - Introduce free or subsided travel for all 16–19 year-olds in FE or training.
  - Increase the apprenticeship minimum wage and enable providers to use bursary funds to support apprentices.
  - Take steps to ensure providers receive appropriate and timely data from local authorities (LAs) to establish bursary needs in their student cohort, as currently happens in schools.
- Recommendations for FE providers:
  - Undertake research on patterns of paid employment by students and its impact on engagement, attainment and outcomes, working with government on appropriate policy responses.
  - Assess the mental health impact of the crisis on the student body and take appropriate measures to address it through student support services where possible.
  - Recognise the role of student voice and local communities in ensuring FE provision meets localised needs, and work with government to address this.

Jisc published *Learner digital experience insights survey 2022/23: UK further education (FE) survey findings*, based on responses from 8,788 college students (23 providers). *[A similar survey was published for HE – a summary of results for both is on pages 5–6.]*

The OECD (Organisation for Economic Co-operation & Development) published *Shaping Digital Education: Enabling Factors for Quality, Equity & Efficiency*, a comprehensive review of current trends and emerging policies across education institutions, including in FE and HE.

- An analytical framework covers eight dimensions for digital education policy:
  - Strategic visions and policy coordination
  - Pedagogical approaches, curricula and assessment
  - Governance, guidance and regulatory frameworks
  - Funding and procurement
  - Infrastructure and innovation
  - Capacity building
  - Human resource policies
  - Monitoring and evaluation.

HIGHER EDUCATION (HE): APPLICANTS & ADMISSIONS

The COSMO (COVID Social Mobility & Opportunities) study of young people in England* published *The Class of 2023: Opportunities and university plans*, analysis of wave 2 data.

- 20% were planning to live at home if they were successful in getting into their preferred university, with a further 14% undecided at the time of the study.
  - Among those whose families had used a foodbank in the last year, 31% planned to live at home vs 19% of those who hadn't used a foodbank.
- 20% of those planning to live at home said they couldn't afford to live away and 20% that their preferred university was nearby; 46% said it was mainly because they wanted/needed to remain near their families.
- 37% of those planning to stay at home wanted to go to a Russell Group university, compared with 56% of those planning to live away from home.
- Of those who didn't intend to apply for university, 22% cited not being able to afford it as a factor.
- 73% felt that doing a degree led to a better paid job, but only 48% that a student loan was a good investment.

**Led jointly by the UCL Centre for Education Policy & Equalising Opportunities, the UCL Centre for Longitudinal Studies and the Sutton Trust, COSMO is tracking the lives of over 11k young people who took A Level exams and other qualifications in summer 2023.*

Unite Students and the Higher Education Policy Institute (HEPI) published the second *Unite Students Applicant Index 2023*, based on a Savanta survey of 2,141 UK applicants before they attended HE.

- The index includes finance, wellbeing, sustainability, learning and employment issues.
  - It combines responses measured on a seven-point scale of agreement with the Office for National Statistics (ONS) standard wellbeing indicators to generate nine composite scores out of 100.
- The areas with the top three scores were:
  - Learning (academic confidence and commitment to their course): 72 (+1 on 2022)
  - Community (motivation to be part of and help build a diverse community): 70 (no change)
  - Independence (how prepared they are to live independently): 68 (a new area).
- The areas with the lowest scores were:
  - Finance (self-rated financial means combined with confidence in budgeting skills): 59 (+1)
  - Employment (optimism about finding a graduate job, combined with work-related skills and experience they believe they have already): 62 (no change)
  - Wellbeing (ONS wellbeing questions combined with levels of positive/negative feelings): 63 (+1).
- The only area that had a lower score was sustainability (strength of concern about climate change combined with environmental behaviours and personal commitments): 67 (-1).
  - Applicants were less likely to recycle or to have made sacrifices to live more sustainably, possibly because only 58% believed their actions had an impact on climate change.

- Other detailed findings include:
  - Black students were happier and more likely to feel loved than any other ethnic group and had a stronger belief in their ability to make decisions.
  - 24% were lonely most or all of the time, around the same rate as current students.
  - 33% had a history of missing education due to their mental health; 7% had missed 20+ days.

Economic & Social Research Institute (ESRI), Republic of Ireland (RoI), published *Student mobility in Ireland and Northern Ireland [NI]*, drawing on administrative data, Central Applications Office (CAO) microdata, interviews and a consultation event with stakeholders.

- Main findings include:
  - In 2020/21, 1,170 students from the RoI went to study in NI and 1,255 vice versa; more students from the RoI go to study in the rest of the UK than in NI (~4k annually).
  - There is a relatively large outflow of students from NI to the rest of the UK (RUK) – 13,685 in 2020/21 – partly reflecting the high levels of competition for places, with very little mobility in the opposite direction.
  - Only a minority of applicants from NI or RUK end up being offered and accepting a place in RoI HE providers, due in part to: candidates being less likely to meet minimum requirements than domestic students, and the impact of differential timing of course offers and/or using an application elsewhere as a safety-net in securing a high-demand course.
  - Similarly, acceptance rates for UK HE institutions (HEIs) are lower for RoI applicants than for those from the UK.
  - The process of deciding where to study reflects the complex interaction of school-level guidance, recognition of qualifications, tuition/registration fees and financial supports and other living costs.
- Implications for policy and practice include:
  - There is potential for school-based guidance to provide greater awareness of options in other jurisdictions, a process that can be usefully supported by outreach work by HEIs.
  - There is a case to re-examine CAO point equivalences for A levels, given the very small group of NI candidates who take four A levels, and to look at modern foreign language requirements (in courses where such skills are not critical), given the much lower take-up of languages in NI.
  - The cap on places in NI could be revisited to enhance HE participation in general and cross-border mobility.
  - Overall, there is a need for coordinated interventions across different levels of both systems if student mobility is to be an important policy goal.

HE: THE STUDENT EXPERIENCE

England's Office for Students (OfS) published *National Student Survey data: Provider-level*, the results of the UK-wide National Student Survey.

- OfS managed the survey on behalf of the Northern Irish, Scottish and Welsh funding and regulatory bodies.
- Responses were received from 339k students in 528 HE providers – a 71.5% response rate, up from 68.6% in 2022.
  - For the first time, the survey asked questions about mental wellbeing services and, in England, freedom of expression.
  - Questions were answered using a four-point positivity measure or a 'does not apply' option.

The results can be explored via a dashboard or downloaded as spreadsheets. Detailed analysis is available on Wonkhe.

Jisc published *Learner digital experience insights survey 2022/23: UK further education (FE) survey findings* based on responses from 8,788 college students, and *Student digital experience insights survey 2022/23: UK higher education (HE) survey findings*, based on responses from 27,131 university students; both were conducted October 2022–April 2023.

- 72% in FE and 81% in HE rated the online environment as above average.
- 19% in FE and 89% in HE experienced at least some online teaching; 71% & 53% preferred mainly campus teaching; 24% & 36% preferred a mix and 5% & 11% preferred mainly online teaching.

- 53% in FE and 58% in HE experienced difficulties learning with digital technology, both on and off campus, including:
  - 20% & 19% had no safe place to work and 34% & 36% no private place to work.
  - 45% & 33% struggled with wifi on campus and 17% & 32% off campus; 34% & 34% struggled with data costs.
  - 32% & 27% had no suitable device for learning.
- For both FE and HE learners, the most positive aspects were:
  - Working flexibly on and off campus.
  - More opportunities for interacting with classmates and tutors/lecturers and improved confidence to participate and share ideas.
  - Saving both time and money for some learners (e.g. reducing the need to travel to campus).
  - FE learners also mentioned: more effective self-directed study and being able to work in ways that suited their preferences, including using assistive technology; getting timely feedback from tutors.
  - HE learners also mentioned: the convenience of online lectures and improvements to mental wellbeing.
- The negative aspects included: technical frustrations; lack of interaction and engagement and issues with mental wellbeing; reduced ability to engage with resources/classes.

The FE report is based on responses from 23 colleges across the UK including two in Northern Ireland, the HE report on responses from 40 HEIs across the UK, also including two in Northern Ireland.

The Quality Assurance Agency for Higher Education (QAA) published *Student Engagement Guidelines: Learning from innovative practices introduced in response to COVID-19 – A collaboration of 10 UK modern universities*, the report of a project involving business schools in England.

- The pandemic:
  - disrupted the 'normal' way of engaging with learning and teaching, but also opened up avenues for engagement beyond traditional classroom experiences
  - impacted sense of belonging and increased the need for both physical and virtual spaces
  - created 'fatigue' among students to proactively engage with enrichment activities traditionally linked to campus life, student halls or student unions
  - caused many to feel isolated, often missing out on peer-group friendships and relationships with academics, triggering an increased demand for mental health and wellbeing support.
- Other findings include:
  - The complex needs of commuter students pose challenges for institutions to respond to growing demands for more accommodating campus environments to maintain student engagement.
  - Students greatly appreciated the efforts universities took to digitise learning and teaching during the pandemic, while acknowledging there was still room for improvement.
  - The rise of online/hybrid learning has caused a dilemma for students between their desires for flexible learning and the expectations associated with it.
  - Students' views on engagement appear to have shifted towards a rising awareness that attendance is not sufficient to constitute a robust form of engagement.

King's College London (KCL) Policy Institute and the Centre for Transforming Access & Student Outcomes in HE published *Student mental health in 2023: Who is struggling and how the situation is changing*.

- The research draws on a dataset of 83.7k undergraduate respondents over seven years between 2016/17 and 2022/23.
- The share of UK undergraduates saying they had experienced mental health difficulties rose from 6% to 16% over the period, with a significant part of this increase occurring in the last 12 months.
  - Among those dropping out of university, the proportion citing financial distress as the main reason rose from 3.5% to 8% between 2022 and 2023.
  - However, the general upward trend in mental health problems predates both the rise in inflation and the pandemic.

- Experiences of mental ill-health are deeply unequal, with women, LGBTQ+ people and those from lower socioeconomic classes more likely to report it than their peers.
  - Students from state schools or from areas where fewer attend university are also more vulnerable.

KCL Policy Institute published *Freedom of speech in UK higher education: Recommendations for policy and practice*, drawing on focus groups and interviews with undergraduates and large-scale surveys of both undergraduates and adults across the UK.

- Survey findings include:
  - 80% of students feel free to express their views at university, down 8ppt on a similar survey in 2019, but higher than the 70% of the general public who say the same.
  - 65% say that free speech and robust debate are well protected at their institution, while 15% disagree; 73% report that debates and discussions are civil, while 10% disagree; both sets of figures are largely unchanged on 2019.
  - 70% agree that academics are free to express their views at their university (-9ppt).
  - 55% say their university manages student protests fairly (+2ppt); 12% disagree.
  - However, 34% say free speech is very/fairly threatened at their university (+11ppt), although 59% disagree; 53% feel that free speech is under threat across UK society as a whole.
  - 65% of students who would vote Conservative believe that ideological tolerance is declining, compared with 37% who would vote Labour; 57% vs 31% feel unable to express their views because they're scared of disagreeing with their peers.
  - 32% feel academic freedom is threatened (+12ppt).
- The Higher Education (Freedom of Speech) Act *[applies only in England]* has made it through Parliament; while offering one way of addressing these concerns, it also brings significant risks.
  - The focus on regulation distracts from a range of non-legislative practical measures universities could put in place, which will go much further to promote freedom of speech than simply following the duties arising from the Act.
  - In seeking to respond to the new legislation in a positive manner, universities should test and implement recommended measures based on a clear theory of change, drawing on existing research and experiments and implementing a programme of testing to understand impact.

HEPI published *How to beat a cost-of-learning crisis: Universities' support for students*, based on an audit of 140 Universities UK (UUK) members and interviews with professionals at 18 UK providers.

- Providers have adopted a range of student support strategies: 76% help with food and drink, 47% with health, 35% with travel and 35% with digital.
  - For food and drink, 51% offer discounts, 27% operate a food bank and 11% give out vouchers; 33% of Russell Group universities operate a food bank compared to 26% of other universities.
  - Wales, the South West, the North East and the South East were the regions where universities were most likely to operate a food bank, with Northern Ireland and London the least likely.
- On average, hardship funds award up to £2,470 and commit to get funds out within four weeks.
- 82% have an online platform to communicate their offer to students.
- Innovative interventions include:
  - University of Manchester: a cost of living working group, separate from university processes, has campaigned for and facilitated payments of £170 to more than 90% of students.
  - Buckinghamshire New University: 'Big Deal' gives free access to clubs, societies & skills sessions.
  - Manchester Metropolitan: applicants to the hardship fund only need to submit a screenshot of their bank balance, along with evidence of tenancy and a student loan.

***(No) time to engage: An exploratory mixed-method study into factors predicting the engagement of postgraduate research students [PGRs] in Ireland* by ESRI researchers was published in the journal *Higher Education*.**

- The research investigated engagement among both domestic and international PGRs, based on 2019 Student Survey data and 14 interviews at Trinity College Dublin in 2021.
  - It focused on students': engagement with their supervisor; engagement within the department; and cognitive engagement.

- Findings include:
  - Differences between RoI and international PGRs were found to: be mainly influenced by perceived financial security and familiarity with institutional structures and environments; be mediated by their relationship with the supervisor; influence the time available for engagement.
  - The relationship with the supervisor was the strongest indicator for engagement, influencing access to the department and understanding of the academic and institutional structures and funding sources.
  - Needs vary according to the domicile of origin – international students cannot be treated as a homogeneous group.
  - Challenges for PGRs can be mitigated through supervisor support.

GRADUATES & GRADUATE EMPLOYMENT

England's OfS published *Supporting local students and graduates – An evaluation of the Office for Students Challenge Competition: 'Industrial strategy and skills: support for local students and graduates'*, by the Careers Research & Advisory Centre.

- The 16 projects were in areas including: boosting digital skills; additional support for unemployed graduates; and job matching skills for students from minority groups.
- 89% of students were positive about participation, citing improvements in: career intention and confidence in finding suitable employment; employability skills; a sense of 'belonging'; interest in remaining in the local area after graduation; and an understanding of the local labour market and employer needs.
- 87% of employers reported value from the project, including: extra capacity; new skills leading to business improvement; market insights relating to young people; improved recruitment processes for applicants from diverse backgrounds; improved awareness of the value of employing graduates.
- The partnerships benefitted from:
  - Improved understanding of the area's graduate labour market through research, monitoring and evaluation
  - Improved networks between students/graduates, employers, universities and the wider local community
  - Spin-off activities or potential activities through the partnerships and the insights developed.
- After completion, most projects reported aspirations to mainstream at least some of their activities.

Projects at Birmingham City and Aston, De Montfort and Manchester Metropolitan universities were recognised for their innovative work through national awards.

UUK published *Jobs of the future*, based on labour market analysis and a survey of 100 leaders from UK FTSE 350 companies on areas of high employment growth and skills needs over the next decade.

- Graduates earn more, have more career options and are less likely to experience setbacks at work compared to non-graduates.
  - In 2022, the number working in graduate-level jobs in the UK rose by 469,800; jobs below degree level fell by 165,400.
  - 70% of employers felt graduates met or exceeded expectations for skills, e.g. 92% for teamwork, 73% for self-motivation and remote working.
- By 2027, there will be 3m more jobs globally for teachers, including in HE, and 4m more digitally enabled roles.
- By 2035, 88% of new jobs will be at graduate level and the UK will need 11m+ extra graduates in addition to the 15.3m currently in the workforce.
  - This includes: 1.9m STEM professionals; 1m health professionals; 1.2m health & social care associate professionals; 1m teaching & education professionals.
  - Computer programming is the occupation expected to grow most in the UK.

- Due to artificial intelligence (AI), there will be a 10% net increase in jobs that require a degree over the next 20 years.
  - 61% of FTSE 350 leaders say creative thinkers will be essential to making the most of new AI tools; 51% say critical thinking skills will be more important than ever.
  - 50% believe arts & humanities graduates will be crucial; 63% say businesses will need to work more closely with UK universities to develop a pipeline.

UUK published *The value of going to university*, based on research conducted with 3,500 UK graduates and 3,500 UK business leaders.

- **Graduates**:
  - 73% credit going to university with enabling them to find the job they wanted in under a year.
  - 76% say it helped to build their self-confidence.
  - 79% say it enabled them to build skills that have proved professionally valuable.
  - 67% believe that it enabled them to build vital transferable skills that help them in their career.
  - 71% of first-in-family (FiF) graduates say it opened doors to companies for them; FiF graduates had a slightly higher average starting salary than their non-FiF peers.
- **Business leaders**:
  - 97% say that graduates reach managerial positions faster as a result of going to university.
  - 71% believe that going to university enables graduates to build vital transferable skills.
  - 73% believe that it introduces graduates to peers who can help them build their careers.
  - 60% of those who were FiF say that it helped them become senior managers faster, compared with 56% non-FiF; 51% say it helped them fast-track their career, compared with 46% non-FiF.

The report includes case studies of graduates from across GB.

The Association of Graduate Careers Advisory Services (AGCAS) published *AGCAS Roundtable: Student Engagement*, providing a snapshot of the challenges facing careers services in engaging students and graduates, and insights into the role data play in student engagement.

- Participants from 11 HEIs discussed how data were used to identify learning gains for students and graduates and to demonstrate the impact of careers service interventions.
- Issues discussed included: the data used to monitor engagement; how data were shared across universities; alumni engagement; and engaging different groups of students.

Prospects Luminate published *International Student Employability and Study in the UK: Perspectives from Chinese employers and alumni*, by University of Sheffield researchers, exploring the impact of studying in the UK on employability.

- The research is based on interviews with both Chinese graduates who had studied to at least master's level in the UK and Chinese employers; findings include:
  - Employers and alumni agreed that study in the UK enhanced people's employability skills, including: communication and team working; time management; research, analytical and problem solving skills.
  - It also improved their initiative, adaptability, inclusivity and global perspective.
  - Interviewees thought that skills such as professional image management, social networking and digital skills were not well developed in UK study.
  - Employers laid great stress on university rank, the degree qualification and the length of study period; the single year master's in the UK was seen as too short to provide sufficient experience.
  - Internships were highly valued, but the short stay in the UK and difficulty of finding suitable internships were noted.
  - University careers services were seen as offering lots of benefits but students failed to engage with them.
  - Employers thought that students who had studied in the UK had inflated salary expectations; alumni were keen to regain the cost of studies and, because of limited awareness of the job market, had unrealistic expectations.

HE: TEACHING & RESEARCH

UUK published *The value of innovation in teaching and learning*, exploring how universities have become more innovative.

- It considers where digital enhancements can be further developed, supported by:
  - **Targeted investment in**: up-to-date technology, to keep pace with developments in sectors in which graduates will be employed; ability of staff to use technology effectively and to innovate.
  - **Support from regulatory and professional bodies**: e.g. England's OfS gives universities confidence that planned changes and future developments will be in line with its conditions, by linking regulatory requirements to examples of good practice.
  - **Strengthening communities**: online provision can't be pursued at the expense of building learning communities – providers need to share best practice to mitigate negative impacts.
  - **Updates to course design**: universities can move beyond lessons from the pandemic and use the full range of emerging evidence, practice, thinking and technology to meet student and employer needs.
  - **Marketing**: universities must communicate clearly what applicants can expect from a course and explain the benefits of digitally enhanced teaching and learning and of blended learning in particular.
  - **Increased support for shared and open educational resources**: collectively developed resources implemented locally maintain institutional autonomy and distinctiveness while reducing unnecessary duplication of effort and provide universities and students with high-quality material.

The Russell Group published Principles on the use of generative AI tools in education*, to help universities ensure students and staff are 'AI literate' and to support the ethical and responsible use of generative AI.*

Jisc published *Beyond Blended: Post-pandemic curriculum and learning design – lessons from the higher education (HE) sector*, based on input from an advisory panel of 21 experts and 700 sector representatives.

- It outlines six pillars of blended learning that will support educators through the curriculum design process and help learners navigate new ways of learning:
  - **Place**: Where are educators and students accessing learning? Does this effect how they interact with content?
  - **Platform**: What are the differences between in-place and online learning?
  - **Pace**: educators and students now have more flexibility to access learning at any time.
  - **Blend**: most learning has in-place and online, synchronous and asynchronous elements.
  - **Flex**: educators and students expect choice and flexibility in their chosen mode of learning.
  - **Support**: educators and students need support to engage in diverse modes of learning, and to create the most effective blend.

Jisc also published Digital transformation in higher education*, a guide to support the development of digital strategies, assessment of digital maturity and creation of plans for implementation.*

The Open University (OU) published *Innovating Pedagogy 2023 Exploring new forms of teaching, learning and assessment, to guide educators and policy makers*, its 11th annual report.

- It highlights ten promising innovations that are already in currency but have the potential to exert a more profound influence on education:
  - **Pedagogies using AI tools**: there is a need to train students in their effective use, consider ethical implications and reconsider assessment practices.
  - **Metaverse for education**: 3D virtual reality that allows users to interact through avatars – recent investment has brought it to the forefront; while it offers potential, there are challenges and concerns, including over accessibility, and privacy and security.
  - **Multimodal pedagogy**: the use of different modes of communication to facilitate learning, such as words, images, sounds and gestures, is gaining popularity as text-based practices become less dominant.
  - **Seeing yourself in the curriculum**: a 'decolonial' approach incorporating knowledge generated from authentic local contexts and ensuring teaching resources reflect diversity.

- **Pedagogy of care in digitally mediated settings**: prioritises empathy and the development of learners in a nurturing, supportive and equitable learning environment.
- **Podcasts as pedagogy**: both curation and creation can offer flexibility, control, informality, greater engagement, inclusivity and up-to-date content, and foster critical thinking.
- **Challenge-based learning**: builds on experiential and constructivist learning; three stages – engage, investigate and act, 'provoking' active participation.
- **Entrepreneurial education**: can engage those who don't see themselves as entrepreneurial and promote creativity, curiosity, critical thinking, problem solving, communication skills, teamwork, flexibility, taking risks and a strong work ethic.
- **Relational pedagogies**: develop expertise in collaborating across practice boundaries and disciplines; often used with health professionals or to co-design content and curate reading lists.
- **Entangled pedagogies of learning spaces**: focus on understanding how technology and pedagogy are interconnected and influence each other; exemplified by the use of generative AI.

Advance HE published *Education for Sustainable Development [ESD]: A review of the literature 2015–2022*, by KCL. *[Available in full to Advance HE members only.]*

- The literature review explored the evidence around three questions:
  - How has ESD been framed within curricula and how have ESD principles been operationalised as learning outcomes?
  - What ESD pedagogies, assessments and teaching approaches are used and why?
  - What student outcomes and perceptions are associated with these ESD practices, and what barriers are encountered?
- The report looks at emerging practices that support 'transformational and experiential' learning approaches and highlights potential gaps.
- Next steps for ESD:
  - Institutions aiming to embed ESD will require additional evidence regarding its impact on student outcomes and the barriers encountered in implementation.
  - Implementing such strategic change requires an evidence base comprising effective teaching and assessment practices and professional development, plus an institutional approach to community and employer engagement, and organisational and distributed leadership.

HEPI published *The relationship between teaching and research in UK universities: What is it and does it matter?*, considering the perspectives of universities, students and government.

- 'Research-informed teaching' is a powerful driver of student choice, but there is substantial variation in their exposure to research activities, with financial and policy pressures leading to teaching and research activities becoming increasingly separated.
  - All governments have been consistently sceptical about the value of the relationship and have prioritised other objectives, directly or indirectly driving research and teaching apart.
  - This separation has been compounded by teaching and research being allocated to different government departments and ministers.
- The growing separation is happening with little or no attention being paid to the downsides and trade-offs in terms of university practices and government policy development.
  - Lack of institutional clarity about the relationship contributes to a gap between assertions about the benefits of research-informed teaching and students' actual experience.
  - Continuing separation will lead to fewer students benefiting from exposure to research activity, particularly those from disadvantaged backgrounds, potentially affecting the diversity of the postgraduate cohort and the subsequent composition of the academic workforce.
  - Separation of functions may also negatively impact on academics' career progression and identity.
  - The lack of transparency about the relationship and the lack of a shared understanding between the sector and government risk undermining policy coherence and effectiveness.
  - It could also impact on other policy areas such as the size and shape of the sector, funding strategy, civic engagement and articulation between FE and HE.
  - Separation may undermine universities' role in supporting national priorities that depend on both skilled graduates and research outcomes.

- Further separation could weaken the national and international reputational dynamic of having both activities in the same institutions, although reputational considerations must not undermine the status of teaching and teaching-focused institutions.

The report is by Professor Nicola Dandridge, previously CEO of England's OfS and of UUK.

HEPI also published UK higher education: Policy, practice and debate during HEPI's first 20 years*, 13 essays by a range of authors from across the sector.*

QAA published *Definition of quality* to help policymakers and other lay stakeholders understand the term in relation to UK HE.

- It includes a 'non-exhaustive' breakdown of indicators with examples from educational settings:
  - Staff and students are professionally and academically thriving
  - The learning experience is relevant and challenging
  - Everyone within a provider seeks to improve quality
  - All students get a fair chance
  - External expertise is sought and used
  - Assessment is a tool to support and evidence learning.

QAA also published *Internal university quality assurance processes* and *The Inter-connected system of quality*, infographics of the approaches taken in each of the UK nations, developed with UUK and GuildHE.

HE: INSTITUTIONAL MATTERS

The Russell Group published *Understanding a research-intensive university's business model for educating students*, exploring the challenges its universities face trying to cover the rising level of investment required to subsidise education and research.

- In 2014/15, UK universities received on average 76% of the full cost of research, dropping to 69% in 2021/22; they invested £2.9b to subsidise research activity in 2014/15 and £5b in 2021/22.
- In 2022/23 UK students paid on average less in fees than the average cost of their courses: £23.5k a year per student for medicine; £14k for STEM courses; £10.5k for those in classroom-based subjects.
  - English universities supplemented this with an average of ~£2.5k per student in 2022/23, projected to increase to £5k by 2029/30.
  - Salaries, maintenance and running costs, IT and digital services, support services and regulation, and scholarships and bursaries are all essential and don't provide opportunities for efficiencies.
- Cross-subsidisation by international student tuition fees is at the core of the business model, making financial sustainability reliant on their recruitment.
  - In the short term, this is where universities can be most agile, but increasing reliance brings inherent risks, given the impact of policy around visas and immigration or wider geopolitical shifts.

The National Centre for Universities & Business (NCUB) published *Pathways to Success*, the report of its Researcher Career Mobility Taskforce.

- It sets out what more the UK needs to do to capture researchers' full potential, focusing on the mobility of researchers between universities and businesses in order to ensure:
  - a research and innovation system that is internationally renowned for the opportunity it offers researchers to build exciting careers across sectors
  - institutional environments that recognise and reward skills, knowledge and networks based on their value, and actively facilitate mobility
  - career pathways across sectors that are directed by the ambitions and interests of the individual and informed by the full breadth of opportunities available – only 20% of researchers in universities have spent time working in industry.
- Six recommendations:
  - The Government should build on the proposals set out in the 2021 *R&D People & Culture Strategy* to make enhancing intersectoral mobility a key design principle of UK research and innovation.

- Public research funders should ensure that all researchers – regardless of discipline, sector, career stage, funding source or background – have the opportunity to access public support for intersectoral mobility.
- Universities and businesses should create clearer, more formalised mechanisms to facilitate the seamless movement of researchers across sectors.
- Universities and businesses should clearly recognise and reward skills and experiences gained across different sectors.
- Universities and businesses should help researchers understand and be prepared for the full range of exciting career pathways that exist across the UK research and innovation system.
- All researchers should actively pursue career paths that give them the breadth of skills and experiences they need to meet their ambitions; and all research managers and supervisors should encourage and advocate for their teams to do the same.

NCUB also published an evidence series supporting the Taskforce: A qualitative deep dive into experiences and attitudes towards the cross-sector mobility of researchers*; and* International characterisation of researcher mobility schemes*; and* Building a data-driven picture of researcher intersectoral mobility in the UK.

GuildHE published *Expertise in Action: The real-world impact of knowledge exchange [KE] funding at smaller and specialist institutions*, based on ten case studies from members that had received time-limited, one-off funding.

- The funding was introduced for institutions that don't receive Higher Education Investment Funding (HEIF) because their allocation, based on their KE activity, would be below a £250k threshold.
  - The aim of the threshold is to incentivise good performance and effectiveness of KE activity.
- Among the findings:
  - KE activity at smaller and specialist institutions is essential to meet growth ambitions across the whole country; they 'punch above their weight' when engaging with businesses and communities and are often located in areas and sectors that are underserved by public investment.
  - The funding enabled institutions to leverage their deep expertise to create social impact through a diverse range of initiatives, enabling the development of sustainable projects, external engagement infrastructure, capacity building and time, and paving the way for further collaboration and additional funding opportunities.
  - The lack of predictable funding and funding streams risks hindering the longevity of partnerships and constraining networks and projects that have already shown transformative impact.
  - A secure and sustainable funding stream is recommended to expand projects, build staff capacity, develop long-term partnerships, formulate effective strategies and promote public engagement, innovation and place-making.
  - There is a bias inherent in the HEIF threshold that rewards size, not effectiveness; adjusting KE activity based on student numbers highlights that smaller institutions perform exceptionally well.

UUK published *The impact of the higher education sector on the UK economy: Summary report* by London Economics, including a breakdown of the estimated impact on UK nations and regions.

- Based on operational and capital expenditure and staff numbers, in 2021–22 the direct overall impact was £46.1b.
  - When indirect and induced effects are included, this rises to £115.7b, and to £130b when the spending of international students is included.
- An estimated 768k jobs are supported by HE, of which half are indirect.
- The impact of the UK HE sector on the devolved nations is estimated:
  - Northern Ireland enjoys: £2.3b in output; £1.6b in in gross value added (GVA); 19,500 (full-time equivalent) in employment.
  - Scotland: £11b output; £7.4b GVA; 84,300 FTE employment.
  - Wales: £4.4b output; £3.0b GVA; 37,000 FTE employment.

UUK also published Sustainable university funding: Why it is important and what is needed*, focusing on England but with UK-wide implications.*

WORKFORCE ISSUES

HEPI published *Because you're worth it: Are vice-chancellors [VCs] worth the pay they get?*.

- The debate paper argues:
  - UK universities receive up to £2.2b annually and have enormous local, national and international influence, so high-quality leadership is essential.
  - VC pay is determined carefully by remuneration committees that draw on guidance such as that published by the Committee of University Chairs.
  - In 2022, the top three highest earning UK VCs were paid £539k to £714k – more than the UK prime minister and NHS managers, but less than institutional leaders of private sector companies with similar revenue.
  - UK VCs earn less than their equivalents both in the US (up to £1.9m in 2022) and Australia (£793k in 2021).
- Recommendations to universities include:
  - Redouble efforts to increase awareness of the complex roles of HE leaders.
  - Strengthen the capability of governing bodies on pay remuneration.
  - Develop innovative and flexible strategies to align performance with remuneration.
  - Encourage a wide range of applicants to apply to leadership positions.
  - Consider reviewing remuneration rates and terms and conditions of HE staff across all roles.

The Workplace

RECRUITMENT

STEM Returners published *The STEM Returners Index 2023*, its third annual survey of over 1k UK STEM professionals who are on a career break, seeking to return to work or have recently returned.

- 45% of those seeking to return to work are female and 39% are from minority ethnic groups.
  - 65% have a degree, master's or doctorate; 70% hold their highest qualification in a STEM field.
  - 44% have over five years of pre-break experience; 52% were in a managerial or professional role.
  - Over 50% have had a break of less than two years; 44% took a break to care for others; 20% for health reasons; 18% due to relocation; 10% due to redundancy (down from 20% in 2022).
- Overall, there has been significant improvement in terms of the ease of returning to work and levels of bias in the recruitment system.
  - 51% said the process was difficult or very difficult (-14ppt); 66% had applied for six or more jobs in the previous 12 months (-8ppt) and 17% had applied for 70+ (-10ppt).
  - 33% felt they had experienced bias (-5ppt), rising to 49% among 55–64 year-olds; 40% of females had never or hardly ever received feedback from job applications (-12ppt).
  - 30% said their personal confidence had been affected by the recruitment challenges (-5ppt).
- Among those who have successfully returned this year, 92% are glad to have done so, but 28% found the transition difficult/very difficult, with many saying their employers weren't adequately equipped to integrate a returner.
  - Only 21% had seen a structured returners' programme and 16% had experienced one; 40% would have preferred to have returned through one.

The European Commission published *Investing in Career Guidance: The case for workers*, produced by the Inter-Agency Working Group on Career Guidance, including Cedefop (European Centre for the Development of Vocational Training), the International Labour Organization (ILO), the OECD, UNESCO and the World Bank Group.

- The report advocates for quality career guidance for workers in the framework of lifelong guidance systems, and outlines the benefits for different types of workers employed in a range of contexts.
  - The elements of quality career guidance are: governance; service and access; inclusiveness and awareness of services; setting up and/or scaling up services.

APPRENTICESHIPS & TRAINEESHIPS

UCAS and the Sutton Trust published *Where Next? What influences the choices of would-be apprentices?*, tracking potential apprentices from initial interest to starting a programme.

- 40% of students (430k) who engage with UCAS due to interest in undergraduate options are also interested in apprenticeships; however, the number of under-19 starts at Level 4+ remains below 5k.
- Among the findings:
  - 46% had considered apprenticeships when studying for GCSEs/National 5s, rising to 49% among those from lower socioeconomic backgrounds (vs 43%); 70% had a positive initial perception.
  - 41% had received the same or more information on apprenticeships as on university options.
  - 31% of those from lower socioeconomic backgrounds (vs 23%) cited pay as a top research topic.
  - 33% of apprentices from lower socioeconomic backgrounds had no support with their application.
  - 50% of apprentices said their experience was positive vs 90% of those placed as undergraduates; with no central system, multiple applications can be burdensome.
  - Lack of availability was a top three reason in every region of the UK for not pursuing an apprentice (61%); 35% said there weren't any apprenticeships in their preferred career.
  - 24% of those who had applied but had changed their minds cited being unable to afford it.
  - 66% of apprentices were likely to recommend the route to family or friends; 33% said it wasn't what they had expected.
- Parity between apprenticeships and university study is required in five areas:
  - **Ambition**: 33% of students consider university while in primary school, rising to 40% among advantaged students; this compares with 5% for apprenticeships.
  - **Access**: 46% of those from disadvantaged areas are interested vs 41% from the most advantaged areas; 63% from low socioeconomic backgrounds have considered apprenticeships vs 51%; yet twice as many degree apprentices are from the wealthiest areas as from the poorest.
  - **Connection**: 75% of students find it easy/somewhat easy to find information about university study, compared with 25% for apprenticeships; multiple applications are arduous.
  - **Opportunity**: 30–41% of UK 18 year-olds enter HE each year, compared with just 5k young Level 4 apprenticeship entrants, some of whom are existing employees.
  - **Award**: 76% of students view university degrees as 'prestigious' vs 4% for apprenticeships.

The APPG on Apprenticeships published *Apprenticeships Report 2022/2023*, with insights from sessions on topics from the drive to net zero to encouraging more SMEs to take on apprentices.

- It makes recommendations for the system in England, including:
  - It should be a national priority to support SMEs with apprenticeships from start to finish: improve flexibility and simplicity and shift the burden of managing the levy transfer process for SMEs to training providers.
  - Consider supporting the cost of a dedicated resource to promote and provide apprenticeships within an organisation – many can't afford an 'apprenticeship manager'.
  - The current budget must be a floor, not a ceiling; any plans to broaden the levy's scope must protect the current budget ring-fenced for apprenticeships; there should be more transparency about levy distribution.
  - More focus on and investment in green apprenticeships, possibly centring on: flexibility in funding to allow greater support from colleges for green skills; flexibility in standards development to allow for the incorporation of green skills.

Includes case studies from universities, independent training providers, companies and EngineeringUK.

England's Careers & Enterprise Company (CEC) published *Conditions for transition: Supporting young people onto apprenticeships and technical pathways – a regional analysis*.

- It summarises work to establish, region by region, the relative impact of eight key enabling factors in transitions to apprenticeships and technical education (ATE) pathways – the 'ATE Transitions Framework'.
  - The CEC worked through its Careers Hubs in partnership with LAs, combined authorities and Local Enterprise Partnerships (LEPs)* to score the factors using a Likert Scale, where 1 means 'significant barrier' and 5 'significant support'.

- This resulted in the following ranking of enabling factors:
  - Employer need for skilled workers (3.18)
  - Promotion of ATE options (2.79)
  - Understanding of ATE routes (2.61)
  - Enthusiasm for occupations and industries with a sufficient supply of opportunities (2.43)
  - Access to relevant training options that are accessible in a specific place (2.42)
  - Existing skill levels match requirements for the next steps (2.33)
  - Conversion rate of interest to take-up (2.31)
  - Employer willingness to offer opportunity, e.g. through placements or apprenticeships (2.30).
- Regional variation was considerable: e.g. in Birmingham, access to relevant training options was scored as 5, but in Swindon & Wiltshire as 1.6.
- Overall, the report highlights that targeting the right barriers with the right remedy in the right region is essential to boosting provision and opportunities.

**LEPs have now been disbanded, with their functions integrated into those of other local bodies.*

OTHER VOCATIONAL EDUCATION & TRAINING (VET)

Cedefop published *The future of vocational education and training in Europe: Synthesis report*, summarising three years of research and including a country analysis split into Central/Eastern Europe, Southern Europe, Western Europe and the Nordic Countries.

- Highlighted trends include:
  - **The pendulum effect**: the development of VET can be interrupted by changes of course and even reversals in policy and practice (assessment is an area where this is clearly observable), while the pendulum can also be 'magnetically attracted or repelled' in a space between economic, social and educational goals.
  - **Fewer and broader initial VET (IVET) qualifications**, with stronger general education and transversal skills and competences.
  - **Increasing diversification of provision**: greater institutional autonomy is being accompanied by increasing modularisation of qualifications and use of methods to validate non-formal/informal learning; this in turn enables individual pathways and flexible learning; there has also been an increase in workplace learning.
  - **Changing interaction with higher levels of education**: IVET has opened up to adults over the past 25 years, partly due to more flexible programmes with a stronger vocational component; many countries are also strengthening the links to higher levels of education to make VET more attractive to young people, through access pathways to HE or additional programmes that bridge the gap between upper secondary and tertiary education.
  - **Other trends**: the decline in enrolment appears to have stalled in several countries; school-based VET is increasingly moving towards broader vocational domains and qualifications that provide access to HE; IVET and continuing VET are tending to converge, partly to better support lifelong learning, but also for reasons of financial efficiency.

Cedefop published *Entrepreneurship competence in vocational education and training in Europe: Synthesis report*.

- It offers evidence for policymakers, social partners, VET providers and researchers on how entrepreneurship competence is embedded, including challenges and opportunities.
  - It includes findings from field research undertaken among VET stakeholders and providers in countries including Austria, Finland and Sweden, each provided as a separate case study.
- It is guided by two main research questions:
  - How do entrepreneurial learning ecosystems support embedding entrepreneurship competence in VET in Europe?
  - What policies, methods, tools and approaches are most effective for embedding entrepreneurship competence in VET?

- It identifies five main challenges:
  - Conceptualisation of entrepreneurship competence comprising different interpretations.
  - The curriculum approach with conflicting options of dedicated modules/subjects and the cross-curricular approach.
  - A gap between the intention to support entrepreneurship competence as a broad transversal skill and narrow actions at provider level.
  - The taken-for-granted link between entrepreneurship competence development and employability.
  - The need for more evidence-based policy.

Cedefop published *National policies for quality in initial VET mobility: Little progress made: A new impulse needed*, a policy brief on efforts made over the last decade in 29 countries.

- In ten countries, Erasmus+ is the only mobility scheme available to IVET learners, where in the other 19 countries, other schemes are available *[listed in the brief].*
  - These countries include the small advanced economies (SAEs) Austria, Belgium, Denmark, Estonia, Finland, Iceland, Luxembourg and Sweden *[see page 41]*.
- Seven EU member states have frameworks for quality in mobility, including Estonia, Finland and Sweden.
  - Overall, Estonia is the best placed, with comprehensive approaches to policy coordination and evaluation, but it still lacks policy targets, although these are planned.

The OECD published *Building Future-Ready Vocational Education and Training Systems*.

- The report focuses on: responsiveness to changing skill needs; flexibility and inclusion; supporting transitions into a changing labour market and further learning; innovation through digital technology.
- For each dimension, it presents a set of key questions that policymakers and other VET stakeholders should consider when re-engineering VET to make it more future-ready, as well as insights from data and international examples of policies and practices.

WORKPLACE TRAINING & DEVELOPMENT

The Learning & Work Institute (L&W) published *The future of work: Protected characteristics in a changing workplace* commissioned by the Equality & Human Rights Commission, including a focus on upskilling and training.

- The research is based on a detailed literature review, Labour Force Survey data, and interviews and workshops with experts.
- Three long-term British labour market trends are examined: increases in flexible ways of working; the growth of self-employment and the gig economy; and the increasing use of automation and AI.
- These trends are growing faster for those with certain protected characteristics, and ethnic minorities, older workers and disabled people could be over-represented in the gig economy, self-employment and industries at risk of automation in the future.
  - The impact of some of the trends is not felt equally across Britain.
- Upskilling and training opportunities are unequal and influenced by factors such as age, industry, existing education and qualifications, and caring responsibilities.
  - Older workers are least likely to receive in-work training, as are ethnic minority workers other than in higher managerial and professional groups.
  - Older people and disabled workers are more likely to have gaps in digital skills, which are increasingly essential as remote working and gig economy work increase.

City & Guilds published *Investing in skills for growth: Making the case for investment in training to drive business outcomes*.

- The main challenges that learning and development (L&D) leaders from 400 large UK employers expect in the next five years include:
  - Skills shortages (85%)
  - Demonstrating return on investment from L&D (74%); creating meaningful staff progression through continual training (86%); delivering a high-quality, engaging learning experience (85%)
  - Ensuring training is credible and recognised (79%); needing to scale up or expand training (74%).

The Work Foundation published *Limiting Choices: Why people risk insecure work*, in partnership with UNISON, on the choices and experiences of those in insecure work and the kinds of interventions that could support them into better paid, more secure jobs in the future.

- Those in insecure work were over four times more likely to see shifts changed at the last minute, making it harder for them to attend training courses.
- Factors limiting job choice, comparing secure and insecure workers, include:
  - Availability of suitable training opportunities – 14% insecure vs 10% secure
  - Cost of training opportunities – 15% insecure vs 11% secure.

SKILLS GAPS & SHORTAGES

England's Department for Education published findings from the UK-wide *Employer Skills Survey 2022* (ESS 2022), based on a survey of 72,918 employers* conducted June 2022–March 2023.

[Due to changes in the way the survey has been conducted over recent years, the last comparable data points are: Northern Ireland, England and Wales 2019; UK and Scotland 2017.]

- Findings include:
  - 23% in the UK had a vacancy when surveyed (+5ppt on 2017); 10% had a skill-shortage vacancy (+4ppt), i.e. hard to fill due to a lack of skills, qualifications or experience among applicants.
  - 36% of all vacancies were skill-shortage vacancies (+14ppt).
  - 15% had a skills gap, i.e. at least one member of staff who was not fully proficient (+2ppt); Northern Ireland had the lowest percentage, with 11%.
  - 5.7% of the workforce had a skills gap (+1.3ppt); the highest percentage was in hotels & restaurants (8.6%).
  - 60% of employers had provided training in the last 12 months (-6ppt): 49% on the job (-4ppt); 39% off the job (-9ppt); Scotland had the highest percentage (64%), having seen a peak of 71% in 2015 and 2017.
  - 60% of all employees received training (-2ppt); the average investment per employee was £1,780 (down from £2,010, accounting for inflation); England had the highest per-employee rate at £2,971 and Northern Ireland the lowest at £2,633.

**3,400 in Northern Ireland, 59,486 in England, 5,207 in Scotland and 4,825 in Wales.*

The European Commission published *Flash Eurobarometer 529: Skills shortages, recruitment and retention strategies in small and medium-sized enterprises* based on 12,909 interviews with SMEs across the 27 EU member states in May 2023.

- Skills mismatches and shortages are one of the main challenges faced by the EU, particularly in light of the digital and green transition.
- Findings include:
  - **Skills are everything**: 95% of all SMEs say that it is very (82%) or moderately (13%) important for their business model to have workers with the right skills.
  - **Skills shortage persist**: 74% say they face skills shortages for at least one job role, 53% find it challenging to retain qualified personnel and almost 80% say it is normally tough for them to locate people with the proper abilities (Austria [88%], Croatia [89%] and Slovakia [90%] are most likely to find this difficult).
  - **Digital imperative**: 24% acknowledge the increasing importance of digital skills in their SMEs; 45% say skills shortages hinder their adoption of digital technologies.
  - **Innovative recruitment and retention**: SMEs currently use a wide range of strategies to recruit and keep employees, including initiatives to better utilise existing talent within the organisation (e.g. by staff mobility or job rotation), increasing training expenditure or enhancing the financial and/or non-financial perks offered by jobs.
  - **A plea for support**: SMEs are calling for better coordination with public employment services (58%), improved tools for assessing applicant skills (49%) and enhanced tools for evaluating their company's skills needs (46%).

The UK Department for Science, Innovation & Technology (DSIT) published *Cyber security skills in the UK labour market 2023*, the fifth annual report on skills needs and job vacancies.

- It draws on: Ipsos surveys of businesses both within and outside the sector; qualitative research with recruitment agencies, cyber firms and a range of large organisations; and secondary analysis of cyber security job postings.
- There were 160,035 job postings in the last year (+30% on 2022); 37% were hard to fill (-7ppt).
  - There is an estimated shortfall of 11,200 people to meet the demand of the cyber workforce, down from 14,100, largely due to slower growth of the sector.
- Workforce diversity:
  - 17% of the workforce is female (-5ppt, but similar to 2021 and 2020); 14% of senior roles are filled by women.
  - 22% of the workforce is from an ethnic minority background (-3ppt).
- 50% of businesses have basic cyber security skills gaps (-1ppt); 33% advanced gaps (unchanged).
  - 41% have a skills gap in incident response and recovery and don't cover it externally (+4ppt).
- 49% of cyber firms have had problems with technical cyber security skills gaps, either among existing staff (22%) or among job applicants (44%).
  - Technical skills gaps were most often cited in: security testing (35%); cyber security governance & risk management (31%); and secure system architecture and design (30%).
- 19,200 students were enrolled on cyber security courses (+29%); 4,360 graduated (+19%).
- 61% of firms have staff with/working towards cyber security related qualifications (-2ppt).
- Most employers and recruiters had not heard of the UK Cyber Security Council's Careers Route Map; a few from outside the sector felt it was too specialist and some struggled to understand it.

The DSIT and the UK Ministry of Defence (MoD) published *National Space Strategy in Action*, putting 'flesh on the bones' of the *2021 Space Strategy*.

- Actions include publishing a Space Workforce Action Plan in 2024, focused on resolving skills challenges; through the Space Skills Advisory Panel and Space Partnership, it will:
  - Co-author with industry and academia an evidence-based report on skills challenges, building on the findings of the UK Space Agency (UKSA) Space Skills Survey, to be published in the summer.
  - Support the development of a long-term action plan focused on resolving the challenges, clarifying the roles of government, industry and academia.
- These actions will build on a planned £15m investment in education, skills and outreach over the next two years, as part of the UKSA Inspiration Priority.
- The MoD is also developing a UK Government Space Academy to upskill the defence space workforce and is working with wider government to improve its skillset.

The RoI's Department of Further & Higher Education, Research, Innovation & Science published *Careers in Construction: Action Plan – Working Group for the Promotion of Careers in the Construction Sector*.

- There is a need for 50,831 new entrants in the sector by 2030, and an estimated shortfall of 4,483 craft professionals for 2023–2025.
- Findings from focus groups include:
  - Parents worry about the financial uncertainty, career stagnation and physical burnout of construction careers.
  - Some students are actively discouraged from pursuing roles in the sector; guidance counsellors, although open to information, are still geared towards the academic education and training system.
- There is a structural deficit in provision for female students and workers, it is not flexible enough for parents and it struggles to compete with other sectors in terms of remuneration and retention.
- The action plan proposes changes in structure, training and upskilling options to address gender issues, and promotional activity.

The Creative Industries Policy & Evidence Centre (Creative PEC), led by Newcastle University, published *Tomorrow comes today: Trends shaping the future of the creative industries*, co-commissioned with the British Council.

- The report provides evidence and commentary for businesses and policymakers on the key features of the environment facing the creative industries and business models over the next five to ten years.
  - It is based on market intelligence, academic research, open datasets, consultancy and policy documents, media articles and ethnographic work.
- It provides details on seven main trends: technological change – including creative intelligence, future of work and new business models; globalisation; demographic change – including demographic and creative dividend for developing countries; environmental sustainability; urbanisation; inequality; and political uncertainty.
- Skills gaps, shortages and mismatches are described as barriers and challenges for a number of the sub-trends in each of the above, and a critical pillar of success for others.

SKILLS POLICY

England's Department for Education published two reports by IFF Research and L&W evaluating the skills accelerator pilot, incorporating the Local Skills Improvement Plan (LSIP) trailblazers and the Strategy Development Fund (SDF).

- *Skills accelerator pilot evaluation: Research report* includes findings from eight case studies and interviews with employer representative bodies, lead providers and wider partners across the 18 pilot areas; among its findings:
  - There is emerging evidence that technical education and training provision is being aligned with local labour market needs and that LSIPs can play a role in this.
  - Existing relationships were critical to the early stages of development, while dedicated project managers and active support from departmental account managers helped to ensure smooth project implementation.
  - Strong progress has been made on: better provider understanding of employer skills needs; stronger and more meaningful collaboration between local providers; facilities equipped to meet the demands of a new curriculum.
  - There was mixed evidence of: LSIPs viewed as making a valuable contribution to a responsive skills system; curriculum shifts to high-value, more specialised skills provision; provider staff being upskilled to offer new provision; increased employer appetite for innovative approaches.
  - There was as yet only limited evidence of increased employer confidence in the responsiveness of the skills system and demand for new courses rising in skills priority areas.
- *Skills accelerator pilot evaluation: Follow up* includes findings from 33 interviews, reflecting on the progress made since pilot funding ended.
  - Further progress has been made against several 'theory of change' short-term outcomes, in particular better understanding of employer skills needs and aligning provision and needs.
  - Demand has been stimulated for new courses in most priority skills areas, although some courses struggled; stronger collaboration between providers and partners has been achieved.
  - Changing curricula to focus on specialised provision was seen as a very successful outcome, as was increasing employers' appetite for innovative approaches.

The Federation of Awarding Bodies published *Running to Stand Still: Why decades of skills reform have failed to shift the dial on UK productivity & investment in training* – it refers mainly to policy developments in England, but includes comparisons to other parts of the UK.

- The report draws on ONS data, and interviews with serving and former government policy advisers, post-16 representative bodies and sector leaders, college principals and other senior awarding body and training provider executives.
  - It also looks at the diversity and divergence in skills policymaking since political devolution has gathered pace.
- There is no evidence that skills reforms have had a direct or positive impact on productivity levels; skills policy has largely failed to play a significant part in addressing many of the UK's underlying economic weaknesses.
  - Many professionals in the post-16 sector feel a sense of personal and institutional fatigue, as reforms have kept coming at pace.

- However, decades of education reform in schools is starting to pay off, e.g. by ensuring that fewer young people enter the workforce with no qualifications compared with previous generations.

- Questions that politicians and policymakers need to ask include:
  - Are we investing in the right kinds of skills training?
  - Is it desirable to shift the welfare system to a 'skills first' approach, whereby poor productivity hiring practices are discouraged?
  - When will we see 'parity of resource' given to post-16 students not taking the traditional academic route?
  - What are the skills policies to improve the product strategies deployed by firms, to help boost the take-home pay of everyone working in the country?

The Federation also published a searchable Skills Policy Audit Database of major skills reviews in England.

The Institute for Fiscal Studies published *Social skills and the individual wage growth of less educated workers*.

- While highly educated workers consistently enjoy robust pay growth, wages for those with less education have stagnated, showing little growth with age or with firm tenure.
- Recent literature has highlighted the growing importance of social skills in the labour market; however, the focus has mainly been on occupations that also demand high cognitive skills, e.g. managers, teachers, doctors and lawyers.
- The research considers the task content of occupations and shows that, for those with lower formal education qualifications, there is an important role for skills such as teamwork and effective communication with co-workers in driving individual wage growth.
  - This is particularly true in more skill-intensive firms that have a higher proportion of higher educated workers.
- One clear policy direction from the work is to investigate the possibility of developing a system of carefully designed employer-based accredited qualifications in social skills.

SPICe (Scottish Parliament Information Centre) published *The effectiveness of creative enterprise policies: What programmes work?*, based on analysis including an evaluation of 19 training, advice and networking programmes designed to support creative enterprises.

- Support for creative enterprises, typically SMEs operating in the creative industries, is often located at the intersection of economic and cultural policies.
  - However, public support has leaned towards promoting economic value and has been criticised for failing to promote the range of enterprises that exist.
  - As a result, which policy interventions and programmes can help to co-create social, cultural and economic value is not fully understood.
- Findings include:
  - As a result of training and advice programmes, there were short-term increases in the ability of practitioners to develop new products and services, self-belief and leadership skills.
  - Return on investment is generally negative in the short term but rises over time.
  - The most effective approaches are tailored to creative practitioners, e.g. with a hands-on, practical learning environment, industry-specific advisers and peer collaboration.

The Entrepreneurs Network published *Passport to Progress: A blueprint for the world's most pro-innovation visa system*.

- It looks at different pathways for five groups of immigrants: students; high-skilled professionals; STEM experts; other unusually talented individuals; and entrepreneurs.
  - It sets out the challenges faced by each group and proposes tailored policies or reforms, based on existing ideas and initiatives that countries have adopted, as well as describing the implications for policymakers.
- The ideas revolve around four key guiding principles that must be at the forefront of policymakers' minds if they are to design systems fit for this age:
  - **Competitiveness**: talented individuals are key to enhancing innovation, productivity and entrepreneurship; easing access to capital or technological infrastructure and easier routes to permanent residency will differentiate some countries.

- **Proactivity**: until now, migration policies have been based on building schemes to let people arrive; in this competitive environment, governments should recognise and recruit talent through initiatives such as global talent exams and international entrepreneurship competitions.
- **Flexibility**: static migration schemes restrain people's career prospects; procedures such as migration caps and sponsorship requirements disincentivise employers and work against start-ups and scale-ups.
- **Holism**: although tailored policies can attract talented individuals, policymakers need to see migration from a holistic perspective; innovation doesn't come from a single source; the world's most pro-innovation system isn't attracting one group but is giving opportunities to all of them.

SKILLS FORECASTING

Cedefop published *Skills in transition: The way to 2035*, using forecasting, foresight and analysis to track ongoing and future trends.

- Up to 2035, despite modest economic growth, the demand for highly qualified people remains dominant across sectors and occupations.
  - The established job polarisation trend will give way to jobs upgrading, driven by the 'twin transition' that integrates digital and sustainable development and the mainstreaming of the knowledge economy approach.
  - With the educational composition of the future labour force also veering in that direction, the high-skilled labour force is rapidly expanding, the medium-skilled one remains relatively stable and the low-skilled labour force is declining.
- The green transition calls for an inclusive skilling revolution, across qualification and seniority levels, sectors and occupations; training needs to help workers in declining sectors and regions to transition.
  - The skills needed range from technical and job-specific to soft and transversal; 'systems thinking' is a foundation skill in the circular economy; empathy plays a crucial role in the fairness of the green transition; communication skills build consumer and citizen awareness and engagement.
  - The twin transition also boosts demand for digital and data analysis skills, embedded in 'green' education and training programmes and curricula.
- Technological innovation transforms jobs and skills needs in all types of occupations and at all qualification levels.
  - Digital transformation will shift upwards the level of digital skills employers ask for; even in low-skilled occupations, where no special training was needed in the past, the demand for medium- and high-level digital skills will grow.
  - Strong job growth is anticipated for highly skilled tech workers, while employment for technicians is expected to decline because of automation, labour market tightness leading to outsourcing and because a better skilled population supresses the need for service provision.
  - The distinction between high-, medium- and low-tech jobs is blurring.
  - Technological innovation resulting from the introduction of robots, biotechnologies or advanced software is becoming increasingly common in sectors not typically considered 'high tech', such as agriculture and education, signalling that they are likely to develop in that direction over time.
- Alongside skill shortages, recruitment bottlenecks are also caused by the 'great resignation', workforce ageing and new digital work and learning practices.
  - Shortages and difficulties vary by type of firm and policies to address them should include HR practices and making jobs more attractive, challenging and rewarding.
  - Jobs in occupations facing shortages are more likely to demand lower literacy, numeracy, interpersonal and digital skills and depend more on physical/manual tasks.
  - Jobs of workers in shortage occupations give them more discretion in organising and planning their work, learning and adapting to unexpected situations or varying tasks, suggesting that the lack of such skills may explain why hiring difficulties occur.
  - Future labour shortages will be mostly driven by employment growth, then by replacement needs, with mismatches in education composition playing an important role for manual occupations.

Cedefop published *2023 Skills Forecast* country reports for each of the 27 EU member states, offering a concise outlook on national employment trends by sector, occupational group and education level as well as developments in the working-age population by age and gender.

They cover the period up to 2035, taking account of global economic developments up to spring 2022.

SOLAS (Further Education & Training Authority), RoI, published *Summer Skills Bulletin 2023: Using Cedefop forecasts (2021–2035) to inform future demand for skills in Ireland*.

- Employment is forecast to grow across all occupational groups except skilled agricultural and fishery workers and armed forces; the largest increases are for professionals, associate professionals and managers.
  - Even in occupations with declining employment levels, replacement demand will lead to a positive net requirement across all occupations.
  - Those with tertiary qualifications will account for 85% of total employment growth and just over 50% of replacement demand.

Skillnet Ireland published *Skills-First: An emerging approach to managing human resources for the new world of work* by L&D Skillnet with the Learning & Development Institute (L&DI), on proactively addressing the skills gap and future-proofing skills.

- Research involved 38 interviews with L&D professionals, HR leaders and business leaders in 24 organisations based in the RoI, the UK, Germany, Switzerland and the US, and a survey of 151 L&DI members and HR professionals.
- Skills-first HR is defined as: an approach that positions skills at the centre of HR strategy, offering a more agile approach to matching worker skills with available and potential opportunities; it values skills over education and experience, while data and technology enable mapping of current employee skills profiles to emerging skill demands.
- Findings include:
  - Most businesses are unprepared for bridging emerging skills gaps and need to align the supply of skills with organisational strategic goals.
  - Organisations internationally face prolonged and chronic shortages of the skills required; 75% of EU companies have difficulty finding skilled workers, while the skills landscape is changing quickly, and the half-life of skills continues to fall.
  - Building employee skills and capabilities is the number one priority for HR leaders; in some instances, traditional HR approaches may be outdated.
- Skills-first HR is very much in its infancy, however most case study firms were experimenting with or piloting skills-first initiatives in critical areas of their business.
  - Challenges include the traditional siloed structure of HR organisations, which places an emphasis on centres of excellence.
  - Implementation should be driven by and influence strategy, with the solution positioned as a business one rather than an HR tool.
- Recommendations include the development of:
  - General training programmes to introduce the principles of skills-based HR
  - A more future-oriented and proactive orientation for HR teams
  - A roadmap for the implementation of skills-first HR based on: skills taxonomies, skills audits, demand analysis and streamlining of job architectures
  - Toolkits to help staff audit skills, develop internal demand analysis, build business cases etc.
  - Programmes for HR professionals in data analysis and storytelling.

Cedefop published *Handling change with care: Skills for the EU care sector*, a policy brief drawing on its skill forecast and online job advertisement analysis.

- 21% of Europe's population was aged 65+ in 2022 (up from 18% in 2012), which, along with increasing female labour market participation, changing family structures and workforce mobility, is leading to a growing demand for care.
  - However, care jobs are demanding and recruitment is challenging; working conditions limit the sector's attractiveness while care workers need a wide range of job-specific, transversal and soft skills.
- 25% of care workers are projected to have a tertiary qualification in 2035; employers are looking for adaptability, the ability to work in a team, language skills and, increasingly, ICT skills.
  - Technical skills related to health & care at advanced and intermediate level, soft skills for communication and effective case management, and the skills to benefit from the full potential of digital transformation will be crucial.

- VET will be the main supplier of high-demand future care skills for young people and adults, but will need to focus more on adults.
  - Opening up certification, validation and licensing to unemployed people and informal caregivers will help to ease labour market tensions.
  - Funding learning is crucial in a sector where direct employment, public sector employment and undeclared employment are particularly relevant.
  - While some issues – rooted in the very nature of care work – might seem hard to address, others might be mitigated by increasing pay, staffing, training and information on health and safety risks, and by making working times more predictable and more flexibly adaptable to workers' needs.

GREEN SKILLS & JOBS

Cogent Skills published *A Greenprint for Skills for the Low-Carbon Industries: Unlocking the skills needed for our low-carbon future*, drawing on insights from stakeholder workshops and desk research.

- It explores the hydrogen, carbon capture, battery, fuel cell and nuclear industries, due to their close ties to the science & technology sectors, while the cross-cutting importance of engineering is examined separately.
  - It also focuses on 'transitioning industries' – more mature parts of the sector that are also evolving and must find new ways of working to secure their place in a net zero economy.
- For established technologies, such as nuclear and batteries, the skills requirements, manufacturing processes and future demand are relatively well known, making it easier to forecast the number and types of jobs required.
  - Mature industries tend to have more intermediate-skilled workers, with highly skilled engineering jobs representing a smaller share of total employment.
- For emerging sectors, such as parts of the hydrogen economy and carbon capture, uncertain manufacturing routes and weak demand signals mean that the number of any type of jobs required still need to be clarified.
  - However, they tend to be dominated by highly skilled workers who are subject matter experts.
- It is often predicted that a significant proportion of the future low-carbon workforce will transfer from more carbon-intensive transitioning industries; however, further work is needed to quantify how many of the current workforce have genuinely transferable skills.
  - Some sectors may experience a faster decline in employment opportunities than the new low-carbon sectors can create, which may result in a loss of skills from the economy.
- The emerging industries may require bespoke courses, but types of courses and specific roles that require dedicated programmes still need to be identified.
  - Engaging with industry will be critical to ensuring that the right qualifications and skills are developed in time to support the ramp-up.
- There is strong evidence that young people are highly motivated to solve climate change, but they lack understanding of job roles and relevant courses.
- Despite a projected long-term decline in demand for intermediate skills such as plant operators, research participants repeatedly emphasised the importance of these roles and recruitment issues.
  - Such roles often serve as an entry point into an emerging industry with opportunities for growth, making them crucial for social mobility.
- Recommendations are made under four key themes and prioritised by sector:
  - **Skills strategy**: clearly defined role profiles for key positions; an industry-led strategy for each technology area; workforce projections for different growth scenarios.
  - **Skills system**: a stable and consistent policy environment that fosters employer engagement and long-term planning; diverse apprenticeship standards reflecting modern technology and industry needs; a visa system to meet urgent and crucial skills requirements.
  - **Future workforce**: careers outreach programmes for young people; promotion of the sector's importance to net zero; research into equality, diversity & inclusion issues and best practices.
  - **Enabling the transition**: a culture of lifelong learning and continuing professional development; clear pathways for workers from adjacent industries; regional needs defined, connecting economic hubs and industrial clusters.

City & Guilds and EngineeringUK published *Bright Futures: Decarbonising the UK's energy workforce*, drawing on a survey of 1k high-carbon (fossil fuel) and low-carbon (renewable) energy sector workers, and Lightcast analysis of relevant job postings.

- The top five **fastest growing job titles** requiring low-carbon skills are: renewable energy managers (1,114%); electrical design engineers (1,073%); solar photovoltaic (PV) installers (840%); renewable energy engineers (779%); and maintenance engineers (758%).
- The top five **fastest declining job titles** requiring high-carbon skills are: structural engineers (-52.9%); computer numerically controlled (CNC) machinists (-45.4%); oil and gas analysis (-43.4%); drafters (-43.0%); and turners (-39.2%).
- The ten **most in-demand skills** in low-carbon job postings are: communications, management, nuclear power, planning, nuclear safety, operations, nuclear engineering, leadership, renewable energy and mechanical engineering.
- Just 42% of those surveyed felt that businesses were ready to meet the commitment to decarbonise the sector by 2035 and just 42% believed that the Government was doing enough to support the change; 25% didn't have a clear idea of what decarbonising the power system would involve.
- The top three **barriers** to meeting the 2035 deadline are seen to be:
  - Lack of Government clarity about future plans for the UK energy sector, so businesses can't prepare properly (36%)
  - Lack of genuine Government commitment to meet its decarbonisation targets (35%)
  - Lack of collaboration between the Government and energy sector employers (34%).
- 60% of those in high-carbon industries believe decarbonisation will put their jobs at risk by 2025; 55% in high-carbon roles don't feel hopeful about plans to reach decarbonisation by 2035.
  - Only 33% of energy workers think they have the skills they need to meet future sector demands; 26% don't know how to access training that will help them to adapt to the future industry.
  - Only 26% had received any job-specific training in the last year, down to 19% in high-carbon jobs; 22% received training to support the move to low-carbon jobs, 16% in high-carbon sectors.

Robert Gordon University's Energy Transition Unit published *Powering up the Workforce: The future of the UK offshore energy workforce*, presenting a range of possible workforce outcomes for the coming years.

- Scenarios predict that by 2030 the Scotland-based offshore energy workforce could grow by 25% to ~100k or fall by 40% to below 50k.
- Currently:
  - Operations, engineering, technicians, projects and procurement & supply chain management represent ~70% of all UK offshore energy jobs.
  - Over 90% of the UK's oil & gas workforce have skills with medium/high transferability to the offshore renewables sector.
- A new workforce model will see future jobs concentrated around key energy clusters across the UK with a more transient workforce.
  - The UK offshore renewables workforce is expected to exceed that of oil & gas from the late 2020s.
- Introducing accessible induction training to support the various energy sectors will be key.
- It will be crucial to retain the offshore oil & gas supply chain, workforce and skills over the next five years, as offshore renewables has limited capacity for the skilled oil & gas workers who will be impacted by the predicted decline in jobs.

ManpowerGroup published *Global Insights: The greening world of work*, examining the top trends business leaders should consider for the future of work and the green economy.

- The report explores:
  - The key drivers of the global green business transformation
  - What business leaders can do to accelerate their environmental, social & governance (ESG) performance and competitive advantage in the market
  - How businesses can future-proof their operations by embracing the transition to a green economy
  - Five trends *[below]* and how these will impact workforce planning and workers.

- Trend one: **The green transition is gaining momentum** with consumers, and global business leaders are paying attention; workforce implications include:
  - Sustainability leadership can be a differentiator in recruitment marketing.
  - Internal communication of sustainability leadership is a retention booster across generations and particularly with Gen Z workers.
- Trend two: **Governments and regulators around the world are taking action to reduce carbon emissions**; workforce implications include:
  - Local incentives for employee training can help to cost-effectively close green skills gaps.
  - Workers around the world, particularly Gen Z, view sustainable employers more favourably.
- Trend three: **ESG is fast evolving to a global standard of doing business**, although there are still challenges; workforce implications include:
  - Globally, only 6% of employers with ESG targets have the talent they need to achieve them.
  - Upskilling is needed as the World Economic Forum estimates 61% of the global workforce will need additional training by 2027.
- Trend four: **Green tech adoption is accelerating**; workforce implications include:
  - The green transition could create up to 30m jobs globally in clean energy, efficiency and low-emissions technologies by 2030.
  - Employers are concerned that an inability to attract talent (53%) and skills gaps in local labour markets (60%) will be the greatest barriers to their business transformations.
- Trend five: **The new collar of work is green**; workforce implications include:
  - Employers need to fully optimise their strategic workforce planning to attract, hire and retain workers amid persistent talent scarcity and growing green jobs demand.
  - Global upskilling and reskilling efforts must be scaled up to close green skills gaps.
  - Deploying ESG best practices (e.g. diversity & inclusion) can help to reach underutilised sources of talent.
- Overall, organisations that can fully optimise the way they hire, train, retain and deploy talent will be the leaders in the green economy of the future.

Midlands Engine published *Green and Hydrogen Jobs in the Midlands* by the Warwick Institute for Employment Research.

- The report distinguishes three types of green job:
  - **New & emerging occupations** or 'pure green jobs' that are completely novel; these have relatively higher demand for technical skills/training, although a share also require transferable skills; the majority also require some labour market experience.
  - **Enhanced skills & knowledge occupations**, which capture changing worker requirements in existing jobs.
  - **Increased demand occupations**, which result when green economy activities increase employment demand for some existing occupations.

The Centre for European Policy Studies (CEPS) published *Jobs for the Green Transition: Definitions, classifications and emerging trends*.

- A number of different strategies and policies that incorporate green jobs elements have been launched in the past couple of years by the EU, member states and internationally.
  - In line with other recent policy developments, most focus on developing skills for the green transition, while many incorporate a social dimension, aiming to ensure that vulnerable groups are protected in the green transition.
- The report offers an integrated taxonomy based on four pillars and eight sub-dimensions, each with their own indicators:
  - **Inputs**: labour; goods/capital; natural resources
  - **Outputs**: environmental impact and conservation of resources
  - **Processes**: tasks; process impacts
  - **Job quality**: working conditions; labour market structure.

- Tackling the creation and retention of green jobs while phasing out brown jobs may profit from a more integrated approach that goes beyond skills, while also taking into account the greenness of work processes, outputs and supply chain inputs.

Policy examples include the RoI's Green Skills Action Programme and those from Portugal and Canada.

The OECD published *Assessing and Anticipating Skills for the Green Transition: Unlocking talent for a sustainable future*, an in-depth review of skills assessment and anticipation (SAA) practices in Australia, Austria, France, Norway and Sweden.

- The use of SAA methods for the green transition is still fairly novel.
  - Many exercises to date have been one-off studies or not focused on the green transition; many general SAA exercises don't incorporate clear green targets among their assumptions.
  - There has been limited use of big data, making the results less detailed and timely.
- Even as SAA exercises for the green transition emerge, the research often focuses on projecting employment, with skills relegated to anecdotal observations or rather superficial investigation.
  - One of the barriers is the difficulty in defining the skills needed for the green transition.
- In many countries, a lack of nationally determined targets and definitions has resulted in an ecosystem of diverse SAA exercises, often focused on a specific industry or sector rather than on the whole economy.
  - However, narrowly defined exercises with precise targets, with information gathered at industry level are most likely to influence policies.
- The fragmentation of SAA exercises, their irregularity and the complexity of the green transition mean that policymakers find it challenging to use the results to design policies and programmes.
  - In addition, responsibility for policies related to skills for the green transition is often shared across several ministries and public bodies, with many expert stakeholders working in the field, which requires strong coordination.
- Five success factors are identified, along with examples from the review countries:
  - Policy dialogue across a wide range of stakeholders.
  - Skills intelligence focusing specifically on the green transition.
  - Focusing SAA exercises on skills rather than occupations or industries allows for more targeted policymaking.
  - A narrower scope allows for easier implementation of green skills analysis.
  - Mixed method approaches to SAA are most useful for tailored and targeted policies.

AUTOMATION & AI

The Nuffield-funded Pissarides Review into the Future of Work and Wellbeing published *What drives UK firms to adopt AI and robotics, and what are the consequences for jobs?*, based on a survey of 1k UK firms.

- Headline findings include:
  - In the past three years, 79% of firms report adopting new technology to undertake a physical task and 79% to undertake a non-physical/cognitive task; SMEs are automating cognitive tasks at the same rate as larger firms.
  - Firms that have adopted these technologies have seen a positive net impact on job creation and on skills.
  - Regional variations in innovation readiness significantly alter the relationship between technology adoption and work outcomes – high levels of readiness are associated with more positive outcomes.
  - Policymakers are concerned that the latest round of technological change may further exacerbate regional inequalities; this is more likely without investment in education and connectivity infrastructure.
  - Without such investments, AI adoption in low-readiness regions is likely to be particularly detrimental to job quality.
  - If the goal is to increase the number of jobs and raise skill levels across the workforce, readiness levels are needed that are significantly above current averages.

- HR management that involves and invests in workers contributes to successful technology adoption through its influence on the identification, understanding and perceived benefits of AI.

The review is led by Prof Sir Christopher Pissarides of the Institute for the Future of Work and London School of Economics & Political Sciences (LSE), with Imperial College and Warwick Business School.

The Pissarides Review also published three literature review working papers:

- *Organisational Adoption of Automation Technologies Literature Review* explores research on technology adoption and its impact on work and workers, summarising key strands of evidence.
  - Compared with recent interest in the impacts of technology on the labour market, there has been less attention on its impacts on the conditions and experience of work.
  - It can both enhance and diminish these, increasing autonomy and learning opportunities or increasing monitoring and routinisation; these are a function of managerial choices made in the contexts of their organisations and social institutions.
- *Addressing labour market challenges from a human-centred perspective: A review of the literature on work and the Capability Approach* explores how a framework that assesses progress based on individuals' opportunities to lead fulfilling lives may offer insight into the causes of the UK's low productivities, unfilled vacancies, low workforce engagement and deteriorating mental health.
- *What do we know about automation at work and workers' wellbeing?* explores automation risk, expectations of automation and technology adoption, analysing their effects on job and life satisfaction.

The Pissarides Review published *Reframing Automation: A new model for anticipating risks and impacts*.

- To craft a fairer future of better work, policymakers need to understand the different impacts of automation and how these structure different types of risk in different circumstances for different groups.
- Automation takes various forms depending on choices during design, development and deployment.
  - The different forms are associated with different impacts for specific demographic groups, geographic communities and socioeconomic strata, with wider consequences for work and society.
- Risks associated with automation are generally profiled by models that consider the share of tasks within jobs that can be substituted by technology; higher risk jobs have a higher share of tasks that can be substituted, potentially allowing entire displacement of a role.
  - This displacement effect is popularly considered to also be the main route to securing or producing new value by adoption.
- When automation is viewed holistically in the context of its deployment – above the level of tasks – transformations can arise both to access and to terms, conditions and changes in quality of work.
  - This means that jobs that may have a small risk score by share of tasks substituted could also see significant transformation.
- UK policymakers have conventionally understood risks emerging from technology to be the displacement of workers (job loss) and upskilling (or 'high discretion augmentation').
  - For transition to result in a fairer future of better work, broader risks also need to be managed.
  - AI has been defined as 'a rational agent seeking to maximise a form of reward'; we need to consider what we are optimising for, and who is rewarded by our approach.

The paper informs an institutional analysis to be conducted across England, Scotland and Wales.

TechUK published *Making AI work for Britain*, illustrating how AI can and is supporting people at work, boosting the quality of products and services, and improving business processes.
[An email address is required to access the full report.]

- As AI and rapid developments in technology transform work, they will change the types of jobs comprising the labour market, making the skills needs of the future uncertain and evolving.
  - AI and machine learning specialists are the projected fastest growing jobs, followed closely by sustainability experts.
  - The widespread adoption of AI will be driven by multi-skilled teams, programmers and designers who are able to work with underlying AI technologies and build new applications, and engineers who can work with and maintain autonomous robots.

- As AI becomes a central component of work across businesses, there will be new functional positions, e.g. specialist prompt engineers, linguistics experts, AI quality controllers, AI editors.
- To commercialise AI, organisations need teams that can combine technical expertise with e.g. soft skills, domain specific knowledge, legal knowledge and commercial business experience.
- AI will decrease demand for automatable tasks and related skills, and increase demand for human and digital skills.

- Supporting workers to access lifelong learning opportunities will be imperative.
  - Opportunities will need to embrace flexible training and short modular courses best placed to aid worker transitions and encourage continuous learning, drawing on existing training and courses.
  - Focus will be needed on 'cross-skilling': developing new skills that apply across different functions.
- The ability of businesses to adopt and effectively use AI is hindered by the lack of digital skills and understanding among the labour force.
  - 82% of UK jobs already require digital skills; 69% of leaders say their organisation suffers from a digital skills gap.
  - Over 25% of UK SMEs believe the shortage of digitally skilled workers poses a high risk for their business; 31% say the lack of knowledge represents a major barrier to digitalisation efforts.
  - 50% of companies report an AI skills gap and 45% of those cite both soft and technical skills.
  - This gap will be compounded by a growth in new tech jobs: 60% of employers expect their reliance on advanced digital skills to grow in the next five years.
- Nine actions include:
  - Help businesses across the economy to invest in training their staff: reform the apprenticeship levy into a broader 'apprenticeships and skills levy'.
  - Strengthen and spotlight pathways into digital and AI jobs: create a 'digital skills toolkit 2.0' to help people navigate digital skills and careers, design an accreditation framework for short modular courses with industry, and consider how AI could be used to enhance the Skills Toolkit.
  - Provide support for local and combined authorities to ensure the benefits of tech transformation are felt across the UK: central, local and devolved government should work together to create digital skills programmes that target under-skilled and under-represented groups, and boost local educational and retraining services.
  - Anticipate changes in the labour market to align skills, training and migration and remain responsive to tech-powered changes.
  - *[In England]* Create a culture of lifelong learning through a flexible and expansive Lifelong Learning Entitlement.

The OECD published *Initial Policy Considerations for Generative Artificial Intelligence*.

- In addition to generating synthetic content, generative AI systems are increasingly used as autonomous agents, with new functionality enabling them to operate on real-time information and assist users in new ways.
  - Investment banks, consulting firms and researchers project that it will create economic value up to $4.4t per year; however, there are significant policy implications and risks.
- The inability to differentiate AI from human-generated content amplifies risks of **mis- and disinformation**, causing material harm, particularly in science-related and polarised political contexts.
  - Mitigation measures include: increasing model size; developing models that provide evidence and reference source material; watermarking; 'red teaming' – teams adopt an attacker mindset to probe the model for flaws and vulnerabilities; and developing systems that help detect synthetic content.
  - However, these measures are widely expected to be insufficient, calling for innovative approaches that can address the scale of the issue.
- Generative AI can echo, automate and perpetuate **social prejudices, stereotypes and discrimination** by replicating biases contained in training data.
  - Mitigation approaches include: enhanced inclusivity in and curation of training data; explainability research; auditing; model fine-tuning through human feedback; and 'red teaming'.

- Legal systems are grappling with implications for **intellectual property rights**: generative AI models are trained on massive amounts of data, including copyrighted data, much of it unauthorised.
  - At the same time there is ongoing debate around whether artificially generated outputs can themselves be copyrighted or patented and if so, to whom.
- Generative AI's availability to the public has heightened focus on its potential impact on **labour markets**.
  - Large language models perform strongly on standardised tests relative to human test-takers, suggesting possible increased job task exposure in high-skilled occupations.
  - AI can benefit jobs by creating demand for new tasks and complementary skills, resulting in new jobs for which human labour has a comparative advantage; recent research shows that generative AI can improve the performance of lower skilled workers.
- In the future, generative AI's synthetic content of varying quality and accuracy might itself be used to train new models, resulting in a **vicious negative cycle** in the quality of online information.
  - It also raises concerns about: automated and personalised cyber-attacks; surveillance and censorship; over-reliance on generative systems despite their flaws; academic dishonesty; and concentrations of power and resources.
- The growing impact and capability of generative AI has led to reflection and debates in the OECD AI Expert Group on AI Futures, about whether it could eventually lead to artificial general intelligence, with autonomous machines having human-level capabilities.
  - The longer term benefits and risks of generative AI could demand solutions on a larger, more systemic scale than the risk mitigation approaches already underway.

The World Economic Forum published *Jobs of Tomorrow: Large language models [LLMs] and jobs – White paper*.

- 23% of global jobs are predicted to change in the next five years due to industry transformation, including through AI and other text, image and voice processing technologies.
- The paper analyses over 19k individual tasks across 867 occupations, assessing the potential exposure of each task to LLM adoption.
  - Tasks with the **highest potential for automation** tend to be routine and repetitive: credit authorisers, checkers and clerks (81% of work time could be automated); management analysts (70%); telemarketers (68%); statistical assistants (61%); and tellers (60%).
  - Those with the **highest potential for augmentation** require abstract reasoning and problem-solving skills, emphasising mathematical and scientific analysis: insurance underwriters (100% of work time potentially augmented); bioengineers and biomedical engineers (84%); mathematicians (80%); and editors (72%).
  - Tasks with **lower potential for exposure** require a high degree of personal interaction and collaboration and are expected to remain largely unchanged: educational, guidance & career counsellors and advisers (84% of time spent on low exposure tasks); clergy (84%); paralegals and legal assistants (83%); and home health aides (75%).
  - The adoption of LLMs is also likely to create **new roles** within the categories of: AI developers, interface and interaction designers; AI content creators; data curators; and AI ethics and governance specialists.
- Aggregating task exposure levels shows that the industries with the highest total potential exposure (automation + augmentation) are: financial services & capital markets; insurance & pension management; IT & digital communications; and media, entertainment & sports.
  - A function group analysis reveals that the two thematic areas with the greatest total potential exposure are IT (73% of working hours exposed) and finance (70%).
- Many of the jobs with high potential for LLM automation are already expected by business leaders to decline in the next five years (e.g. bank tellers, data entry clerks, administrative secretaries).*
  - However, jobs with high augmentation potential are expected to grow (e.g. data analysts and network professionals).
- Rather than leading to job displacement, LLMs may usher in a period of task-based occupational transformation, requiring proactive strategies to prepare the workforce for these jobs of tomorrow.

**See WEF's Future of Jobs Report 2023, summarised in* Skills Research Digest *Q2 2023, p. 28.*

Eurofound (European Foundation for the Improvement of Living & Working Conditions) published *Ethical digitalisation at work: From theory to practice*, examining the ramifications, the rights and ethical principles most at stake and working conditions most likely affected.

- The research included case studies and 58 in-depth interviews with policy stakeholders, representatives of governments, trade unions and employer organisations in nine EU member states (Belgium, Denmark, Finland, France, Germany, the Netherlands, Poland, Spain and Sweden).
- Key findings include:
  - Despite increasing awareness among policy stakeholders about the ethical implications of digital technologies for work and employment, most policy initiatives fail to address the workplace dimension sufficiently.
  - The most recurrent ethical concerns for workers, were around fear of future job loss, and concerns about the perceived diminished value of their work and potential loss of acquired skills.
  - The workers' concerns could be alleviated through adequate training provision to support new work roles and a participative approach to technological change.

ADULT & LIFELONG LEARNING

The DSIT published *Cross-sectoral challenges to media literacy: Final report* by the LSE, commissioned to help meet the ambitions of the Government's 2021 *Online Media Strategy*.

- The online media strategy – which only extends directly to England – identifies six types of challenge faced by the media literacy sector: evaluation, funding, hard-to-reach audiences, vulnerable users, building resilience to mis/disinformation and coordination.
- Analysis of stakeholder contributions identified several more, including:
  - The media environment, in particular: rapidly changing technologies and media habits; the opacity of digital infrastructures and technologies; and the tensions created by the role of platforms as the cause of many problems but also important funders of interventions.
  - Definitions and framing of media literacy, particularly the emphasis on online harm, which could deter people from going online.
  - Low levels of media literacy in general and low awareness of its importance; low levels of institutional trust, including in the media.
  - A lack of strategic direction in the sector, plus fragmented practices, a lack of visibility of practices and associated problems with sharing best practice, scaling up activity and quality assurance.
  - Providing for hard-to-reach and vulnerable audiences, particularly given other, more urgent priorities.
  - Difficulties around evaluation, including: low levels of skill and expertise; varied practices; difficulty accessing data and participants over time; and difficulties accessing proprietary data.
- Opportunities to improve the sector that attracted most agreement from stakeholders were:
  - Funding: create a fund for media literacy via industry sources.
  - Evaluation: define best practice evaluation approaches for programmes and outcomes.
  - Sector coordination: create a convening space for the sector to come together.
  - Delivery: outside the school environment, embed media literacy in services people already use.

The DSIT published *Media literacy uptake among 'hard to reach' citizens* by the Behavioural Insights Team, the report of a research project for the Media Literacy Taskforce.

- The definition of media literacy adopted for this research encompasses the five principles set out in the *Online Media Strategy*, relating to: data and privacy; online environment; information consumption; online consequences; and online engagement.
- The UK ranks 11th out of 41 countries in the 2022 European media literacy index (published by the Open Society Institute's European Policies Initiative); however, despite a large number of initiatives, a significant proportion of the population lacks access to or doesn't engage with provision.
  - 23% of over 5k citizens surveyed for the project were classified as 'not engaged'; they were more likely to perform practical tasks such as emailing and financial transactions, but less likely to carry out entertainment activities (use TV/film or music streaming services, or watch YouTube videos).

- Key findings include:
  - No demographic group stood out as 'not engaged' overall; however those in the group were more likely to be older, female, white, low/medium socioeconomic status, in rural areas or unemployed.
  - People perceive media literacy as relevant to them if it aligns with their online activities rather than being an abstract concept or a general skill.
  - Barriers to uptake include: lack of awareness of sources of support or information; perceptions of their own skills; the notion that online platforms should be responsible for keeping them safe online; and a lack of trust in organisations.
  - 77% had looked for information on media literacy; however, they generally rely on online searches or YouTube to find out how to do something, rather than on formal educational settings.
  - Not trusting organisations to give them high-quality information is a barrier to engaging; they would take part in media literacy initiatives if the organisation was reputable and trustworthy (e.g. local government, regulators, libraries, charities).
- Key recommendations include:
  - Tailor initiatives to people's specific online activities and needs.
  - Market and signpost initiatives at the point they are likely to be most pertinent, while still covering wider elements as part of the actual content.
  - Use short informational videos and handouts hosted on trustworthy sites (such as gov.uk), made visible through promotions; use a range of types of initiative to meet people's diverse needs.

Training and life satisfaction: A disrupted pathway to better work **by the Institute for Social & Economic Research was published in *Transfer: European Review of Labour & Research*.**

- Using longitudinal data from the UK Understanding Society initiative (2010–2020), the paper identifies the effects of different types of training and their intensity on life satisfaction, unpacking the groups for whom training results in positive outcomes.
- Job-related training (including in health & safety) offers a significant pathway to improved life satisfaction for those who live in deprived areas, have low qualification levels and/or are unemployed.
  - However, men and the white majority continue to gain most from job-related training, suggesting there are continuing barriers for women and people from ethnic minority groups.
- The UK focus on job-related training has limited consideration for the needs of those who are not in paid work; in recent years, community groups linked to hobbies and leisure have filled the void.
  - Communities of practice around local food initiatives and 'men's sheds' – learning communities where men work on practical DIY projects – have risen to prominence in Scotland and Northern Ireland, often driven primarily by social rather than economic goals.
  - These learning communities offer an opportunity to use and pass on skills from expert to novice, to learn new skills, to connect with others or replace social networks lost through retirement;
  - They also shape expectations of quality work and life, and fulfil psychological needs for autonomy, control and purpose.
  - They offer particular value in helping to combat isolation and are an important substitute for formal instruction for people with no qualifications.
- The intensity of training is significant: high-intensity work-related training ensures effective outcomes, while short-duration, remote training – more common post pandemic – is less effective.
- While work and non-work training is locked into a low-road/low-skills trajectory, for some disadvantaged groups, training is creating significant positive returns.
  - Limited progress on overcoming barriers encountered by disadvantaged groups requires a much stronger policy mechanism for their voice to be heard.
  - The use of more networked and locally devolved social action collaborations, allowing communities and disadvantaged groups to co-create solutions, is probably long overdue.

National Numeracy published *Fit For Work: Number confidence and social mobility*, a briefing based on a 2022 survey of over 1k users of its National Numeracy Challenge online tool, including recommendations for employers and policymakers.

- Negative experiences of learning maths at school are linked to lower maths attainment and to being out of work later in life; the number skills needed in workplace are not always a good match with those taught in schools.

- Those with low or no maths qualifications and low maths confidence have observed greater effect on their earnings, career progression, career choices, job hunting and job performance than their more 'maths confident' peers.
- Becoming more number confident is an important precursor to feeling able to get on at work and build numeracy skills; the Challenge is an effective tool in helping people develop number confidence.

National Numeracy published *Number Confidence – The gender divide*, a research briefing focusing on insights from its April research report on number confidence and social mobility.

- In all areas of its work it sees consistent gender gaps in number confidence and number skills.
  - Women report having had more negative maths experiences at school than men, which is in turn linked to lower levels of number confidence.
  - Women feel they have faced more career challenges than men resulting from a lack of a maths qualification, particularly in terms of their earnings.
- The National Numeracy Challenge is potentially a useful tool to help redress the gender divide in number confidence and skills, with women particularly likely to benefit from it.

It also published a recording of a webinar on the topic, held in July.

Cedefop published 2023 updates on its *Inventory of lifelong guidance systems and practices*, including for Northern Ireland, Wales, Denmark and Norway.

EQUALITY, DIVERSITY & INCLUSION (EDI)

The ILO published *Financing mechanisms for promoting social inclusion in skills and lifelong learning systems: Global overview of current practices and policy options*.

- Non-financial measures remain critical instruments to create an inclusive learning environment and help overcome barriers.
  - However, they are often more effective if coupled with financial instruments designed to address financial barriers associated with participating in training.
- Financing instruments to promote social inclusion fall into three broad categories:
  - For **individuals**: grants, tax incentives, loans, tuition fees, production training, leave.
  - For **providers**: contracted provision, targeted procurement, performance-based contracts, one-off funding.
  - For **enterprises**: training levies, grants and subsidies, tax incentives, targeted procurement, funding to intermediary organisations.
- Recommendations include:
  - Understand the root cause of the challenges that lead to the exclusion of disadvantaged and vulnerable individuals and social groups from skills development and lifelong learning.
  - Review and assess the extent to which current mechanisms promote social inclusion.
  - Ensure regular collection of high-quality data on the identity and location of disadvantaged and vulnerable social groups.
  - Improve awareness of schemes and labour market information among disadvantaged persons directly, as well as among firms and potential intermediary organisations.
  - Reach disadvantaged individuals directly via grants (specifically means-based scholarships and other awards), as well as training vouchers, subsidies, allowances or tuition fee approaches.
  - Loan-based approaches should also be considered, as long as they are designed in such a way as to support and reassure debt-averse low-income individuals.
  - Expand the use of performance-based contracts with training providers, as well as procurement and contracting approaches that explicitly take into account social inclusion.
  - Encourage formal sector enterprises to train their more disadvantaged workers using grants, tax incentives or levy-related incentives.
  - Establish specific approaches to encourage micro- and small enterprises in the formal sector to invest in their disadvantaged workers.
  - Use levy-financed training funds to support a more social agenda, e.g. by allocating a proportion of the collected levies to be used to fund training that promotes equity and inclusion.

Cedefop published *Lifelong Guidance for Persons with Disabilities*, a briefing note on recent policies and practices, including examples from the RoI, Austria, Belgium, Sweden and Finland.

- Across all EU member states in 2021, the employment gap between those with disabilities and those without was 23ppt.
  - Few complete a tertiary degree; those enrolled in VET are often referred to specific-needs institutions; their participation in adult learning is below average, while their rate of early leaving or poor education outcomes is above average.
- Research and practice have shown that building career management skills in connection with key competences must begin early in life, helping to build career identity, shed light on stereotypes and counter misconceptions about occupations that frequently limit career options.
  - Fostering self-awareness, confidence, adaptability and meaningful decision-making serves as a bridge to adult career experiences and employability, particularly where complex barriers are likely to arise.

MANAGEMENT & LEADERSHIP

The Chartered Institute of Personnel & Development (CIPD) published *Improving UK management capability: How can government intervention be more effective?*, focusing particularly on SMEs.

- Current policies are falling short by failing to engage enough SMEs; meanwhile, the design of current interventions is in some respects self-defeating.
  - E.g., the apprenticeship levy incentivises larger employers to rebadge existing management training as an apprenticeship; the Help to Grow: Management course may be pitched at too high a level for small businesses.
- Key recommendations include:
  - Improving labour market enforcement with more wide-ranging measures, such as a Know Your Rights campaign and/or a significant increase in ACAS or Citizens Advice funding; setting up a single government body to reinforce this and to support employer compliance.
  - Reforming the apprenticeship levy to allow more public investment in apprenticeships for young people; concentrating funding on boosting management capabilities in SMEs as current policies risk falling short of the hoped-for impact.
  - Reviewing and improving publicly funded management qualifications and business support programmes through an accessible, local business support service.
  - Prioritising and adopting a new approach to the overarching industrial strategy, with a view to influencing the business environment and raising management capability across the economy.

CIPD published *People management and productivity*, the report of a survey of almost 2k UK employers of all sizes.

- 51% said 'productivity' was a term widely used in their organisation when discussing improving business performance, particularly in manufacturing & production and transport & communications, and in organisations employing 50+ people.
- 62% measure productivity, rising to 82% among employers who use the term in business conversations and falling to 41% among those that don't.
  - There is little further information about the measures used; it often looks like more general performance measurement.
- Of 14 different high-performance working (HPW) people management practices, just 1% of respondents had all 14 in place but only 5% used none of them; HPW practices are associated with higher (relative) productivity.
  - Equal opportunities (66%), training needs (58%) and business planning (57%) were the practices most often in place; unions (20%), Investors in People (16%) and share options (11%) were the least used.
  - The number adopted was higher in the public sector, in public administration, defence and the police, and in large organisations (250+ employees).

CIPD published *An industrial strategy for the everyday economy*, identifying a number of structural problems facing the UK that aren't being addressed.

- Challenges include stagnation, stalled productivity growth and very low or no wage growth for most workers; contributory factors include significant regional variations in productivity.
  - The UK also suffers from issues including a long tail of poorly managed firms, and forms of work organisation and job design that make poor use of higher skills and don't foster workplace innovation.
- The dominant policy model focuses mainly on: supply-side reforms (e.g. upskilling); large cities; and growth founded on high-tech sectors and science-based innovation.
  - An alternative analysis focuses on the 'everyday economy', including deficiencies in workplace management, poor work organisation and skills utilisation, and 'low road' strategies.
- Adoption of a broader range of policy objectives is required, focusing on everyday sectors and everyday jobs and including skills creation and utilisation, job quality, workplace innovation and digital adoption.

IZA published *Female Leadership and Workplace Climate*, using data from over 2k professionals in 24 large corporations in Turkey to show that female leaders shape the relational culture in the workplace differently to male leaders.

- The study involved prominent modern corporations employing highly educated male and female professionals.
- Male and female professionals in leadership positions in large and competitive corporations have different skill endowments.
  - Female leaders are not as competitive, are more risk averse and are less cooperative than their male peers; however they possess significantly higher emotional intelligence (cognitive empathy) and hold more modern gender role beliefs than male leaders.
  - Female leaders tend to create a more inclusive workplace, in which: male homophily is reduced (the forming of male–male professional ties); female subordinates have more access to professional and personal support from leaders; both males and females establish more links with female colleagues who aren't leaders.
  - Under female leadership, female employees are less likely to quit their jobs but are no more likely to get promoted.
- However, over 50% of employees prefer to work under male leadership: employees working with female leaders report significantly lower workplace satisfaction and worse meritocratic values for their firms – these negative perceptions are driven entirely by female employees.
- Implications for policies that aim to reduce gender gaps in earnings and promotions include:
  - Increasing female leaders may be an effective way to mitigate toxic relational workplace cultures.
  - Progression into leadership positions does not require women to possess male-like attributes such as high competitiveness and risk tolerance.

International Comparisons

The OECD published *Education at a Glance 2023: OECD indicators*, its annual detailed report comparing the structure, finances and performance of education systems in 49 countries.

- A *Spotlight on vocational education & training* includes the participation in and structure of VET programmes, demonstrating the huge diversity between countries.
- Highlights from the *UK Country Note* include:
  - The UK invests 4.2% of GDP in education (from primary to post-secondary non-tertiary), above the OECD average of 3.6%.
  - Vocational education is less common in the UK than in other OECD countries.
  - The UK is very popular for international students at tertiary level (there were 601k international students in the UK in 2021), second only to the US.

UNESCO published the 2023 (6th) Global Education Monitoring Report, *Technology in Education: A tool on whose terms?*, supported by 200 Profiles Enhancing Education Reviews (PEER) country profiles.

- The report explores how technology can offer appropriate solutions to education challenges and three system-wide conditions that need to be met for technology in education to reach its full potential: access to technology; governance regulation; teacher preparation.
- Key messages for upper secondary education and HE include:
  - There is little robust evidence on technology's added value: it evolves faster than it can be evaluated; most comes from the richest countries; and a lot comes from those trying to sell it.
  - Accessible technology and universal design have opened up opportunities for learners with disabilities and filled in for traditional education among hard-to-reach populations; online learning saved education during the pandemic, but failed to reach at least 31% of students worldwide and 72% of the poorest.
  - The right to education is increasingly synonymous with the right to meaningful connectivity, but only 65% of upper secondary schools globally are connected to the internet; 85% of countries have policies to improve school or learner connectivity.
  - Digital technology has dramatically increased access to resources and has brought small/medium positive effects to some types of learning, but needs to focus on outcomes not inputs.
  - ~90% of content in HE repositories with open educational resources (OER) was created in Europe and North America; 92% of content in the OER Commons global library is in English; massive open online courses (MOOCs) mainly benefit educated learners and those from richer countries.
  - Over 220m students were taking MOOCs in 2021, but digital platforms challenge the role of universities, and pose regulatory and ethical challenges.
  - Countries are urged to set their own terms for how technology is designed and used so it never replaces in-person, teacher-led instruction and supports quality education for all.
  - When deploying technology in education, policymakers and educational stakeholders should consider whether it is: appropriate, equitable, scalable and sustainable.

Separate PEER profiles are provided for each of the four UK nations, including Northern Ireland.

Government

NORTHERN IRELAND

The Department for the Economy and the Northern Ireland Statistics & Research Agency published *Employment and Earnings Outcomes of ApprenticeshipsNI Achievers*.

- The report analyses the outcomes in 2017–18 to 2020–21 (tax years) of apprenticeship achievers in 2014/15 to 2018/19 (academic years).
- Among the findings:
  - The median earnings of achievers in a given academic year are higher than those of achievers in previous academic years.
  - The median earnings of male achievers are higher than those of female achievers; for a number of years post apprenticeship, female median earnings remain lower than the median earnings of male achievers just one year post apprenticeship.
  - Level 3 achievers' median earnings are higher than those of Level 2 achievers and the male/female earnings gap is not only larger, but male earnings at Level 2 are higher than those of female Level 3 achievers.
  - In the years post apprenticeship, the highest proportion of apprenticeship achievers – approximately 25% – are employed in administrative & support service activities.
  - Approximately 66% of achievers are employed in six sectors: accommodation & food service; administrative & support service; construction; human health & social work; manufacturing; and wholesale & retail trade.
  - Of these sectors, median earnings are higher in construction and manufacturing and lower in accommodation & food service and human health & social work.

Data tables and graphs are also available here, including some that aren't in the original report.

ENGLAND

Ofsted published *T-level thematic review: Final report*.

- In the best providers, T levels have been adopted after extensive employer engagement and as part of a well-considered plan; other providers have only introduced them because they expect similar courses to lose public funding.
  - At their best, T levels provide an opportunity to combine high-quality study with excellent practical training; at their worst, students report being misled and ill-informed about content and structure.
- Initial assessment of students' abilities is mostly weak, affecting curriculum planning & progression; even when it's more comprehensive, teachers don't always use it to plan or sequence the curriculum.
- Physical resources are mostly good but teaching resources are of lower quality and the very limited resources from awarding organisations are underdeveloped.
- Practical aspects are generally taught well, but vocational teachers often struggle to teach the complex and demanding theoretical content in sufficient depth; many providers have experienced difficulties in recruiting and retaining staff who have the required experience and expertise.
- Teachers are concerned about the high volume of content, including the assessment requirements and the length of the industry placement, which limit the available teaching time.
- The quality of industry placements varies considerably and finding suitable placements can be a barrier to increasing the number of places available.
  - Employers are often poorly informed about the content and structure of T levels resulting in placements not being well aligned with the course content.
- Most students who remain on a T level achieve the qualification successfully; however, the number who progress to second year is low in many providers; in at least one, none progressed.
- T levels are not always accepted as a valid entry qualification for HE.
- Providers are concerned that the T level 'brand' is not well known and that T levels aren't understood by parents and school staff; problems with exams in 2022 and delays in rolling out some subjects may have damaged the brand.

Ofsted published *Independent review of careers guidance in schools and further education and skills providers*, based on visits to 30 schools and 14 FE/skills providers.

- High-quality careers guidance could be achieved if leaders think strategically about careers and support employer engagement that is authentic, contextualised and personalised.
  - The role of careers leader was generally well embedded, and senior leaders found the Gatsby Benchmarks of Good Career Guidance helpful when reviewing and developing their programme.
  - CEC Careers Hubs played an important role in ensuring effective employer engagement and contributed more widely to career programmes.
- Most schools and providers were linking the curriculum to careers effectively, although this varied between subjects.
  - Effective collaboration and communication between key personnel was important, but several schools had concerns about the time and resourcing required.
- Many schools provided unbiased guidance that balanced academic and technical options; a lack of unbiased guidance was largely due to insufficient strategic planning and attention to individual needs.
  - However, some FE/skills providers were having difficulties promoting courses to schools, and teachers' knowledge of technical pathways – especially T levels – could be limited.

'Careers guidance' refers to the full range of careers education, information, advice & guidance activities.

The Edge Foundation published *Debating the first principles of English vocational education*, combining insights from its fifth series of debates on the philosophy of vocational education, held during late 2022 and early 2023.

- Three debates are summarised and accompanied by a 'provocation' by expert participants, asking:
  - What is an apprentice?
  - How broad or narrow should VET be?
  - How can we balance local, regional and national VET needs?

The OfS published *Analysis of degree classifications over time: Changes in graduate attainment from 2010–11 to 2021–22* focusing on UK-domiciled, first-degree graduates registered with providers in England.

- Between 2020/21 and 2021/22, the percentage attaining a first-class or 2:1 degree fell 4.1ppt to 79.6% – the first fall since 2010/11.
  - However, the percentage was still higher than in 2018/19 (78.1%) and there was a 13.2ppt increase over the period as a whole.
- Modelling to assess the extent to which changes in rates could be statistically accounted for by changes in prior attainment and distribution of subjects studied found:
  - Of the 79.6% awarded a first/2:1, 10.7ppt could not be explained.
  - Of the 32.8% awarded a first, 16.4ppt could not be explained.
- In 2021/22, 56.2% of students with A level grades of AAA+ received a first, compared with 60.7% in 2020/21 and 33.6% in 2010/11.
  - Students with AAB saw a doubling in firsts between 2020/21 and 2021/22, from 22.6% to 47.1%.
- The recent changes in unexplained attainment for firsts vary considerably at individual universities and colleges, ranging from a 15.9ppt *increase* to a 31.9ppt *decrease* at particular providers.
  - Overall, there was a decrease in unexplained attainment of 4.8ppt for the sector.

QAA published *An English HE quality system fit for the future: Policy briefing*.

- The English HE sector is particularly large and diverse, with a range of providers that sets it apart from other UK and international sectors.
- While the other UK nations continue to adopt approaches that align with internationally agreed good practice, England has diverged in its quality arrangements – although not in quality of provision.
  - In the Northern Irish, Scottish and Welsh sectors, the system focuses on quality enhancement, reinforced by periodic quality assurance reviews, carried out by an independent body (i.e. QAA).
  - English providers are now subject to a regulatory requirement to meet a baseline level of quality; this is combined with the Teaching Excellence Framework exercise.
  - While Scotland and Wales move towards a more integrated tertiary system, in England such realignment appears further away, although progress in this direction should be achieved through the planned Lifelong Loan Entitlement.
- Many of the necessary elements are already present in the English quality system; others will need to be introduced or strengthened.

Policymakers should commit to the following:

- Realigning the English quality system with internationally agreed good practice, including honouring the UK's commitment to the European Higher Education Area by addressing:
  - the independence of quality assessment so that the system operates without fear or favour
  - a periodic touchpoint with all providers to secure up-to-date assessments of their provision
  - student engagement across the full quality system, including as members of assessment teams
  - the transparency of data, thematic analysis and assessments.
- Formally recognising enhancement as part of the quality system to encourage an approach of continuous improvement in which providers are supported by an independent body.
- Streamlining regulatory requirements from the various bodies with oversight of HE by helping them align requirements in terms of data requested, format required and relevant deadlines.
  - This should be achieved by reconvening the 'HE data reduction taskforce' and ensuring all relevant oversight bodies are represented.

UUK published *Understanding the burden of regulation: Assess the regulatory burden of ongoing registration with the Office for Students for universities in England*, by Moorhouse Consulting, drawing on findings from 62 UUK members.

- Five key themes:
  - **Regulation in principle**: regulation is necessary and there are positive elements of the regulatory approach; however, concerns were raised about conditions where perceived cost outweighed benefit.

- **Aligned and effective implementation of regulation**: there is a lack of clarity on timelines and of alignment between the OfS and other HE regulators, and aspects of ineffective implementation.
- **Resource and opportunity cost**: significant resource is needed to understand and meet regulatory requirements and there are opportunity costs.
- **Risk-based and nuanced regulation**: there is a preference for a risk-based approach that is currently lacking; there are concerns about a one-size-fits-all approach that doesn't recognise sector diversity.
- **Sector–regulator relationship**: there is a perceived lack of a constructive working relationship between the OfS and the sector and a lack of meaningful consultation from the OfS.

- On average, a university dedicates 17.6 FTE to compliance, although this varies with size; the resource is embedded in other roles as universities typically don't have dedicated regulatory teams.
  - 41% of universities feel that the costs outweigh the benefits, while 34% say they are balanced.
- Insights from a range of regulated sectors suggest that, while regulation is always a burden, other sectors tend to have more dedicated resource and more constructive relationships with regulators.

Five recommendations are made.

The Edge Foundation published *New Higher Education Institutions in England: A real chance to innovate?*, exploring the early experiences of six new providers and how their approaches differ from existing practices.

- In response to a paucity of HE opportunities in certain regions, geography was a key determinant in establishing new HEIs.
  - In some cases, provision was linked to local employer needs and skills shortages; in others, large multicultural cities offered easy access to potential students, particularly international students.
  - Some collaborated with an existing university to validate their degrees, benefiting from its advice, guidance and reputation; others applied for their own degree awarding powers (DAPs).
- Interdisciplinarity lies at the heart of many degrees offered by new HEIs, whether combining a range of disciplines or 'viewing a single discipline through a broader lens', e.g. social science in engineering.
- Applicants' personal attitudes and potential are considered as important as academic grades, and are assessed via interviews and 'selfie' videos.
  - Staff are drawn from academia and industry, sometimes using similar recruitment techniques; the right mindset is prized over academic research credentials.
- Learning is often centred on problem-based team approaches, with students tackling authentic real-world problems that often have industry relevance.
  - Lecture theatres are rarely used; spaces have been designed for collaboration between students and staff and to allow for hybrid learning.
  - Professional and transferable skills and competencies are prioritised.
- Courses and wider provision tend to be industry focused, with employers involved in a number of aspects, e.g. curriculum design, student projects and assessment.
  - Flexible modes of study are often built in to fit in with students' personal circumstances, e.g. modularised learning, breaks in study, part-time options and varying lengths for work placements.
- Attracting and recruiting students is a key challenge, as new HEIs are likely to be relatively unknown and prospective students are taking a risk on untried and unproven, often non-traditional, models.
- The process from registering as an HE provider with OfS to gaining DAPs is seen as slow and complicated; however, it ensures strong internal governance frameworks and procedures.
- Despite the policy rhetoric endorsing ideas of innovation, new HEIs feel that external factors restrict the degree to which they can be truly 'innovative'.
  - E.g. regulatory frameworks are based on assumptions about the traditional model of a university, and similar restrictions when working with existing universities dilute 'innovative' approaches.

SCOTLAND

Audit Scotland published *Scotland's Colleges 2023*, drawing on analysis of annual audits.

- Risks to the college sector's financial sustainability have increased since 2022, with rising staffing costs the biggest financial pressure.
- Scottish Government funding reduced by 8.5% in real terms from 2021/22 to 2023/24 while costs increased; effective, affordable workforce planning is now a greater priority and challenge.
- Recent reviews have recommended significant changes to how the sector operates; the Scottish Funding Council and Government urgently need to build on their ongoing work to help colleges plan change now, in order to be sustainable in the future.

Of Scotland's 24 colleges, 19 are incorporated public bodies subject to audit by the Auditor General.

WALES

The Welsh Government published *A review of Vocational Qualifications [VQs] in Wales*, the report of an independent steering group.

- Stakeholders commended: the wide range of VQs on offer; the way they are embedded in learning programmes; the strong links with industry; the increasing number available in Welsh.
  - They asked the review to concentrate on: mechanisms to ensure the right VQs for future needs; greater responsiveness to and flexibility for employers; clarity of progression routes; assessment methods; concerns about future portability.
- 33 detailed recommendations include:
  - Developing a national strategy for VET to in turn inform the strategic direction of VQs, as part of a wider post-compulsory education and training strategy.
  - Commissioning work to define future national and regional occupational and skills needs to inform curriculum development and help assess priorities for VQs.
  - Expanding the remit of sector qualifications groups to advise on future requirements.
  - Extending work placement opportunities to all Level 3 learners who don't have them as a mandatory part of their qualification; exploring how best to recognise generic workplace learning.
  - Promoting single or multiple units of VQs to employers where appropriate and encouraging awarding bodies to make unit certification available to meet demand.
  - Exploring progression to Level 6, with particular emphasis on degree apprenticeships.
  - Keeping a watching brief on England's T levels as they mature, but not implementing the same approach for the moment.
  - Retaining an open market in VQs and not pursuing the creation of single national awarding body.
  - Making the phrase 'made for Wales' the accepted terminology.

REPUBLIC OF IRELAND (RoI)

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

EUROPEAN UNION (EU)

The EU published the first *2030 Digital Decade: Report on the state of the Digital Decade 2023*, plus individual country reports, on progress towards a digital transformation for people, businesses and the environment.

- The EU aims are to improve the digital skills of at least 80% of individuals aged 16–74 and to have 20m ICT specialists by 2030.
  - The lack of available staff with the right set of skills is hampering investments for 85% of EU firms, with SMEs struggling more often in filling ICT vacancies.
  - In 2021, 81% of employed ICT specialists were male; the severe and persistent gender gap in the ICT sector undermines how digital solutions are designed and deployed, with negative consequences for social equality and welfare overall.

- Without significant changes, only 59% of the population will have basic digital skills by 2030, and the number of ICT specialists might not exceed 12m.
- Recommended policies, measures and actions include:
  - Member states need to prioritise investments in digital education and skill development.
  - The EU needs to increase efforts in the global race for talent, particularly in STEM, and member states need to encourage women to engage in STEM disciplines from a young age.
  - Member states should collectively more than double the average increase of ICT specialists.

SMALL ADVANCED ECONOMIES (SAEs)

Includes relevant items by/about the following SAEs chosen by the DfE Northern Ireland for comparative purposes as part of its vision for a 10x Economy: Austria, Belgium, Czechia, Denmark, Estonia, Finland, Iceland, Israel, Luxembourg, New Zealand, Norway, Sweden and Switzerland (in addition to Scotland, Wales and the RoI, covered above).

Belgium

The OECD published *Unleashing Talent in Brussels, Belgium*, part of a series of reviews within its Local Employment & Economic Development Programme, which aims to contribute to the creation of more and better jobs for more productive and inclusive economies.

- The Brussels-Capital Region attracts talent from across Belgium, Europe and the world, and its population grew by 27% in the 20 years since 2001, compared with 12% in Belgium as a whole.
  - The population is young, diverse and urban; in 2022, 87% of residents were aged below 65 and more than 50% of 15–64 year-olds were foreign born.
  - It has lower-than-average employment rates and high youth unemployment, with employment particularly low for those with low levels of education and those born outside the EU.
- The landscape of employment and training institutions is unique and complex and the share of adults participating in continuing education or training remains low versus other OECD metropolitan areas.
  - Challenges include: high levels of dropout from certain tracks; unequal training allowance options for learners on different courses; and weak recognition of certain training certificates.
- OECD recommendations include: gathering more regular comprehensive skills information from employers to support vocational tracks; collaborating more closely with employers to evaluate job vacancy skills requirements; strengthening the attractiveness of vocational tracks through improved recognition, increased training allowances and stronger relationships with employment services.

Czechia

Cedefop published *Czechia: Unveiling the innovative e-shop to boost digital skills training*, a news report.

- The Czech Ministry of Labour & Social Affairs has introduced a new tool to develop adult education and digital competences, financed under the National Recovery & Resilience Plan.
- The online platform covers three types of courses:
  - Traditional accredited retraining courses mediated by the Labour Office, mainly for unemployed people and those seeking career advancement
  - So called 'retraining courses by choice', where participants select a course from a list of accredited courses and apply to the Labour Office for funding
  - Newly introduced courses specifically focused on digital and Industry 4.0 skills; they can be offered by any training provider, with no accreditation required; upon successful completion, the provider receives a subsidy of 82% of the course fee, while the rest is paid by the participant.

Luxembourg

Cedefop published *Luxembourg: The 'digitalskills.lu' platform*, a news report.

- Since 2019, the Luxembourg Government, the Chamber of Commerce and the Chamber of Crafts have joined forces to establish the Digital Skills and Jobs Coalition Luxembourg.
  - It has over 60 public and private sector members, who share information on topics including upskilling/reskilling, skills in AI, digital skills in non-tech sectors and space technologies.

- As part of the European Year of Skills 2023, the website has been turned into the digitalskills.lu platform, enhanced with new features and functionality, including:
  - Links to digital skills training offered by the National Institute for the Development of Continuing Vocational Training (INFPC) on its national portal, lifelong-learning.lu
  - A digital resources section that covers both national and EU-level best practice and funding opportunities, online tools and national and international publications on digital skills intelligence
  - A link to the European Digital Skills & Jobs Platform.

New Zealand

The Ministry of Education published *The impact of COVID-19 on tertiary education in New Zealand: Course completions 2019–2022*.

- The overall course completion rate for domestic and international students in **tertiary education** in New Zealand declined slightly in 2022 after a long period of consistent rates.
- The credit achievement rate for:
  - **apprentices** declined markedly from 85% in 2019 to 77% in 2020, and again to 67% in 2021 and 2022, having been 84–89% in the preceding years
  - **trainees** declined from around 68% from 2018 to 2021, to 63% in 2022.

The Ministry of Education published *How educational attainment and labour market outcomes compare between foreign-born and New Zealand-born New Zealanders* based on data from OECD reports*.

- Targeted skilled migration policies have helped attract a high level of skills to NZ, and yet qualified immigrants often don't do as well in the labour market as equivalently educated NZ-born peers.
  - Differences can be due to, for example, occupation, field of study and work experience, but also to equity, bias and discrimination, skills supply and mismatch issues.
  - Differences may also highlight issues around migrant adjustment and integration, and the need for better migrant support.
- NZ has one of the largest shares of foreign-born population in the OECD, and foreign-born New Zealanders are, on average, more educated than NZ-born New Zealanders.
  - 53% of foreign-born New Zealanders aged 25–64 have a tertiary diploma or higher qualification compared with 33% of NZ-born adults – the largest difference among all OECD countries.
  - Foreign-born New Zealanders with a tertiary diploma or higher level qualification are 3ppt less likely to be employed than equivalently educated NZ-born.
  - Earnings for foreign-born New Zealanders are lower than those of equivalently educated NZ-born.
  - Those who arrived in the country when they were children or teenagers do better, but still not as well as NZ-born.

**Including the OECD's 2018 report* How do the educational attainment and labour market outcomes of foreign-born adults compare to their native-born peers?*.*

The Ministry of Business, Innovation & Employment published *Aotearoa New Zealand Aerospace Strategy 2023 – 2030*.

- The strategy comprises three foundational pillars: unlocking aerospace potential; future-facing government; and aerospace nation.
- Among the Government's levers to assist sector development it will focus on the future workforce:
  - Building awareness of aerospace career paths
  - Sponsoring internships, challenges and other education initiatives
  - Creating networks and collaborations that fill gaps in NZ's capability needs
  - Creating the right conditions, including improving diversity, to grow the future workforce through education and vocational training pathways.

Sources

Advance HE
www.advance-he.ac.uk

All-Party Parliamentary Group (APPG) on Apprenticeships
www.connectpa.co.uk/apprenticeships

All-Party Parliamentary Group (APPG) on Further Education & Lifelong Learning
www.aoc.co.uk/news-campaigns-parliament/work-in-parliament/appg

All-Party Parliamentary Group (APPG) on Students
www.appg-students.org.uk

Association of Graduate Careers Advisory Services (AGCAS)
agcas.org.uk

Audit Scotland
www.audit-scotland.gov.uk

Careers & Enterprise Company (CEC), England
www.careersandenterprise.co.uk

Cedefop (European Centre for the Development of Vocational Training)
www.cedefop.europa.eu

Centre for European Policy Studies (CEPS)
www.ceps.eu

Chartered Institute of Personnel & Development (CIPD)
www.cipd.co.uk

City & Guilds
www.cityandguilds.com

Cogent Skills
cogentskills.com

COVID Social Mobility & Opportunities (COSMO)
cosmostudy.uk

Creative Industries Policy & Evidence Centre (Creative PEC)
pec.ac.uk

Department for Education, England
www.gov.uk/government/organisations/department-for-education

Department for Science, Innovation & Technology (DSIT), UK
www.gov.uk/government/organisations/department-for-science-innovation-and-technology

Department for the Economy (DfE), Northern Ireland
www.economy-ni.gov.uk

Department of Further & Higher Education, Research, Innovation & Science (DFHERIS), RoI
www.gov.ie/en/organisation/department-of-higher-education-innovation-and-science

Economic & Social Research Institute (ESRI), RoI
www.esri.ie

Edge Foundation
www.edge.co.uk

Eurofound (European Foundation for the Improvement of Living & Working Conditions)
www.eurofound.europa.eu

European Commission
ec.europa.eu/commission/index_en

Federation of Awarding Bodies
awarding.org.uk

GuildHE
guildhe.ac.uk

Higher Education Policy Institute (HEPI)
www.hepi.ac.uk

Higher Education: The International Journal of Higher Education Research
www.springer.com/journal/10734

Institute for Fiscal Studies (IFS)
www.ifs.org.uk

Institute for Social & Economic Research (ISER)
www.iser.essex.ac.uk

Institute of Labor Economics (IZA)
www.iza.org

International Labour Organization (ILO)
www.ilo.org

Jisc
www.jisc.ac.uk

King's College London (KCL)
www.kcl.ac.uk

Learning & Work Institute (L&W)
www.learningandwork.org.uk

ManpowerGroup
www.manpowergroup.co.uk

Midlands Engine
midlandsengine.org

Ministry of Business, Innovation & Employment, New Zealand
www.mbie.govt.nz

Ministry of Education, New Zealand
www.education.govt.nz

National Centre for Universities & Business (NCUB)
www.ncub.co.uk

National Numeracy
www.nationalnumeracy.org.uk

Northern Ireland Statistics & Research Agency (NISRA)
www.nisra.gov.uk

OECD (Organisation for Economic Co-operation & Development) iLibrary
www.oecd-ilibrary.org

Office for Students (OfS), England
www.officeforstudents.org.uk

Ofsted, England
www.gov.uk/government/organisations/ofsted

Open University (OU)
www.open.ac.uk

Pissarides Review into the Future of Work & Wellbeing
pissaridesreview.ifow.org/

Prince's Trust
www.princes-trust.org.uk

Prospects Luminate
luminate.prospects.ac.uk

Quality Assurance Agency for Higher Education (QAA)
www.qaa.ac.uk

Robert Gordon University (RGU)
www.rgu.ac.uk

Russell Group
russellgroup.ac.uk

Skillnet Ireland
www.skillnetireland.ie

Skills Development Scotland (SDS)
www.skillsdevelopmentscotland.co.uk

SOLAS (Further Education & Training Authority), RoI
www.solas.ie

SPICe (Scottish Parliament Information Centre)
digitalpublications.parliament.scot/ResearchBriefings

STEM Returners
www.stemreturners.com

TechUK
www.techuk.org

The Entrepreneurs Network (TEN)
www.tenentrepreneurs.org

Transfer: European Review of Labour & Research
journals.sagepub.com/home/trs

UCAS
www.ucas.com

UNESCO
en.unesco.org

Unite Students
www.unite-group.co.uk

Universities UK (UUK)
www.universitiesuk.ac.uk

Warwick Institute for Employment Research (IER)
www2.warwick.ac.uk/fac/soc/ier

Welsh Government
gov.wales

Work Foundation
www.theworkfoundation.com

World Economic Forum (WEF)
www.weforum.org

Youth Futures Foundation
youthfuturesfoundation.org