Department for the Economy
An Roinn Geilleagair
www.economy-ni.gov.uk

Skills Research Digest
Quarter 4 2024

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:

- Civic and 'place-responsive' HE institutions, with universities and colleges seeking to align courses, research and innovation activities with regional & national priorities.
- Collaboration between education institutions and between education & industry organisations, on e.g. digital systems, research and course offerings, for e.g. financial benefit, a better service for students and a stronger economy.
- Creative industries as a key growth and employment sector, and the role of relevant courses in developing transferable art, humanities, technical and design skills.
- A more concentrated focus on the need for adult & lifelong learning, including supporting older workers to reskill and upskill as they remain longer in or re-enter employment.

** 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

Preparing Young People for Work 1
SCIENCE, TECHNOLOGY, ENGINEERING & MATHS (STEM) 1
EMPLOYABILITY & CAREERS 1

The Institutional Landscape 3
THE FURTHER EDUCATION & SKILLS SECTOR 3
HIGHER EDUCATION (HE): APPLICANTS & ADMISSIONS 5
HE: WIDENING PARTICIPATION 6
HE: THE STUDENT EXPERIENCE 8
HE: INTERNATIONAL STUDENTS & TRANSNATIONAL EDUCATION 13
GRADUATES & GRADUATE EMPLOYMENT 14
HE: TEACHING & LEARNING 16
HE: INSTITUTIONS & RESEARCH 18
WORKFORCE ISSUES 21

The Workplace 22
RECRUITMENT 22
TRAINING, DEVELOPMENT & APPRENTICESHIPS 24
SKILLS GAPS & SHORTAGES 26
SKILLS POLICY 30
SKILLS FORECASTING 31
GREEN SKILLS & JOBS 34
AUTOMATION & AI 37
ADULT & LIFELONG LEARNING 39
QUALITY OF WORK & GOOD JOBS 44
EQUALITY, DIVERSITY & INCLUSION (EDI) 46
MANAGEMENT & LEADERSHIP 48

International Comparisons 48

Government 49
NORTHERN IRELAND (NI) 49
ENGLAND 50
SCOTLAND 53
WALES 54
REPUBLIC OF IRELAND (ROI) 54
EUROPEAN UNION (EU) 55
SMALL ADVANCED ECONOMIES (SAES) 58

Sources 62

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

SCIENCE, TECHNOLOGY, ENGINEERING & MATHS (STEM)

The Education Policy Institute (EPI) and the Centre for Education & Youth published *Progression at age 16 of young people from underrepresented backgrounds towards careers in STEM*, supported by Mission 44*, based on research in England but of wider interest.

- The report uses data analysis, interviews and focus groups to explore existing evidence and describes a 'three Ps' model: pathway, prior qualifications and preferences; findings include:
  - 20% of pupils who completed lower secondary studies in the three years between 2016/17 and 2018/19 progressed to a Level 3 STEM qualification.
  - The odds of progressing are 42% lower for girls than boys, and 44% lower for pupils eligible for free school meals (FSM) than for their more affluent peers.
  - Black Caribbean and white British pupils have similar odds, while Chinese pupils have almost five times greater odds and Indian pupils almost 3.5 times greater than their white British peers.
  - Disadvantaged pupils have both lower age-16 attainment and lower progression rates, with their lower attainment accounting for almost all the observed difference in progression.
  - Black Caribbean pupils are particularly hindered by low attainment: they are estimated to be 40% more likely to progress than white British pupils with the same attainment.
  - In many school settings, STEM routes are limited to traditional A level academic routes with prior attainment entry barriers; there is often a lack of clear pathways for 'middle attainers'.
  - Local socioeconomic deprivation plays a key role, influencing the availability of local opportunities as well as the capacity of staff to provide the full range of guidance and support.
  - 23% of secondaries have a significant negative impact on the odds of pupils progressing, while 25% have a significant positive effect, regardless of pupil characteristics.
  - Pupils attending a selective school have 2.5 times greater odds of progressing than non-selective, even after controlling for prior attainment.
  - Attending a single sex school increases the likelihood of girls progressing by 21% but has no effect for boys.
  - Pupils often have a restricted understanding of STEM careers, focusing primarily on traditional areas such as medicine or engineering.
- Recommendations include:
  - The Government should consider how access to non-A level post-16 STEM qualifications can be improved, including how to fill gaps in local provision.
  - School leaders should consider how they can focus more tightly on increasing the representation in Level 3 STEM of currently under-represented pupil groups.

**Mission 44* was launched by Formula One driver Sir Lewis Hamilton in 2021 with a particular focus on developing an inclusive education system, creating employment opportunities in STEM and motorsport.*

EMPLOYABILITY & CAREERS

England's Careers & Enterprise Company published *Insight briefing: Student career readiness in 2023/24*, insights into the views of 234k 11–19 year-olds in 1,109 institutions, on their career readiness, skills and confidence, shared via its Future Skills Questionnaire.

- Three key insights:
  - By Year 11, the most popular industries among students include healthcare (14%), construction & trades (12%) and computing, technology & digital (11%), in part reflecting the effectiveness of the education outreach demonstrated by those sectors through the careers system.
  - Young people feel more career ready through their school journey, increasing on average from 49% in Year 7 to 68% by Year 11 and 79% by Year 13; however, disadvantaged students are less confident talking about their skills when applying for courses or jobs and less sure-footed when engaging with future employers, which can narrow their career choices.
  - By age 16, young people feel confident in most work-related skills, but confidence in their speaking, listening, leadership and teamwork skills has dipped from Year 7.

Skills Development Scotland (SDS) published *Pupil Voice Research 2024: Senior phase research*, a briefing based on 10,815 responses from pupils aged 16+ in June and July 2024.

- Young people receive either a 'targeted' or 'universal' service based on their level of need; targeted support is tailored to those who may need specific help due to their unique circumstances or goals.
  - 46% said they'd had the chance for work experience, 35% for volunteering, 35% to attend a jobs/career fair; only 16% had the opportunity for a mock interview.
- Pupils **leaving school** were planning for or were already at: college (36%, -1ppt from 2023); university (34%, +5ppt); a Modern Apprenticeship (8%, -2ppt); full-time employment (7%, –).
  - Those in the targeted group were much more likely to be planning for/be at college (50% vs 25%).
- Pupils **staying on** at school were planning for: university (57%); college (12%); a Modern Apprenticeship (5%).
  - Those in the targeted group were more likely to be planning to go to college (20% vs 8%).
- Young people are most likely to be influenced by their interests and hobbies, the qualifications achieved at school and the need to earn money.
  - The top sectors they want to work in: medical & health (18%), creative industries (17%) and engineering (16%).
  - The skills they think will be most needed are: communication; and the ability to work with others.

A series of six infographics focus on characteristics, including gender, ethnicity and social demographics.

SDS also published *Parents and Carers Voice Research 2023/24*, based on 4,113 responses from parents of secondary pupils surveyed between November 2023 and May 2024.

- Almost 60% of parents/carers are confident in discussing career and learning options with their child; when doing so, they are most likely to consider their child's ambitions, interests and strengths.
  - Knowing about different learning pathways, careers and learning options and where to find information would improve their confidence.
- Parents would be interested in finding out more about: the types of skills needed for future jobs; the range of learning and career options; and apprenticeships.
  - Most said they'd encourage their child to do an apprenticeship if it fitted their child's plans (74% at Foundation level, 83% Modern, 90% Graduate).
- 52% use online searches for career information, 48% use information from universities and 38% from schools.

The Social Market Foundation (SMF) published *Things worth knowing: The role of assumed knowledge in youth transitions from education to employment*, supported by charity Speakers for Schools.

- 150 20–29 year-olds categorised assumed knowledge into six areas: education system; career planning; job applications; work culture; high culture; and confidence.
- A survey of 1k 15–21 year-olds gauged awareness by socioeconomic factors; among the findings:
  - 48% were unaware that graduates earned more than non-graduates, with those on FSM less likely to know this.
  - 95% of 15–18s who have a parent/guardian with a postgraduate degree ask friends or family for advice, compared to 67% of those who are on FSM.
  - Private school students were 11ppt more likely to have spoken to a careers adviser at school.
  - Young people with connections in law, medicine and academia had higher levels of assumed knowledge; 31% of those who attended a state school didn't know anyone in those professions.
  - 65% of those with university-educated parents felt confident speaking with senior professionals, compared to 49% of those with non-graduate parents.
  - Despite its prominence in the literature, politics and policy discussion, high cultural knowledge was not seen by young people as important for their transition into employment.

UK Youth published findings from a poll of 9k UK 16–25 year-olds between April 2022 and October 2024, exploring their experience in the workplace; it had also polled 2k employers, and 1k workers aged 25+.

- 93% of young people had experienced negative treatment in the workplace because of their age, up from 88% three years ago; 26% said the experience had made them not want to work again.
  - Top issues faced included being undervalued (81%) and patronised (78%), while 69% said they had lost out on a promotion and 75% had been rejected from a job on the basis of their age.
  - 56% said that negative stereotypes had impacted their self-esteem, while 45% said that they had lowered their self-belief; 49% felt like they couldn't progress in their career.
- Employers felt young people were overly sensitive (34%), entitled (27%) and lazy (23%), and 9% had rejected a young person for a job due to their age.
  - However, 38% thought the stereotypes unfair and 51% recognised their impact on mental health.
- 60% of young people said the job market was inaccessible to them, with many employers also believing young people faced challenges in the workplace.
  - The latest Office for National Statistics figures show that 872k young people are economically inactive, the highest since records began in the early 1990s.
- The changes young people would most like to see included: making hiring processes more inclusive of young people (27%); listening to young people more (26%); and taking mental health more seriously (26%).
- 36% of employers recognised the language used in their hiring process was not inclusive or accessible and 85% recognised they had a responsibility to help young people into the workforce.

The OECD published *Digital technologies in career guidance for youth: Opportunities and challenges*, an *Education Policy Perspective*.

- Around the world, digital technologies are increasingly being used to provide school career guidance, and there is good reason to believe that they will make it more effective, efficient and equitable; however, this can't be taken for granted.
- The paper explores the role of digital technologies in guidance provision, considering both likely benefits and key concerns requiring attention.
  - It focuses on: how digital technologies are being used in provision for children and young people; the opportunities they present; and the considerations that policymakers should give when developing digital solutions.
  - It includes a short case study on the Republic of Ireland's (RoI's) Careers Portal.
  - It also highlights the OECD Observatory on the use of Digital Technologies in Career Guidance for Youth – an open-access repository of case studies of digital resources being used in secondary schools internationally.

The Institutional Landscape

THE FURTHER EDUCATION & SKILLS SECTOR

FE News published *Bridging the gap between policy and pedagogy: Building a stronger FE [further education] and skills system*, the latest report from its FE + Skills Collective, summarising the insights of 90 educators, leaders, employers and policymakers who attended an event in October 2024.

- It highlights how the sector can align with the UK Government's five missions by tackling skills shortages, fostering social mobility and preparing learners for a rapidly changing workplace.
- Key policy recommendations:
  - **Invest in educators**: increase funding for continuing professional development (CPD) and offer competitive salaries to attract and retain skilled professionals, ensuring high-quality teaching.
  - **Support dual professionalism**: create a structured framework of CPD, industry placements and collaboration, allowing educators to balance teaching expertise with industry knowledge.
  - **Modernise careers advice**: transform *[England's]* National Careers Service into an all-age service, providing lifelong, personalised guidance informed by local and national labour market data.

- **Adopt flexible funding models**: create structures that support modular learning, apprenticeships and adult retraining, with targeted support for under-represented and disadvantaged groups.
- **Strengthen place-based strategies**: empower local authorities to implement tailored skills programmes aligned with local economic priorities, addressing regional disparities in skills provision.
- **Enhance employer collaboration**, by incentivising collaboration, simplifying engagement processes and incorporating employer input into workforce planning.
- **Embed data-driven decision-making**: equip Skills England and sector providers with advanced labour market intelligence tools to track emerging skills gaps and align training with regional and national economic needs.
- **Broaden the proposed Growth & Skills Levy**, to include modular learning for career transitions and flexible adult education, supporting lifelong skill development.
- **Accelerate technology integration**: invest in equipping the sector with advanced digital tools and training in areas like generative artificial intelligence (GenAI) to enhance productivity, reduce administrative burdens and support hybrid learning environments.
- **Prioritise inclusivity**: ensure equitable access to high-quality education and skills development for disadvantaged groups, including learners with special educational needs and disabilities (SEND), through targeted interventions and adequate funding.

ColegauCymru/CollegesWales published *Strategies for Moving Freely: The Finnish approach to vocational education and training (VET) – Learning points for Wales*.

- Six high-level recommendations are made, all of wider interest:
  - Develop a national VET strategy to help identify priorities and clarify the role of colleges in achieving them.
  - Implement national skills anticipation planning – Finland's reliance on accurate, timely planning data ensures that VET meets the evolving needs of the labour market.
  - Create flexible funding approaches – the current funding system can hinder VET providers from meeting local demand effectively.
  - Explore a competence points system to enhance recognition of skills gained through work experience and prior learning.
  - Individualised vocational planning: careers services should collaborate with VET providers to develop tailored systems that support learners of all ages to navigate educational and career pathways.
  - Prioritise professional learning for VET educators to ensure they remain at the forefront of excellence.

The College Innovation Network (CIN), with Edinburgh College, North East Scotland College, UHI Perth and West College Scotland, published *Employer Engagement with Colleges and the Adoption and Diffusion of Innovation* in Scotland.

- Research explored the current and potential role of Scotland's colleges in supporting and driving innovation within SMEs.
- 86 of 117 employers surveyed had engaged with colleges: 56% for provision of bespoke Flexible Workforce Development Fund programmes; 33% for apprenticeships; and 28% for staff training (reskilling and upskilling) – only 12% had worked with colleges for innovation support.
- SMEs are interested in support, expertise and collaboration with colleges but lack awareness of what is available or how to access it.
  - Change to policy and funding streams is needed to enable colleges to support SMEs to innovate.
- Recommendations include awareness raising and increasing capacity for colleges and employers.

The CIN was established in August 2023 to support and promote the role of FE colleges in innovation in Scotland, supported by the Gatsby Charitable Foundation.

The OECD published *Higher Technical Education [HTE] in England, United Kingdom: Insights from selected international experience*, comparing England's HTE system with successful models in Austria, Denmark, Sweden, France and Ontario (Canada).

- **Coverage**: England's system is fragmented, with a large number of qualifications that can be similar in content; the lack of a coherent strategic vision and weak employer engagement have hindered growth.
  - Austria, Denmark and Sweden have structured pathways and strong social partner engagement, ensuring HTE meets specific labour market needs.
  - In Denmark and Sweden, labour market analysis steers provision; in England, providers have more freedom to determine content.
  - Sweden puts together institutional programme management boards, a labour market council for national strategic advice and regional stakeholder 'competence' groups.
  - Denmark has strategic multi-year agreements with its compact set of educational institutions, a vocational council to offer strategic guidance and a rationing system that focuses on labour market integration of graduates.
- **Target population**: England's multitude of provision makes it difficult to define a typical HTE student; clarity of purpose would make it easier to stimulate demand.
  - Austria's strong educational pathways cater to different student needs and enhance participation.
  - Denmark clearly separates students continuing from upper secondary education and those returning to education while in the labour market.
- **Providers**: The patchwork in England makes it difficult to articulate a clear vision of the HTE landscape for learners; institutions don't specialise in HTE, offering it as part of a wider suite of education, making planning more diffuse and harder to thread together.
  - Ontario has one of the highest HTE rates in the OECD supported by its 24 public colleges specialising almost entirely in HTE; this enables them to carve out a strong identity of employer-focused, fit-for-purpose qualifications.
  - Austria's institutions offer a range of education from secondary to HTE within their specialised field, providing strong pathways between levels.
  - Both work because of the strong HTE identity, with institutional set-ups that support this and foster transparency.
- **Work-based learning (WBL)**: In England, this is poorly defined and difficult to characterise; a separate focus on apprenticeships has left classroom-based HTE bereft of a strong system for integrating WBL components.
  - The other countries all require some kind of integration of WBL in qualifications and try to ensure this is a key component; e.g. Sweden requires longer HTE programmes to incorporate mandatory placements at the end, maximising the potential for job offers.
- **Quality assurance (QA)**: In England, despite exemplary enhancement-led QA practices, there are numerous agencies with different functions, bringing challenges and some overlap.
  - In Sweden, the agency for higher vocational education (MYH) has responsibility for all HTE QA and combines this with its responsibility to monitor labour market demand for education and the rationing of educational programmes.
  - The college-owned Ontario College Quality Assurance Service manages quality issues across the HTE sector; its operational mandate and acute focus mean it brings best practice to bear, with the sole aim of improving college education provision.
- **Student and employer support**: England's reforms to bring HTE student financing on a par with higher education (HE) are contributing to student engagement and HTE growth; but employer incentives are weaker.
  - France has a suite of financial support instruments for employers and students engaged in the HTE apprenticeship route, many financed through employer levies.
  - Denmark, Sweden and France also have extensive systems for the recognition of prior experience, to support access and shorten education – this contrasts with England's lack of a uniform system.

HIGHER EDUCATION (HE): APPLICANTS & ADMISSIONS

UCAS published *Where Next? Who applies for Level 4 and 5 qualifications?*, in partnership with the Gatsby Foundation.

- Level 4/5 (Scottish Credit & Qualifications Framework [SCQF] level 7/8) sit between A levels, T Levels, BTECs and Scottish Highers and undergraduate degrees.

- In 2023, 5.7% of UK HE applicants (34,175) applied to study at least one Level 4/5 course, 79% of whom also applied for a Level 6+ course; of those who received an offer for both, 33% picked the Level 4/5 course.
  - Proportions applying were highest in Wales (7.9%) and the South West (7.7%) and North East (7.6%) of England, which have the lowest entry rates to HE, vs 3.0% in London/South East, which has the highest.
  - Overall, the number of applications was -12% on 2019, mostly at Level 5; the number of applicants placed was -25%, to 16,195.
- Applicants from the most disadvantaged areas were more likely to choose Level 4/5 (7.3%) than the least disadvantaged (3.9%); mature applicants were twice as likely as 18–35s; they were also more likely to stay in their home region.
  - Applications were higher among those with vocational and technical qualifications than those with A levels.
  - The most popular subjects were those allied to medicine, particularly among those aged 35+.
- 51% of applicants thought the qualifications would improve their career prospects and 49% that they would help get them a job they were interested in.
  - 47% were planning to find a full-time job after the course and 20% to continue studies to Level 6+; 35% were also considering an apprenticeship.
- Level 4/5 applicants value pre-application support from providers, on-course support and the opportunity to gain work experience more than the average HE applicant.
  - They are less concerned about provider league tables, entry requirements and the level of challenge of the course.
  - The most helpful information sources are the UCAS website, teachers and friends and family, with this varying by age.
- They would welcome clearer explanations of different types of qualification, dedicated guidance for working/mature applicants and more support navigating student finance.
  - Around 23% had heard of Higher Technical Qualifications (HTQs), with mixed understanding of the term.

The House of Commons Library published the following briefings.

- ***Higher education student numbers***, on trends in the size of the UK student population, changes in the number of entrants overall and for different types of students/courses and entry rates for different groups and areas.
- ***Medical, dental, and healthcare students: UK numbers and student support arrangements***, on applicant and entrant numbers, drawing comparisons in the student support arrangements in each UK nation.

HE: WIDENING PARTICIPATION

UPP Foundation published *Supporting outstanding transitions from school and college to university*, a briefing note on a knowledge exchange event with schools, colleges, universities and third sector organisations.

- The event presented findings from two pilot projects:
  - Villiers Park Educational Trust's Bridge to Your Future provides coaching sessions to help prospective students explore values and develop a sense of belonging at university.
  - The Brilliant Club's Join the Dots brings schools and universities together to support those most likely to face barriers during the transition.
- Key themes:
  - **Personalised, one-to-one support**, e.g. coaching, is one of the key success factors in transition support, increasing confidence and agency.
  - **Belonging and confidence**: one-to-one support was an important factor in the development of belonging, with coaching fostering self-confidence as well as academic success; belonging and academic success can't be considered in isolation; it is important to develop a sense of belonging to the idea of themselves as students and scholars.

- **Sustained support throughout the student life cycle**: transition support must start early and continue throughout university, with equity, diversity, inclusion (EDI) and belonging embedded in programme design; ongoing support should cover life beyond university, including internships, job-search and practical life skills.
- **Partnerships and collaboration** can improve transition, enhancing support structures with guidance to centre interventions on the individual; the programmes also help bridge gaps between schools/colleges and university.

- The organisations are calling for: a funded national transition programme, initially focused on the 20k students eligible for pupil premium grants in England who enter HE at age 18; more opportunities for institutions to collaborate on such programmes, e.g. a sector-wide network and/or platform.

The Centre for Vocational Education Research (CVER) published *The mismatch earnings penalty*, disentangling the relationship between student ability, course quality and earnings, using data on students in England.

- There has been recent debate on the use of affirmative action in the US, which mirrors concerns around the use of contextual admissions in the UK.
  - It has raised the question of whether it is inefficient to send lower ability students to the highest quality institutions, squeezing out higher ability students who may benefit more – the 'mismatch hypothesis'.
- However, there is also the phenomenon of 'undermatch', where high-attaining students – generally from disadvantaged backgrounds – attend low-quality courses.
- Key findings:
  - High-ability students attending low-quality courses earn on average £8k (25%) less per year aged 28–31 than high-ability students attending courses well matched to their ability.
  - By contrast, there is no evidence that lower ability students who 'overmatch' to high-quality courses go on to earn any less than well-matched students.
  - Affirmative action therefore doesn't appear to have a detrimental effect on future earnings.

The Edge Foundation (Edge) published *Widening participation and degree apprenticeships [DAs]*, drawing on case studies of two English post-92 universities to understand the role of DAs in outreach plans and the barriers to including them in widening participation activities.

- Both universities saw DAs as part of their wider offer and an example of diversification; the institution with a broader offer included them in access & participation plans, while the one with a more specific offer didn't; however, this difference didn't appear to impact their overall approach.
  - Outreach and DA recruitment weren't generally integrated; both highlighted increasing interest from schools with more higher-attaining students and from non-state schools, rather than from their typical outreach schools.
- Interested students/parents had little awareness of DA practicalities, and teams had developed their own explanatory resources.
  - The hurdles faced by prospective apprentices in securing a DA appear to be having a greater impact on less advantaged young people.
- Both universities tried to influence and support employers' DA recruitment to varying extents.
  - Many employers are more inclined to use DAs for existing staff than to recruit new employees, although this varies by sector; their priorities and skills needs dictate their use of DAs and don't necessarily relate to universities' widening participation agendas.
- Older apprentices from lower socioeconomic backgrounds were the norm on health-related programmes; digital and STEM-related programmes attracted younger apprentices from higher socioeconomic backgrounds as new recruits.
  - In general, DA students are older than traditional full-time undergraduates and mostly enter with Level 3 as their highest prior qualification.
  - This group would have fulfilled previous definitions of widening participation but are not currently seen as meeting the widening participation requirements of England's Office for Students (OfS).

Oxford University Student Union published *Increasing Graduate Access*, investigating postgraduate admissions at the university.

- Oxford deploys sector-leading access initiatives, but these are underfunded and under-supported, resulting in postgraduate admissions not reflecting society.
  - Less than 10% of Oxford's UK postgraduate students come from the 40% most disadvantaged groups in the UK, while international students are mainly from Europe and privileged backgrounds.
  - Being a postgraduate student is very expensive, but the vast majority of scholarships are given to the most socioeconomically advantaged students, while access initiatives are underfunded.
- Oxford must recognise that it is a majority postgraduate institution and signal that it is serious about supporting postgraduate students and widening access to postgraduate education.
- Recommendations include: setting increased graduate access as a new equality objective; properly funding and supporting access initiatives; collecting and publishing more graduate access data; easing the funding gap; making postgraduate enrolment possible regardless of wealth by 2035; prioritising access scholarships; providing guaranteed work packages for postgraduate researchers (PGRs) at the point of admission; encouraging and supporting studentships funded with industry collaboration.

UNESCO published *Reaching for the right to higher education: Evidence from 15 countries*, including England, by its International Institute for Higher Education in Latin America & the Caribbean.

- Six key messages:
  - In the context of growing demand, financing is the biggest challenge to achieving the right to HE.
  - Improving participation rates for students from equity-deserving groups should be mandated.
  - The right to HE goes beyond access – student success and pathways are equally critical.
  - Combining policy measures increases the likelihood of achieving the right to HE.
  - The potential of technology to support the right to HE remains untapped.
  - More data are needed: improving the evidence baseline will support positive change.

The report marked the launch of the World Access to Higher Education Network (WAHEN), the first global network dedicated to tackling inequalities in HE. It comprises members from universities, foundations and NGOs, as well as policymakers, and is convened by the UK-wide National Education Opportunities Network.

HE: THE STUDENT EXPERIENCE

England's OfS published *Findings from OfS quality assessments*, an *Insight* brief identifying four factors that can affect the quality of education students receive.

- **Teaching practice and resources**: Some institutions have robust and effective systems to ensure staff have the knowledge and skills required and tailor course content and teaching to students who may be juggling studies with work or caring responsibilities.
  - However, some institutions: are not providing students with enough opportunities to interact with each other or to develop their ideas and knowledge; employ staff whose teaching skills aren't sufficiently up to date or who lack appropriate experience.
  - Some institutions make little allowance for students who can't attend lectures during the day.
- **Academic support and student engagement**: Heavy workloads mean some staff aren't able to effectively support students.
  - However, central support and non-teaching staff can play a role in effectively monitoring and acting on student engagement information, often with teaching staff maintaining clear oversight.
- **Assessment**: Some reports highlight positive examples of timely and useful feedback; others raise concerns, including feedback not effectively explaining how work can be improved, or being provided late or in inaccessible language.
- **Academic leadership and oversight**: Clarity over roles, together with oversight by senior staff, are more likely to lead to positive experiences and outcomes for students.
  - An example is included of an institution adopting a coordinated approach to ensuring the curriculum prepares students for employment.

The brief offers points for institutions to consider when thinking about how to improve course quality.

Advance HE published *Enhancing assessment and feedback: A case study compendium*, complementing its *Framework for Enhancing Assessment in Higher Education*.

- Rapid advancements in technology, shifting student demographics and increasing economic pressures have prompted a radical rethinking of traditional assessment models.
- 13 examples of innovative and impactful approaches are presented under four headings: innovative assessment; assessment and feedback in a digital era; authentic assessment; and enhancing assessment and feedback practices.
  - The developments aim to improve student experience and outcomes, and to address broader sector challenges of retention, attainment gaps, inclusivity and the need to ensure graduates are prepared for the demands of the workforce.

The Higher Education Policy Institute (HEPI) published *Non-Examinable Content: Student access to exam scripts*, arguing that universities should allow students to view, make copies of and share exam scripts to improve confidence and transparency in the assessment process.

- Restrictive access policies harm individual students and their institutions by reducing students' opportunities to learn from past work and undermining confidence in the exam system.
- GCSE and A Level exam boards are ahead of universities in offering access to scripts and offer an example of how transparency can be increased alongside other assessment modernisation efforts.
  - Senior leaders of exam boards stress that increasing openness has been positive for learners, teachers and their organisations.
- Only 52% of universities have a published policy on students' access to scripts; 53% of these have a single institution-wide policy, 47% leave the decision up to individual exam schools and faculties.
  - Policies vary significantly: the most common approach (17%) gives all students the right to view their script under controlled conditions but prohibits them from making copies.
- Universities' concerns about increasing access can be mitigated by the use of technology, which allows scripts to be made available automatically with few administrative overheads and makes it easier for examiners to leave constructive comments on student work.
- Key recommendations:
  - All universities should publish a policy outlining their approach to student access to exam scripts, with input from individual exam schools and faculties; it need not be overly prescriptive and may include discretion as appropriate but should set out clear principles around feedback and access.
  - The default position should be that students are able to view, make copies of and share their scripts, with the minimal restrictions necessary imposed in exceptional cases where full access would incur excessive cost.
  - Universities should consider adopting technologies that help automate access to scripts, as part of modernising assessment.

Advance HE published *The inclusive curriculum in higher education: An integrative literature review*, exploring a wide range of research from 2015 onwards to better understand inclusive practices and policies that have a positive impact on student outcomes and success. *[The full report is available to members only.]*

The Brilliant Club published *Roadblocks or Roadmaps: Navigating the University Journey*, exploring students' perspectives on three drivers of academic success and wellbeing at university: academic studies; sense of belonging; and financial pressures.

- Four key findings:
  - Confidence in academic studies increased from 61% in the first year to 77% in the third year.
  - 52% said they had struggled financially at some point during their studies and 15% that they had considered dropping out for financial reasons.
  - Interviews indicated that students at non-collegiate universities generally had access to fewer resources than those at collegiate universities, while several who attended collegiate universities noticed a socioeconomic gulf between themselves and their peers and sometimes felt alienated.
  - Those from less advantaged backgrounds face significant roadblocks to participating fully, with academic studies, sense of belonging and finances all interconnected; e.g., those who can afford to attend socials feel more connected, carrying out paid work affects academic performance and having a supportive peer group affects both studies and belonging.

- Four recommendations:
  - Reinstate maintenance grants.
  - Implement a nationwide student transition programme to provide academic and pastoral mentoring during the first few months of university.
  - Encourage collaboration between schools, universities and the third sector to ensure students are supported throughout.
  - Require universities to provide networking and professional development opportunities for those from less advantaged backgrounds.

Jisc published *The Office for Students (OfS) mental health analytics project: An evaluation*.

- A three-year project at Northumbria University created a model of student wellbeing based on self-reported scores and over 800 data variables, collating data from across departments and offices into a centralised dashboard.
- The resulting model was able to predict issues with student wellbeing that could be acted upon by the counselling & mental health team.
  - Actions taken included tailored messages signposting help and guidance available from the university, resulting in a 50% increase in caseload, indicating a population of students that may not previously have known that help was available.
- Mental health analytics doesn't remove the need for expert decision-making within wellbeing teams, but it can improve the team's effectiveness and efficiency.

The SMF published *Care and Learning in Higher Education: How society and universities can support care experienced and estranged students to succeed*, focused mainly on England.

- Despite targets for HE access being set in England, Scotland and Wales, care-experienced and estranged students face many challenges accessing and progressing through university.
  - Only 19% in England achieve GCSE maths and English, compared with 65% overall.
  - They face particular financial difficulties, although there is some encouraging evidence that scholarships are addressing that.
  - Some also have difficulties finding suitable accommodation, especially outside term time and immediately following graduation.
  - There are mental health and wider issues around stigma, confidence and belonging.
- On paper, at least, there is a remarkable amount of support, with the sector spending an estimated £10–15m a year on e.g. financial bursaries, accommodation guarantees and discounted housing.
  - Charitable organisations such as Unite Foundation, Sutton Trust, Social Mobility Foundation and Into University specify care leavers and occasionally estranged students in their priority groups.
  - However, the support is inconsistent and there is no additional funding for institutions, while there are significant issues with securing engagement with and take-up of support.
- Some programmes have produced good results: Unite Foundation scholarship students, who receive free accommodation, have significantly better progression and attainment outcomes than their peers.
  - However, poor data make it hard to gather robust evidence on most interventions.
- The National Network for the Education of Care Leavers (NNECL) has established a quality mark but there is little impact evidence and progress has been slow, while the previous government deliberated setting up its own kitemark.
  - Moreover, the system largely runs on goodwill, which makes it precarious.
- Care leavers are entitled to financial and pastoral support that care-experienced students don't receive, while estranged students are more often overlooked and miss out on help.
- Given the budgetary challenges facing the university sector, discretionary spending on support – particularly where unevidenced – may come under pressure.
- Recommendations include:
  - A minimum £1k p.a. in grant funding for each student admitted.
  - To recognise the students' distinctive needs, an additional non-repayable grant and increased student maintenance to cover 52 weeks p.a..

- The Higher Education Statistics Agency (HESA) to 'flag' estranged students in England, as in Scotland and Wales, and to produce dedicated data tables.
- UCAS and Student Finance England to develop a data sharing opt-out system so that universities can readily identify students eligible for support.
- Institutions to include the students in their Access & Participation Plans and ultimately work towards the NNECL Quality Mark, in order to access grant funding.
- Priority given to school attainment and parity of admissions; tutoring schemes, investment in virtual schools and careers guidance can help; Scotland's guaranteed access scheme has tripled student numbers.
- Top-performing pupils to be identified at GCSE and high-tariff universities tasked with developing a national programme of support.
- Before further exploring the possibility of making universities 'corporate parents', as is the case in Scotland, England's Department for Education to first encourage more institutions to sign up to the Care Leaver Covenant.
- Statutory support provided by local authorities for care leavers pursuing HE to be expanded and standardised.
- To address the age-related 'cliff-edge', support to be extended until graduation, as long as young people have enrolled in HE before they turn 25.

The Scottish Government published *Student Finance and Wellbeing Study (SFWS) Scotland [academic year] 2023–2024* by the Scottish Centre for Social Research, exploring student's financial experiences while studying at college and university.

- Research included a survey with responses from 1,734 full-time and 694 part-time students at 16 colleges and 16 universities, plus follow-up interviews and focus groups.
  - The majority of students from all backgrounds were struggling financially; many were making behavioural changes to reduce their costs, while others were experiencing considerable hardship.
  - Difficulties were particularly stark among those who were not able to access financial support from others (e.g. parents, partners, family or employers).
- Scotland's system of **student support** differs to the rest of the UK, with tuition free for the majority of FE and undergraduate students; qualitative research participants spoke of their relief at having their fees paid.
  - Those eligible for student loans view them as a necessary/critical part of being a student, particularly for those who had accommodation costs; however, they are also a source of worry, with students fearing the prospect of repaying the debt, leading some to instead rely on parental financial support where available and/or paid work.
  - In contrast to England, bursaries and grants continue to exist alongside student loans; these are viewed positively by students who receive them, with impacts greatest for those funded entirely through bursaries.
  - The Scottish Government announced increased financial support for students from the start of 2024/25, via a new Special Support Loan; however, as so much of this funding is in the form of a student loan it is likely to be a cause for concern among students.
- Data illustrate that Scottish students working more hours in **paid work** than their counterparts in the rest of the UK is a long-standing feature.
  - Paid work was viewed by students as being essential to fund living costs; however, some (e.g. student parents and carers, and disabled students) noted the challenges of combining paid work with their studies.
- The most commonly reported **impact of experiencing financial difficulties** was the worry and stress it caused (90% of students).
  - Finance influenced students' decision-making about where and what to study, where to live while studying and whether to progress to a higher qualification level; finances also play a role in students withdrawing from courses.
  - Worrying about money impacted on students' ability to engage in their studies, and to make the most of the opportunities associated with wider student life.
- Factors that can reduce students' financial struggles, or assist them should they occur include:
  - Not having student loan debt reduced the financial pressures, as did increased financial support from non-repayable sources such as bursaries, scholarships, employers, parents, partners, etc.

- Living at home with parents (where feasible) enabled students to reduce their costs, but this was balanced with increased commuting time to college or university for some.

- Policy considerations include:
  - Ensuring student support is fair and sustainable; e.g. the Scottish Government could consider the balance between the provision of universal and targeted support.
  - Better targeted financial or other support of those groups in the most need; e.g. there is evidence of an association between targeted support for care-experienced students and those from the most deprived areas, and an increase in university attendance.
  - Schools and the FE and HE sectors need to improve the promotion of and accessibility to information, advice and guidance on all elements of student support, to reduce the burden on students to find information and to ensure they fully understand their financial options.

Prospects Luminate (part of Jisc) published *Why are STEM students disengaging from industrial placements?*, an article based on MA research by Huddersfield University's placements manager.

- Findings include:
  - 60% of sample students (second-year undergraduates on STEM degree courses that include an optional 12-month placement) struggled to find a placement that met their location needs, including either a preference or a requirement to stay close to home.
  - 48% identified subject area and roles in industry as a barrier to securing a placement; students sometimes fail to recognise roles as appropriate to their course or which roles could be a positive step towards future career options.
  - 25% referred to time as a barrier, associating this with an urgency to graduate quickly and 'desire to get the degree done', with stress related to the volume and demands of coursework and with wanting to start full-time paid work as soon as possible.
  - In some cases, parents were a barrier, as they didn't recognise the value of placements.
  - Students' internal concerns and perceptions of placements were a cross-cutting theme, often related to lack of confidence and 'daunting' requirements, alongside perceptions of expectation and fear of the unknown.

- Recommendations:
  - Placement services to be visible to students from their first year, improving their awareness of industry experience being integral to their degree, rather than a bolt-on activity.
  - A review of local labour markets by institutions, addressing location needs while helping to close local skills gaps.
  - Placement/careers practitioners working with academics to build students' understanding of what they can do with their course/skills in the workplace.
  - Institutions to work with industry, across internal departments and with students to increase the number of achievable and viable placements.

Prospects Luminate published *Employability in the Business Curriculum: An embedded and contextual approach*, investigating the impact of embedding personal & professional development (PPD) units to support students' transition into work.

- By July 2023, all undergraduates in the Faculty of Business & Law at Manchester Metropolitan University had received career and employability teaching through PPD units in every year of their degree.

- A small-scale survey of graduates found that many believed their degree had improved their career prospects and that employability skills developed through relevant PPD modules would be used in a current or future role.
  - When asked which employability experience had been most useful from their whole university experience, all responses were activities connected and discussed within the PPD units.
  - However, further work is needed to ensure the units support positive graduate outcomes, including by creating case studies of graduates' activity using what they have learnt.

Advance HE published its two annual survey reports of postgraduate students across the UK:

- ***Postgraduate Taught Experience Survey 2024***, based on 98,311 responses from postgraduate students at 108 UK higher education institutions (HEIs); 68% were from outside the UK. *[The full report is available to members only.]*

- 84% of students were satisfied with their course (+1ppt from 2023), the highest recorded.
- Overseas students (87%) were more satisfied with their course than home students (80%), with those from China, India and Nigeria reporting 89%–90% satisfaction.
- Satisfaction for disabled students was 77% vs 86% for those with no known disability.
- 16% of respondents had considered leaving their course (-2ppt) – 28% of home vs 10% of overseas students; 21% cited difficulty balancing study and other commitments (+3ppt), 15% financial difficulties (+3ppt).
- 65% said their studies had been impacted by cost of living challenges, 27% said by 'a lot'.

- ***Postgraduate Research Experience Survey 2024***, based on 12,123 responses from students at 61 institutions, including four in Australia for the second time.
  - 81% of PGRs were satisfied overall (+2ppt from 2023).
  - Areas strongly linked to satisfaction included: creating a sense of belonging; institutional response to feedback; and support for academic skills.
  - 71% said their studies had been impacted by cost of living challenges, 35% said by 'a lot'.
  - 75% of PGRs working online or hybrid were satisfied vs 85% of those studying in person.
  - White PGRs had greater access to development opportunities and were less affected by financial pressures than minority ethnic students.
  - PGRs said they had fewer opportunities to attend conferences or to teach than last year.

HE: INTERNATIONAL STUDENTS & TRANSNATIONAL EDUCATION

The King's College London Policy Institute published *International students in the UK: Benefits, costs and numbers*, a survey of 3,700 UK over-16s, exploring their attitudes to international students and updating findings from a similar survey in 2018.

- 60% feel international students bring a significant benefit to the UK economy, while only ~12% disagree with this view; in 2018, 67% held the more positive view.
  - 29% believe they impose a significant cost on the UK economy (+7ppt).
  - 41% say their benefits for the UK outweigh the costs (-9ppt) vs 22% who believe the reverse.
- 26% say they want fewer international students in the UK, while 43% say they want numbers to stay the same and 15% to increase.
- 50% correctly recognise that overseas students' fees help universities provide places for home students, on whom they make a loss.
  - 18% believe overseas students take places away from domestic students; 32% say they don't know or neither is true.
- Support for international students varies depending on how questions are framed: when it is suggested that international students are key to the rise in net migration, 30% say they would like to see fewer in the UK; when told of the scale of their economic contribution, it falls to 17%.

***International student mobility and poverty reduction: A cross-national analysis of low- and middle-income countries* by academics from the University of Oxford was published in the *International Journal of Educational Research*.**

- While the short-term effects of international student mobility on poverty reduction are insignificant, its impact over a 15-year period has a notable positive association with poverty alleviation.
  - Returnees use the skills and knowledge they gain abroad to drive local innovations in areas like governance, education and economic development, and contribute to societal changes.
- International student mobility has tripled from 2m students in 1997 to over 6m by 2021, reflecting the growing recognition of the value of studying abroad for both individual advancement and societal development.
  - Governments, universities, charities and private firms all offer scholarships for international study.
- However, in recent years, rising insularity and nationalist sentiments have posed challenges to mobility in some countries, with increasing barriers to cross-border education and collaboration.

HEPI published *How can UK universities improve their strategies for tackling integration challenges among Chinese students?* based on a survey of 100 Chinese undergraduates and postgraduates and interviews with UK HE institution (HEI) staff and experts in UK and China.

- Key findings:
  - UK universities are highly reliant on Chinese students for financial stability, with fees amounting to £2.3b p.a.; but Chinese applicants fell by 4% in 2022.
  - English language proficiency is lower among Chinese students than those from other developing economies like India and Malaysia; high scores in the International English Language Testing System can be the result of intensive drilling.
  - Some Chinese applicants are spending over £10k on support with UCAS applications, while English language proficiency is being further deprioritised by the Chinese government.
  - There are over 15k Chinese students at some UK institutions, leading to acute social clustering, where students mostly socialise with others from China; other institutions have fewer than ten.
  - China's unique domestic digital ecosystem creates technological barriers for Chinese students in the UK, increasing ethnic clustering; they rely heavily on Chinese apps like WeChat and Little Red Book.
  - International students would like more targeted career support from their universities: almost 80% have never received support; Chinese students make up 22% of all UK international students but only 10% of graduate employees.
  - Some feel like they are being treated as revenue sources rather than as valued members of the community.
- Institutions should:
  - Implement more robust spoken English assessments, such as AI-powered online interviews already used globally for job recruitment, and provide ongoing and financially accessible language support, including free classes and buddy systems.
  - Work with recruitment agents to rebalance the distribution of Chinese students across courses and campuses and offer accommodation support to reduce social isolation.
  - Provide targeted digital literacy training to help Chinese students navigate UK-specific platforms and apps, reducing their reliance on Chinese digital ecosystems and fostering better integration.
  - Tailor career support services to the specific needs of Chinese students, including offering internships and practical work experience opportunities, to enhance their employability and overall experience in the UK.
  - Further consider employment needs and skills when curating academic programmes that could embed work experience and internships within the course framework.

The British Council published *A global framework for transnational education [TNE] engagement*, in collaboration with the Quality Assurance Agency for Higher Education (QAA) and Education Insight, underpinning its TNE strategy launched in November 2023.

- By analysing and describing national environments for TNE, the framework aims to:
  - Facilitate TNE engagement globally and further the understanding of the local context and educational priorities
  - Develop consistent language and better data to support global analysis and understanding of TNE
  - Position a country's TNE within the broader global landscape.
- It draws on contributions from secondary and primary data sources in the following categories: the macroeconomic and education context; TNE and access to tertiary education; TNE and internationalisation of local tertiary education; TNE and the quality of local tertiary education; QA and degree recognition; and an annual survey with local quality and regulatory bodies.
  - It includes case studies from Dubai, Pakistan, Sri Lanka, Thailand and Vietnam.
- The framework can be applied at a country level to better understand the dynamics and role of local TNE provision and with proposed annual activities including updates and a survey of TNE policy developments and main policy objectives for TNE engagement.

GRADUATES & GRADUATE EMPLOYMENT

Prospects Luminate and the Association of Graduate Careers Advisory Services published the annual *What do graduates do? 2024/25*.

- The report draws on HESA's Graduate Outcomes Survey of 184,650 UK-domiciled, first-degree graduates (107,565 female, 76,595 male) 15 months after completing their studies in 2021/22.
- Despite 'a modest downturn in the labour market', overall employment rates 'remain relatively strong'.
- 59.0% were working full time (-0.6ppt on the 2020/21 cohort) and 10.8% part time (-0.4ppt); 10.5% were working and studying (no change).
  - Of those in work: 75% were in professional-level employment; 8.8% were self-employed or actively working towards this goal.
  - 16.4% were health professionals (+1.5ppt) and 11.4% business, HR & finance professionals (+1.0ppt).
  - 22.5% were working in London (-1.0ppt), 2.8% were working in Northern Ireland (NI) (-0.1ppt).
- The highest proportions of non-professional jobs were: clerical, numerical and secretarial clerks (8.7%, +0.5ppt) and retail, catering, waiting and bar staff (8.4%, +0.4ppt).
- 6.7% were engaged in further study (-1.1ppt): 9.3% doctorates; 45.6% master's; 15.1% postgraduate diploma/certificate (including PGCE/PGDE); 21.2% professional qualifications.
- 5.6% were unemployed (+0.6ppt), still indicating a relatively healthy labour market; 7.4% were classified as 'other' (+0.7ppt).
- Expert insight pieces cover: enhancing careers services' support for neurodivergent students; the impact of GenAI on the creative and artistic industries; rethinking support for graduates who aren't in their preferred role; student mental health: the role of careers practitioners; reforming the work-ready graduate myth; supporting early career graduates through job applications; and navigating the future key trends in graduate recruitment.

The report includes detailed outcomes for those who studied: business & administrative studies; creative arts; technology, engineering & maths; humanities; science; and social sciences.

Prospects Luminate published three short analyses of the 2024 Graduate Outcomes data, focusing on specific groups of graduates.

- ***Impact of degree classification on early career outcomes*** explores whether a student with a First Class degree has an advantage over their peers:
  - 60% were in employment vs 57.4% with a 2:1, 56.3% with a 2:2 and 55.8% with a Third.
  - 19.0% were studying full time or combining work and study vs 17.0% with a 2:1, 13.7% a 2:2, 10.0% a Third.
  - 82.1% were in professional-level employment vs 71.3% with a 2:1, 63.9% a 2:2, 60.8% a Third; this pattern is true for all groups.
  - Even after controlling for background characteristics (e.g. prior school attainment, ethnicity, school type etc.), earnings differences between degree classes are substantial for both women and men; the premium of gaining a First over a 2:1 is 3.5% for women and 7.0% for men.
- ***Employment levels among graduates with disabilities***:
  - 52.8% of those with a known disability were in full-time employment 15 months after graduating vs 60.7% of those with no known disability.
  - 54.0% of white people with a disability were working full time vs 48.2% of those from an ethnic minority background.
  - The pattern holds regardless of subject area, with the gap most pronounced among social science (6.7ppt), STEM (5.7ppt) and humanities graduates (5.5ppt); the smallest gaps were among creative arts (5.1ppt) and business & administrative studies (3.4ppt) graduates.
  - 65.4% of graduates with disabilities had found full- or part-time employment 15 months after graduating, of whom 50.4% were working in professional-level jobs and 62.6% were using what they had learnt during their studies.
  - 81.8% felt their work was meaningful and 73.0% said it fitted with their future plans.
- ***How do apprenticeship students perform in the labour market?***:
  - 85% were in full-time employment vs 59% of university graduates, with a further 9% combining work and further study; just 0.1% were unemployed vs 6% of university graduates.

- The top five jobs were: nursing professionals (9%); programmers/software developers (7%); quantity surveyors (6%); social workers (5%); and police officers and civil engineers (both 4%).
- 88% were working in professional-level employment; 90% said their current work fitted with their future careers plans and 92% that their work was meaningful.

Universities UK (UUK) published *Graduate employment and outcomes across regions and industries*, based on analysis of Longitudinal Education Outcomes data.

- By age 31 graduates earn 32–37% more than non-graduates who could have gone to university.
  - Graduates earn nearly twice as much as other employees in some regional sectors, e.g. 96% more in the accommodation sector in the West Midlands and 85% more in financial services in the East of England.
- The industries the UK Government has set out as driving growth over the next decade are heavily dependent on graduate skills, including the creative sector (76%), professional and business services (74%) and life sciences (73%).
  - There is also a clear trend that those regions with more graduates are more productive, driving economic growth.

The Institute of Labor Economics (IZA) published *The Scarring Effect of Graduate Underemployment: Evidence from the UK*, examining the effect of early underemployment, based on data for 67k graduates from undergraduate degrees in the UK in 2013.

- The UK has one of the highest proportions of tertiary educated workers in Europe but also one of the highest rates of graduate underemployment.
- The report considers labour market outcomes at six months and 42 months after graduation, linked to administrative records covering HE, prior attainment, demographics and family background.
- Findings include:
  - Compared to being in a graduate job six months after graduation, early experience of underemployment increases the probability of being underemployed three years later by 0.24.
  - This is a large effect relative to the base risk of underemployment at 42 months for those in a graduate job at six months (just 0.09).
  - Early underemployment causally increases the chances of later underemployment by at least 0.18; this is important as early graduate *under*employment is much more prevalent than early *un*employment and yet has a similar sized negative effect on the prospects of attaining a graduate job in the future.
  - The impact of early underemployment is more severe for women, for Black graduates, for those from Wales, those attending newer universities, those studying social science subjects, those attaining a lower class of degree and those from a state school or a school outside the UK.
- Implications include:
  - Inequalities in early graduate job attainment relating to socio-demographic characteristics are exacerbated by the greater penalty for underemployment for graduates from these backgrounds.
  - The equity concerns are compounded by the economic inefficiency of underutilisation of the graduate skills of these individuals, underlining the importance of addressing the issue.

HE: TEACHING & LEARNING

The QAA published *Embedding multiple disciplinary affiliation identities in shared modules to enhance curriculum*, one of the outputs of a QAA Collaborative Enhancement Project involving Greenwich, Royal Holloway, London and Lincoln Universities.

- The project explored how students' various disciplinary affiliations and identities can be brought into the design of modules shared across the curricula of different programmes.
  - It identified specific contexts, barriers and enablers that impact upon the likelihood of the successful implementation of interdisciplinary approaches to taught provision.

The study is accompanied by a literature review, a toolkit to support the design, implementation and evaluation of such shared modules and an Evaluate and Reflect Tool.

IZA published *Man vs Machine: Can AI Grade and Give Feedback Like a Human?*, on whether these two highly time-consuming HE activities could be performed effectively by GenAI.

- The aim was to determine whether current large language models (LLMs) could boost productivity in the education sector by enabling teachers/lecturers to reallocate time to activities to improve students' engagement and understanding.
- The study used a randomised controlled trial, allocating undergraduate students to feedback provided either by a human instructor, ChatGPT 3.5 or ChatGPT 4.
  - Students treated with the freely accessible ChatGPT 3.5 received lower grades in subsequent assessments than their peers in the control group who always received human feedback; no such penalty was observed for ChatGPT 4.
- The capacity of GenAI to grade student work was also tested and compared with that of a human.
  - GenAI grades and ranks were significantly different to human-generated grades.
  - Both LLMs provided more extreme grades and graded more inconsistently, resulting in ranks substantially different from those generated by a human grader.
  - However, neither LLM appeared to be biased against any socio-demographic group.
- Overall, although the newest LLM can help student learning as well as a human, its ability to grade student work is still inferior.
  - The rapid improvement in LLMs means that it might be possible to substitute human graders with GenAI in the near future, at relatively low cost.

QAA published *Experiential learning in STEM: Literature review*, one of the outcomes of a Collaborative Enhancement Project led by the University of Warwick with Aston, Glasgow Caledonian and Strathclyde Universities.

- The study focused on current experience of implementing experiential learning in STEM education, aiming to address a perceived gap in guidance and practice.
- The literature review includes the drivers of experiential learning, its benefits, barriers and enablers; findings include:
  - Good experiential learning offers advantages in terms of: student retention, engagement, learning and personal and professional development; critical reflection and self-directed learning skills as a sound basis for lifelong learning.
  - Focus on scaffolding, assessing and developing the above skills needs to be a fundamental part, bolstered by support from university tutors, mentors and supervisors in industry to broaden and deepen student understanding and capability.
  - Careful pedagogic engagement and design is needed to ensure experiential education isn't rendered ineffective except for students with the social and intellectual capital to take best advantage.

QAA Cymru published *The Impact of Staff Professional Development [CPD] on Teaching Practice and Student Learning and Performance*, 13 case studies funded by Medr, the Welsh Commission for Tertiary Education & Research.

- The case studies include: evaluations of the impacts of CPD for hourly-paid staff and postgraduate students; the promotion of action research; support for bilingual and flexible provision; training in trauma; resilience; the uses of AI and feedback literacy strategies; and the benefits of collaborative CPD networking.

***Student preferences over module design*, by the Institute for Social & Economic Research, was published in *Discover Education*, using new experimental data to measure preference in terms of expected learning and enjoyment.**

- Students demonstrate that they:
  - expect to learn more from and enjoy modules with in-person lectures; given that 30% of UK lectures are now taught online (up from 4% pre pandemic), this indicates a misalignment
  - prefer shorter lectures and don't expect to learn more from longer lectures
  - expect to enjoy and learn more from modules that have individual assignments.
- All of these results are robust across two distinct samples – a top-ranked business school and mid-ranked research-intensive university – and all groups within the samples, including master's students.

HE: INSTITUTIONS & RESEARCH

HEPI published *Evolution of Devolution: how higher education policy has diverged across the four nations of the UK*, featuring contributions from experts in education policy.

- The unique challenges and opportunities faced by each nation are explored, with a particular focus on funding models, student mobility and policy responses to local needs.
- Key findings include:
  - **Distinct policy approaches**: the nations have developed markedly different systems, from Scotland's free tuition model to the Welsh integrated approach to post-16 education.
  - **Funding divergence**: England relies heavily on graduate contributions, Scotland and NI have maintained lower tuition costs and Wales offers the UK's most generous maintenance support.
  - **Cross-border dynamics**: Significant student movement between nations underscores the interconnectedness of the UK's HE landscape despite devolved policy frameworks.
- The following desired policy changes were suggested:
  - **Wales**: A real 'differentiation' strategy, with a genuine postgraduate-only advanced research institution aligned to national economic and innovation priorities.
  - **NI**: A suitable funding model is vital, with universities playing such an important role in NI's economic, social and cultural future.
  - **Scotland**: Maintain the role of government funding for HE but strive for a more sustainable model that ensures long-term stability for institutions, staff, students and wider communities.
  - **England**: The sector waits with interest to see whether current political rhetoric around a tertiary approach is any more resolute than previously and whether/how that interacts with greater devolution and collaboration.

Public First published *Understanding the knowledge gap: public perceptions of UK universities*, based on a poll of 4k UK adults, including 131 in NI, funded by the All-Party Parliamentary University Group.

- **Parents with children under the age of 18**: 81% of said they wanted them to go to university, with 70% of them motivated by their children getting a better job.
- **Respondents in general**:
  - 59% thought the same number or more graduates would be needed in the workforce in the future vs 24% who thought fewer graduates would be needed.
  - When asked how Britain should develop and maintain expertise in AI and green energy, 42% said 'to ensure universities have the skills and resources to conduct advanced research in this area'.
  - 51% said they knew not much/very little about the role their local university played in their area.
  - The top suggested benefits of public money going into universities were: keeping tuition fees down for students (29%); providing more scholarships and bursaries for poorer students (29%).
  - 34% said universities might raise more money to pay staff by offering places to more international students, who pay more fees.
  - 31% thought universities had about the right amount of money, 22% that they had a bit/too much; 31% thought UK universities were better funded than those in other developed countries.

HEPI published *Student Demand to 2035*, showing the potential impact on the HE sector in England of the future decline in the 18 year-old population.

- The external environment has changed substantially from 2018, when it was possible to make assumptions about the continuing desire of young people to go to university and project the trajectory of student demand with reasonable confidence.
  - After steadily increasing over the past two decades, the participation rate has gone into reverse in the past two years.
  - After increasing up to 2030, the size of the young population will decline sharply and, unless the participation rate resumes its improvement, overall demand for HE will fall by ~20% between 2030 and 2040.
- In the last two years, steady improvement in the disadvantage participation gap has stalled; if the improvement were to resume, it could substantially mitigate the effect of the population decline.

- While the real-terms cost of student fees has reduced, maintenance support hasn't kept up with the rising cost of living, which may be having a negative impact on potential students.

- There is a 'yawning gap' between male and female participation and it would take a 37% increase in male participation to match that of female; this is a global phenomenon – the UK performs better than most other OECD countries.

- Many universities are already suffering student number reductions, partly as a result of higher tariff universities recruiting students who in the past wouldn't have met their academic requirements.
  - Between 2013 and 2024, applications to such universities increased by 40% while those to lower tariff universities declined by 13%.

The British Academy published *Mapping SHAPE [Social Sciences, Humanities & Arts for People and the Economy] provision in UK higher education*, outlining a pilot project that uses data to visually demonstrate how such provision is contracting and expanding.

- The first tool produced is a set of maps depicting regional cold spots over the past decade, showing areas where a student would need to travel more than a commutable distance (60km) to access a given subject.
  - While commutability depends on region and students' circumstances, this distance enables an initial understanding of how access to SHAPE subjects may vary by region, and particularly according to students' prior attainment (UCAS tariff).

UUK published *How are universities protecting freedom of speech and academic freedom?*, setting out findings from a survey of 46 of its members across the UK.

- 93% of universities surveyed have a free speech code of practice, of which 81% have reviewed their code since May 2023, with a further 16% currently reviewing it or planning to do so.
  - The top five positive outcomes from reviewing/updating the code are: closer working with the students' union (69%); concepts more clearly defined (69%); increased staff understanding of freedom of speech (63%); improved/more thorough process for handling event requests (60%); institutions better prepared to manage complaints (60%).

- 90%+ of codes include: information about procedures to be followed when arranging events/meetings; event approval criteria; staff/student expected conduct in relation to events; the institution's values relating to freedom of speech; and definitions.
  - 96% of universities have made or plan to make students aware of the code, mainly through induction or start-of-year sessions (71%); 97% have made or plan to make staff aware.

- 74% were confident that their mechanisms for dealing with complaints were effective, while 26% plan to update theirs; 22% have a panel or similar for reviewing complaints, 33% plan to create one.

- Since May 2023, 74% have reviewed other relevant policies and procedures through a freedom of speech/academic freedom lens, including: events, room bookings and external speakers (79%); equality, diversity and inclusion (EDI), including charters and external assurance schemes (68%); student and staff complaint schemes (65%); and harassment and sexual misconduct (65%).

Four short case studies on the impact of universities' work in this area cover Manchester Metropolitan University and the Universities of Essex, Exeter and Greenwich.

QAA published *What can QAA reviews tell us about what works in collaborative provision in the UK?*, referring to any partnership arrangement between HE providers, such as where one provider delivers a course and another grants the award.

- The report examines areas of good practice and offers recommendations for improvement in relation to three key themes: robust oversight, constructive relationships and a coherent student experience.

Jisc published *Collaboration for a sustainable future: Unlocking the value and potential of higher education through new shared approaches to digital, data and technology*, with KPMG.

- Despite facing the same challenges, most HEIs opt to seek solutions alone – however, in order to achieve long-term financial sustainability, the sector needs to prioritise collaboration over competition and standardisation over customisation.
  - Trust and governance will play a pivotal part in driving collaboration forward for institutions, as well as a shift towards group mindsets and behaviours.

- Five key areas offer the greatest opportunities for collaboration:

- **Central coordination and standards**: establishing common models, standard definitions and driving consistency across the sector.
- **Skills development in digital, data & technology**: developing the necessary skills on both an operational and cultural level.
- **Shared procurement and system management**: implementing and managing applications with potential across most systems supporting teaching, learning, research and professional services.
- **Shared services**: reducing costs, streamlining operations and reducing bureaucracy more widely.
- **Co-building sector-specific technology**: utilising standardisation processes to build systems for the sector's needs or leveraging existing technologies by working with providers to develop innovative solutions.

Jisc is initiating key next steps, working with UUK in line with its recent blueprint for change, to support the sector as it begins to adapt to new methods of operation and delivery.

The National Centre for University & Business published *State of the Relationship 2024: Analysing trends in UK business-university collaboration*, its 11th annual report.

- Overall, 76,619 university–business interactions were recorded in 2022/23, -5% on 2021/22.
  - University interactions with SMEs were -3.5% and those with large businesses were -8.8%.
  - There was a 0.6% real-terms decline in total income from wider knowledge exchange activities with business (excluding licensing).
- Across all nations except Scotland, university–large business interactions met or exceeded the established five-year average (Wales, 1.12; NI and England, 1.05; Scotland 0.59).
  - However, while Scotland and Wales experienced an 18.4% and 6.4% increase in income from large business interactions, England and NI saw declines of 6.2% and 2.1% respectively.
- Engagements with SMEs fell below the medium-term average in England (0.91) and NI (0.85) but were higher than the average in Scotland (1.06) and Wales (1.01).
  - Income was higher than the average in all the nations (NI, 1.25).
- There is considerable variation between the four nations in commercialisation indicators:
  - Patenting activity has dropped below the five-year average in both England (0.81) and Scotland (0.76), whereas in NI it has exceeded the average (1.55).
  - Licensing activity has declined drastically in NI (0.80 against average), while in other nations, it meets the medium-term average.
- **Impact**: Universities and businesses are already working together to help achieve the Government's five critical missions (economic growth, clean energy, safer streets, greater opportunity and an NHS for the future).
  - The UK will rely on universities and businesses working together to ensure that it has the highly skilled people who can make positive change happen.
- **Instability**: Collaboration needs to be built on strong foundations, however 2024 has been a challenging and volatile year, with growing conflict, tension and economic pressure.
  - The university sector faces significant financial challenges that need policy intervention to solve; the operating environment for many companies has also become more difficult.
- **Intent**: Despite the external challenges, policymakers, universities and businesses have been working together to identify ways to grow and strengthen the skills, research and innovation system.

Lloyds Banking Group published *Drivers of growth: Universities' enhanced civic role at the heart of national prosperity*, with PwC.

- In response to the systemic challenges and financial fragility currently facing the HE sector, the report draws out examples of universities that are leading the way in contributing to growth and sets out some key steps for this role to be enhanced and strengthened.
  - It is based on interviews, visits and roundtable events with universities and wider stakeholders in the four UK nations, including experts in regional growth and place-making, regional and national policymakers, and leaders in business, finance and innovation.
  - Five sections, including case studies, cover the ingredients for success in driving local growth anchored by universities: purpose; collaboration; system navigation; capability and culture; and understanding value.

The OECD published *The Geography of Higher Education in England and Wales*, drawing on insights from its Entrepreneurship Education Collaboration & Engagement platform and contributing to an international dialogue on the 'place-responsiveness' of HEIs.

- Universities play an important role in driving innovation and economic growth within their own regions across England and Wales.
  - By engaging with local partners, they help address societal challenges and support regional development; yet, integrating a territorial dimension in research, innovation and engagement agendas can be challenging.
- Focusing on the National Civic Impact Accelerator (NCIA) established by the Civic University Network, the report explores how universities are aligning their research and innovation efforts with regional priorities to strengthen entrepreneurial ecosystems.
  - It also highlights the importance of stronger partnerships with local stakeholders, including SMEs, to enhance the impact of the NCIA on regional innovation and prosperity.
- 21 case study universities are analysed, representing examples of HEIs that support local entrepreneurship and innovation by connecting with regional communities, promoting entrepreneurial education, mobilising resources and leveraging regional policies.
  - By prioritising entrepreneurial education, they aim to equip students and local residents with the necessary skills and mindsets to launch and grow new ventures, thus fostering a culture of innovation and economic resilience within the region.
- Two recommendations for civic universities in England and Wales: mainstream civic engagement in teaching and research activities; and mainstream entrepreneurial education within the civic agreements of universities.

The European Commission published *Assessment of the Instruments, Deliverables, Results and Impact of University Business Cooperation*, focusing on activities carried out since 2008.

- The assessment considers five key initiatives: university–business fora; Erasmus+ knowledge alliances; the HEInnovate self-reflection tool; the Labour Market Relevance and Outcomes Partnership Initiative; and the Higher Education for Smart Specialisation project.
- The initiatives have played a significant role in bridging the gap between HEIs and the business sector with varying degrees of effectiveness.
  - However, challenges include: insufficient synergies among university–business cooperation activities; limited policy engagement; barriers to the long-term sustainability of partnerships; and the need to broaden the concept beyond cooperation to 'educational innovation'.

WORKFORCE ISSUES

Jisc published findings from its *Teaching staff digital experience insights survey 2023/24*: *UK further education (FE) survey findings* is based on responses from 860 staff in 19 colleges*; *UK higher education (HE) survey findings* is based on 3,287 responses from 33 HEIs.**

- 88% of FE (+2ppt from 2022/23) and 71% of HE classes (+4ppt) were mainly delivered on site.
  - 54% of FE (+8ppt) and 41% of HE staff (-8ppt) had wifi connection problems on site.
- 69% of FE (+3ppt) and 60% of HE staff (-4ppt) rated the quality of the online learning environment as above average.
- 97% of FE and 96% of HE staff teach using digital technologies while on campus, 84% of FE and 93% of HE staff while at home.
  - 74% of FE (+3ppt) and 59% of HE staff (+2ppt) prefer to teach on campus.
- 60% of FE (+4ppt) and 46% of HE staff (-5ppt) said the support they received to teach effectively online was 'above average' (good, excellent or the 'best imaginable').
  - Respondents commented that digital technologies complemented their teaching styles; e.g. providing pre-lecture content through virtual learning environments and being able to support more students at scale with a range of accessible content.
  - 63% of FE and 58% of HE staff rated the quality of their digital teaching experience as above average.
- 31% of FE (-4ppt) and only 16% of HE staff (–) were assessed on their digital skills and training needs.

- Of the training received: 45% of FE (-3ppt) and 50% of HE staff (–) received training to teach online; 56% of FE and 52% of HE staff in keeping data secure; 38% of FE and 18% of HE staff in the appropriate use of AI tools.

- 23% of FE (-5ppt) and only 9% of HE staff (+1ppt) received formal recognition for their digital skills.
- **FE staff want**: more training and more time to develop new skills; investment in computers and devices; upgraded platforms and systems.
- **HE staff want**: clear advertisement of training and support opportunities; time to develop skills and familiarity with systems and tools; sharing of best practice for using digital technologies in teaching.

**13 in England; four in Wales; two in Scotland.*

***23 in England; two in NI; four in Scotland; four in Wales.*

Advance HE published *Diversity of governors in higher education*, analysis of HESA data for 2022/23.

- Overall, 43.4% of governing body members were women (+1ppt on 2020/21); 31.6% of institutions had a governing body in which 45–55% of governors were women.
- 15.2% of UK governors were from Black, Asian or minority ethnic backgrounds (+3ppt).
- The percentage of governors who disclosed a disability increased to 6.5% (+0.7ppt).
- 41.4% of governors were aged 26–55 compared with 79.5% of academic staff; 5.9% of governors were aged 25 or under, compared to just 1.7% of academics, although the proportion of professional and support staff in this age range was 6.8%.

College Development Network, Scotland, published *College Board Recruitment and Retention Research Project*, based on focus groups and a survey of governance professionals.

- Although challenging, there is no evidence of a crisis in the recruitment or retention of board members; turnover is to be expected.
- Attracting applicants with finance skills is hard; some boards are co-opting to fill gaps.
- Factors contributing to early departures from boards include: overemphasis on governance at the expense of student matters; and lengthy meetings.
- Building the board as a 'team' is essential, with informal aspects of membership fostering camaraderie and a sense of shared purpose.

The Workplace

RECRUITMENT

The Institute of Student Employers published *Student Recruitment Survey 2024: Trends, benchmarks and insights* based on responses from 145 large UK employers who hired over 40k new graduates over the past year. *[The report is available to members or to purchase.]*

- The average employer received 140 applications per graduate job, +59% on 2023, the highest recorded in over 30 years.
  - Organisations received over 1.2m graduate applications, with digital, IT and financial services roles among the most competitive.
  - Competition growth is partly due to a slowdown in graduate jobs growth (+4%, -2ppt), which is expected to continue – employers forecast 1% growth over the year.
  - AI is also making it quicker and easier to submit multiple job applications; however, the quality is at risk and driving more rejections.
- ~25% of employers had no minimum education requirements for graduate roles, over twice as many as ten years ago.
- 18% withdrew job offers to international students due to changes to the visa rules.
  - 89% of those hired had graduated from UK institutions – 48% under the Graduate visa, 47% the Skilled Worker visa.

Prospects Luminate published *Employer Expectations: Examining the skills requirements of employers hiring creative graduates* by Leeds Arts University, based on job description data collected by Group GTI.

- The most in-demand skills across all creative roles were Adobe and Microsoft capabilities.
  - Non-creative skills, such as data analysis and project management appeared in the top five skills across all creative roles.
  - The need for digital skills is present across all sectors within the creative industries to varying extents; 49% of all creative roles requested specific knowledge of software or technology.
  - More creative skillsets such as social media management, graphic design and digital marketing were more common across creative roles within the creative industries.
- Large organisations prioritise academic requirements over experience and promote more graduate programmes or specific graduate-level roles.
  - SMEs prioritise experience over academic requirements and specify roles as graduate or entry level less often.
- Non-creative organisations were more likely to use vaguely worded statements than creative organisations, focusing on personality traits and temperament.
  - Creative organisations focused more on applicants' relationship to their creative practice and job duties.

The Gatsby Foundation published *An exploratory study of employers' recruitment practices* by the National Foundation for Educational Research (NFER), focusing on the use of technical & vocational qualifications (TVQs) in England, but with findings of general relevance.

- The research drew on analysis of vacancy data and focus groups with 31 employers; key findings:
  - Only 8% of adverts referenced a qualification of any kind and less than 5% – mostly for technical occupations – referenced a TVQ, mainly NVQs, HNCs and HNDs.
  - Employers said there was no lack of understanding of TVQs; rather they didn't mention them because they didn't want to deter otherwise excellent applicants.
  - Employers typically prioritised looking for evidence of experience and essential skills, as they didn't feel qualifications told them enough about a candidate; they had little appetite for increasing their use in recruitment.
- The findings from the study don't align with wider evidence that demonstrates the employment outcomes and wage returns that the completion of TVQs can bring.

STEM Returners published *The STEM Returners Index 2024*.

- 42% of STEM professionals attempting to return are female and 40% are from minority ethnic backgrounds – far more diverse than the current workforce; 75% hold a degree, master's or doctorate.
  - 'Caring' is the most common reason for a career break; only 15% took a career break out of personal choice (+2ppt).
  - Financial reasons remain the number one motivator for returners (49%); 44% want to return 'to reignite/fulfil' their 'passion' (+11ppt); 40% miss the challenge (+10ppt).
- 46% overall report that they hardly ever/never receive feedback on their applications (+2ppt).
- 40% feel that they have experienced bias in the recruitment process (+7ppt).
  - 38% from minority ethnic backgrounds have felt bias based on race or ethnicity; those from minority ethnic groups are twice as likely as white British to apply for more than 70 jobs.
  - 42% with a limiting health condition or disability report bias due to their health (+30ppt).
- 65% report finding the process of re-entering the STEM industry difficult/very difficult.
  - 54% of successful returners favour returner programmes over traditional recruitment channels (+14ppt); 35% have found employment through these programmes (+19ppt).

CV-Library published *The Race for Talent: Private sector v public sector*, including a survey in September 2024 of 1,167 candidates and 388 recruiters on their perceptions of working in the private and public sectors. *[An email address is required to access the report.]*

- Employers can compete for talent through pay and remuneration, training and development, benefits and the way work is managed (e.g. flexible work arrangements).

- They can appeal to candidates by offering 'work with a purpose', i.e. that of the organisation or through 'good' activities and projects they support.
- The public sector is well placed to compete via many of the above; the private sector has greater flexibility in how people are paid and employed.
- Increasing mobility of the workforce between sectors, e.g. through greater emphasis on transferable skills, could lessen the need for competition for talent and enhance the workforce available for all sectors.

- The public sector is currently home to a more diverse workforce, in terms of gender, ethnicity, age and ability; the private sector is aware of the value of diversity and is exercising its capacity to attract from as wide a pool as possible.
- Candidates want to know that their next position will build on their last and be part of their ongoing career, so it is important for employers to offer clear training and development resources.
- Recommendations for employers include:
  - Ensure the approach to employee attraction, recruitment and employment reflects and keys into the diversity of the candidate pool.
  - Create an environment where employees want to work – that fosters training and development, work–life balance and purpose.
  - Identify the skills required, rather than trying to find a specific person with previous role experience, opening up the potential talent pool.
  - Give individuals opportunities for training and growth in the organisation, thus helping to increase both the skills generally available for all employers and the productivity of the economy overall.

The University of Strathclyde's Fraser of Allander Institute published *Research on Employer Behaviour Regarding Hiring People with Learning Disabilities* by Inclusive Recruiting, funded by Acorns to Trees.

- The research aimed to understand how employer mindset contributes to the recruitment barriers experienced by people with a learning disability.
  - Participants were interviewed or surveyed online, including those in recruitment roles plus EDI leads from different-sized organisations, sectors and geography.
- Barriers to recruiting include: a lack of knowledge leading to prejudice; not understanding how to make recruitment accessible; and perceived cost.
- Potential actions for improvement include: creating volunteering, job shadowing and placement schemes; creating a resource bank of toolkits, guidance and factsheets for employers; and designing and delivering masterclasses to improve knowledge and attitudes around learning disabilities.

TRAINING, DEVELOPMENT & APPRENTICESHIPS

The SMF published *Laying the foundations: How to support SMEs to take on apprentices in skilled trades*, focusing on England.

- It explores enablers and barriers, reviews the literature on apprenticeship trends and presents new data on the attitudes of trades firms along with insights from interviews with skilled workers.
- Key points:
  - Apprenticeships among younger people have been declining for several years, with SMEs experiencing the sharpest drop; however interest in apprenticeships is rising and demand still outstrips supply.
  - Although willing, SME trades firms face several challenges in providing apprenticeships, in particular, most report having no consistent connection with their local training providers.
  - Other barriers include: negative generational attitudes and a lack of trust, especially among older workers; and the cost and administrative burden associated with taking on apprentices.
- Recommendations:
  - Establish an intermediary system that strengthens the relationships between SME trades firms and training providers, creating a network that offers guidance and support for employers, including administrative and pastoral services.

- In England, this would require: the Department for Education to increase the coverage of brokerage pathfinders; Skills England to take responsibility for the new system; local authorities to initially run the intermediary system, before transitioning this responsibility to Careers Hubs.
- Increase the apprenticeship incentive payment for under 19s to £3k funded from levy underspend.
- Launch a national campaign to promote awareness and positive perceptions of young apprentices.

Enginuity published *Understanding Strategic Workforce Planning Needs in Engineering and Manufacturing*, based on a survey of engineering and manufacturing employers.

- Large businesses are more likely to report difficulty in retaining the skilled individuals they need, while SMEs find upskilling and reskilling more challenging than their peers in larger organisations.
- The most significant external, legal and regulatory pressures affecting workforce development in the sector include: inflation; taxation; employment law and regulation; and immigration policy.
  - Technological advances shaping future workforce planning needs include: digitalisation; cybersecurity; automation; electrification; sustainability; AI and machine learning; and virtual and augmented reality.
- Around 50% of all respondents said that they were experiencing job role changes within their organisations.
  - The technical skills in highest demand include digitalisation, automation, electrification and sustainability; the non-technical skills include: communication, collaboration, leadership and sales.
- Large businesses experience greater demand for more highly skilled roles as the digital transformation takes effect, particularly in frontline maintenance, project engineering and sales.
  - SMEs increasingly depend on digital skills and advanced technology, as well as leadership and communication skills for technical staff and managers.
- The skills in highest demand include digitalisation and automation, which aligns with the main technological changes impacting the sector.

Enginuity also published Demystifying electrification *for the engineering and manufacturing sector on its Future Skills Hub, providing information about the skills needed and by whom.*

England's Institute for Apprenticeships & Technical Education (IfATE) published *Catering and hospitality route review*, focusing on the future of skills training in the sector.

- Heavily impacted by the pandemic and Brexit, vacancies in the sector reached a peak in April–June 2022 with an average of 176k; this fell to 95k by July–September 2024.
  - The industry continues to face labour shortages, particularly affecting chefs, waitstaff, housekeeping and management.
  - Businesses are dealing with significant cost inflation and closures continue to be an issue, although this slowed from eight sites a day in 2023 to four a day in the first quarter of 2024.
- The mental health and wellbeing of workers is an important concern and trade bodies and new initiatives have teamed up with mental health experts to create support programmes.
  - One such collaboration is between the Institute of Hospitality & Mental Health at Work, curated by the charity Mind, to provide a mental health toolkit for the industry; IfATE has also partnered with The Burnt Chef project to better understand and address mental health issues.
- The report emphasises a need for more multi-skilled apprentices at career entry level, with England's current Level 2 apprenticeship deemed by employers to be too narrow in scope.
  - An updated version will cover a wider range of roles, which will also enable apprentices to gain broader experience, boosting their chances of promotion.

RSM UK published *Manufacturing Investment Monitor* with Make UK, based on a survey of over 200 business leaders on where they will prioritise their investments in 2025. *[An email address is required to access the report.]*

- There is a growing use of data analytics, with the top three benefits being: more efficient use of resources (56%); improved productivity (49%) and improved labour efficiency (36%).
  - However, the biggest barrier to adopting digital technology is lack of digital skills (42%), followed by data integration challenges (39%) and high cost (31%).
- Labour & skills (production staff) is the second highest priority (52%) after plant and machinery (54%), while digital technologies & software is the third highest (29%).

The OECD published *Training Supply for the Green and AI Transitions: Equipping Workers with the Right Skills*, using survey evidence and analysis of training catalogues to evaluate whether current training supply aligns with the skills needed.

- All 27 OECD countries surveyed have a policy or strategy in place related to upskilling and reskilling for the green transition.
  - Most have also introduced incentives for education and training institutions to develop or update course content to align with the skills needed for green-driven jobs.
  - Some have given subsidies or tax deductions to employers offering green-related training to employees.
  - 26 provide incentives for workers and jobseekers, making them the most common initiative used.
- 21 have also launched publicly funded training programmes to upskill and reskill workers and jobseekers.
  - Over 40 such programmes were identified, mostly training workers and jobseekers in green sectors, e.g. renewable energy and natural resources; some also train in non-green sectors in skills expected to rise in demand.
- Across Australia, Germany, Singapore and the US, 2.1–14.1% of available training courses include green content, with more provision observed in the vocational sector; this estimate doesn't take into account learning within firms or undertaken informally.
  - However, with 20% of workers employed in green-driven occupations and a further 6% in greenhouse gas-intensive occupations, the current supply of green-related training may be insufficient to meet demand.
- Green-related training appears more commonly offered in person rather than online compared with other types of training.
  - This might be attributed to such training frequently involving hands-on learning of new technologies, making virtual provision less feasible.
  - AI-related courses, on the other hand, lean towards online provision and tend to be geared towards advanced skills, indicating a current focus on cultivating AI professionals; there is an opportunity to broaden the accessibility of courses to promote general AI literacy.
- Governments are taking initiatives to ensure inclusive access to training, recognising that both the green and AI transitions will have unequal employment impacts across groups, and that some groups are less likely to participate in upskilling and reskilling.
  - 12 of the countries have career guidance initiatives in place to facilitate transition into green jobs; 21 have financial incentives for workers and/or jobseekers, several of which are targeted specifically at adults with low formal qualifications.
  - Only five countries have specific career guidance initiatives to facilitate AI-related employment transitions; although AI-specific career guidance may not be necessary in every context, there remains an opportunity for countries to use a more targeted approach, thereby encouraging greater participation in AI-related training and careers.

The Open University (OU) published findings of a Censuswide survey in Scotland of mothers with 0–5 year-old children, on their careers and views about returning to work. *[There is no methodological information on the survey.]*

- 62% would consider retraining for a new career but are held back by multiple barriers, mainly: childcare costs (46%); juggling work, childcare and personal relationships (45%); leaving their children (44%); the lack of flexibility in working hours (41%).
- 52% said having access to flexible learning options would most motivate them to retrain, 49% said having financial support and 39% the ability to study remotely.
  - The most appealing sectors to retrain in were: healthcare (17%), education (11%) and IT (7%).
- The top transferable skills they believe they have gained from parenting are: multi-tasking (53%), problem solving (39%) and communication (35%).

SKILLS GAPS & SHORTAGES

The Learning & Work Institute (L&W) published *Unlocking Potential: Digital Skills Training And Social Mobility*, commissioned by Generation, based on a poll of 490 employers and 1,979 adults along with qualitative research in England and Scotland.

- The research aimed to understand the digital/tech employment gap and which programmes and skilling pathways are most effective in enabling people from disadvantaged backgrounds to progress into digital and tech jobs.
- 49% of employers say they are struggling to hire staff with the digital/tech skills that they need; 40k vacancies in tech occupations are costing the UK economy £63b p.a..
  - Shortages are a challenge at all levels and functions but particularly at senior levels and in leadership and management roles.
- Employers mainly use traditional recruitment routes, often overlooking and missing out on groups who face barriers, e.g. young people who are not in education, employment or training (NEET), and those from ethnic minority backgrounds, with disabilities or with lower qualifications.
  - 59% of employers say that a high proportion of their recruits have degrees; 67% of tech workers have an HE qualification compared to 41% in non-tech roles.
- Although a wide range of skills programmes offer pathways into digital/tech jobs, the three main routes used by employers are degree programmes, apprenticeships and, in England, Skills Bootcamps.
  - There were around 35,300 starts on undergraduate computing courses, 25k on ICT apprenticeships and 22,600 on digital Skills Bootcamps in 2022/23, far higher than on other types of provision.
  - Digital Skills Bootcamp starts have risen from close to zero in 2018/19 to 22,600 in 2022/23 and could exceed 30k in 2023/24; ICT apprenticeship starts could increase to over 26k in 2023/24.
  - Each of the three main supply routes play different roles but limited evidence on performance and inconsistent quality and outcomes make it difficult to understand their comparative value.
  - Skills Bootcamps vary greatly in design and implementation; some are funded by government and others by employers – mainly for existing employees – or charities; those with at least some charitable funding are more likely to attract diverse participants and secure good outcomes.
- 74% of employers see recruiting from different routes and wider talent pools as an effective way to address skills gaps; they are increasingly considering wider transferable skills and the willingness to develop new skills.
  - However, SMEs in particular face specific challenges in hiring those from disadvantaged groups to entry-level roles and further investment is needed to support this.
- Only 37% of adults in lower socioeconomic groups say that jobs requiring advanced digital/tech skills are a realistic option for them, compared to more than 50% of those in higher groups.
  - 95% of employers say that the Government needs to increase investment in non-traditional routes into digital/tech jobs, while wider stakeholders agree that improving access should be a priority.
  - Short and modular programmes are increasingly valued by employers, particularly given the fast pace of change; shorter, stackable programmes help meet the needs of different learners. ·
  - One-to-one support is crucial in enabling people from diverse and disadvantaged backgrounds to secure positive outcomes from digital and tech training programmes; however, this is costly.
- Future funding should better incentivise a focus on people from lower socioeconomic groups and with lower qualifications, e.g. through financial incentives or commissioning structures.
  - There is a consensus that further devolution of responsibility for skills is the right approach.
- In Scotland, there are concerns about delays to implementing the Review of the Skills Delivery Landscape *[see* Skills Research Digest Q2 2023*]*, slowing down reform compared to the pace of change in England.

The OU published *Powering up productivity*, based on a survey of 500 UK businesses, examining how organisations prioritise, measure and strive to enhance productivity. *[An email address is required to access the full report.]*

- 41% agree ongoing skills shortages are having a negative impact on their organisation's productivity.
  - The biggest barriers to improvement include: lack of relevant technical skills (24%); lack of leadership and management skills (21%); and mental health and wellbeing challenges (20%).
- 26% lack the expertise to measure productivity effectively.
- While 27% of respondents offer hybrid and flexible remote working arrangements to boost productivity, only 15% view these as obstacles to improvement.

- 75% of large businesses have implemented productivity-enhancing programmes or initiatives, compared with just 37% of SMEs.
- Only 30% are leveraging EDI as a productivity strategy.
- Recommendations to boost productivity include: investing in reskilling and upskilling the workforce; and undertaking a skills audit of the workforce and local area to discover untapped talent.

TechUK published *Shaping the Future of the Local Government Workforce: Key insights from techUK's Skills Group Survey*, on the challenges and potential solutions in attracting, retaining and developing technology talent. *[There is no methodological information on the survey.]*

- Findings include:
  - 29% of **local authorities** said competition for skilled workers was the biggest barrier to retaining talent; 18% cited the shortage of suitable applicants; 12% the cost of qualifications or training.
  - Anticipated areas for recruitment in the next 12 months include: 15% for AI roles; and 13% each for architecture, cybersecurity and software development roles.
  - 30% find it difficult to attract female tech talent, 24% those with a disability, 22% those of ethnic and 22% neurodiverse backgrounds.
  - 88% are already implementing or planning to set up processes to ensure diversity at various career stages, most at entry and management stages.
  - 74% of **staff** said there was insufficient support and training provided to develop their skills.
- Investing in reskilling programmes and expanding access to apprenticeships will help nurture in-house talent and create a loyal workforce.
  - 83% currently offer apprenticeship programmes.
- Recommendations include investing in training and development, through e.g.:
  - Offering tech employees opportunities for formal accreditation, in-house training and programmes provided by external learning and development partners.
  - Frequently auditing training programmes to ensure they're focused on developing current and future skills needs.
  - Regularly communicating learning and development opportunities to employees and inviting them to suggest additional training that they would benefit from.
  - Implementing structured development plans for tech employees, which explore their potential career progression into different technology and leadership roles.

ISC2, an international member association for cybersecurity professionals, published *ISC2 Cybersecurity Workforce Study 2024: Global Cybersecurity Workforce Prepares for an AI-Driven World*, based on a survey of 15,852 international practitioners and decision-makers.

- Despite the growing need for cyber professionals, global workforce growth has slowed for the first time since ISC2 began estimating the workforce size six years ago.
  - After two years of declining investment in hiring and professional development opportunities, organisations face significant skills and staffing shortages.
  - Respondents don't believe their cybersecurity teams have sufficient numbers or the right range of skills to meet their goals: ~60% of respondents agree that skills gaps have significantly impacted their ability to secure the organisation, 58% that it puts their organisations at a significant risk.
- Diverse backgrounds can help solve the talent gap in cybersecurity:
  - IT is the traditional path, but entrants are increasingly coming from different backgrounds or routes; respondents found diverse pathways equally valuable to success in cybersecurity.
- Professionals' priorities are changing: they are still focused on HE and professional development once in the workforce but are increasingly prioritising work–life balance.
- Due to uncertainties about what activities AI will replace and what skills may be automated or streamlined, hiring managers are prioritising non-technical, transferable skills rather than recruiting more specialised workers.
- Only 33% of cyber professionals are concerned about their role not being 'future-proof' for GenAI; 66% are confident that their expertise will complement the technology.

- 45% of cybersecurity teams have implemented GenAI into their teams' tools, expecting this to bridge skills gaps, improve threat detection and provide vast benefits to cybersecurity.
  - However, 64% of organisations have implemented GenAI in other departments, causing more work for cyber professionals; over 50% have faced data privacy and security concerns due to organisational adoption of GenAI.
  - ~50% said their organisation lacks a clear GenAI strategy; although 90% have some policies related to GenAI, 65% say their organisation needs to implement more regulations on its safe use.

CyberHubs (the European Network of Cybersecurity Skills Hubs) published *Cybersecurity Skills Needs Analysis: Summary Report*, analysing skills gaps across the seven CyberHubs countries: Belgium, Estonia, Greece, Hungary, Lithuania, Slovenia and Spain, but with wider relevance.

- Common trends across the countries include:
  - High demand for cybersecurity implementers and incident responders: critical roles as organisations face more sophisticated cyber threats and pressure to meet compliance.
  - Growing importance of transversal skills alongside technical knowledge: e.g. communication skills, as the ability to explain complex security risks to non-technical stakeholders is essential.
  - Demand for emerging technical skills, e.g. in AI security, cloud security and threat analysis; countries like Estonia are specifically targeting skills such as blockchain and secure coding.
  - In **IT-related skills**, there is a broader, more mixed demand, e.g. in system admin & integration, enterprise architecture & infrastructure design, network management and data analysis.
  - The most demanded **organisation-related skill** is risk management; others of high importance include: business continuity; education and training delivery & development; project management; and organisational awareness.
- There is a significant mismatch between available cybersecurity training and the demands of the labour market, with the education and training landscape falling short in both volume and scope, often focusing heavily on technical skills while overlooking soft skills development.
  - Recommendations include enhancing collaboration between academia and industry, expanding hands-on training opportunities and developing specialised programmes in emerging areas such as AI-driven cybersecurity and risk management.
  - Many organisations are adopting strategies such as on-the-job training, upskilling current IT staff and hiring professionals who can then be trained for the demands of specific cybersecurity roles.

CyberHubs is a three-year EU-funded project aiming to enhance the cybersecurity skills ecosystem in Europe, including developing national cybersecurity skills strategies. 21 partners include Cyber Ireland. Resources include specific reports and strategic approaches for each country.

The European Commission published *Addressing knowledge gaps in relation to the long-term care workforce*, a policy brief by the European Social Policy Analysis Network.

- Labour shortages in the long-term care sector are among the most acute in the EU labour market as a whole; wages and other indicators of job quality are low when compared to healthcare and the average situation of workers in the whole economy.
- The long-term care labour market contains mostly workers with a medium educational level, although the increasingly complex skills required point to the need to improve initial and continuing training and qualifications.
- Several EU initiatives are being implemented to support labour market activation and participation, especially of under-represented people (migrants, women, young people, etc.) that could increase the supply of workers, alongside support for skills, training and education.
- Recommendations related to skills include:
  - Removing the remaining barriers to automatic mutual recognition in education degrees and qualifications and validation of (training) skills across the EU, in order to further improve fair intra-EU mobility of workers and learners.
  - Engaging in talent partnerships to enhance legal migration pathways in order to further attract talent from outside the EU to fill EU labour shortages.

Edge published *Skills shortages in the UK economy*, its 15th bulletin summarising findings from recent research undertaken by a range of organisations, while offering insights into innovative interventions 'born out of necessity'; it includes items on:

- Preserving apprenticeships for young people under a growth & skills levy (Edge)

- Improving young people's mental health, education and employment (Resolution Foundation)
- OU's 2024 Business Barometer report and Youth Employment UK's Youth Voice Census
- Setting people up to work in growth areas in a rapidly changing labour market (NFER)
- Supporting unemployed workers into renewable energy jobs (Crown Estate)
- An overview of the UK's creative & cultural sectors and the role of the education & training system
- 'Thinking differently' about the next generation of entrants to the construction & built environment industry (Construction Youth Trust)
- The role of Skills England in building a post-16 education and skills system (Association of Colleges)
- A 'spotlight' on the Multicultural Apprenticeship Alliance and Nesta.

SKILLS POLICY

The EU's Digital Skills & Jobs Platform published *Digital Skills for Non-ICT Professions: A vision paper authored by the Squad assessment group 2024*, on the challenges and solutions to closing the digital skills gap for non-specialists across all sectors.

- The paper identifies key target occupations and provides an in-depth look at the types of digital competencies required; occupations outside of traditional ICT roles can be categorised as:
  - **ICT-enhanced jobs** – roles that leverage digital technologies but could be performed without them, albeit at a lower level of efficiency or quality.
  - **ICT-dependent jobs** – roles that rely heavily on digital technologies and would be challenging to execute effectively without them.
- The 'Squad' comprised 18 experts from policy, industry and technology across Europe, who took part in online discussions between February and September 2024, exploring the current state of digital skills in non-ICT sectors, the frameworks that address needs and evolving policies.
  - Key frameworks examined include the European Skills Competences & Occupations portal (ESCO), DigComp and the e-Competence Framework, which serve as foundational tools for understanding and categorising digital skills across professions.
- Squad discussions and a literature review identified four major and **transversal challenges**: lack of a cohesive framework for digital skills; uneven adoption of AI; ambiguity regarding responsibility and investment; and a growing digital divide, especially for smaller businesses and non-digital sectors.
- Strategies are recommended for organisations and individual learners; **nine strategies recommended for policymakers** include:
  - Skills differentiation: skill requirements for blue-collar and knowledge-based roles differ significantly, the former often prioritising human–robot interaction, the latter needing a broader skill set, including analytical thinking and digital literacy.
  - Addressing both transversal and digital skills: the former are critical across all sectors, the latter specifically relate to technology-related competencies, but both types of skills are crucial for workforce readiness.
  - Recognising the relevance of programming skills, increasingly relevant in fostering computational thinking and innovative development; understanding programming concepts allows workers to engage in creative problem solving and to drive digital innovation.
  - Incorporating soft skills into digital education to enhance analytical thinking and overall resilience.
  - Overcoming the slowness of educational institutions by encouraging them to prioritise both transversal and digital skills alongside domain knowledge; this will be crucial to prepare students for the workforce.
  - Developing conceptual models for skills development to provide flexible structures that can evolve with technological advancements, facilitating efficient and effective skill acquisition in the digital workplace.
  - Greater collaboration between businesses and educational institutions, with shared responsibility for workforce development, ensuring education programmes remain relevant and that businesses invest in their employees' growth.
- Overarching recommendations include:

- Creating adaptable frameworks that evolve with technological advances and ensure that workers acquire both technical expertise and essential soft skills, e.g. adaptability, problem solving and continuous learning.
- Immediate, cross-sector collaboration between companies, educators and policymakers to redesign educational frameworks and develop industry-specific training programmes.
- Fostering a culture of continuous learning, with leadership playing a key role in preparing the workforce for future demands.

FSB (Federation of Small Businesses) Wales published *The Power of Creativity*, proposing a strategy to support creative SMEs in Wales, with wider UK relevance.

- Policy interventions around skills and education, finance and growth should match those of 'hard' industry sectors such as manufacturing and engineering; recommendations include:
  - A campaign targeting schools, parents and careers advisers to highlight creative industries as a key growth and employment sector for the future and their role in developing significant transferable art, humanities, technical and design skills.
  - The campaign should: outline the benefits of relevant courses as pathways into thriving industry nationally and in local areas; outline the range of transferable skills and the link to technical skills.
  - Schools to engage with hubs and creative businesses to take part in schools careers advice.
  - UK and Welsh governments should include AI information and training across support programmes, emphasising its practical and creative use at the firm level.
  - AI skills and tech adoption encouraged among SMEs through an independent UK body that provides policy recommendations, an automation fund and a section on the successful use of AI within businesses within management courses (such as Help to Grow).
  - Local authorities with, or planning, creative clusters in their area to develop a full local creative industries strategy setting out e.g.: steps to build a strong skills base; and alignment with general regional policy to ensure wider economic impact.

ScreenSkills published *Powering Skills: A five-year strategy for ScreenSkills* for the UK and its nations, developed in response to recommendations from the UK Government-commissioned 2022 BFI Skills Review and the 2023 Screen Sectors Skills Task Force Report.

- The strategy was informed by a consultation with over 1,600 industry professionals and key stakeholders in February and July 2024, on the role of ScreenSkills and its services.
  - Respondents want ScreenSkills to: provide greater/more insights and intelligence (80%); pursue a more collaborative approach with other screen agencies/bodies (74%); focus more on experienced professionals than on pre-entrants or new entrants (56%).
- **Key objective one**: identifying and communicating the sector's skills needs:
  - Evaluate UK-wide skills gaps and shortages from pre-entrants to established workforce.
  - Forecast evolving skills requirements for industry, wider stakeholders and government.
  - Act as an independent convenor of industry, wider stakeholders and governments to direct skills-related investment and focus.
- **Key objective two**: ensuring that the workforce has access to high-quality, consistent training.
  - Define and increase a consistent quality of skills training.
  - Simplify the skills provision landscape.
  - Commission, partner or facilitate training that meets skills gaps and shortages.

SKILLS FORECASTING

L&W published *Worlds apart: Skills and learning inequalities in the UK, the second report in its Ambition Skills programme.**

- Skills inequalities are larger in the UK than in many European countries, with the most unequal area having three times the proportion of people with low qualifications compared with the least unequal.
  - In Denmark, France and Sweden, the most unequal areas have double the proportion; the same ratio in the UK would result in e.g. 290k more people in the West Midlands qualified to Level 2 (GCSE equivalent).

- Such skills inequalities result from both stock and flows, i.e.: opportunities to develop skills in the area; whether people stay in the area when they improve their skills; and the skills of people moving to and from the area.
  - A small number of cities, e.g. London, Leeds and Bristol, retain large numbers of local graduates and draw in more from around the country; other areas, e.g. coastal communities, struggle both to retain local and to attract incoming graduates.
  - This creates both positive and negative reinforcing cycles.
- UK skills inequalities are projected to get worse over the next decade, with 74% of 25–64 year-olds in London having at least a Level 3 (A level equivalent) qualification, compared with just 59% in the West Midlands.
  - At least 33% of UK adults (14m) live in places projected to have a higher proportion of people with low qualifications in 2035 than the RoI, Hungary and Canada had in 2022.
- London and some parts of the south of England are projected to have world-leading skills bases in 2035, with proportions of low, medium and high qualifications comparing favourably with projections for the best-performing countries such as Canada, Japan and South Korea.
  - In contrast, areas including parts of the north of England will still have relatively high proportions of people with low qualifications and risk being overtaken by countries including Estonia and New Zealand.
- Starkly, 71% of London residents are projected to be qualified to HE level by 2035, compared with 58% of people in the rest of the UK – a gap equivalent to 4.1m people.
  - By 2035, 75% of UK jobs are projected to be filled by those with qualifications at Level 3+.

**The analysis uses data from sub-regions of England along with Scotland and Wales, but not NI.*

The European Training Foundation (ETF) published *Navigating the Future: How the Colours of the Economy Shape The Future of Skills and Work*, a policy brief based on a futures scenario-planning event with the International Training Centre of the International Labour Organization (ILO).

- 100 researchers, policymakers and thought leaders explored the future of work and society through the lens of seven colours of the economy, focused on jobs, educational needs and economic systems.
  - They transposed the futures accelerators and barriers into five areas: labour market and skill demand; upskilling and reskilling; diversity and inclusion; technological advancements; and workplace adaptation.
- Futures literacy and strategic foresight are important for shaping and embracing the future, which will be influenced by the different colours of the economy, including:
  - Equitable access to **green skills education** is essential: green skills, or 'sustainability competences' are the knowledge, abilities, values and attitudes needed for a sustainable society; combining technical and transversal skills with core values, these competences promote a global understanding of sustainability.
  - The **blue economy**: water literacy is essential – education must emphasise ocean and to promote understanding and stewardship of marine and aquatic environments.
  - The **gold economy** – creativity, collaboration and connectivity drive innovation; technology-driven skills recognition will shift the focus from degrees to skills-based training, better preparing individuals for the evolving job market.
  - The **orange economy** encompasses the cultural and creative industries; promoting individual creativity, especially among young people, is important; supporting creative entrepreneurship involves empowering creative professionals while protecting labour rights to attract young talent.
  - The **white economy** – healthcare jobs, education, skills and expertise – faces shortages of professionals exacerbated by ageing populations and Covid-19; investing in healthcare jobs, education and skills is essential.
  - The **silver economy** – valuing experience and wisdom for a dynamic workforce; combating age discrimination, promoting upskilling and reskilling, and facilitating the transfer of skills through mentoring are essential initiatives.
- Although distinct, the colours of the economy must interact and blend to achieve sustainability; suggestions include: creating a universally recognised skills passport; using a global AI platform for personalised learning and employment; and using a platform to connect local and international labour market information.

- Challenging assumptions and shaping policies requires guiding future social dialogue and policymaking.
  - Key research issues include: effective methods for consulting all stakeholders before developing policies, curricula and training programmes; understanding if and how education contributes to shifting to a global stakeholder economy; and adapting lifelong learning to ongoing changes in the labour market.

The ETF also published *Navigating the Future: Shaping the Future of Global Education*, a policy brief based on an event involving 30 international experts, policymakers and thought leaders exploring education's role in building inclusive, resilient societies.

- The process explored 'anticipatory systems' – strategies that align education and lifelong learning with evolving societal and labour market demands.
- By 2050, education will be shaped by three key factors: technological advancements; the growing push for environmental sustainability; and demographic shifts.
- As digitalisation and automation reshape job profiles and skill requirements, education programmes must also emphasise the development of competences, e.g. critical thinking, creativity, emotional intelligence, problem solving, innovation, adaptability, STEAM (STEM + Arts), entrepreneurship, teamwork, management, soft, technical, process, functional, active learning, cultural and futures literacy skills.
  - Developing these skills is key to advancing lifelong learning and mitigating intergenerational effects that cause inefficiencies in education and training, including curricula, accreditation and recognition of qualifications.
- The concept of skills requires rethinking:
  - Rather than compiling an ever-expanding list of skills required for development, an openness to learning and collaboration is needed.
  - Greater recognition of informal and collective learning experiences is required, raising questions about the future of trust in systems.
- Cooperation at regional and international levels is essential for advancing education and employability.
  - Partnerships between education institutions and businesses can align curricula with labour market demands while offering WBL opportunities; such collaborations should prioritise inclusivity.
  - Key areas for cooperation include: governance; institutional reform; internationalisation of education; social inclusion; gender equality; and skills for the green and digital transition.
  - Development models rooted in colonial legacies, which marginalise indigenous knowledge systems, must be replaced with approaches that prioritise collective intelligence and co-creation.

The Fraser of Allander Institute published *Skills for Today and Tomorrow* commissioned by CMS Scotland, providing analysis of Scotland's current skills landscape and outlining future challenges in light of economic, demographic and technological changes.

- Trends in the labour market include a marked increase in vacancies and a growing mismatch between available and demanded skills.
  - 25% of employers have vacancies, 31% of these are due to skill shortages (+10ppt from 2020), particularly in technical, analytical and digital skills.
  - Internal skills gaps persist; 5% of employees are not fully proficient in their roles.
  - Employers increasingly emphasise the importance of both technical and soft skills.
- Future skills issues include:
  - Sectors such as construction, healthcare and transport face significant retirement risks, with over 22% of the workforce aged 55+.
  - There is a lack of alignment between skills taught and those required by rapidly evolving industries, e.g. technology and energy.
- A more agile and responsive skills system is needed – collaboration between government, industry and education will be critical.

The report provides occupation profiles, including the skills required, for roles such as civil engineers, chefs, architectural technologists and IT quality.

Cedefop (European Centre for the Development of Vocational Training) published *Online job ads: what skills are trending?*, a news report on its analysis using the Skills-OVATE tool, which provides real-time insights into skills, jobs and sectors across the EU and member states.

- Employers are increasingly seeking candidates who demonstrate a strong willingness to learn and possess a clear understanding of how to develop new skills.
  - Other highly sought-after skills include data analysis, digital collaboration and events planning.
- The latest release includes new dashboards on green and digital skills, e.g. renewable energy & related occupations and greenness & green pervasiveness in professions, revealing how digital and green transitions are reshaping European labour markets.
  - 66% of non-ICT roles require digital skills, with digital literacy a baseline expectation, and growing demand for more advanced skills, e.g. data analysis, graphic design and animation development.
  - Green skills (e.g. environmental engineering and green computing) are rapidly growing, particularly in renewable energy sectors.

GREEN SKILLS & JOBS

The UK Department for Energy Security & Net Zero published *Clean Power 2030 Action Plan: A new era of clean electricity – Assessment of the clean energy skills challenge (Evidence annex)*, by its Office for Clean Energy Jobs.

- The clean energy workforce is increasing rapidly, with the number of low-carbon & renewable energy economy (LCREE) jobs growing more than five times faster than overall UK employment between 2020 and 2022.
- By 2022 there were already around 272,400 full-time equivalent (FTE) workers directly employed in LCREE jobs across the UK, +27% on 2020.
  - 85% of these FTEs were estimated to be in England, 9% in Scotland, 4% in Wales and 2% in NI.
- In 2022, up to a further 180k FTEs were indirectly supported across the wider supply chains for low-carbon and renewable sectors.
- The share of clean energy job adverts in the UK has increased sharply since the pandemic, with the share in 2024 roughly double the levels seen five years ago.
  - Scotland has the highest regional proportion (16%), followed by the South West (14%).
- Some sectors are dominant in UK regions; e.g. in NI, the highest share falls under smart systems & storage flexibility, which also has the second highest share in Wales, behind heat & buildings.
- Investment in decarbonisation brings opportunities to reduce regional inequalities: Germany has almost twice as many renewable jobs per capita as the UK; Sweden and Denmark almost three and four times as many, respectively.

The report also covers opportunities for clean energy jobs and common challenges, plus sector 'heat maps' based on workforce assessments completed by employer-led task & finish groups in summer 2023.

Business in the Community (BITC) published *Green Skills Lab Blueprint*, a framework to create workforce action plans around green skills, informed by an action learning programme that involved the Construction Industry Training Board, Suez, WJ Group and British Land.

- A YouGov survey in March–April 2024 asked 5,091 working-age adults in the UK whether they believed they needed to acquire new skills as a result of climate change; findings include:
  - Only 25% thought that their job would require new skills as a result of climate change, while 60% believed that they wouldn't need to acquire any new skills.
  - Those most aware that they will require new skills are in construction (41%).
  - 63% don't think their job will be adversely affected by actions taken by government and organisations to tackle climate change.
- At the same time, 60% of business leaders reported that their organisation hadn't assessed the operational risks and opportunities of climate change; only 33% of SMEs were assessing these risks compared with 70% of large businesses.
- Five steps for businesses to create a skills action plan include: benchmarking current skill composition; inclusive skills pathways; communicating and promoting green skills.

- As part of its Green Skills Lab, BITC worked with large employers and SMEs to accelerate the just transition to a net zero, climate resilient future by supporting them to:
  - Consider how future roles will differ from current ones, who is most likely to be impacted and how they can develop the skills and capabilities they will need
  - Explore how they can support employees as their roles change
  - Identify barriers to action and engage stakeholders to help shape the policy and practices that will enable business action at pace and scale.

***The uneven foundations of a just transition for workers: A UK perspective*, by the University of Edinburgh School of Geosciences, was published in *Frontiers in Climate*.**

- Assessments of impacts of net zero transitions on the workforce have largely focused on job losses, gains and net changes for a particular industry, sector or state.
  - However, the impacts of these changes on the diversity of the future workforce is arguably even more crucial in ensuring employment policy results in a just transition for all workers.
- New job creation in the transition to net zero by 2030 risks perpetuating and further magnifying workforce inequalities; despite a number of progressive approaches, the available data indicate very limited national sector-wide improvements over the last decade.
  - For example, a 2019 survey of workers and employers in the renewable energy sector found women accounted for only 32% of the full-time workforce and highlighted a series of perceived barriers, including perception of gender roles, cultural and social norms, prevailing hiring practices and a lack of gender diversity targets.
- Encouragingly, the UN Framework Convention on Climate Change (UNFCCC) work programme on Just Transition Pathways, instigated in 2022, could provide for sharing good practice, inform negotiating positions and ultimately lead to an overt strengthening and widening of national commitments around enhanced workforce EDI.
- Seven high-level recommendations for governments include: put EDI at the heart of climate action workforce plans; improve data quality and set diversity targets based on more comprehensive data collection and provision; take a whole climate-economy approach; and engage and collaborate internationally.

The Heat Pump Association published *Projecting the future domestic heat pump workforce*, based on two UK scenarios: current and proposed policies; and targets set by the previous government.

- The overall active heat pump workforce was an estimated 4,543 FTE in 2023, 2k FTE of whom consisted of heat pump technical operatives (HPTOs).
  - The current HPTO workforce comprises 4k–10k trained and active individuals.
- 17,924 individuals have successfully completed a training qualification to install heat pumps in the UK since the start of 2022, with recent growth supported by policies such as the Heat Training Grant.
  - The sector is ahead of the minimum training rate required to meet projected workforce requirements in scenario 1 (current & future policy), which needs an annual training rate of 4,307.
  - To meet rates set out in scenario 2 (government targets), an additional 123,199 training individuals are needed in the 12 years 2023–2035; while the current rate is ahead of target, growth will be needed to install 1.6m pumps per year by 2035.
- The two roles with the greatest requirement are HTPOs (39–43% of the workforce) and plumbing & heating technical operatives (30–32%).
  - Electrical technical operatives represent 8% of the workforce, rising to 9% by 2028.

The International Energy Agency published *World Energy Employment 2024*, its third detailed overview, including estimates of the workforce's size and distribution across different regions, sectors and technologies across the entire energy value chain.

- A survey of 190 major energy businesses in 27 countries in Europe, the Americas, Africa and Asia Pacific found that current and future shortages are widespread.
  - Most respondents planned to hire new workers but faced difficulties finding qualified applicants for almost all occupation categories.
  - There is a widespread dearth of the skills demanded in various roles, e.g. workers with the knowledge and skills needed to install heat pumps.

- Installation and repair positions remain some of the hardest hit by skilled labour shortages, with over 75% of respondents finding it very/somewhat difficult to hire qualified technicians, trade workers and project supervisors.
- Welders, plumbers, mechanics and electricians are top of the list of widespread shortage occupations in the EU, and tradespeople in the UK, Canada, US and Australia.

- Installation and manufacturing accounted for over 50% of all clean energy jobs worldwide in 2023, and a predicted ~70% of job additions to 2030; in many OECD countries there is already a widespread shortage of jobs in these sectors.
- A prolonged lack of sufficiently skilled workers threatens the pace and quality of energy transition.
- Declining vocational education and shifting skills requirements are contributing to shortages; the energy sector already requires more highly skilled workers than the broader economy.
  - ~36% of energy jobs are high skilled, generally requiring a degree or above; 51% are in medium-skilled roles, usually requiring vocational or technical education; only 13% of the workforce can be considered low skilled, and these are heavily concentrated in emerging and developing economies.
  - However, many advanced economies, including the UK, Germany and Japan, are seeing STEM graduation rates not keeping pace with industry demand, and the share and even the absolute number of students choosing to pursue vocational qualifications has fallen below historical highs.
  - Even countries such as Germany with strongly embedded vocational education systems are experiencing downturns.
- The level of skills demanded by energy firms is also shifting and may not be sufficiently covered in current curricula.
  - Survey respondents ranked digital skills – e.g. data analysis, programming and digital literacy – as the most important when hiring, ahead of both 'soft' and technical skills.
  - The share of positions requiring at least one specialised digital skill has more than doubled in some countries and sectors.
- Energy firms are adopting a variety of strategies to cope with skills shortages, for example:
  - Increasing on-the-job training – an effective approach that addresses knowledge transfer between old and young workers, however it can also contribute to a less liquid market for skilled workers
  - Apprenticeships or dual-track vocational programmes to ensure training is market relevant and to ameliorate short-term bottlenecks
  - Partnering with educational institutions to design curricula collaboratively.
- Drawing upon skilled workers in other parts of the energy sector can help address skills gaps in clean energy, but is not enough to ensure a just transition for fossil fuel workers, for example:
  - Not all fossil fuel workers whose jobs are eliminated will be able to make an easy transition to a new clean energy sector, highlighting the need for proactive government support and planning.
  - Many of the new roles will require skills dissimilar to those jobs eliminated.
  - Even assuming all new clean energy jobs with similar skill needs are first offered, with training, to redundant fossil fuel workers with transferable skills in the same region, the number of clean energy jobs with similar skill needs to 2030 is equivalent to ~50% of the job losses in fossil fuels.

IRENA (International Renewable Energy Agency) published *Renewable Energy and Jobs: Annual review 2024* with the ILO, providing the latest global data and employment estimates.

- It covers: renewable energy employment by technology and in selected countries/regions, including Europe; skills for a just energy transition; and importance of a people- and planet-centred transition.
  - Each section includes examples of action from around the world.
- Key numbers in 2023:
  - There were 16.2m global renewable energy jobs, up from 13.7m in 2022; China has 7.4m (46%), the EU 1.8m, Brazil 1.6m and the US and India 1.0m each.
  - Types of job: 7.1m solar photovoltaic; 2.3m hydropower (-4%); 2.8m biofuel, in which Brazil and Indonesia dominate; 1.5m wind power, in which the EU is still a technology leader.

AUTOMATION & AI

The Tony Blair Institute for Global Change published *The Impact of AI on the Labour Market*, examining how AI – including AI-enabled hardware – could affect demand, supply and the workplace experience, particularly in the UK.

- Full and effective AI adoption by UK firms could save 25% of private sector workforce time, equivalent to the annual output of 6m workers.
  - Occupations/sectors involving complex manual work are likely to be less exposed than those involving routine cognitive tasks and/or work in data-intensive industries.
  - UK job displacements will peak at 60k–275k a year, compared with an average 450k in the last decade.
  - The impact on unemployment is likely to be in the low hundreds of thousands but is likely to prompt more job changes.
  - It could raise national income by 5–15% by 2050, with 11% the most likely (£300b p.a.).
- AI has significant potential to improve labour supply, by increasing its quantity, quality and effective use.
  - It could assist teachers and students and raise educational attainment by ~6% on average, with the biggest boost among lower performing students.
  - A more educated workforce will increase productivity, adding ~6% cumulatively to GDP (gross domestic product) over 60 years.
  - A healthier population will have fewer days off, longer, more productive careers and lower welfare costs.
- AI could support better job-matching and improve labour utilisation, including by helping equip workers with strategies and information that allow them to apply for jobs to best effect.
  - It could reduce mundane tasks, improve access to the workplace and help improve health and safety.
  - However, early adopters have expressed concerns about e.g. extra scrutiny leading to more stress.
- Four key areas of focus for government to maximise the benefits of AI in the workforce:
  - Encourage broad adoption by reducing barriers to access and improving education and skills for all.
  - Upgrade infrastructure to cope with higher labour market churn and a more dynamic pace of change, including by educating workers about coming changes and providing support to maximise employment.
  - Harness AI's ability to improve job quality by highlighting its adoption, sharing best practice and identifying areas needing firmer guardrails.
  - Given the high degree of uncertainty, engage in detailed scenario analysis and practical contingency planning to ensure preparation for a more radical future.

The Centre for Economic Performance (CEP) published *The new wave? The role of human capital and STEM skills in technology adoption in the UK*.

- The UK has experienced a particularly acute productivity slowdown since the 2008 financial crisis, widening the long-standing gap with its main peers.
  - Large and persistent gaps between firms and regions require investment in fixed capital, skills and innovation and the successful adoption of new technologies.
- Although there have been rapid advances in general-purpose technologies, particularly AI and notably LLMs, they are still at the early stages of diffusion.
  - While many expect them to have positive impacts on productivity, uncertainty remains on what this will look like for firms, partly due to uneven adoption patterns, impacted by factors such as worker skills and managerial capabilities.
- Comparing the 'new wave' of technologies during the 2010s – prior to LLMs – with the previous wave of personal computer adoption in the 1990s and early 2000s, there is a distinct STEM-biased adoption effect at both area and firm level, alongside a general skill-biased effect.
  - This STEM-biased adoption pattern has encouraged the concentration of these technologies, leading to more acute differences between high-tech and low-tech areas and firms.

- As a result, in contrast with classical technology diffusion, recent cloud and machine learning/AI adoption in the UK seems more likely to widen inequalities than reduce them.

Make UK, the manufacturing trade association, published *Future Factories Powered by AI*, based on a survey of 151 manufacturing businesses.

- The report: highlights what factories could look like in five, ten and 20 years' time; explores current digitalisation and AI adoption; and examines the challenges, including costs, skills and a lack of awareness and knowledge.
- While 70% of firms agree that AI is a transformative force for the sector, just 7% feel 'very knowledgeable'.
- Industry should:
  - Accelerate leader/manager upskilling, empowering them to embrace change, lead the transition and shape a clear vision for future factories.
  - Continue to encourage peer-to-peer networks and sharing best practice, especially as manufacturers lead in adopting AI and other digital technologies.
  - Invest in training around robotics and automation; factory workers will be systems engineers and managers and will need to speak the language of data analytics and algorithms.
- Government should:
  - Create further opportunities for universities, innovation agencies etc. to work with industry to map the research-to-market product development journey, aiding the commercialisation of innovation.
  - Establish frameworks for secure data exchange and collaboration so that manufacturers can leverage shared datasets for AI development and optimisation, driving process efficiency and product quality.
  - Create regulatory 'sandboxes' and testbeds for manufacturers of all sizes to test new AI applications under controlled conditions, allowing regulators to assess risks and develop appropriate use and regulations.
  - Define the role of the AI Safety Institute, not as a regulator but to promote international safety standards, collaborate with sector-specific regulators and advance the science of AI safety.

The US National Academies of Sciences, Engineering & Medicine published *Artificial Intelligence and the Future of Work*, evaluating recent advances in AI technology and their implications for economic productivity, the workforce and education.

- The book proposes that tracking progress in AI and its impacts on the workforce will be critical to helping inform and equip workers and policymakers to flexibly respond to AI developments.
- Key findings include:
  - AI systems remain imperfect in multiple ways; e.g. LLMs can 'hallucinate' incorrect answers, exhibit biased behaviour and fail to reason correctly to reach conclusions from given facts.
  - The ongoing improvements in AI's capabilities, plus its broad applicability to cognitive tasks in the economy and its ability to spur innovations, offer the promise of significant improvements in productivity.
  - Achieving the full benefits of AI will likely require complementary investments in new skills and new organisational processes and structures.
  - AI will have significant implications for education at all levels, and through continuing education of the workforce; it will drive the *demand* for education in response to shifting job requirements and the *supply* of education as AI provides opportunities to deliver education in new ways.
  - Better measurement of how and when AI advancements affect the workforce is needed; improving the ability to observe and communicate these changes as they occur will be critical in helping workers to adapt.

CEP published *The unequal health effects of smart tech in the workplace*, a short paper exploring the differing impact of digitalisation on the health of cognitive and manual workers.

- Overall, digitalisation had no effect on self-assessed health or the number of sick days in 2018/19.
  - However, while cognitive workers seemed unaffected, manual workers exposed to a more rapidly digitalising workplace reported lower subjective health and a higher number of sick days due to the stress of performing increasingly complex tasks.

- These results remain unchanged when accounting for broad industry or occupation trends and for the organisational structure of the firm.
  - This indicates that it was not larger trends, but the changes at the individual workplace that were driving the effects.
- Manual workers aren't 'compensated' for worsened health through higher earnings or better employment prospects, resulting in digitalisation exacerbating existing inequalities.
  - This adds another dimension of inequality to the well-documented widening of income inequality caused by automation technologies.
- However, the negative health effects can be attenuated when the firm provides technology training and a supportive work environment.

The Parliamentary Office of Science & Technology published *Technologies and artificial intelligence in the workforce*, setting out challenges and opportunities, uncertainties and unknowns.

- The key questions for Parliament include:
  - What type and level of government support may be needed in upskilling and training people to work with more technologies in the workplace; is current investment sufficient?
  - Are changes in the curriculum needed to prepare young people for future jobs; do teachers need support and upskilling to teach about AI?
  - How can the impact of AI and technologies on the workforce and for different regions and groups be reliably assessed?
  - What steps should the Government take to ensure some regions and disadvantaged groups are not disproportionally affected by impacts of technologies in the workforce, such as redundancies?
  - What regulation should the Government put in place to address concerns, such as biased AI algorithms causing discriminatory outcomes?
  - How can the Government support organisations to adopt new technologies in the workplace in a manner that is safe and fair?

IZA published *AI Adoption and Workplace Training*, investigating the impact of AI in production processes on workplace training practices, using firm-level data from Germany's annual BIBB establishment panel on training and competence development, 2019–2021.

- Findings include:
  - AI adoption is associated with a reduction in continuing training for incumbent workers.
  - AI-adopting SMEs tend to hire more high-skilled workers while reducing their hiring of medium-skilled workers.
  - However, AI adoption is also linked to an increase in apprenticeship contracts, particularly in SMEs, suggesting that firms continue to value medium-skilled workers in the AI era.
  - The only robust, significant association between AI adoption and firm-level average wages, is a decline in low-skilled workers' wages in firms without collective bargaining agreements.
  - AI appears to also function as an augmentation innovation, creating demand for specialised skills and high-skilled workers rather than simply automating existing tasks.
- Policymakers should consider:
  - Supporting training initiatives for incumbent workers, particularly in SMEs, to ensure they remain competitive as AI technology evolves and firms reduce their provision of continuing training.
  - Regularly updating apprenticeship curricula to keep these programmes relevant as AI becomes more pervasive in the workplace; this should include AI-related competencies, ensuring that apprentices can perform higher value roles in their future careers.
  - Future research should investigate the long-term impacts of AI adoption and explore the effects of different AI technologies, including advancements in GenAI.

ADULT & LIFELONG LEARNING

L&W published the 29th *Adult Participation in Learning Survey 2024*, based on responses from 5,102 adults aged 17+ across the UK in August, including 141 (weighted) in NI*.

- 52% overall have taken part in learning in the last three years (+3ppt from 2023), the highest ever rate, following a substantial increase in 2023.
  - The devolved nations have narrowed the gaps with England: NI 55% (+9ppt); England 52% (-1ppt); Wales 49% (+8ppt); Scotland 48% (+7ppt) – increases in.
  - In England, the gap between the best-performing region (London 66%) and the worst (South West 43%) has further widened.
  - The overall rise in participation has been mainly among those in work and the participation gap between those in and out of work/not looking remains significantly higher than pre pandemic.
- Other participation rates:
  - 85% of 17–24 year-olds vs 16% of those 75+; the likelihood decreases by 4% for each year.
  - 60% of the AB (highest) social grade vs 39% for DE (lowest).
  - 30% of those out of work/not looking and 29% of those unable to work vs 65% in full-time employment.
  - 62% of those who left full-time education at 21+ vs 34% of those who left at age 16.
- Independent and online learning are the main components of the overall rise in learning post pandemic, however the proportion learning at least partly online has barely changed on 2023 (+1ppt to 64%) and independent learning is still at 34% (16% pre pandemic).
- 56% were learning for work, 43% for leisure or personal interest, both barely changed from 2023.
  - Common motivations are unchanged: develop as a person (38%); interest in the subject (37%); work-related development (30%).
- Benefits are also unchanged: increased enjoyment (30%); self-confidence (26%); improved skills for the job (25%).
  - 65% report at least one work-related benefit, maintaining a gradual increase since 2021; 47% report health/wellbeing-related benefits (+7ppt on 2023).
- 70% report at least one challenge; 76% among ethnic minority groups; 83% among 19–24s.
  - Main challenges: work/time pressure (23%) and cost (18%, +2ppt on 2023; +10ppt on 2019).
  - The most common barriers among non-participants are: feeling too old (30%); cost (27% – 30% women vs 23% men).
- 95% have used tech for learning, including: online videos (43%); online assessment (36%); emails, search engines, video calls (all 30%).
  - 93% are confident using at least one tech for learning.

**In 2023, the survey was based on 9,506 responses, including 400 from NI.*

NFER published *Recommendations Report: Responding to changes in the future labour market to support workers at greatest risk*.

- The report offers the first recommendations from the five-year Skills Imperative 2035 programme, drawing on previous analysis and a roundtable of experts held in October 2024.
- The Government should:
  - Prioritise the reinvigoration of adult education and skills, including by increasing real-terms public investment close to the levels of the early 2010s.
  - Explicitly encourage employers to invest more in adult skills and recognise organisations that are already investing heavily in this area.
  - Strengthen the right to request time off so that people can remain employed while retraining during an unpaid career break.
  - Ensure housing and transport policy reflect current and future local skills needs and gaps and support workers to take up jobs in growth occupations.
  - Simplify and raise awareness of the existing financial support available to workers to retrain and change careers, and for the employers willing to support them, so as to increase uptake by employers and employees.
  - Increase access to adult-orientated careers and training guidance and advice.
  - Provide additional funding to the FE sector to increase FE teacher pay, in order to attract and retain a high-quality FE teaching workforce by reducing pay disparities with industry and schools.

- Employers should, where possible, invest more in:
  - developing the skills of their own workforces, particularly the skills of workers in declining occupations
  - management training and continue to strengthen their strategic workforce planning capabilities.
- Education providers should:
  - Create training courses and qualifications that are tailored to meet the needs of working adults and enable them, where necessary, to learn while working.

The OECD published *Promoting Better Career Mobility for Longer Working Lives in the United Kingdom*, the first report in a series that will cover countries including Austria, Belgium and Czechia.

- The transition towards a green economy, rapid development of digital technologies and demographic change are some of the forces disrupting traditional career paths, resulting in more fluid, diversified career trajectories.
  - As in other countries, career mobility in the UK declines with age, yet voluntary mobility can provide opportunities to find better jobs, potentially improving job satisfaction, skills use and productivity.
- Key points include:
  - Mid-to-late career workers and those of traditional retirement age are increasingly dominating the UK labour market; employment rates among 65–69s rose from 11.3% in 2000 to 26% in 2023 and for 55–64s from 50.8% to 65%.
  - Although this represents a substantial influx of experienced workers extending their careers well beyond the conventional retirement age, job and occupational mobility have been declining in the UK, and many older workers encounter substantial barriers when seeking to change jobs.
  - Despite a substantial – but unregulated – private sector market, the lack of a comprehensive, all-age career guidance system in parts of the UK means many, especially those in mid life or with lower skills, don't receive adequate, vital support in navigating a changing labour market.
  - There is a strong case for better integration and coordination between employment support, skills provision and career guidance.
  - Employers can also play a crucial role through initiatives such as mid-life career reviews; however, employer support is inconsistent, underscoring the need for better structures to promote widespread engagement in career planning.
  - Existing education and training systems are not sufficiently flexible to accommodate individuals' lifelong learning needs, particularly among older and low-skilled workers.
  - The introduction of a Lifelong Learning Entitlement in England could be a sea change if it is sufficiently flexible and adequately funded, provides in-demand skills and reaches relevant groups.
  - This touches on a general deeper problem: while promising pilots and initiatives are developed, their implementation is lagging behind and funding for a full rollout is often low or not sustained.
  - Poor health remains a leading cause of premature workforce exit, with chronic conditions and prolonged absences impeding re-entry; SMEs struggle with the provision of high-quality management, occupational health services and return-to-work measures.
- Recommendations for policy action by employers and the government include:
  - Strengthen employer support for mid-life career planning and establish an accessible, national, all-age career guidance system, closely integrated with an upgraded public employment service.
  - Implement flexible, modular lifelong learning pathways accessible for older workers and promote the recognition of prior learning and skill validation.
  - Promote age-inclusive workplace management and flexible working arrangements across all sectors and provide support to SMEs for the development of quality management.

L&W published *Older people and essential skills*, commissioned by Age UK, based on 20 interviews and two focus groups with older people and providers.

- Older people with low essential skills have unique and complex needs and circumstances, including: health conditions, undiagnosed learning difficulties or disabilities and a lack of qualifications.
  - Low essential skills can negatively impact their ability to: access essential services; secure, progress in and change employment; manage their health and wellbeing; and feel confident.

- Literacy, numeracy and digital skills needs can overlap – e.g. struggling to set up accounts online; older people feel increasingly excluded as technology becomes more integral to our daily lives.

- Shame and stigma can lead older people to hide the challenges they face, particularly around maths.
  - Negative experiences at school and leaving school with few/no qualifications is common and can have a lasting impact on skills level and self-confidence.
  - They see the benefits of developing and maintaining skills later in life but can face a range of barriers, including cost, accessibility and availability as well as attitudinal.

- In-person support at enrolment, tutor support during a course, the opportunity to socialise, learning at a slow pace and having access to flexible provision are all beneficial.

- Recommendations for practice include:
  - Jobcentre Plus coaches supported to identify essential skill needs, including via basic skills checks.
  - Employers to be able to use the proposed Growth & Skills Levy to support workforce literacy and numeracy.
  - Targeted support to enable older people with low essential skills to reskill and stay in employment.
  - Providers and other support organisations to: make information available in a range of formats and locations, accessible and clear to learners and those who support them; use learning champions and taster days; develop and extend collaborative working with community-based partners and employers to support outreach and referrals.
  - Providers to address barriers, including: providing free courses; covering indirect costs; providing resources and equipment; ensuring opportunities are accessible, including to those employed.
  - Providers and others to offer flexible learning options, including: online/in person; formal/informal; more ad hoc learning in relaxed settings; non-accredited options using the full flexibilities of funding streams; embed essential skills in other content or courses.

- Recommendations for policy:
  - Public services to be inclusive and accessible; older people to be involved in service design.
  - England's Adult Skills Fund rules to recognise skills maintenance as an outcome for older people and allow for slower paced or repeat courses.
  - National and local governments to run awareness-raising campaigns on learning later in life.

The report highlights the lack of evidence relating to older people, with most evidence and datasets tending to focus on younger and working-age adults.

The OECD published *Do Adults Have the Skills They Need to Thrive in a Changing World? Survey of Adult Skills 2023*, the latest results from its Programme for the International Assessment of Adult Competencies (PIAAC).

- 31 countries and economies participated in the survey of adult literacy, numeracy and adaptive problem solving skills, including England – the only UK nation to participate.

- Overall, adult skills have mostly declined or stagnated in the past decade:
  - Finland has the highest levels of adult literacy (296 points vs an OECD average of 260) and numeracy (294 vs 263) and, with Japan, in adaptive problem solving (276 vs 251).
  - England (272) is one of 13 countries statistically significantly above the OECD average for literacy, one of 15 for numeracy (268) and one of 13 for adaptive problem solving (259).

- On average across the OECD, nearly 20% of adults are considered low performers, scoring at or below Level 1 in all three domains.
  - 14 countries recorded an increase in the share of low-performing adults in literacy, and no country saw a reduction; England is tenth in terms of low numbers of low performers.

- Declines in average proficiency are largely due to falls among the lowest performing adults, while the top-performing 10% has improved, leading to widening skills inequalities within countries.
  - Singapore and the US have the largest inequalities in literacy and numeracy; England has below average inequality in literacy and numeracy but slightly above average inequality for adaptive problem solving.

- Some groups risk being left behind as skill gaps widen:
  - Finland has the largest gap between native- and foreign-born adults (105), where foreign-borns make up only 10% of the adult population.

- Average literacy skills of tertiary educated adults have increased only in Finland and have decreased in many countries.
- The literacy proficiency of 16–24 year-olds has increased only in Norway, Finland and England and has declined in eight countries.
- Literacy has declined more strongly among men than women, and women now display higher skills than men, on average; however men continue to outperform women in numeracy (by 10pts), as well as in adaptive problem solving (by 2pts).
- The average difference in skills proficiency between adults with low- and highly educated parents was 50pts in literacy, 49pts in numeracy and 42pts in adaptive problem solving.
- The literacy gap between adults with low- and highly educated parents widened in 50% of countries.

- Skills matter for economic and social outcomes:
  - A one standard deviation increase in numeracy (58pts) is associated with a 1ppt greater likelihood of employment and 9% higher wages; this compares to 16% higher wages for three additional years of education (also equivalent to one standard deviation).
  - Skills are closely related to both individual wellbeing and civic engagement, although to varying degrees across countries.
  - About 33% of OECD workers are mismatched to their jobs, in terms of their qualifications, skills or fields of study; over-skilling is more common than under-skilling except in Estonia, Finland, Norway and Japan.

The OECD published *Quality Matters: Strengthening the Quality Assurance of Adult Education and Training*, drawing on extensive research and case studies to provide an overview of how QA can be strengthened to support lifelong learning.

- The report maps QA systems across OECD countries and introduces a framework for comparison covering key features, assessment processes, outcomes and benefits.
  - It also explores: how accessible information and guidance can empower learners; the critical role of data infrastructure in tracking outcomes, and the challenges posed by the rise of digital adult education and training.

- Recommendations to ensure adult education & training remain responsive to the needs of both the job market and society:
  - **Enhance information accessibility and decision-making support**: create integrated, user-friendly platforms with information covering both formal and non-formal qualifications; highlight outcomes so that learners understand the practical implications of their choices; prioritise outreach and guidance services, especially for disadvantaged adults, to ensure everyone can navigate the landscape effectively.
  - **Strengthen data infrastructure and outcome tracking**: ensure consistent data collection with a uniform taxonomy in order to track educational offerings, enrolment and outcomes; share data between institutions, government and industry to enrich analysis; leverage insights to align programmes with labour market needs and drive continuous improvement and accountability; track outcomes to identify gaps and opportunities and ensure efficient resource allocation and responsiveness to workforce demands.
  - **Adapt QA to the digital era**: update frameworks in order to address unique adult education and training challenges, e.g. teaching quality, assessment integrity, data privacy and technical support; include real-time data collection and analysis for continuous monitoring & improvement.

The OECD published *Mapping Quality Assurance Indicators for Non-formal Adult Learning*, analysing 12 QA systems to identify quality areas and criteria typically included and the evidence required to prove compliance.

- The quality areas, criteria and indicators are analysed and structured using the four phases of the European Quality Assurance Reference Framework for VET: planning, implementation, evaluation and review.
  - The most common indicators refer to the design of the training programme (planning) and to the staff working at the training provider (implementation).
  - The QA systems generally need feedback to be gathered from relevant actors involved in the training, such as trainers and trainees (evaluation), and to develop an improvement plan (review).

QUALITY OF WORK & GOOD JOBS

The Nevin Economic Research Institute published *Good Jobs: What are they & how do we get more of them?*, a discussion paper addressing the policy challenge of increasing the number of good jobs in NI, with wider relevance.

- A successful good jobs agenda must focus on improving the quality of all jobs, not just creating new ones or expanding specific sectors.
  - It is only through doing this that the full gains of the good job's agenda for productivity and regional balance can be obtained.
- The paper provides:
  - An overview of the development of job quality in a policy context in NI and a review of the theoretical and evidence base that demonstrates the importance of job quality.
  - An assessment of the NI labour market.
  - A definition of a 'good job' and an outline of the multiple benefits good jobs bring, not only for workers but also for employers and for regional development and productivity growth.
  - An outline of the need for a coordinated, state-led approach and a policy framework that covers three main areas: fostering high-value-added job growth; improving minimum statutory protections for workers; and enhancing the quality of existing jobs.

Future reports will build on these recommendations and delve more deeply into specific policy proposals.

The Institute for Employment Studies (IES) published *Exploring the interactions between job quality, industries and health: A report for the Commission for Healthier Working Lives*.

- Four broad areas where the relationship between job quality and health appears strongest:
  - **Job security and precarity**: being in insecure work can be significantly harmful, particularly for mental health, with higher risks of depression, anxiety, low life satisfaction and exhaustion; health impacts can persist even after specific insecurity drivers, e.g. threat of redundancy, are removed.
  - **Excessive and/or irregular hours**: working very long or unpredictable hours and night shifts are strong predictors of a range of physical and mental health risks; working more/fewer hours than desired can also harm health.
  - **Demands and control at work**: high control, e.g. over tasks and skills use, appears to have positive impacts; having low/no control at work, particularly combined with excessive demands ('job strain'), can be strongly predictive of poorer mental and physical health.
  - **Relationships and support**: strong relationships with colleagues and supportive management are protective of health and can moderate negative factors; being subjected to adverse behaviour like bullying, harassment or discrimination is one of the strongest predictors of poor health when other factors are controlled for.
- These factors can affect different groups in different ways, often influenced by wider life factors; in particular, women and older people appear to experience more negative impacts.
- Based on the above, most UK workers are in work that is broadly supportive rather than harmful:
  - ~10% are in insecure work; there is no evidence that this is increasing.
  - 15% work very long hours but this is falling, as are overemployment (8%) and underemployment (7%).
  - ~80% report being well supported by colleagues and 75% by managers – both above the European average.
- However, a significant minority face risks to their health and the UK fares far less well in areas such as job demands, control and job strain, all of which have grown significantly over the past 25 years.
  - 60% report having to work to tight deadlines and 40% at high speed – among the highest rates in Europe.
  - 50% report having to work more hours than expected – the highest rate in Europe.
  - Just 33% say they have control over how they work – the lowest rate in Europe.
  - Occupations such as teaching and nursing are especially likely to see high levels of job strain.
  - ~50% report being regularly exhausted from work.
  - Groups already disadvantaged are over-represented in types of work that pose health risks: those with chronic health conditions; 16–24 year-olds; those aged 56+; and women.

- White-collar service workers (40% of the workforce) are less likely to report risk factors and more likely to be supported; those working in transport & storage, construction, commerce and hospitality (25%) report poorer outcomes across a range of indicators; those in health and education face the highest risk of burnout.
  - 55% of working days lost to ill health are now the result of depression and anxiety, particularly in the public sector.

L&W published *Healthier working lives: The role of local governments*, the second of three papers commissioned by Health Equals.

- In 2022–23, 35.2m UK working days were lost due to work-related ill health and workplace injury.
  - Employment is generally better than unemployment, but poor-quality/insecure work can be worse.
- Current policy tends to focus on mitigating ill health; it needs to focus more on stopping work causing ill health and promoting good health through work.
- The relationship between work and health is complex but the dimensions of job quality* can provide a framework to identify what makes work healthy.
  - 10% of employers don't provide their workers with any support for health and wellbeing, while over 33% don't provide support for mental health.
- A single solution won't change the behaviour of diverse employers in different sectors and regions; local government is uniquely placed to drive the agenda through insight, networks and ability to build consensus.
  - Local governments are also large employers and have significant levers for change, e.g. positive procurement, enforcement, awareness raising & campaigns and the ability to incentivise local employers.
  - However, the impact of their work is limited by a lack of funding, fragmentation, multiple overlapping initiatives and a lack of robust evidence.
- Local authorities, supported and coordinated by devolved governments and – in parts of England – by combined authorities, should be empowered to take the lead on healthier work in their local areas through the development of local action plans.
  - A test and learn approach should include designing and implementing plans through consistent principles, collecting systematic evidence and commissioning and publishing robust evaluations.
- Such plans could be the start of a locally led healthy work agenda, with a clear focus for employers and residents so they can understand what healthy work is, how it benefits them and how to achieve it in their organisations and their lives.

**Terms of employment; pay & benefits; health, safety & psychosocial wellbeing; job design & nature of work; social support & cohesion; voice & representation; work–life balance.*

The Centre for Progressive Policy published *Breaking the cycle: Delivering good jobs for 'doubly disadvantaged' neighbourhoods*, in partnership with the Local Trust.

- The report explores the characteristics of 1,300 'hyperlocal areas' ('Lower layer Super Output Areas') across England that face both high material deprivation and relatively low levels of social capital and infrastructure.
  - They have low levels of civic engagement, limited social networks and a weakened sense of belonging and trust; they are home to 2.3m people, including 1.3m of working age.
- Findings include:
  - Residents face a 'no jobs or bad jobs' trap: 54% of adult residents are economically inactive or unemployed, while for those in work, low pay and insecure work are the norm; health outcomes are poor.
  - A lack of transport options to neighbouring areas further limits job access and the few available positions tend to offer low pay and poor conditions.
  - 43.4% of these neighbourhoods are considered among the 'least engaged with the internet'.
  - Growth in such areas has been non-existent for decades, but there is a consistently positive relationship between investment in social capital or social infrastructure and economic growth.
- Recommendations focus on a renewal of neighbourhood policy, including a focus on supporting doubly disadvantaged neighbourhoods through local plans for skills, growth and transport.

CEP published *Why do flexible work arrangements exist?*, exploring data for 31k employees of a UK company, 2011–2019, where 70% of the workforce were on zero-hours contracts (ZHCs).

- Findings include:
  - The workers were more likely to be young, living in areas with high student populations and have higher education levels than those on other contracts; ZHCs were often used for temporary work.
  - ZHC wages were ~6% lower than those for equivalent permanent jobs but the roles attracted 25% more applicants; very few ZHC workers applied for equivalent fixed-hour positions in the same firm when they arose.
  - Many workers saw very little week-on-week volatility in hours or earnings, but ~10% saw changes in their weekly earnings of £175+, at a time when a full-time minimum wage worker would have expected to earn £318 per week.
  - The firm relied on ZHC workers to cover for staff absences from sickness and turnover and to respond to sudden changes in consumer demand.
  - Staff on ZHCs typically stayed in their job for a third as long as the same staff on fixed-hour contracts, with over 10% leaving before they had even worked a single shift.
- The findings suggest that firms use ZHCs in part to respond to volatile production and demand conditions and that many workers show a strong preference for them; some results suggest workers use them for temporary income during job-search periods.
- There should be caution about imposing strict regulations on ZHCs but policies addressing wage differentials may be more appropriate.

The Chartered Institute of Personnel & Development (CIPD) published *The four-day week: Employer perspectives on moving to a shorter working week*, based on a survey of 2k senior HR practitioners and Labour Force Survey data on current working patterns in the UK.

- The 4 Day Week campaign group promotes a shorter working week in terms of total hours worked, without any loss of pay.
  - In June 2022, the campaign and university researchers led a four-day week trial involving 70 UK companies with over 3,300 workers; similar government-backed trials in Spain and Scotland have resulting in it entering public awareness and becoming the subject of public debate.
- Key findings:
  - **Employees'** preferences for working patterns differ, but most are happy with their current working hours.
  - Many are already working a four-day week or less, while many work more than a five-day week.
  - While 31% would like to work fewer hours, only 11% are willing to take a pay cut to achieve this.
  - **Employers** appear ambivalent about reducing hours and see a move to a four-day week as unlikely; a shorter week also raises the question of how to manage atypical and non-salaried workers; reduced working hours also don't suit everybody, presenting a challenge for employers.
  - 66% said the key challenge to implementing shorter working hours was the need to boost productivity to pay for it; the majority believed they would need to work smarter and/or invest in technology to achieve this.
  - As with homeworking, shorter working hours are easier in some industries than others.
  - The cost of living crisis and a potential rise in unemployment is likely to increase the emphasis on the need to boost working hours.
- CIPD recommends that policymakers should focus on increasing workplace productivity in order to pay for shorter working hours, including by raising the quality of people management and development and supporting employer investment in technology.
  - This involves focusing on industrial strategy and changes to skills policy, and on business support.

EQUALITY, DIVERSITY & INCLUSION (EDI)

The Young Women's Trust published *A world not designed for us: Annual Survey 2024*, based on responses from 4k 18–30 year-old women in England and Wales, a comparison group of 1k young men and a separate survey of 917 HR/recruitment professionals.

- Overall it shows that young women continue to be much worse off than young men across a range of measures, with a negative trend in terms of job insecurity and discrimination.

- They are paid less, work fewer hours, get less support and fewer opportunities to progress and they are much less likely to have support at work; in addition, discrimination is at a three-year high.
  - There is continuing evidence of unequal pay for equal work, despite this being illegal; and worryingly high numbers report not being paid the basic minimum wage.
  - Because they earn less they have much less of a financial buffer and remain much more exposed to the cost of living crisis, are more likely to go hungry, fall behind on bills and get into debt.
- Large numbers feel 'stuck' and are much less hopeful than their male peers about the future.

The House of Commons Library published a research briefing on *The gender pay gap* in the UK, providing statistics on its size and how it varies by factors, e.g. age, occupation and location.

The OECD published *Harnessing the Green and Digital Transitions for Gender Equality: Insights from the 2024 OECD Forum on Gender Equality*.

- The twin global transitions of climate and digitalisation offer multiple opportunities to promote gender equality in these spheres and across society through education, training and inclusion initiatives.
  - Gender equality in relevant sectors can foster inclusive and resilient economies and help hasten the net zero transition.
  - Digital transformation of society may also unlock new economic opportunities for women, enhancing employment prospects and helping them obtain greater access to education.
- However, the threats to gender equality posed by climate change and the dynamics of energy and digital transitions are often overlooked.
  - They also present risks of deepening existing gender disparities, such as wage gaps, opportunities for skills acquisition and women's representation in public and political spheres.
  - Gender gaps in leadership in fast-changing sectors limit the perspectives shaping transformations.
- Countries need to take concerted action against the following emerging risks:
  - **The green transition**: women are under-represented in the green sector, holding just 28% of such jobs in OECD countries; the effects of climate change have a disproportionate impact on women, especially in developing countries.
  - **The energy transition**: women continue to be under-represented in the energy sector and earn ~20% less than their male counterparts; fewer than 20% of senior positions are held by women and only 11% of energy start-ups are founded by women, compared to ~20% in other industries.
  - **The digital transition**: the gap in authorship of AI publications appears to be widening, with more having at least one male author than those with at least one female author in 2023; cyberbullying is increasing in most countries and regions, with girls more vulnerable than boys.
  - **Evolving governmental policies and tools**: 'neutral' government tools may inadvertently reinforce existing structural inequalities by not integrating a gender perspective and assessing how gender affects a person's experience, particularly in policymaking, spending and regulation.

Dyslexia Scotland published *Towards a dyslexia-friendly Scotland?* with the University of Glasgow, including findings from a survey of 1,400 dyslexic adults.

- Findings include:
  - 69% of respondents said their dyslexia had impacted their educational opportunities; 76% said it negatively affected their job performance.
  - 36% were not assessed for dyslexia until tertiary education; those identified while at school were less likely to experience anxiety and mental health difficulties.
  - Females are identified dyslexic on average at least two years later than males.
  - Barriers to reaching potential include: the high cost of independent assessments; and inconsistent support in workplaces and educational settings.
- Recommendations include: enhance initial teacher education and professional development; expand access to free dyslexia assessments for those not in education; employers to introduce dyslexia awareness and training for all staff; governments to improve digital literacy and access to assistive technologies.

MANAGEMENT & LEADERSHIP

Skillnet Ireland published *Answering The Call To Lead: Future Leader Perceptions, Motivations, Skills and Needs*, commissioned by ICBE Business Excellence Skillnet, one of 70 Skillnet Ireland business networks, with the University of Limerick.

- The report explores the perceptions, motivations, skills and needs of future leaders in the RoI, based on findings of focus groups and a survey of over 550 individuals in spring and summer 2024.
  - Perceptions of leadership today are more negative than positive; 90% believe they will 'rise or fall' based on their team's performance and that life in senior leadership is 'unbearably stressful, political, risky, lonely and unhealthy'.
  - Although important, financial reward is not the chief motivator – career ambition and personal drive are key, including the desire to: make a positive contribution to the organisation; have an opportunity to make a difference to their team and peers; strive to achieve organisational goals.
- Characteristics of future leaders include: 54% are in their current role for at least six years; 58% are educated to postgraduate level; 57% work 40–50 hours/week and don't want that to increase.
- Future leader skill needs must be addressed on a continuous basis.
  - They need upskilling in people management, e-leadership, e-networking, technology, ethics, navigating risk and uncertainty, plus sustainable business leadership and digital leadership.
  - They find coaching, leader shadowing and 'stretch' projects the most impactful learning.
- 86% of employees believe they are ready for a leadership role now: 28% are ready to step up this year and 45% hope to do so within the next five years.
  - 89% believe answering the call to lead will enhance their reputation.
- However, 27% say they will never step up to a senior leadership position, despite believing they have the requisite skills and ambition to do so.
  - 27% wouldn't choose to pursue career progression due to concerns around work–life balance; this has become less of gendered issue, with men now as concerned about family life, health and wellbeing as their female peers.
  - Apprehensions include: the 'dark side of leadership'; perceived organisational risk; politics; and conflict.
  - 71% believe stepping up to lead is 'risky' due to concerns around the professional, reputational and personal risk they will inherit.
- Organisations have a responsibility to: support those that are ready, so they make a successful transition into leadership; nurture those that are not yet ready; understand and learn from those who don't want to progress at all.
  - Leadership role design is crucial for organisations but appears to be neglected.
  - It is important to highlight misconceptions and false narratives in how leader roles are portrayed.

International Comparisons

The OECD published *Agile Occupational and Training Standards for Responsive Skills Policies*, a comparative analysis of efforts in selected OECD countries.

- The report showcases best practices from:
  - UK (England): the central role of employers
  - Belgium (Flanders): strong stakeholder collaboration
  - Belgium (French-speaking): a dedicated organisation for occupational & training standards
  - France: a digital platform for developing standards
  - Germany: a close link between occupational and training standards.

The OECD published *Pooling our strengths: The power of stakeholder engagement in education and skills policy*.

- The report provides a typology of stakeholder engagement options, identifying four main approaches plus short illustrative case studies.

- **Developing tools** to facilitate information sharing and consultation on policy matters; examples include the RoI's Generation Apprenticeship campaign launched in 2023 and Luxembourg's National Data Exchange Platform.
- **Holding events** for both information sharing and consultation purposes; e.g. OECD Skills Strategy Project workshops typically engage 70–100 stakeholders.
- **Entering partnerships** to give stakeholders an active, hands-on role in collaborative policy design, implementation, monitoring and evaluation, e.g.: Denmark's Vocational Training Act grants significant responsibilities to national trade committees of employer and employee organisations in revising courses and proposing new ones; Switzerland's Vocation Training Act gives 'organisations of the world of work' a crucial role in the governance of its VET system.
- **Establishing bodies** to complement the above approaches, known as skills councils, committees or fora; this approach remains relatively unexplored but there is growing interest among policymakers in setting up, utilising and enhancing the effectiveness of such bodies.

- Following a comparison of the four engagement approaches, a deeper dive into the landscape of engagement bodies in OECD member and accession countries includes selected country examples:
  - Norway's Skills Policy Council, which brought together government actors and non-governmental stakeholders to oversee and support the implementation of its Strategy for Skills Policy 2017–2021, monitor progress and identify gaps or further needs.
  - The RoI's nine Irish Regional Skills Fora, established in 2016 as one-stop shops for employers to collaborate with the education and training system in addressing local emerging skills needs.
  - Finland's National Forum for Skills Anticipation (*Osaamisen ennakointifoorumi*), jointly operated by the Ministry of Education & Culture and the Board of Education, which provides expert insight through a steering group and nine sector-specific groups.

The ETF published *Education, Skills and Employment – Trends and Developments 2024*, a cross-country monitoring report across 26 ETF partner countries in Central Asia, South Eastern Europe, the Southern & Eastern Mediterranean and Eastern Partnership regions.

- Aspects compared include:
  - Lifelong learners and demand for learning – ongoing disparities in how education systems serve different groups
  - Access and participation – systems vary considerably in the way they provide access to different groups of learners
  - Quality and relevance – performance data confirm the persistence of a marked skills gap between young people and adults
  - System management and organisation – wide variation in both the level and allocation of spending on education, with investments ranging from 2% to 7% of GDP.

Government

NORTHERN IRELAND (NI)

The Department for the Economy (DfE) published *Innovation Skills: International Developments and Northern Ireland Economic Priorities*, commissioned to inform the skills and capabilities required to support innovative growth.

- The report is an output of the Innovation Competency Framework for Inclusive Innovation research project, which aimed to increase understanding of the innovation skills landscape through a review of contemporary international innovation competency frameworks and the views of key local stakeholders.
- It makes recommendations relating to each of three areas of innovation focus for the NI economy:

  Improving R&D performance:
  - Cluster specific user case development that illustrates how innovation takes place.
  - Align skills development in R&D with Horizon Europe and the dynamic ESCO-O*NET systems.
  - Develop cluster-/sector-specific frameworks for innovation.

Establishing innovation-driven enterprises:

- Strategic planning that embraces the entrepreneurial opportunities emerging from the transition to the green economy.
- An examination of job roles, recruitment needs and offers adapted for UK–EU dual market access.
- A review of new career and learning paths for innovation.

Comprehensive innovation:

- Alignment with the UN concept of inclusive innovation for sustainable development that is human centric, sustainable and resilient.
- Development of future skills workplace scenarios that demonstrate agility, interrelationships and a systems perspective.
- Ongoing engagement with international initiatives relating to generic skills and competencies for innovation to support a greater understanding.

The Productivity Institute published *Northern Ireland Productivity Dashboard 2024*, measuring productivity across 18 key drivers, including four related to skills and training.

- NI's relative productivity saw an improvement during the pandemic, when it moved from last to seventh place among the UK's 12 regions.
- However, it has now fallen back to tenth place, ahead only of Wales and the East Midlands, and its productivity was 13% below the UK average in 2022 compared with 11% in 2021.
- In terms of the individual drivers, there has been no overall change from 2023, in that 14 out of 18 are red and below the UK average; these include three of the skills and training drivers:
  - Percentage of population with tertiary education (RQF 4+) and percentage with no or low skills (below RQF 1) are red (below UK average) but improving in both the short and long term.
  - Percentage of employers providing training in the past 12 months is red and getting worse.
  - Percentage of vacancies that are skill shortage vacancies is green (better than UK average) but getting worse.

ENGLAND

The OECD published *Mathematics for Life and Work: A comparative perspective on mathematics to inform upper secondary reform in England*.

- England *[listed as UK]* consistently ranks among the top OECD countries for maths at age 15 in its Programme for International Student Assessment; yet only 16% study maths post-16 – among the lowest in the OECD.
- The last government focused policy on an 'anti-maths mindset', but 15 year-olds express greater average enjoyment of and confidence in maths than their OECD peers.
  - England is third in 'instrumental motivation' for studying maths, i.e. it is perceived by young people to be important for future success; their parents are also among those most likely to consider it important (94%).
  - Both of these suggest that participation is affected more by the limited range of options on offer.
- Six focus countries – the RoI, Austria, British Columbia (Canada), Denmark, New Zealand (NZ) and Singapore – have a range of levels and options available, creating a perception and expectation that the subject is for everyone.
  - In the RoI, Austria and Singapore almost all young people study maths post 16.
  - In the RoI and NZ, schools typically require students to study maths for their leaving certificate; Singapore requires students to take at least one subject that contrasts with their A Levels and maths is often chosen.
- In England, maths is only required for tertiary programmes with high mathematical content; this narrows the target audience and contributes to the perception that it is for a few with talent rather than a skill for all, exacerbated by competitive tertiary selection and narrow post-16 study programmes.
- However, vocational secondary students in Austria and Denmark – where maths is integrated and applied as well as taught stand-alone – demonstrate higher proficiency than those from general education in England.

- In England, post-16 options are A level, which is demanding, or Core Maths, taken by just 1.9% in 2023; Denmark, the RoI and Singapore offer at least three levels of varying depth and breadth.

- Policy pointers include: communicate that students in England perform well in maths; work with countries such as Austria and Denmark to understand how they teach and organise maths; consider if current options provide sufficient diversity; investigate the low take-up of Core Maths and consider how it could better align with post-16 study; consider creating longer courses that span 14–18.

The EPI published *A quantitative analysis of T level access and progression*, covering both T Levels and the T Level Transition Programme (TLTP).

- T Level students are less likely to complete a full Level 3 by age 18 than those taking other qualifications; they are more likely to progress to advanced apprenticeships or HTQs.
  - Students on digital programmes are just as likely to complete Level 3 and less likely to be NEET.
- Engineering & manufacturing courses are largely male-dominated, while 95% of education & early years students are female.
- Disadvantaged and female students are more likely to withdraw from T Levels; only 33% of those who withdraw transition to another full Level 3 programme, while 33% end up NEET.
- 15% of 2020/21 TLTP students and 8% of 2021/22 students moved on to T Levels; 25% of those who progress drop out within their first year.
  - TLTP students often lack access to formal work experience and foundational academic skills support, despite these being key components of the programme.
- Recommendations include: extend the pause on defunding other qualifications as T Levels are currently unsuitable for many Level 3 learners; consider introducing a smaller version of the T Level to enable wider access and more post-16 breadth and flexibility; review T Level content, especially less successful pathways; overhaul or discontinue the TLTP; provide more support and clear routes for those who withdraw from T Levels.

Edge published *Student Voices: What are students saying about their experiences of T Levels?*, based on student focus groups and staff interviews in ten FE colleges.

- T Level students had diverse goals: attend university; take apprenticeships; or start work directly.
  - Apprenticeships were appealing, especially for those who preferred practical experience.
- Many chose T Levels due to school/college guidance, family influence or the appeal of industry placements.
  - However, information was often unclear and this limited awareness and occasionally led students to feel misinformed, including regarding the balance between practical and theoretical learning.
- The work placement was a major attraction, promising real-world experience and a competitive edge in the job market; however, variability in quality left some students feeling unsupported and there were significant challenges in organising and securing placements.
  - Placements varied widely in relevance: some were well aligned with the field of study; others included tasks unrelated to the learning, which detracted from the experience.
  - However, students generally felt that T Levels provided a solid foundation for employment thanks to the industry placement component, which builds confidence and practical skills.
- Provision across courses and colleges has been inconsistent, largely due to limited resources, high tutor turnover and a lack of established teaching practices.
  - A lack of clear tutor guidance has led to diverse teaching methods; some students valued project-based and interactive learning, but many were frustrated with the lack of practical activities.
  - Tutor familiarity with the programmes was inconsistent, and the high stakes associated with end-of-year exams further contributed to a heavy theoretical focus in year one.

The Department for Education published *Pupil Premium Plus [PP+] Post-16 Evaluation: Interim report*, initial findings from a pilot launched in 2021 and supporting 16–18 year-old looked-after children and care leavers in general FE colleges.

- PP+ Post-16 is managed by a local authority 'virtual school head' (VSH) and can be used to provide individual or cohort-level support to improve educational outcomes.
- Findings – at this stage based on subjective reporting by VSHs and other stakeholders – include:

- Most had spent, or planned to spend, most of the funding on activities directly related to young people, e.g. academic support and intervention to support attendance.
- They had prioritised some strategic activities related to joint working, e.g. training and staff capacity, which had enabled them to increase engagement with other professionals.
- Individual support had included funding tuition, careers guidance, mentoring, books and course equipment and workwear, as well as extracurricular activities, e.g. sports and musical instrument tuition.
- The three most commonly reported emerging outcomes were: increased engagement; adding skills to their CV, e.g. through funding for the cost of work experience; and increased awareness of education, employment and training opportunities, e.g. through careers guidance.
- FE settings had been able to expand their looked-after children/care leaver support teams and had begun to develop or amend relevant policies; staff were more aware of needs.

The Department for Education published *16–19 Additional Hours evaluation: Research report* by the IES and BMG Research.

- 'Additional hours' were introduced in FE institutions in 2022/23 to help compensate for learning lost during the pandemic; students had to be given an extra 40 hours of teaching on average.
- 90% of institutions used the funding to run non-qualification activities, particularly study skills support (65%), mental wellbeing support (49%), personal & social development time, enrichment activities and employability skills/work placements (each 48%).
  - 62% used the funding for qualification activities, 39% of them in the main study area, 31% for maths, 26% for English and 16% for additional qualifications or units.
  - The focus on non-qualification activity was driven partly by timetabling and staff/physical resource constraints and partly by identified student need.
- 90% of institutions monitored impact, most commonly reviewing data on progression/performance (67%) and attendance (52%) and student feedback (44%); 34% monitored retention and 26% collected staff feedback.
- 61% of providers regarded the additional hours as helpful, while 33% saw them as unhelpful.
  - 68% of providers believed there had been a positive impact in terms of progression, 61% in attainment, 59% engagement and 55% mental health and/or physical wellbeing.
  - In terms of qualification activities, they were most positive about English (89%) and maths (88%); for non-qualification activities, they were most positive about employability skills (81%), study skills (81%) and support for wellbeing and health (80%).
- 44% of learners felt their institution had been helpful in supporting their learning post pandemic; 28% weren't sure; 14% said the institution had made no difference and 15% said it wasn't helpful.
  - Learners felt their institution had been most helpful in supporting academic performance (84%), progress to further study or employment (80%), attendance (69%) and motivation to stay on in their course (67%).
  - Learners found most helpful the additional time for main courses (92%), study skill support (84%) and employability skills (83%).
- Additional hours had a positive effect on staff and institutions as a whole, with staff reporting reduced pressure and increased ability to focus on subject teaching; those providing enrichment activities had increased job satisfaction.

Edge published *Ofsted inspection in the general further education and skills [FES] sector in England*, exploring the impact of such inspections, based on a survey and interviews with 53 members of college staff and governors.

- The report seeks to address the 'astonishing paucity' of academic research regarding what is working well and what isn't for the FES sector; findings include:
  - Positive impacts from inspection included: a stamp of approval or QA; a confidence booster; and a marketing strategy to attract future students and their parents.
  - Negative impacts: workload; wellbeing; staff retention; performativity; innovation and improvement; and empowerment.
  - Strengths of the current Education Inspection Framework: focus on the curriculum; focus on student's learning and progress; broader quality judgement; better sub-judgement descriptors; implemented by trained and experienced inspectors.

- Weaknesses of the current Framework: reductionist; superficial; could lead to subjectivity or biased judgments.
- Suggestions for improvement: reduce the high-stakes nature of inspections; make inspections more developmental and supportive; remove overall grades or single words ratings; expand inspection reports to better support improvement; extend inspection visits.

The Association of Employment & Learning Providers published *Understanding the Challenges in Functional Skills Maths Qualifications* (FSQs), a think piece based on findings from research in partnership with Edge and Gatsby Foundation.

- Five key challenges faced by FSQ maths tutors and learners where improvements could be made:
  - Lengthy and complex exam questions that tend to overwhelm learners, especially in a timed environment, where English isn't the first language and/or where learners have SEND or additional learning needs.
  - A significant disconnect between the FSQ curriculum and the practical needs and expectations of learners in vocational and apprenticeship settings; learners often can't see the connection between the skills being taught/tested and their everyday life and professional tasks.
  - Specific challenges relating to online exams, such as difficulty in transferring answers and work from paper to digital formats, particularly for setting out 'workings' and calculations.
  - No standardised approach to question length between awarding organisations; longer questions, which typically involve problem solving and carry more points, can exceed 100 words, making them difficult to comprehend quickly.
  - FSQ training doesn't count towards 'off-the-job training', resulting in tight schedules and affecting depth of understanding and learner progression; there is also often inadequate employer support and learners often fall behind and find it difficult to get back on track.

The IES published *The Careers Adviser Workforce 2024*, updating and adding insights to a 2021 report that provided details of the size and profile of the workforce in England.

- The new report draws on 2021 Census, Ofqual qualifications and Labour Force Survey data; among the trends highlighted:
  - The total number of careers advisers working in secondary or technical education (colleges) doubled between 2011 and 2021, from 1,600 to 3,200.
  - The number of careers advisers working outside of education including with adults (i.e. in the public sector, employment activities and social work) fell between 2011 and 2021 by ~40% (3,500 workers); however, the number working in the public sector increased by 18% (360).
  - The number working in tertiary education fell by 45% (2k), with a large fall in the number of young (aged 16–29) advisers.

SCOTLAND

The Scottish Qualifications Authority (SQA) published *A Prospectus for Change: SQA Corporate Plan*, a 'blueprint' for Qualifications Scotland, the new body set to replace SQA in late 2025.

- Three key pledges include: grasping the potential of technology to make services more accessible and efficient; and delivering qualifications and assessments that keep pace with changes in society and the economy.
- Changes planned include: increasing digital access to qualifications; reviewing the balance of assessment approaches; rationalising the qualifications portfolio; and providing leadership on the use of AI in qualifications and assessment.

The Scottish Funding Council (SFC) published *NSP [the National Schools Programme] Review Final Report and Recommendations*, a review of activities and impact after its first year of implementation.

- The NSP, set up in 2021, brought existing SFC-funded initiatives into a unified, national scheme to support fairer access to university for economically disadvantaged or under-represented learners.
  - Pupils eligible for the programme (~50k per year) take part in visits to university campuses, attend special skills development courses and receive additional advice, guidance and support.
- Findings confirm the NSP is important in creating fair access to university but suggest more could be done to demonstrate its impact; recommendations and areas for further development include:

- Simplify the outreach landscape for pupils, teachers, parents/carers and make best use of resources to support fairer access.
- NSP partners must encourage parity of esteem for all pathways and outcomes, including all routes to HE inclusive of those available at or via college.
- Harmonise conditions for eligibility and identify a minimum standard offer to all eligible pupils.
- Explore a national approach to supporting early school leavers who are pursuing qualifications at college.
- Explore the possibility of developing a single student identifier to improve long-term tracking of outcomes for the whole student population, including NSP participants.
- There is a need for better transition support for NSP learners once they enter HE.

Colleges Scotland published *Colleges – Anchor Institutions Fuelling Scotland's Economic Success*, the first part of a new vision for the sector.

- To fully realise their potential, colleges require: stable and sustainable funding; investment in infrastructure, resources and partnerships; and the flexibility and capacity to innovate and respond to emerging demands.

A new strategic plan is to be published in 2025 aligned to Scottish Government priorities and the UN Sustainable Development Goals.

The Scottish Government published *Overview of Scotland's International Competitiveness* by the Office of the Chief Economic Adviser, focusing on the nation's attractiveness for inward investment, including skills.

- Relevant points include:
  - Businesses are more likely to cite the support and availability of skills than taxation among the most important factors for inward investment.
  - Over the long term, income inequality has a negative impact on economic growth and suppresses skills development.

WALES

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

REPUBLIC OF IRELAND (RoI)

SOLAS (Further Education & Training Authority of Ireland) published *National Skills Bulletin 2024*, the 20th edition, presenting an overview of the labour market at occupational level.

- The report supports policymaking in employment, education & training, and immigration (particularly sourcing skills in short supply in the Irish and EU labour market) and informs careers guidance and choices.
  - Skills shortages persist in occupations including science & engineering, ICT, health & social care, education, construction, other craft, hospitality and transport & logistics.
  - Recruitment issues are highlighted in areas such as environmental, healthcare and construction.
- With unemployment at historically low levels, upskilling and reskilling existing workers must be a priority to meet challenges from the green transition and digital transformation across all sectors.
  - This is particularly key in digital and sustainability skills, plus soft skills, e.g. communication, teamwork and leadership, and cross-sectoral or cross-occupational skills, e.g. sales, marketing, talent management, project management and data analysis.

SOLAS published *green skills 2030: The 1st National Further Education & Training (FET) Strategy for the Green Transition*, aiming to shape the response and contribution of the sector towards meeting the RoI's climate action target to halve greenhouse gas emissions by 2030.

- Green skills are needed in all economic sectors, and transversal skills are vital to allow workers to move from one job to another.
- Recommendations are made for programme and specialist skills centre development that reflect both policy and industry needs.
- The FET sector is to lead on the development of new courses, the updating of curricula, and the coordination and expansion of clear FET pathways.

- Possible tertiary pathways are suggested for learners between FET and HE, and areas are identified for FET and HE to jointly foster green skills development.
- The sector will also support others in implementing actions to support the green transition.
- Further collaboration between the FET sector, the HE sector and industry stakeholders will be crucial to identifying emerging green skills requirements; FET programmes will rely on sustained engagement with these stakeholders to identify the green skills requirements.

The Department of Further & Higher Education, Research, Innovation & Science (DFHERIS) published *Offshore Wind Skills Action Plan*, identifying training provision across degree, FET and professional development courses, and the gaps that could hinder progress.

- Conclusions from analysis of skills demand against educational provision include:
  - In HE: there is sufficient provision of degree level qualifications to meet the future demand of the Irish offshore wind industry in most cases; recruitment challenges are more likely to relate to competition from other industries and the availability of experienced staff.
  - FET and professional development courses are more complex: FE provision is decentralised and comprehensive data on course capacity, throughput and employment outcomes are not readily available; other third-party training providers offer relevant courses – however, these may not satisfy industry demand.
- Interventions are recommended to address the skills shortfalls and challenges in each job role.

Cedefop published *Ireland: establishment of new National Skills Council*, a news report.

- Demand for VET in the RoI is fast becoming a real resource for enterprise and a 'go to' place for lifelong learning.
  - The 2023 *OECD Skills Strategy Ireland: Assessment and Recommendations* identified new opportunities and made key recommendations to strengthen skills governance and develop a joined-up skills ecosystem.
- In July 2024, the new National Skills Council was established following the recommendation of the Skills Review, replacing previous structures of this type with an innovative approach to partnership.
  - Council members now include representatives from multinationals and social enterprises, providing a range of expertise, knowledge and practical understanding of workforce needs.
  - A critical new element is the involvement of the community & voluntary sector, which has become a cornerstone in the national strategy, drawing on its unique capacity to reach diverse and often underserved populations.
  - The council is supported by a High-Level Skills Implementation Group, comprising representatives from government departments and agencies and chaired by the DFHERIS.
- The council aims to: use intelligence on skills requirements to address emerging skills gaps proactively; prioritise skill needs; and translate intelligence into actions prioritised on likely impact.

The Government of Ireland published *Ireland's National AI Strategy: AI – Here for Good: Refresh 2024*, an update of the original published in 2021 *[see* Skills Research Digest Q3 2021*]*.

- Highlighted strategic actions in the refresh include: expanding the range of digital upskilling and reskilling initiatives, including those available via Skillnet Ireland, Springboard+ and apprenticeships.

EUROPEAN UNION (EU)

The European Commission published *Education and Training Monitor 2024: Comparative report*, plus 27 country reports; this year's edition focuses on learning for sustainability.

- Key issues include:
  - **Early school leaving** is becoming less prevalent, though still affects 9.5% of 18–24 year-olds; those with disabilities (22.2%) and first-generation non-EU migrants (23.0%) remain at serious risk.
  - Record-high **underachievement in basic skills** among 15 year-olds could jeopardise Europe's future competitiveness and societal resilience.
  - The employment rate of recent **VET** graduates (81.0%) is the highest on record since 2014; however, WBL in VET has the highest country variability of all EU-level target areas.

- The number of entrants in ICT doesn't reflect the persistent expansion of tertiary education: despite the 2030 EU-level target of 20m ICT specialists, there have been no substantial improvements in the number of entrants and graduates.
- An incomplete picture of learning mobility in tertiary education suggests low uptake and a substantial national imbalance between countries that mostly send students abroad and those that mostly host students from other EU countries.
- Adult participation in learning is low and progressing too slowly: participation rates are uneven across EU countries (from 9.5% in Bulgaria to 66.5% in Sweden) and substantially lower among key target groups most in need of reskilling and upskilling – this risks unequal development of sustainability competences and poses employability challenges during the green transition.

The OECD published *Insights from Skills Strategies in the European Union: Lessons learnt for developing and implementing effective skills policies*, based on mapping 26 skills strategies, stakeholder consultations and case studies*.

- Nine key lessons:
  - **Establish a clear objective** in order to determine appropriate content and form, which might range from high-level documents to detailed strategies with implementation plans.
  - **Find the right window of opportunity**: timing is crucial, since changes in government and policy priorities can affect implementation and longevity; countries should also consider significant events and financing opportunities that can support skills policy reform.
  - **Align the strategy with other key government strategies**: it is crucial to capitalise on past achievements and tackle persistent challenges left unaddressed as well as to avoid conflicts or overlaps with other related strategies.
  - **Build the strategy on a strong base of evidence**: the assessment should analyse current skills, labour market mismatches, governance effectiveness and broader economic, social and environmental conditions.
  - **Find a high-level champion/champions** from within or outside government: champions secure a mandate, raise the strategy's profile and engage senior officials and stakeholders, ensuring long-term support and momentum.
  - **Adopt a whole-of-government approach**: skills policy encompasses domains often distributed across multiple ministries and levels of government; it will require mechanisms for collaboration at national, regional and local levels.
  - **Engage with stakeholders**, including social partners, education and training providers, learners and community sector organisations, enhancing the strategy's social legitimacy and fostering greater commitment to its success.
  - **Adopt an implementation approach that advances the objectives**: formal implementation plans are generally developed when the objective is to directly influence policy through comprehensive or targeted reforms; high-level reports highlighting skills challenges and opportunities are developed when the objective is to indirectly influence policy by raising awareness of skills issues and building commitment to collective action.
  - **Monitor and evaluate the implementation**; mechanisms like steering groups, regular reporting and tailored key performance indicators enhance monitoring efforts.

**Short country examples are provided for each lesson, including from: NI (window of opportunity); the RoI (strong evidence base; champions); Belgium (strong evidence base; implementation approach); Norway (stakeholder engagement; monitoring & evaluating); and Estonia (monitoring & evaluating).*

Fondazione Giacomo Brodolini published *Re-thinking Europe's Skill Needs: Reflections following the European Year of Skills*, part of the Horizon Europe funded SkillsPULSE project.

- A collection of essays considers the skill challenges facing the EU over the medium-term, including:
  - The degree of labour and skill imbalances across the EU
  - Identification of the specific skills that will be increasingly in demand
  - How to effectively supply skills, including how to achieve fair outcomes
  - Diagnosing how change is affecting the demand for skills
  - How skill challenges can be addressed
  - An illustration of unintended outcomes.
- The evidence presented provides examples of how emerging skill needs and imbalances can be better anticipated, alongside information on how to define specific skill needs and effectively address them.

Cedefop published *Transparency and transferability of learning outcomes: a 20-year journey – Analysis of developments at European and national level*, reviewing European policy initiatives 2000–2020 designed to support mobility and lifelong learning.

- Five thematic policy areas are used to systematically analyse the initiatives: encouraging the use of QA mechanisms; encouraging credit accumulation & transfer; promoting the comparability of skills and qualifications; supporting validation of non-formal and informal learning; encouraging mutual recognition of qualifications.
  - EU member states' sustained commitment and efforts across the five areas offer a successful story of cooperation in education and training, given that most policy tools and processes are voluntary.
- There are frequently stronger synergies between initiatives associated with the same education and training sectors rather than the same policy area.
  - Stronger synergies are also more likely to be found among initiatives associated with HE than among those associated with VET.
  - Initiatives on QA, credits, qualifications frameworks and recognition appear more integrated in HE.
- Overall, there is an increasing focus on non-formal learning but integrating and accounting for it remains a common challenge.
- All tools and initiatives examined support the recognition of qualifications in some way, and some of them are becoming increasingly intertwined with the recognition process at the national level.
- More recent EU initiatives, such as Europass, microcredentials and automatic recognition, promote comprehensive approaches for formal, non-formal and informal learning and other policy areas.
  - Digital advancements can streamline existing initiatives, but strategic and technical discussions are needed to leverage synergies for learners.
- The policy initiatives have promoted the transparency and transferability of learning outcomes by:
  - Increasing the focus on the learning outcomes-based approach in various education & training sectors and promoting a shift towards learner-centred systems
  - Increasing attention to learning experiences outside formal settings
  - Fostering convergence across initiatives and countries
  - Promoting commitment to transparent, comparable and recognised qualifications
  - Emphasising the need for more permeable education & training systems and flexible learning pathways.

CEPS (Centre for European Policy Studies) published *The EU's path to 2030: Defining priorities for a stronger union*, a collection of papers providing insights on key policy issues, including on skills – 'how to ensure a skills-based future for European competitiveness'.

- Closing the skills gap requires clarity on *what* skills are needed, *who* needs them and *how* they should be developed.
  - **The what** can be illuminated by skills intelligence but it needs better taxonomies, integrated data sources and varied anticipation methodologies.
  - **The who** includes a diverse range of groups – adults needing lifelong learning, workers in SMEs with limited access to training and managers who shape skills development within their teams.
  - **The how** should also include policy measures that overcome underinvestment in training by workers and firms due to market failures.
- Aligning these efforts will ensure that skills development fuels innovation, strengthens economic resilience and enhances competitiveness in a rapidly changing world.
- Importantly, these efforts won't happen in a vacuum.
  - The demand for specific skills is shaped by firms' competitive strategies, which are in turn influenced by policies and regional contexts.
  - A well-designed smart specialisation strategy can help regions leverage their unique strengths while addressing the dynamic needs of the labour market.
- Three strategies are discussed, along with what they imply in terms of skills needs: operational excellence (low cost, large volume); product leadership (innovation, R&D); and customer intimacy (customisation, responsiveness).

The OECD published *Understanding Skill Gaps in Firms: Results of the PIAAC Employer Module*.

- The report examines the prevalence and impact of skill gaps in five European countries – Hungary, Italy, the Netherlands, Portugal and the Slovak Republic – and analyses how firms are responding through strategies such as skills anticipation, training and targeted recruitment.
- Among the findings:
  - Across the countries surveyed, over 33% of firms report a mismatch between the skills they need and those their employees possess; however, less than 5% say that most of their workforce lack the necessary skills.
  - The most frequent gaps are in technical skills (46%), followed by problem solving (34%) and teamworking (33%), although there are notable differences between countries.
  - Skills gaps are reported by 59% of larger firms vs 34% of smaller ones; this may be due to greater organisational complexity and decentralised decision-making, but also to larger firms being more likely to have formal skills assessment processes and a greater awareness of gaps.
  - The most common ways of addressing the gaps are: training and development of existing staff (90%); recruitment (49%); and changes in working practices (39%) – just 5% respond by outsourcing or discontinuing activities.
  - Firms with gaps are less likely to adopt modern working practices such as teamwork, holding meetings to improve work processes and maintaining databases of best practice; this suggests that skill gaps not only hinder operational efficiency but may also limit a firm's ability to foster collaboration and innovation.

Cedefop launched a new *Labour and Skills Shortage Index*, designed to investigate shortages across various occupational groups in member states to 2035 and guide policies that strengthen VET systems.

- It evaluates shortages across three key factors:
  - **Demand** measures the pressure created by employment growth – high-growth occupations may face delays in securing workers with appropriate skills, as education & training systems often lag market needs.
  - **Supply** focuses on replacement needs, driven by retirements, career changes and other workforce exits, which often create more opportunities than new job creation.
  - **Imbalances** examine mismatches in the labour market, where either underqualification or overqualification undermines efficiency and satisfaction.

Cedefop also launched STAS, a new tool for the short-term anticipation of skills trends and VET demand across the 27 member states, acting as an early warning system for emerging skills shortages, gaps and needs.

- Aimed at policymakers, social partners and VET experts and practitioners, the six-monthly projections support the planning and implementation of VET policies, provision and curricula.

SMALL ADVANCED ECONOMIES (SAEs)

Includes relevant items by/about the following SAEs chosen by the DfE Northern Ireland for comparative purposes: 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).

Cedefop published further country reports in its thematic perspective series: *Implementing European priorities in VET: Making national VET agile, flexible, innovative, attractive, inclusive and quality-assured*.

- New countries featured include: Czechia, Denmark, Iceland, Luxembourg and Sweden.

Austria

The Federal Ministry for Digital & Economic Affairs published *Austrian Framework of Reference for Digital Competence: Visibility, comparability and guidance*.

- As part of the EU's Digital Decade programme, Austria's Digital Skills Initiative – launched in July 2022 –aims to contribute to a more sustainable, fair and human-centred digital future.
  - Supported by five central federal ministries and stakeholders from various sectors, the goal is to improve digital competencies at all levels for individuals, businesses and institutions Austria-wide.

- The Framework was based on the EU model and developed by representatives from central departments, the interdisciplinary Digital Competences Taskforce, the fit4internet association, a scientific working group and numerous experts.
  - It was piloted across several areas by the Agency for Education & Internationalisation.
- It aims to help decision-makers plan and create education & training programmes that follow both national and European standards and to make Austria's education system simpler, more consistent and easier to understand.

Cedefop published *Austria: digital learning platform for apprentices*, a news report.

- The Austrian Economic Chambers are aiming to gather all business-related online education and training programmes onto the online platform Wîse up, which was launched at the end of 2022 and now includes over 20k digital courses.
  - They include both generic topics (e.g. digitalisation) and occupation-specific content (e.g. principles of electrical engineering) and the offer is constantly being updated and expanded.
  - The platform also offers companies the opportunity to integrate their own learning content, reducing administration, costs and training-related absences.
- The aim is to support dual VET, complementing the company and part-time classroom-based provision with 'learning paths'.
  - These are digital, content-coordinated, quality-assured education & training programmes geared towards helping apprentices gain both specialist and interdisciplinary skills.
  - Subject matter experts curate existing digital content, e.g. animated videos or web-based training courses, and education & training providers fill in the gaps by developing new content on behalf of the economic chambers.
  - Education experts supplement knowledge retention measures and create appropriate learning paths.
- Since October 2024, around 550 subject-specific learning paths for 11 major apprenticeships have been created, e.g. in electrical engineering, metal technology and retail.
  - The learning paths are used by training companies as an optional supplement to their training, with the fees fully covered by a special government subsidy (Digi-Scheck).
- Over 50% of all apprentices in Austria can currently develop their subject-specific skills individually and, over the next few years, the aim is to build up a comprehensive range of learning paths and to add further content to support end-of-programme assessments.

Belgium

Cedefop published *Belgium: PédaGObox: optimised activities for hybrid training*, a news report.

- Since June 2024, Bruxelles Formation – the public vocational training service for adults in the Brussels region – has been making its PédaGObox toolbox available to French-speaking vocational training stakeholders in order to encourage innovation and the use of a wider range of practices.
  - PédaGobox capitalises on good practice in remote learning developed during the pandemic and aims to encourages training teams to be creative by making them think more deeply about hybridisation and educational multimodality
- 41 help sheets cover specific themes, practices or modalities – e.g. how to teach a technical skill face-to-face or remotely – designed to make virtual learning sessions engaging and boost face-to-face interactions.
  - Each one: presents the topic as an educational challenge; introduces specific modalities; offers tips, tricks and examples; and includes useful links and contacts.
  - They have been disseminated through workshops and a vocational training practices fair.

Estonia

Cedefop published *Estonia doubles down on skills governance to tackle labour shortages and close skills gaps*, a news report.

- In 2015, Estonia launched OSKA (*Oskuste Arendamise Koordinatsioonisüsteem*), a skills anticipation system designed to involve key stakeholders – including social partners, labour market experts, and education and training institutions – in identifying and addressing skills gaps.

- The system is supported by sectoral expert panels and overseen by a central coordination council.

- In 2020, Cedefop published the findings of a review of Estonia's skills governance, with a particular focus on the OSKA system.
  - Acting on its recommendations, Estonia implemented methodological innovations and strengthened communication to boost OSKA's effectiveness and visibility.

- However, skills and labour shortages remain a significant challenge, hampering investment, productivity and economic growth and particularly affecting export industries and hindering progress towards the green transition.

- Cedefop will now provide expertise under the EU-funded Technical Support Instrument (TSI), aiming to refine OSKA, enhance evidence-based decision-making in education & training, and strengthen authorities' ability to anticipate skills needs, especially in non-formal education and training.
  - The two-year project will include: a situation analysis; stakeholder consultations; capacity building; peer learning and the development of an action plan.

Cedefop published *Estonia: Call for innovative VET curricula to meet future workforce needs*, a news report.

- In 2024, the Ministry of Education & Research launched a call for innovative programmes in VET, jointly financed with the European Social Fund.
  - VET providers submitted an unexpectedly large number of ambitious proposals aimed at meeting the changing needs of the labour market and equipping learners with skills in emerging industries, focusing on smart technology, digitalisation, sustainability and collaboration with industry experts.
  - Providers also started revising existing programmes to incorporate technological competences and interdisciplinary approaches and to accommodate the extension of the compulsory education age to 18, to be completed by 2025/26.

- The updated curricula will offer greater flexibility, allowing learners to specialise in areas aligned with labour market needs and their own interests.
  - The updates will also contribute to raising the education & training level of the population and strengthen the workforce for the future.

Israel

The ETF published *Key policy developments in education, training and employment: Israel 2024*, while recognising the backdrop of an unstable political landscape and the profound impact of the Gaza conflict.

- The government has emphasised technological education and lifelong learning through its 2030 plan, focusing on digitisation and remote learning.
  - Progress has been made in vocational and special education, but participation in lifelong learning has declined.
  - There is no specific strategic framework for VET and adult learning; vocational education is divided between vocational training and technology education, with no clear distinction between them; both award non-academic diplomas.
  - Technology education generally focuses on knowledge-intensive areas and produces practical engineers and technicians; vocational education focuses on 'traditional' sectors, e.g. manufacturing and caregiving.

- A National Qualifications Framework is still under development; it aims to formalise qualification recognition across different educational and vocational tracks, critical for improving workforce skills.

- Digital education and skills: in the 2023 European Skills and Jobs Survey, 99% of Israelis said they used computing devices in their work, compared to 85% in the EU.

- Israel has many bilateral project agreements with EU member states, including education & training for employment and inclusion, and it continues to participate in Erasmus+ via a national office.

Luxembourg

Cedefop published *Luxembourg: Skillsbridges – a new format for upskilling and reskilling adults*, a news report.

- The Ministry of National Education, Children & Youth is launching 'Skillsbridges' to help adults adapt to new technologies and the changing job market and retrain in a different profession.

- Targeting a range of adults in terms of qualification level, industry sector, language skills and employment status, they aim to address the shortage of qualified labour, promote digital inclusion and support the transition needed for a sustainable and innovative economy.

- Training topics are based on recent labour market analyses that identified growth sectors and labour market shortages.
  - Three programmes have been available since September 2024: AI for administrative teams; green space maintenance worker; and low-carbon construction and the use of bio-based building materials.
  - A further 20+ programmes, focusing on digitalisation, AI, the green transition and renewable energies, construction, process management, hospitality and soft skills will gradually be introduced, increasing capacity to up to 800 participants per year.
- The programmes are designed to develop targeted skills that can be immediately applied in practice and are short, varying from 40 to 240 hours.
- Courses are provided by the National Centre for Continuing Vocational Education & Training (CNFPC), either in person or through blended learning, and certified by the VET department of the Ministry of National Education, Children & Youth and the CNFPC.
- The initiative is part of the 2021 *Recovery and Resilience Plan* and co-financed by the EU; it is supported by the 2023 *OECD Skills Strategy Luxembourg*.

Norway

Cedefop published *Norway: a wake-up call for greater cooperation on foreign qualification recognition*, a news report.

- To reduce work-related crime and 'social dumping', the Government is proposing new legislation that places stricter requirements on employers, starting with the construction and cleaning sectors, which rely on foreign workers.
  - Proposals include requiring a minimum number of qualified workers on permanent contracts when companies work for the State, which will lead to increased demand for recognition certificates.
- The Norwegian ENIC-NARIC centre is leading a two-year project, Bridging a European network for recognition of vocational qualifications (BRAVO), to develop NARIC into a network for the recognition of vocational qualifications.
  - ENIC-NARIC networks include recognition and information centres in 55 countries in Europe and beyond; initially focused on HE qualifications, the networks have expanded to include the recognition of foreign VQs in response to increased cross-border mobility of workers.
  - Jointly funded with Erasmus+, BRAVO brought together partners from the Directorate for Higher Education & Skills in Norway, the Swedish Council for Higher Education and the Centre for Quality Assessment in Higher Education in Lithuania.
- A BRAVO mid-term report found that there was little exchange of information on recognition statements of foreign VQs, signalling the need to improve cooperation in the sector.
  - Most ENIC-NARICs use the National Qualifications Frameworks/European Qualifications Framework tools and the Europass certificate supplements in their work, but some responses indicate that these tools are used only as guidance.
- The final BRAVO report recommends extending the scope of the ENIC-NARIC networks to include VET qualifications, starting with more formal sharing of information on VET systems and qualifications.

Eurydice published *Norway: Modular education – Reforming the adult education system to enhance its flexibility*, a news report.

- Modular structured education for adults has been piloted since 2017 and in August 2024, under the new Education Act, it became permanent.
- Adults who haven't completed primary and lower secondary education or equivalent can now take smaller, more manageable units with curricula designed with an adult perspective.
  - The modular approach ensures that no one undergoes more training than necessary to achieve the competence they need.
  - The Act also allows for primary and secondary modules to be combined, enabling adults to receive a more integrated and efficient education.

Sweden

The OECD published *Strengthening the Governance of the Swedish Skills System*, the final report of a project to provide technical assistance, funded by the EU's TSI.

- The report comprises: a situation analysis; analysis of opportunities for improvement in skills data infrastructure; relevant international practices; and recommendations on enhancing the system.
  - It highlights opportunities for improvement in coordination, cooperation and collaboration between governmental agencies, ministries, regions, sectors, stakeholders and other actors.
- Key lessons include:
  - The labour market model and strong tradition of social partnership are seen by stakeholders as unique assets; combined with the deep-rooted 'culture of consensus-driven decision-making', Sweden should employ an inclusive yet strategically targeted approach to stakeholder engagement in future reform efforts.
  - The skills system already includes numerous councils, committees, networks, etc., promoting a whole-of-government approach to policy; where there is a need for the establishment of additional structures, Sweden should consider how to promote synergy and avoid unnecessary duplication.

Cedefop published *Sweden: education providers must align with labour market needs*, a news report.

- Amendments to Sweden's Education Act come into force in 2025, requiring upper secondary-level providers to consider student demand and labour market needs when determining courses offered.
  - The aim is to: improve the diversity of upper secondary education; support the entry of young people and adults into the labour market; and better meet the skill needs of both the welfare sector and the business community.
- The amendments state that:
  - Labour market needs must be taken into account by municipalities, educational institutions and regions when planning courses in upper secondary schools and municipal adult education.
  - Every municipality must collaborate formally with at least two other municipalities on the planning, allocation and provision of educational services.
  - Individuals should be able to apply freely for vocational courses within collaborating municipalities.
  - Providers must clearly communicate the focus and potential outcomes of their programmes.
- The Swedish National Agency for Education (*Skolverket*) is developing regional planning documentation to support providers and help them make well-informed decisions about the range of programmes that meet both student demand and labour market needs.

Eurydice published *Sweden: A new strategy underway to strengthen knowledge in STEM*, a news report.

- The Ministry of Education is developing a new strategy *[that was due at the end of 2024]* that will introduce new measures to increase the number of students who begin and complete STEM education in HE, higher vocational education and upper secondary education.
  - The proposals will include both short- and long-term initiatives, examining the entire education system from preschool to university, including doctoral programmes.
  - There will also be a particular focus on increasing the proportion of women in STEM education.
- Representatives from the business community and interested stakeholders have participated in roundtable discussions, and HEIs have submitted information on their current and potential initiatives, including any perceived needs for regulatory change or adjustments in governance.
- Various domestic and international study visits have also been conducted to gather inspiration, exchange experiences and learn from others in the field.

Sources

Advance HE
www.advance-he.ac.uk

Association of Employment & Learning Providers (AELP)
www.aelp.org.uk

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

Brilliant Club
thebrilliantclub.org

British Academy
www.britac.ac.uk

British Council
www.britishcouncil.org

Business in the Community (BITC)
www.bitc.org.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 Economic Performance (CEP)
cep.lse.ac.uk

Centre for Progressive Policy (CPP)
progressive-policy.net

Centre for Vocational Education Research (CVER)
cver.lse.ac.uk

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

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

ColegauCymru/CollegesWales
www.colleges.wales

College Development Network (CDN)
www.cdn.ac.uk

College Innovation Network (CIN), Scotland
www.edinburghcollege.ac.uk/employers/innovation/the-college-innovation-network

Colleges Scotland
collegesscotland.ac.uk

CV-Library
www.cv-library.co.uk

CyberHubs (European Network of Cybersecurity Skills Hubs)
cyberhubs.eu

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

Department for Energy Security & Net Zero (DESNZ), UK
www.gov.uk/government/organisations/department-for-energy-security-and-net-zero

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

Digital Skills & Jobs Platform, EU
digital-skills-jobs.europa.eu/en

Discover Education
link.springer.com/journal/44217

Dyslexia Scotland
dyslexiascotland.org.uk

Edge Foundation
www.edge.co.uk

Education Policy Institute (EPI)
www.epi.org.uk

Enginuity
enginuity.org

European Commission
ec.europa.eu/commission/index_en

European Training Foundation (ETF)
www.etf.europa.eu/en

Eurydice
webgate.ec.europa.eu/fpfis/mwikis/eurydice

Federal Ministry for Digital & Economic Affairs, Austria
www.bmf.gv.at

Federation of Small Businesses (FSB)
www.fsb.org.uk

FE News
www.fenews.co.uk

Fondazione Giacomo Brodolini
www.fondazionebrodolini.it

Fraser of Allander Institute, University of Strathclyde
fraserofallander.org/publications

Frontiers in Climate
www.frontiersin.org/journals/climate

Gatsby Foundation
www.gatsby.org.uk

Government of Ireland
www.gov.ie/en

Heat Pump Association (HPA)
www.heatpumps.org.uk/

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

House of Commons Library
commonslibrary.parliament.uk

Institute for Apprenticeships & Technical Education (IfATE)
www.instituteforapprenticeships.org

Institute for Employment Studies (IES)
www.employment-studies.co.uk

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

Institute of Student Employers (ISE)
ise.site-ym.com

International Energy Agency (IEA)
www.iea.org

International Journal of Educational Research
www.sciencedirect.com/journal/international-journal-of-educational-research

IRENA (International Renewable Energy Agency)
www.irena.org

ISC2
www.isc2.org

Jisc
www.jisc.ac.uk

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

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

Lloyds Banking Group
www.lloydsbankinggroup.com

Make UK
www.makeuk.org

National Academies of Sciences, Engineering & Medicine, USA
nap.nationalacademies.org

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

National Foundation for Educational Research (NFER)
www.nfer.ac.uk

Nevin Economic Research Institute (NERI)
www.nerinstitute.net

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

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

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

Oxford University Student Union (Oxford SU)
www.oxfordsu.org

Parliamentary Office of Science & Technology (POST)
post.parliament.uk

Productivity Institute
www.productivity.ac.uk

Prospects Luminate
luminate.prospects.ac.uk

Public First
www.publicfirst.co.uk

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

RSM UK
www.rsmuk.com

Scottish Funding Council (SFC)
www.sfc.ac.uk

Scottish Government
www.gov.scot/Publications

Scottish Qualifications Authority (SQA)
www.sqa.org.uk

ScreenSkills
www.screenskills.com

Skillnet Ireland
www.skillnetireland.ie

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

Social Market Foundation (SMF)
www.smf.co.uk

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

STEM Returners
www.stemreturners.com

TechUK
www.techuk.org

Tony Blair Institute for Global Change (TBI)
institute.global

UCAS
www.ucas.com

UK Youth
www.ukyouth.org

UNESCO
en.unesco.org

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

UPP Foundation
upp-foundation.org

Young Women's Trust
www.youngwomenstrust.org