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Skills Research Digest
Quarter 1 2025

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:

- A growing interest in apprenticeships among young people, with one survey reporting that many see them as a better option than university. However, they still lack information and opportunities.
- An interesting report by the British Council highlights how transnational education partnerships in conflict-affected regions are a vital tool for international development.
- More organisations adopting AI and using it for more of their business functions, while the Pissarides Review proposes a human-centred model to mitigate the potential negative impacts.

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

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Preparing Young People for Work

16–19 EDUCATION

The Institute for Fiscal Studies (IFS) published *The short- and long-run effects of paying disadvantaged teenagers to go to school*, a working paper studying the impact of the Education Maintenance Allowance (EMA) in England.

- Piloted in 1999 and rolled out nationally in 2004, the EMA paid teenagers from low-income families up to £30 per week; it ended in England in 2011*, although some alternative funding was introduced.
- Participation in full-time education increased by 2.0ppt among the poorest students but didn't relieve constraints for most students or substantially alter education decisions.
  - This was possibly because the UK already provided substantial support for those remaining in post-16 education during this period.
- Despite increasing participation and reducing part-time work, there was no meaningful impact on educational attainment, including among those who would have stayed in education without it.
  - Tentative evidence of a positive effect on basic qualifications don't appear to translate into improved outcomes at higher levels.
- Small negative effects on earnings in individuals' 20s is possibly due to the EMA crowding out valuable early labour market experiences.
  - Even modest amounts of teenage employment may help some develop skills, connections and attachment to the labour market that boost long-run earnings, particularly for those from the most deprived backgrounds.
- The policy reduced youth crime among those with low prior attainment, however the effects are small compared with the programme's considerable costs.

**The EMA is still operating in Wales, Scotland and Northern Ireland (NI).*

The Education Policy Institute (EPI) published *Long-run changes in school leaving rules and outcomes across the UK*, focusing on policies impacting those born in the late 1940s to the late 1980s.

- Scotland's 'winter leavers' rule requires young people born between October and February to stay in school until at least Christmas of the following academic year.
  - This policy shows little-to-no benefit in terms of higher education (HE) qualifications or employment outcomes, and winter leavers are less likely to be in positive education or employment destinations than those who leave at the end of the academic year.
- Scotland has consistently outperformed other UK nations in maintaining higher rates of qualifications equivalent to Level 3 (Highers/Scottish Credit & Qualifications Framework level 6) while Wales lags behind.
- Women started with lower attainment rates than men but by the mid-1960s the gender gap had disappeared and, in recent cohorts, women are as likely – if not more so – than men to have Level 2/3 qualifications.
- However, whereas for cohorts born up to the 1970s the gap in employment rates for men and women continued to narrow, there has been little progress since then.
  - Among those born in the late 1980s, 85–90% of men were employed vs 75–80% of women.

***Sibling similarity in education and employment trajectories [EETs] at ages 16–19 in the UK: The role of parental influence and individual experiences in early adolescence* by researchers from the Institute for Social & Economic Research (ISER) was published in *Advances in Life Course Research*.**

- Young people's early EETs hold profound implications for either perpetuating or alleviating social inequalities across the life course.
  - Family background is instrumental in shaping EETs, but little is known about how similar EETs are between siblings and which early experiences impact individual trajectories.

- Siblings exhibit a greater tendency to follow similar post-16 EETs than do unrelated peers, including those coming from similar backgrounds, highlighting the persistent effects of the family of origin.
  - Siblings with highly educated mothers and two-parent households face fewer barriers to accessing further education (FE) and securing smoother school-to-work transitions.
  - Those from less privileged backgrounds may share exposure to scarcity of financial, social and cultural resources that constrain their post-school options and increase the chances of more turbulent EETs.
  - First-born children and siblings from smaller families have substantively higher chances of staying in education.
- However, siblings often diverge onto different EETs, pointing to the role of individual experiences; positive educational aspirations are significant predictors of remaining in education and avoiding turbulent pathways.
  - Beyond parental socioeconomic traits, perceptions of their family environment are one of the key predictors of EET; in particular, those that report higher levels of family support during adolescence are more likely to stay in 16–19 education and avoid turbulent transitions.
  - Indicators of adolescent mental health are also significant factors.
- Overall, early life course trajectories and the process of status attainment within the family are shaped by a complex interaction of family circumstances and individual experiences.

Cedefop (European Centre for the Development of Vocational Training) published *What is new in IVET [initial vocational education & training]? Key pointers from statistics*, emphasising progress and challenges at upper secondary and post-secondary as they align with the post-2020 European vocational education and training (VET) policy objectives.

- In 2022, 49% of all EU upper secondary students were enrolled in VET, relatively unchanged since 2015; however, national rates ranged from 70%+ to below 20%.
- 72.6% of upper secondary VET students were in programmes with direct access to tertiary education and 38.2% of graduates went on to FE and training.
  - On average, 38.2% of VET graduates pursued additional training.
- Efforts to internationalise IVET continued, with 5.1% of learners benefiting from mobility, below the 8% target but on the rise.
- In 2023, 64.5% of recent graduates had undertaken at least one month of work-based learning (WBL), +4.1ppt on 2021 and surpassing the EU target of 60%; however, national rates ranged from 90% to below 10%.
  - 38.7% had work experience lasting at least seven months; 41.0% had been paid.
- Only 41.9% of upper secondary females were enrolled in VET programmes in 2022, -0.5ppt on 2015 and well below the 55.8% rate for males.
  - The average gap was 14.3ppt and was particularly evident in science, technology, engineering & maths (STEM) related subjects.
- IVET graduates play a key role in the labour market, particularly in engineering and manufacturing, which attracted 32.7% of graduates in 2022; their employment rate reached 81% in 2023.

The OECD published *Civic education as a pathway to inclusive societies: Exploring the role of education in fostering civic and social engagement*.

- Recent trends across the OECD show a decline in civic participation, marked by diminishing electoral engagement, rising socioeconomic disparities in political involvement and increasing distrust in public institutions.
- Despite the growing prioritisation of civic education across OECD systems, there are significant gaps in implementation, including inconsistent regulation, lack of inclusion and limited research on effectiveness.
- The report identifies strategies to close participation gaps and foster more inclusive societies, drawing on educational approaches from across the OECD, including post-16.

SCIENCE, TECHNOLOGY, ENGINEERING & MATHS (STEM)

EngineeringUK published *Science Education Tracker 2023: Report addendum*, analysing responses by special education needs (SEN) status, free school meals (FSM) eligibility and whether or not English is their first language.

- Findings for Year 10–13 students:
  - 68% of those eligible for FSM found biology lessons 'very'/'fairly' interesting vs 76% of those not eligible; there was no difference in level of interest in chemistry or physics.
  - 63% of those with SEN found biology interesting vs 75% of students with no SEN; there was no difference by SEN status for the other two sciences.
  - Those whose first language is not English were more likely than their peers to find all three science subjects at school interesting: biology 81%/72%; chemistry 67%/55%; physics 62%/53%.

The Higher Education Policy Institute (HEPI) published *The Swing to Science: Retrospects and prospects*, pinpointing the moment – in 2013 – when, after nearly 50 years of decline, the proportion of UK university degrees in STEM began to grow.

- Having declined from 54% in 1967 to 38% in 2012, the STEM share rose to 43% in 2023 – around where it was in the mid-1990s.
  - The swing can be seen in Scotland too but is less pronounced than in England and Wales.
- This shift has gone relatively unanalysed, possibly due to ingrained assumptions that: education provides the engine of economic growth; individuals – even 13 year-olds – make optimal decisions to maximise their future returns; and STEM degrees generally maximise income.
- The paper reveals the forces brewing behind the swing before 2012 and why it has continued since.
  - It considers what kinds of students are moving to STEM, which subjects they prefer and what their choices indicate about the factors influencing them.

Making Spaces, an international research project based at University College London (UCL), published *Making Spaces 2: Impact and evaluation report*.

- The project identifies and shares equitable practice to support diverse young people's engagement with STEM; it focuses on 'makerspaces', which aim to increase youth engagement with STEM but lack the resources to help practitioners understand and address equity issues.
  - It worked in partnership with practitioners and young people in the UK, US, Nepal, Slovenia and Palestine on ways to increase agency, challenge inequalities and support positive life outcomes.
- The project co-developed, implemented and evaluated the 3-Steps Towards Equitable Practice (3-STEP) approach, which helps practitioners to: develop an equity mindset ('prepare'); put equity ideas into practice ('do'); and capture/reflect on equity in their own practice ('evaluate').
- The project:
  - was evidence-based, relevant and 'close to practice'
  - improved understanding of equity issues and supported positive outcomes among practitioners; helped implement and embed equitable practice
  - resulted in increased and diversified youth participation and supported a range of equitable youth outcomes
  - is starting to increase sector capacity through modest international reach and positive reception.

EMPLOYABILITY & CAREERS

The King's Trust published *The King's Trust TK Maxx Youth Index 2025*, based on a YouGov survey of 4,285 UK 16–25 year-olds in November and December 2024.

- 70% feel determined to achieve their goals in life.
  - 33% don't think they will be as successful as their parents/guardians (40% of those not in education, employment or training [NEET]).
  - 53% feel anxious daily about their future; females are more likely than males to feel anxious.
- 39% say they have/had no idea how to find a job after school (50% of those from low-income backgrounds).

- 56% worry they lack the skills, experience or qualifications needed for the career they want (61% from low-income backgrounds); 61% worry this will impact their ability to get a secure job.
- 12% from low-income backgrounds have missed school or work due to transport costs.
- They say the following will help them achieve their job ambitions: work experience (41%); help with CV and interview skills (39%); help with developing confidence (38%); training opportunities (36%); improving their qualifications (32%); having a careers mentor (31%).
- 29% of those who are NEET have applied for jobs they don't want as they are desperate to work.
  - 67% say being in work would give them stability; 30% that they have had a mental health problem due to being unemployed.

The Federation of Small Businesses and Simply Business published *Generation Entrepreneur Report: Empowering young business talent across the UK*, based on a survey of 2k UK 18–34 year-olds, focus groups and interviews.

- 60% express an interest in owning a business, but only 16% manage to turn this into reality.
- 52% are motivated by the potential to make money; 14% by helping their local community; 11% hope to open a business on the high street in the next five years, rising to 16% among those already selling online.
- Just 35% in England report having any exposure to enterprise education at secondary school; of those who received business support from a youth club, 83% found it useful.
- 15% of current/aspiring entrepreneurs say that seeing other entrepreneurs would boost their confidence, but over 33% haven't had any guidance or support from entrepreneurs or businesses.
- 20% have had difficulty accessing finance, with 7% resorting to payday loans; 31% of those who own/would like to own a business don't know how much funding they will need in the next year.
- 19% struggle with knowledge of marketing; 11% say that deciding to employ someone for the first time is a challenge.
- Recommendations include:
  - Embed enterprise education in the curriculum through activities like competitions, careers talks and internal fundraising.
  - Make it easier and more flexible for local businesses to engage with schools.
  - Promote free guidance and advice for young entrepreneurs and influencers using social media platforms and online marketplaces, led by the Competition & Markets Authority and the Advertising Standards Authority.

BDO accounting firm published findings from its Young Minds survey of the career aspirations and challenges of over 1k 18–25 year-olds across the UK.

- 79% don't think they were given enough information about apprenticeships when considering career options.
  - 60% of these say more needs to be done to connect young people with local businesses and apprenticeship providers.
- 44% believe university will provide more career choices, yet 37% would consider taking an apprenticeship after their degree, achieving a master's or training in a specialist area.
- The main reasons cited for choosing an apprenticeship are: being ready to start work (33%); preferring to learn on the job (29%); believing it is important to gain life experience not just a qualification (23%).

BAE Systems published findings from a new Apprenticeship Barometer survey of 2k 16–24 year-olds across the UK about their views on education, training and career pathways.

- Interest in apprenticeships:
  - Job security (28%), high starting salaries (28%) and hands-on training (23%) are the most appealing features.
  - 60% would prefer an apprenticeship to university; 54% identified earning while learning as the main reason, 36% cited avoiding student debt.
  - 86% agreed that apprenticeships enhance social mobility, offering significant potential to support disadvantaged groups and provide alternatives to traditional HE routes.

- Over 70% said they would be willing to relocate to a different part of the UK for an apprenticeship.
- 26% said they would be interested in an apprenticeship linked to careers in STEM.

- Barriers to apprenticeships included: limited opportunities (35%) and lack of information (32%).
  - 44% said they felt uninformed about apprenticeship opportunities in their field of interest.
  - 89% said employers should expand apprenticeship programmes alongside graduate schemes.

The National Foundation for Educational Research published *A narrowing pipeline? What changes in UK tech hiring might tell us about future opportunities in the sector*, part of a wider Hg Foundation-funded research programme on pathways for young people into tech, exploring online job advert data since 2016.

- There are now 31% fewer live UK job adverts (on average) across all sectors compared to 2019–20, with a sharp decline since early 2022.
- 'Core tech' occupations, e.g. software development and IT, are 50% lower than the 2019–20 level, driven mainly by a steep decline in software development opportunities.
  - For example, the average number of adverts for programming roles fell 68% to 14k in 2024–25, leading to an unprecedented 10% decline in the number employed as software developers.
  - Adverts for 'tech adjacent' roles – e.g. in engineering and natural science – have also declined, but only by 26%.
- International competition and artificial intelligence (AI) may be partly driving these trends, with workers in the tech sector suggesting that many UK 'core tech' jobs are being relocated to other countries.
- Entry-level tech roles have been particularly affected, with demand for talent more focused at the mid and senior levels, raising serious challenges for younger people seeking entry to the sector.
- The nature of tech jobs and the skills required are also changing fast: software development skills are emphasised much less than previously; general skills like project management, as well as some specific tech skills, such as data science, have grown in importance.
- In 2024–25, 47% of tech roles required a degree or equivalent, compared to 32% of non-tech roles.
  - This could suggest employers are becoming more selective, although it may also be driven by changes in the nature of roles.

The OECD published *Transitions through education and into the labour market: Exploring educational outcomes and equity gaps using international surveys*, reviewing the progression of one birth cohort and focusing on gaps by gender, country of birth and parental education.

- The range of learner experiences and the varied trajectories illustrate the multifaceted nature of educational inequalities.
  - Some countries, e.g. the Netherlands and the Republic of Ireland (RoI), show consistently smaller gaps than others throughout their education journey.
  - Others demonstrate more mixed progress: e.g. Estonia and Norway have reduced gaps at certain educational levels – such as secondary maths – while still facing challenges in other domains.
- Conclusions include:
  - To ensure policy effectiveness, it is crucial to: strengthen the monitoring of transitions in education through longitudinal studies that provide insights around different groups; and ensure more regular, systematic and robust evaluation.
  - It is essential to engage in initiatives that effectively reduce the early outflow of students from education and training, addressing common factors including: lack of choice or options in upper secondary; lack of alignment between students' interests and their study programme; insufficient counselling; and early skills gaps.
  - Re-engaging learners who have lost interest in education is crucial, through: programmes that target students with high truancy rates; career guidance embedded in educational programmes and with increased visibility to help ensure better alignment of students' interests; comprehensive information about school options, especially for students from disadvantaged backgrounds.
  - Successful transitions require a coherent course offer that adapts to learners' changing needs, along with curricular and pedagogical continuity, collaboration and parental engagement; challenges can be addressed through integrated national frameworks and guidelines, involving teachers in curriculum development and investing in local knowledge and innovations.

- Given the significant structural changes and technological advancements affecting labour markets, education systems need to confront the challenge of alignment promptly to avoid preparing students for obsolete jobs; incorporating WBL in VET programmes can help address evolving skill requirements and equip learners with transferable skills; microcredentials can be valuable in meeting the needs of learners who don't fit traditional paths and employers seeking specific skills.

The Institutional Landscape

THE FURTHER EDUCATION & SKILLS SECTOR

The Lifelong Education Institute (LEI) published *Taking Higher Education Further: Widening opportunity through college based higher education*, in partnership with the Mixed Economy Group of Colleges (MEG), which represents 40 colleges in England and Wales.

- High-value growth industries – e.g. digital technology, green skills, advanced manufacturing and life sciences – depend on a strong supply of employees with higher technical skills, but the numbers entering higher technical education (HTE) fall short of the country's needs.
- The solution lies in the national network of FE colleges, which already provide the bulk of HTE and have the potential to do much more.
- College-based HE is distinctive and effective due to: long-standing relationships with local employers; comprehensive levels of student support; good quality teaching; and affordability, especially for those with family and work responsibilities who need to study locally.
- MEG's 'manifesto for college based HE' highlights ten key needs:
  - Increased core funding for FE colleges to enable the growth of college-based HE
  - A track record of HTE provision made a key criterion for becoming a Technical Excellence College *[in England]*
  - A lighter touch regulatory regime for colleges offering HE in partnership with universities
  - A functional UK-wide credit transfer framework to facilitate modular provision
  - Higher Technical Qualifications funded through the proposed 'growth and skills levy' and made more flexible to suit working adults
  - Grant funding to supplement student loans as part of the rollout of England's Lifelong Learning Entitlement, targeting courses in areas of skill shortages and high priority growth sectors
  - FE colleges endorsed as the best providers of Level 4/5 courses for working adults as part of place-based economic development, and contributing to local Level 6/7 provision in partnership with universities where necessary
  - Careers information, advice and guidance strengthened to inform all young people about HTE and raise working adults' awareness of the opportunities available to them
  - A sustained national and local campaign to raise the profile of college-based HE in partnership with local authorities and those responsible for England's Local Skills Improvement Plans
  - Greater access to R&D funding to encourage collaboration between colleges, universities and employers on innovative technical training solutions.

The Edge Foundation (Edge) published *A short guide to FE and skills across the four countries of the UK*, an update of its 2018 report comparing challenges and approaches.

- New challenges have emerged since 2018, e.g. the Covid-19 pandemic and advances in AI, laying bare the stark skills shortages facing each nation.
  - Between 2017 and 2022, skills shortages vacancy density rose: +14ppt to 35% in NI; +14ppt to 36% in England; +8ppt to 35% in Wales; and +7ppt to 31% in Scotland.
  - Construction is in the top three skills shortages vacancy sectors in all nations, and manufacturing in all except Wales.
- These challenges have galvanised UK administrations to take new approaches to ensure their skills systems are more adaptive and flexible.
- The guide covers: policy frameworks; governance arrangements and key agencies; apprenticeships; technical and vocational qualifications; tertiary education; and employer engagement.

The Association of Colleges (AoC) published *Mission accepted: The role of colleges across the government's five missions*, featuring case studies of how colleges in England are already actively working towards the missions that will guide future policy and funding decisions.

- **Kickstart economic growth**: colleges are essential for providing the skills needed to boost productivity and support innovation and work closely with employers to provide relevant training.
  - E.g. the Airport Academy, a collaboration between Manchester Airport Group and the Trafford & Stockport College Group.
- **Make Britain a clean energy superpower**: colleges are uniquely positioned to support the green transition by training people for jobs in low-carbon sectors.
  - E.g. the East Midlands Institute of Technology is developing advanced skills in areas such as engineering and sustainable construction.
- **Take back our streets**: colleges contribute to safer communities by offering positive pathways for young people, supporting rehabilitation and promoting inclusion.
  - E.g. the partnership between Greater Manchester colleges and the Greater Manchester Violence Reduction Unit.
- **Break down barriers to opportunity**: colleges provide education and training to a diverse range of people, including those from disadvantaged backgrounds and with learning difficulties.
  - E.g. Brighton, Hove & Sussex Sixth Form College's 'Closing the Gap' project.
- **Build an NHS fit for the future**: colleges are central to training the future health and social care workforce.
  - E.g. the Heart of Worcestershire College's Smart Living Academy.
- The report calls for: colleges to be engaged as key partners in each mission; local partnerships between colleges and other leaders; increased investment to support college operations, staff and resources; proactive and creative thinking about the role of colleges across all missions.

College Development Network (CDN) and Colleges Scotland published *Colleges' Approach to Tackling Gender-based Violence and Harassment: Survey findings report*, conducted in autumn 2024.

- 16 Scottish colleges shared insights on strategies, training initiatives, preventive actions, reporting mechanisms and challenges faced by the sector.
  - 50% had a formalised plan of action to tackle gender-based violence and harassment.
  - 100% use a student code of conduct to communicate acceptable and unacceptable behaviours.
  - 88% said sustainability of funding and the impact on resources is the main barrier to progress.
- 81% have implemented staff and student training since 2018/19, but only ~50% are offering it annually.
  - College staff receive a range of training, 63% of colleges said this is mandatory and with varying levels of specialism depending on their role; examples include consent training, bystander training and 'train the trainer'.

The European Training Foundation published *A taste of vocational excellence: International recipes for skills development*, 11 case study 'dishes' from Canada, Finland, France, Georgia, Italy, Moldova, Morocco, Singapore, Spain, Tunisia and Türkiye.

- The report demonstrates how, with similar ingredients, different approaches to vocational excellence can be created, enabling:
  - vocational education institutions to act as 'agents of change', responsive to their economic environment, innovative in their practices and committed to continuous improvement
  - leadership, expertise and creativity to emerge from within schools and their partnerships, rather than being imposed by external authorities.
- Key ingredients:
  - Teacher quality and development
  - Content aligned with labour market and societal needs – well-designed vocational programmes integrate industry requirements, emerging skills and societal expectations to prepare learners for the future

- Partnerships and a dynamic ecosystem – strong collaboration between vocational education providers, businesses, government authorities and educational institutions
- Quality assurance processes that drive improvement, ensuring vocational excellence is not just an aspiration but an ongoing process of refinement and progress
- Innovative pedagogy and workplace-integrated learning – modern teaching methods and hands-on experience creating engaging, effective and career-ready learning environments
- Applied research for practical impact – ensuring vocational institutions don't become disconnected from real-world advancements
- Lifelong career guidance to support learners' journeys – ensuring education remains learner-centred, tailored to individual aspirations and aligned with evolving labour market demands.

The Gatsby Foundation published *Generative AI [GenAI] in Maths Education and Employability*, examining how GenAI can support collaboration between maths and vocational teachers.

- The study, based on workshops with FE teachers, explores how they might use GenAI to develop teaching scenarios that link mathematical concepts to workplace tasks.
- Three lessons:
  - GenAI is currently being used primarily for augmentation rather than disruption; however, this doesn't exclude the possibility of more radical changes once users have developed a richer understanding of the technological possibilities.
  - Institutional change always takes time: more exploration is needed of the potential uses of GenAI for maths education.
  - In the medium term, GenAI could transform how users decide where they want to go at least as much as where they end up; almost by accident, the study may have arrived at a process that uses GenAI to accelerate exploration of options for transformative change.

The authors have created a GPT [generative pre-trained transformer] that generates scenarios for future uses of GenAI in vocational maths education, available via ChatGPT. They are now aiming to develop a GenAI-based toolkit to help maths educators explore the potential uses of GenAI in their work.

The AoC published *International Survey Report: Academic year 2023/24*, exploring the international activity of colleges in England.

- Of 87 colleges surveyed, 51% had carried out some form of international work, while 45% had never done so or had ceased it over five years ago.
  - The main reason for not engaging internationally was that the college's core strategic purpose was to meet local needs and that international work was beyond its remit.
  - The main reasons cited for ceasing international activity were the impact of visa policy and the continued impact from the pandemic.
- For those that did work internationally, the key drivers were: generating commercial income (75%); diversifying the college culture (68%); and providing student mobility opportunities (66%).
  - 45% cited professional development opportunities for staff, -5.0ppt on 2022/23.
- There are at least nine different types of international activity: student mobility (77%); international recruitment (74% via short-term visas/63% via the student route); professional, vocational or bespoke training for international partners (51%); summer/winter schools (35%); international government/agency-funded projects (30%); online courses (26%); consultancy/accreditation (19%); overseas campus operations (7%).
- The colleges engaged with over 50 countries, with China continuing to be the most important, followed by Italy, Spain, Germany and Brazil.
  - All the main subjects are offered, but English language teaching was the most common (50%).
- The top three challenges were: funding (58%); accommodation (56%); and staff capacity (56%); Brexit also continues to be a barrier (42%).
  - However, 49% reported that their international work was progressing better in 2024/25 than in 2023/24 and 42% that it was the same; 81% wanted to grow their provision in some way.

Cedefop published *VET needs to go digital: Upgrading the backbone of Europe's twin transition*, a policy brief using its second European Skills & Jobs Survey to make the case for a renewed digital skills revolution in VET.

- VET graduates need less time to find a job, have higher initial earnings and experience a better match between their skills and job requirements, but having job-specific technical skills can turn into a disadvantage when technological change rapidly changes job tasks.
- Compared with workers with general education, workers with a VET background:
  - participate less in continuing learning
  - are more often employed in jobs that require a lower digital skill level
  - regardless of how long they have been in the labour market, are more likely to carry out low or moderate digital tasks (e.g. internet browsing, sending emails, word processing, using occupation-specific software)
  - are less likely to have jobs that require higher digital skills, such as advanced database management, programming or ICT development and maintenance.
- A job that only requires relatively lower skilled digital tasks reduces the motivation to keep learning and to upgrade skills.
  - Workers with a VET background take part in less training to improve their digital skills than workers with general education background; this is particularly the case in countries with strong dual systems.
  - The good match with their VET background can amplify their digital skills gap because it reduces learning motivation.
- Overall, workers with a VET background experience a 4% pay penalty vs similar workers with general education; but VET graduates working with advanced digital technologies earn 23% higher pay vs similar workers in low digital jobs.
  - A medium-educated worker with a VET qualification has a 9% higher probability of being in a high-skilled digital job vs a similar worker with only lower secondary education.
- The findings underline the importance of reemphasising the digital skills revolution in IVET: ensuring that VET graduates can access digitally intensive jobs and remain productive should be a priority.
  - Digital skills policy in IVET also needs to foster a digital culture, strengthen links with the labour market and invest in ethical AI.
  - However, in addition, VET teachers participate less in digital skills training compared to other teaching professionals.

HIGHER EDUCATION (HE): APPLICANTS & ADMISSIONS

HEPI published *Boys will be boys: The educational underachievement of boys and young men*, sponsored by Ulster University.

- Due to gender differences in educational achievement, 500k young men in the UK have missed out on HE over the last decade.
  - In 2024/25, ~44k fewer UK young men than women accepted a place at a UK HE institution (HEI).
  - The UCAS entry-rate gender gap in 2024 for 18 year-olds was 15.7ppt in NI, 11.6ppt Scotland, 12.8ppt Wales and 10.6ppt England.
  - In Scotland in 2021/22, the undergraduate gender gap was 20.5ppt, despite a Scottish Funding Council (SFC) commitment to reduce it from 15.4ppt in 2016 to 5ppt by 2030; understanding is needed as to why Scotland's *2016 Gender Action Plan* has made little difference.
  - Most UK HEIs don't formally recognise men as a disadvantaged group with respect to entry.
- A new approach is needed, including:
  - Evaluating and expanding proven grassroots initiatives that aim to raise boys' standards.
  - Developing a 'boy positive' environment in schools, learning from schools where gender disparities have been tackled and from the emerging literature on how to teach boys most effectively.
  - Learning from 'women into STEM' campaigns to get more men into teaching, care and nursing.
  - Putting a greater focus on gender, including in English HEIs' 'access and participation plans'.

- Taking action in areas where current rules disproportionately affect men's access to education, e.g. rules restricting prisoners' access to student finance.
- A dedicated focus on gender disparities by the Social Mobility Commission, the Equalities & Human Rights Commission and Scotland's Commissioner for Fair Access.
- A government strategy for men's education, overseen by a new minister for men and boys or the existing ministers for equalities.

Prospects Luminate published *What are the motivations and concerns of potential postgraduates in 2025?*, findings from a poll of 4k users of Prospects.ac.uk.

- 21% were planning to continue to study full time and 5% part time; another 16% to combine study and work.
- 34% of those planning to study were considering a postgraduate degree, of whom 44% were aged 18–24, 25% 25–34 and 31% 35+.
  - 57% were white; 25% Black, Black British, Caribbean or African; 11% Asian or Asian British.
  - 53% were attending university, 31% were in employment and 12% not working or studying.
- Of those in employment, 11% were well established in their careers, 32% hoping to progress via a promotion or training and 24% wanting a career change.
- 77% of those planning a postgraduate qualification wanted to study full time, of whom: 53% wanted to do so in person (+12ppt on 2024); 37% hybrid (-6ppt); 9% online (-4ppt).
  - Of those planning part-time study, 34% preferred to do so in person, 64% hybrid and 21% online.
- 78% were actively researching courses but were struggling to find certain information, particularly: how to fund their course; which course would help them progress in their career; and in-depth information about the course.
  - 18–24 year-olds generally had the most difficulty finding the information they needed.
- The top three reasons to continue studying were: passion for the subject; career prospects; and higher salary.
  - Tuition fee costs, cost of living and juggling other commitments were the top three concerns.

The University of Cambridge published *Is this test fit for purpose? Evaluating the impact of English language testing on international student transitions and outcomes*, a study with the University of Dundee, British Council and Cambridge University Press & Assessment.

- The project included: desk-based research on admissions tests processes for 50 institutions; survey data with 300 university staff; and focus groups with international students.
  - It investigated: the prevalence of different tests; perceptions of university staff towards the tests used; transparency around decision-making for test acceptance; and perceptions and experiences of students.
- Findings include:
  - 64% of UK institutions had expanded their acceptance of newer English language testing systems during the pandemic to address limited access to traditional in-person exams.
  - However, 54% had since tightened test requirements due to students struggling academically and socially, putting a strain on support services.
  - Institutions reported challenges in assessing the language support needs of students who had not undergone robust English language testing before admission; those using less established tests had difficulties setting appropriate score thresholds and had concerns about students' academic and social integration.
- Recommendations include:
  - Re-evaluating test policies
  - Training decision-makers to improve their language assessment literacy to better evaluate and compare test validity, reliability and student outcomes
  - Providing tailored English language support for struggling students to help them succeed
  - Assessing how different entry tests correlate with progression, retention and success over time.

The OECD published *What are the key trends in international student mobility?*.

- International student mobility has grown substantially, with the number of such students enrolled in OECD countries rising from 3m in 2014 to more than 4.6m by 2022.
  - Following a 30% rise from 2014 to 2018, international student numbers rose 18% further between 2018 and 2022, despite the challenges posed by the pandemic.
- The top host and sending countries remained largely unchanged between 2018 and 2022, with few new emerging players.
  - Australia, Canada, France, Germany, the UK and the US continued to host nearly 66% of all international students in the OECD.
  - China and India remained the biggest sources, together accounting for 30% in both years.
- 66% of international students in OECD countries come from high- or upper middle-income nations, while numbers from low-income countries remain comparatively modest.
  - A common trend is that STEM fields and doctoral programmes tend to be more popular among internationally mobile students than among domestic students.
- The countries that attract the most students are fairly diverse geographically; affordability, reputation, language, cultural ties, research excellence and employment prospects play a key role.
- Efforts to encourage academic mobility are not always matched by policies to retain international graduates, as countries balance economic needs with ongoing migration debates.

Global education marketing company Sunrise published *Trends in Chinese International Education 2025 White Paper*, providing analysis of China's international education industry. *[Sign-up is required to access the full report.]*

- The total number of outbound Chinese students continues to increase and grow more diverse: in 2024, numbers grew in the traditional 'big four' Anglophone study destinations – US, UK, Australia and Canada – as well as emerging destinations within Asia.
  - The 'big four' hosted 702,090 Chinese students, up 1.6% on 2023; Australia saw the largest increase (+12%), while Canada and the UK grew modestly and the US saw some decline.
- Policy uncertainty persists: Canada and Australia introduced student visa caps to address housing shortages; the UK faces minimal policy changes, maintaining its appeal; uncertainty around the Trump administration remains in the US, but the impact on Chinese students will be muted in 2025.

Chinese universities are keener than ever to create and upgrade inter-university partnerships and are trying to attract American and European students to study in China.

The House of Commons Library published *Higher education student numbers*, providing a UK-wide snapshot for 2023/24.

- Headline student numbers have increased to new record levels in recent years following a short dip related to the 2012 reforms in the sector in England.
  - There have been continued increases in entry rates for different groups of students, including those from disadvantaged areas/backgrounds where rates have also hit new record levels.
- However, headline numbers tend to focus on full-time undergraduates and there are ongoing concerns about student numbers outside this group where trends have not been so positive.
  - Numbers fell 1.1% in 2023/24, the first fall for almost a decade, largely due to the drop in overseas taught postgraduate students.
  - Concerns for other groups include: for part-time undergraduates; EU students; mature students; and some disadvantaged groups.
  - There was particular concern about the pandemic's impact, especially on international applicants.

HE: THE STUDENT EXPERIENCE

England's Office for Students (OfS) published *The Teaching Excellence Framework [TEF] 2023: Evaluation report* by IFF Research, providing staff and student views on the process and its impact.

- 58% of providers felt the overall impact had been positive, 4% negative and 33% neither.
  - Positivity was particularly driven by providers feeling that the exercise had encouraged greater use of data and evidence in decision-making.

- Negativity tended to be based on the impacts being fairly negligible given the input required.

- Most student representatives felt that the impacts had been limited but positive, encouraging closer collaboration with students and an increase in the use of data as well as some direct changes.
- The biggest obstacle in producing submissions was staff capacity; ensuring adequate student contribution was also challenging, due to the timescales and timeframes.
  - However, both staff and students felt that the TEF was worth the effort; providers generally felt that the framework was an appropriate way to assess student experience and outcomes.
  - Most providers considered the reputational impact of greater importance than the financial, although reputation clearly impacts student recruitment and therefore institutional finances.
- Providers that participated on a voluntary basis tended to do so in order to improve their offer and provision, to share good practice and for reputational reasons.
  - The main reason for not participating was the workload required within the timescales involved.
- Views about whether it had increased the value of student experience and outcomes were mixed.
  - The most common view was that it had complemented existing pushes towards improvement, rather than being the main incentive.
- There was a roughly equal split between those that had used the process and its outputs to inform decision-making and planning, and those that hadn't.
  - Some had developed specific action plans to address their performance, although it was more common for providers to feel that it had encouraged them to be more data-led and embed evaluation more carefully in their planning, particularly among FE colleges.
- One of the aims of the TEF is to influence the choices of HE applicants; *Applicants' use of TEF information: Focus groups with prospective students* by Savanta found that:
  - students care about the areas assessed in the TEF but their use of it is limited; ratings were generally used to confirm initial choices rather than being a decisive factor
  - when focus group participants learnt more about the TEF and what underpinned the ratings, they suggested more detail should be provided in addition to the ratings.

The OfS also published findings from a survey of student representatives.

England's OfS published *Understanding the student interest*, findings from a programme of polling and focus groups on what students want and need from their HE and the extent to which they are getting it, highlighting four emerging themes.

Students' experiences and expectations of HE:

- Students expect:
  - a high-quality education that reflects their financial investment and the promise made to them
  - sufficient support for both their academic and personal needs, throughout their degree
  - exposure to a range of opportunities that will help their future careers
  - opportunities to engage in social and extracurricular activities.
- Based on their experiences of HE:
  - Academic support and opportunities for skills development are important, but they don't always get enough one-to-one support from tutors and staff.
  - Disruption from the pandemic affected their relationships and mental health; disruption caused by industrial action affected their studies; there is a lack of mental health provision and support.
  - Tuition fees are too high despite significant online learning, which many find unengaging.
  - Increases in the cost of living had affected their studies, there is insufficient financial support and they had experienced difficulties finding suitable and affordable accommodation.

Students as 'consumers' of and 'investors' in their education:

- Students disliked the term 'consumer' and some felt that it implied that education and knowledge can be bought rather than acquired through personal effort.
  - However, they identified with aspects of 'student as a consumer', e.g. getting what they were promised and claiming refunds.
  - They were more likely to identify with 'students' rights' rather than 'consumer rights'.

- Most didn't view the concept of HE as an investment favourably due to the emphasis it placed on their financial investment, which they didn't consider to be a choice.
  - Others said that students invest time and effort in HE as well as money, and considered the 'investor' framing to undervalue these non-financial investments.

Students' short-term and long-term interests:

- Short-term interests tend to refer to day-to-day experiences, e.g. academic support, academic success and progression, cost of living and mental wellbeing support.
  - Long-term interests typically revolved around career preparation and progression, developing skills for future employment, and building valuable networks and connections.
- Students tended to think that providers should prioritise long-term interests (60%) over short-term student interests (40%).

The relationship between the student interest and the public interest:

- Participants identified a number of perceived conflicts, including in relation to tuition fees and accommodation.
- Survey participants felt that providers should prioritise benefits for students specifically (66%) over benefits for society in general (34%).

Universities UK (UUK) published *What does it mean to regulate in the student interest?*, a briefing based on workshops with university leaders and student union representatives.

- The report summarises participants' thinking on five key themes that emerged, for England's OfS to keep in mind during the development of its new five-year strategy: quality; employability; conditions of learning; safety and belonging; and transparency.
- 'The student' is not a single entity and regulation must acknowledge diversity, including considering personal characteristics, mode and level of study, and home or international status.
- A 'good' student outcome may differ from student to student and regulation needs to reflect this, acknowledging the reality that some students face much greater barriers to academic success and progression than others.
  - Planned future developments will increase this diversity further, e.g. the introduction of England's Lifelong Learning Entitlement, which has the potential to fundamentally reform the way HE courses are designed and to open up the sector to a wider range of students.
- A regulator should also adopt a risk-based and proportionate approach that gives universities the space to focus on their specific student body, without being overloaded with burdensome or prescriptive requirements.

TASO (Transforming Access & Student Outcomes in Higher Education) published *Student mental health in 2024: How the situation is changing for LGBTQ+ students* with the Policy Institute at King's College London (KCL).

- 18% of UK students reported a mental health difficulty in 2024, i.e. around 300k undergraduates; this rate has tripled over the past seven years.
  - Reported levels of mental health difficulties have increased since recording began and are currently at their highest level; while the pandemic is thought to have contributed, it doesn't explain the ongoing rise.
  - 22% of females report difficulties vs 11% of males; this gap has increased on last year.
  - State-educated students are significantly more likely to report difficulties than privately educated.
  - For every participation of local areas (POLAR) quintile, the lower the rate of HE participation, the higher the proportion of people reporting mental health difficulties.
- Mental health difficulties is by far the most common reason for students considering dropping out.
- The reported level of difficulties is higher among all LGBTQ+ groups: bisexual students have the highest rate (30%) followed by lesbian students (29%).
  - Over 50% of non-binary students report mental health difficulties and around 40% of trans students; however, the sample sizes are small.

HEPI published *How do care-experienced students view their time in higher education?*, a blog post analysing responses to its 2024 Student Academic Experience Survey from almost 900 students with experience of care.

- Care-experienced students were less likely to come from the highest POLAR quintiles; 45% had a disability (vs 30% of other students); 25% said they were first in their family to attend HE (32%).
- They reported higher wellbeing scores, e.g. for happiness and life satisfaction, but also higher rates of loneliness and anxiety.
- 38% had considered withdrawing (24% of all students), their main reason was mental health but the rate was lower than for their peers and they were more likely to mention workload or physical health.
- 58% said they travelled at least 10 miles to get to university (31%).
- 80% did some paid work during term time (55%); 35% worked to support friends or family.

[Also see TASO's report on 'pathways into and through HE' for care-experienced young people on p. 15.]

Edge published *Building Bridges Between Higher Education and Employment: Learning from practically-based higher education* with UCL's Institute of Education, using two post-92 HEIs in England as case studies.

- Key findings:
  - Employability is a core university priority and is now integrated into curricula, requiring active collaboration between academia and industry.
  - Universities are reshaping academic roles and creating new positions to drive WBL initiatives.
  - Curricula are being designed to emphasise applied knowledge, offering students hands-on experience through placements, client projects and industry collaboration.
  - While employer engagement is essential, sustainable and mutually beneficial partnerships require continuous effort and strategic collaboration.
  - Universities are incorporating personal career planning into employability strategies, with targeted support for students from underprivileged backgrounds.
- The students valued the opportunities provided by this enhanced approach to employability, particularly the integration of academic knowledge with practical skills through industry partnerships.
  - Many also recognised the importance of aligning their skills with employer expectations to remain competitive in the graduate labour market.
- However, while some appreciate career-focused learning and industry immersion, others prioritise academic study over direct professional preparation.

The Productivity Institute published *Enhancing Productivity: Work-integrated learning in the Midlands Space Cluster*, part of the institute's 'Investment in Places' initiative.

- The report examines how work-integrated learning programmes – combining academic studies with practical work experience in a relevant professional setting – impact productivity by allowing students to apply theoretical knowledge to real-world challenges.
- By exploring collaborative relationships between academia and industry in the space sector, it aims to shed light on how work-integrated learning might serve as a mechanism to address productivity challenges in high-tech industries, particularly in the context of regional economic development.
- Five key findings:
  - Each of the four universities involved has a unique approach to work-integrated learning – e.g. comprehensive industry projects and internships; intensive industry-relevant skill development – suggesting the need for tailored strategies based on institutional strengths and local context.
  - They have developed strong but diverse models for industry collaboration, showing that institutions should develop flexible models that can accommodate various levels of involvement.
  - All face funding challenges that impact programme development and sustainability, particularly around the need for access to industry-standard equipment and software; diversifying funding sources is crucial, while resource-sharing models can maximise the impact of available funding.
  - They all recognise the need to maintain a strong theoretical foundation alongside hands-on experience, while also developing transversal skills, in order to ensure graduates are both immediately employable and capable of long-term career growth in a rapidly evolving sector.

- There is a mix of specialised and interdisciplinary programmes, both of which have merit in this sector; by leveraging their unique strengths, considering industry needs and combining both, they are creating well-rounded graduates able to address diverse challenges now and in the future.

HEPI published *Student Generative AI Survey 2025* with Kortext, based on responses from 1,041 full-time undergraduates in December 2024.

- 88% were using tools such as ChatGPT for assessments (+35ppt on 2024), most commonly to explain concepts, summarise articles and suggest research ideas.
  - 92% had used some kind of AI tool (+26ppt), mostly for 'generating text' and accessing university textbooks; 45% said they had used AI at school.
  - The main reason to use AI is to save time (51%), closely followed by improving quality (50%).
- The main factors putting students off using AI are being accused of cheating (53%) and getting false results or 'hallucinations' (51%); only 15% are put off by the environmental impact.
- 59% agree the way they are assessed has changed 'a lot' in response to GenAI.
- Students generally believe their institutions have responded effectively to concerns over academic integrity: 80% say their institution's policy is 'clear'; 76% say their institution would spot the use of AI in assessments; both results have improved.
- 67% think using AI is 'essential' in today's world but only 36% have received training in AI skills from their institution.

Jisc published *Trends in assessment in higher education: Considerations for policy and practice*, exploring the challenges, opportunities and innovative approaches, particularly in the context of digital transformation and the integration of GenAI technologies.

- Four identified trends:
  - An appetite for redesigning assessment, including by balancing in-person with online assessment; this also includes co-design with students.
  - Re-evaluation of the place of in-person invigilated exams as well as increasing adoption of digital assessment tools and digital submission at scale.
  - Accelerated adoption of forms of assessment and accompanying guidelines to mitigate against or embrace GenAI; this includes capstone assessment, oral and investigatory vivas and portfolio and process-focused assessments.
  - Growing interest in designing meaningful and compassionate assessment, including student choice; offering assessment options and assessment that aligns with real-world contexts is seen as central to maintaining relevance and engagement.
- Three main trends appear to drive innovation and change:
  - The shift away from modular assessment towards more programme-focused assessment design
  - The need to rethink assessment design within the context of GenAI
  - The desire to involve students in assessment co-design.
- Four recommendations: develop a framework for programme-level assessment implementation; enhance digital infrastructure for programme-level assessment; identify and embed innovative assessment methods; and promote and resource student-staff partnership in assessment design.

HE: WIDENING PARTICIPATION

TASO published *Pathways into and through higher education for young people with experience of children's social care*, providing data on patterns of entry in England on four key themes.

- In line with earlier findings, 14% entered HE by age 22, rising to 29% of those needing care for less than six months, compared with 39% of those eligible for FSM and 48% for the general population.
  - There were also substantially lower rates for entry by age 18/19, entry to a 'top tier' institution and completion by age 22; withdrawal rates are generally double those of the general population and similar to FSM-eligible rates.
- For the general population, rates of entry and other outcomes varied with prior attainment, sex and SEN status.

- The size of differences reduced with statistical controls but were still substantively lower, suggesting that the combined impacts of trauma, disruption, stigma and/or poverty endure beyond the capacity of the support system to fully compensate.
- Relatively high proportions of those who did enter HE took a vocational pathway post-16: 36% of care leavers vs 13% for the general population and 24% for those FSM eligible.
  - Vocational pathways were more commonly taken by males, while females in all groups were more likely to enter via traditional academic routes.
- TASO is calling for HE providers to:
  - Accept more students from vocational pathways
  - Evaluate their interventions to improve their support for these groups, both in entering and progressing through HE
  - Ensure that their retention activities focus on these students
  - Work closely with LAs to ensure students have appropriate accommodation options during both term time and non-term time.

[Also see HEPI's blog post on how care-experienced students view their time in HE on p. 14.]

The Sutton Trust published *Unequal Treatment? Access to medicine for socio-economically disadvantaged students*, based on data for almost 94k applicants from England to medical schools across the UK between 2012 and 2022 (around 50% of applicants to medical school).

- The majority of applicants to medicine have to pass the University Clinical Aptitude Test (UCAT), however admissions processes vary considerably, including use of 'multiple mini interviews' to assess wider life skills, the use of personal statements and prior attainment requirements.
- The number of applicants to medicine in England grew by 64% between 2012 and 2022 to 12k, while the number of students entering medical school grew by only 44%.
- 75% of the entrants were from higher socioeconomic backgrounds, while just 5% came from the lowest backgrounds; the proportion from lower backgrounds has, however, doubled since 2012.
  - Those from lower and intermediate socioeconomic backgrounds were less likely to get an offer, usually due to prior educational attainment, including lower UCAT scores.
- In contrast, the proportion of students from IMD1 (Index of Multiple Deprivation 1) areas (the 20% most deprived) grew considerably from 2012, reaching 20% by 2022 compared to 25% from IMD5 areas (the 20% least deprived).
  - Applicants from IMD1 areas were more likely to get an offer than those from IMD5 with similar prior attainment and were also more likely to enter medical school.
- 80% of the 2,719 schools/colleges attended by the applicants had fewer than five applicants per year and most only had one.
  - However, 58 (2%) had an average of 20+ applicants per year and one had an average of 85.
- Applicants from independent schools were 1.5 times more likely to receive an offer than those from non-selective state schools and had higher odds even after adjusting for exam grades, socioeconomic status and other factors.
- The Sutton Trust is calling for: any government expansion of spaces to prioritise medical schools with a successful widening participation record; a fair access review across the sector; and clearer information and support for those navigating the application process.

GRADUATES & GRADUATE EMPLOYMENT

The Sutton Trust published *Unpaid and underpaid internships: Access to internships for graduates*.

- Under employment law, an intern is entitled to the national minimum wage (NMW) and other entitlements if they are classified as a 'worker' – somebody who has a contract and is carrying out any work as opposed to just observing.
  - Most current unpaid or underpaid internships are likely illegal, but the system relies on interns themselves reporting non-paying employers.
- Polls of 1,232 recent graduates and 1,009 employers in GB found:
  - 51% of graduates had undertaken an internship, +12ppt on 2018; 27% multiple internships.

- 36% of working-class graduates had undertaken one vs 55% of their middle-class peers; the 20ppt gap is +8.0ppt on 2018.
- 59% of employers offer internships (+11ppt) (80% in London), indicating their growing importance as a route into professional careers.
- 37% of internships were paid the NMW (+10ppt); 23% were paid, but at less than the NMW (+14.0ppt); 17% were given expenses; 21% were offered no financial compensation at all.
- 35% of graduates overall had completed an unpaid or underpaid internship (+8.0ppt); 37% of middle-class vs 28% of working-class graduates.
- 40% of unpaid interns relied on money from their parents (40%), 39% lived at home or with family or friends for free and 29% used savings.
- 20% of internships were found through family and friends, 20% via proactive approaches to an organisation and 11% through an advert.
- 33% of graduates said they were only able to access their current job thanks to their internship.
- 75% of employers providing internships said a ban on unpaid internships would not impact numbers; 8% said they would need to substantially reduce the supply of opportunities.
- 38% of employers wanted to see unpaid internships banned; 30% wanted better enforcement of NMW legislation.

- The report recommends: banning unpaid internships over four weeks in length; promoting information on internships and the NMW; employers taking their responsibility to pay interns seriously; and all positions advertised publicly with fair, transparent recruitment based on merit.

UUK published *Graduate employment, productivity and economic growth*, the third in a series on graduate outcomes.

- Government research shows increased HE participation played a pivotal role in preventing a decline in productivity 2007–19: first degrees contributed 0.15ppt to productivity growth in 2008–13, while postgraduate degrees contributed 0.25ppt in 2014–19.
  - The highest contributions were in NI (0.4ppt) and South West and North East England (0.3ppt).
- To match the proportion of graduates in the workforce across all regions to those seen in the most productive regions, over 4m graduates would be needed to match London and 1.2m the South East.
- Government forecasts show that between 2025 and 2035, the UK economy will need 1.7m more workers in occupations associated with graduate skills, just to replace natural attrition.
  - By 2035, this will mean a workforce where 61% hold an HE qualification, +9ppt on 2025.
  - This includes 38% more workers with postgraduate degrees, 14% more with first degrees and 15% more with Level 4/5 qualifications.
- Even more graduates will be needed if growth sectors are to expand.
  - The UK Government industrial strategy [Invest 2035*, a green paper published in October 2024*] focuses on eight sectors, all reliant on graduates, particularly creative (75%), professional & business services (73%), digital (72%) and life sciences (70%).

The Policy Institute at KCL published *Are universities worth it? A review of the evidence and policy options*, by former universities minister David Willetts, focusing on England.

- The paper uses evidence to challenge growing doubts about the financial returns from gaining a degree and concerns about too many people going to university.
- Rising HE participation is a deep-seated economic and cultural trend in every OECD country.
  - 81% of graduates say their degree was worth it overall and 87% say they would choose to go to university again; young people are far more likely to regret *not* going to university than going.
- By age 31, graduates earn 37% more than non-graduates with at least two A levels.
  - An undergraduate degree is worth on average ~£280k extra for men and ~£190k for women, net of tax and student loan repayments, compared with lifetime earnings without one.
- The taxpayer contribution is 23% of public expenditure on tertiary education, compared to an OECD average of 68%; the direct gain to the exchequer of an individual undergraduate is £110k for men and £30k for women.
  - HE is also a driver of better physical and mental health, with the benefits also felt by graduates' children; they are worth at least as much as the financial benefits.

- There is little evidence of widespread 'bad' courses: on two of the three OfS measures – progression within a course and completion – English universities are the best performing in the OECD.
  - The third – outcomes after 15 months – is too short-term to be a serious measure of performance.
- HE has significant long-term returns: it prolongs working lives, and graduate earnings carry on rising long after those of non-graduates have plateaued.
- Degree apprenticeships are not a 'silver bullet': they are squeezing out apprenticeships for younger people, with their share of the apprenticeship levy up from 2% in 2017–18 to 16% in 2021–22.
  - Their completion rate is 55% vs 89% for an undergraduate degree and only 5% of degree apprentices were eligible for FSM vs 17% of university students.
- This evidence puts the fear about student loans and graduate repayments in perspective: the average income of a graduate aged 21–30 is now £31,500; the average young graduate is earning £5k p.a. more than the non-graduate – about £420 extra per month.
  - Loan repayments are currently 9% for pay above £25k, i.e. £50 per month on pay of £2,625.

The Institute of Labor Economics (IZA) published *Assessing the Value of Incomplete University Degrees: Experimental evidence from HR recruiters* based on a study of students in Switzerland who dropped out of university compared to those who never went.

- A university degree is a risky investment because of the possibility of having to drop out without graduating; however, the costs of the risk are controversial, as it is often argued that even an uncertified year of study has a value in the labour market.
  - To determine this value causally, alternatives to studying are considered via a 'discrete choice experiment' with a sample of over 2,500 HR recruiters.
- A failed degree is found to be rarely a worthwhile investment, at least in the eyes of HR recruiters.
  - Studying unsuccessfully for a degree directly related to a job can still yield positive returns in terms of wages compared to activities such as working and travelling; however, these increases just cover the direct and opportunity costs of studying.
  - HR recruiters view years of unsuccessful study without a direct link to a job as 'lost' years and offer substantially lower wages to such applicants compared to those with a university entrance-level qualification but who have never attended university.
  - Recruiters value alternative forms of human capital acquisition highly, and may largely prefer it to unsuccessful university studies; e.g. they show a strong preference for people without a degree who have completed a company-based traineeship.

IZA published *The Impact of Higher Education on Employer Perceptions*, a study in Germany of whether employers seek to recruit those with a master's degree because it will enhance human capital, or because it indicates a candidate's higher, productive characteristics.

- The research involved varying master's degree completion rates on applicant résumés and examining how this influenced candidates' desirability and employer perceptions.
- Findings include:
  - Candidates with a master's were 4.5ppt (6.6%) more likely to be offered a job interview than those with a bachelor's degree.
  - Degree completion increased the likelihood of receiving an offer by 3.6ppt (5%) and earnings potential by 4.8%.
  - However, while a completed master's increased desirability, an incomplete master's was perceived as less favourable than a bachelor's degree, suggesting that employers prefer candidates with HE mainly because they view the degree as a signal of pre-existing productive traits.
  - Employers perceive both cognitive and non-cognitive traits as stronger in master's graduates, but non-cognitive traits as weaker in master's dropouts than in those with a bachelor's degree.
  - Dropping out is mostly perceived as a negative signal about non-cognitive traits such as perseverance and commitment; it has a strong, negative effect on employer beliefs about traits.
  - Overall, perceived cognitive and non-cognitive traits play a larger role than expertise in determining a candidate's attractiveness.

HE: TRANSNATIONAL EDUCATION (TNE)

The British Council published *Higher Education Partnerships in Conflict-Affected Regions*. *[The full report is available on request.]*

- Between 2018 and 2023, there was a 38% growth in the number of students participating in transnational education (TNE), affecting 19 out of 21 conflict-affected regions.
- The largest number of students engaging in TNE in this period were from Nigeria (6,115, +69%) and Lebanon (2,695, +33%).
  - The largest percentage increase was in South Sudan (213%) and Yemen (178%), pointing to significant TNE effort by UK HEIs, although numbers were still relatively low (250/125).
- There were around 132 international partnership arrangements in areas classed as conflict-affected between September and November 2024.
  - Universities providing the most places were the Open University (2,665), Liverpool John Moore's (1,790), Suffolk (1,780), Salford (1,070) and the University of London (830).
- The study also focused on collaborative research, and student and staff mobility partnerships, 87 of which were in Ukraine due to the UK–Ukraine Twinning Scheme launched in 2022.
  - After Ukraine, the most popular countries were Nigeria (10), Myanmar (6), Occupied Palestinian Territories (6), Iraq (5) and Lebanon (5).
- Online and distance learning was the most popular form of TNE among students in conflict-affected regions (42.2%), due to accessibility issues caused by gender-based violence, geography and wartime destruction of infrastructure.
  - Universities are often one of the main targets during conflict, motivated by either the targeting of critical community infrastructure and services or as an attack on ideas and freedom of thought.
- In recent years, HE partnerships have been reconceptualised as a tool for international development, with the capacity to improve human capital and foster sustainable economic growth.
  - Such partnerships are vital for advancing equality, diversity and inclusion (EDI) values, as well as contributing to a culture of peacebuilding and reconciliation.
- In 2022/23, 166 UK universities provided some form of TNE to 571,185 students in over 230 countries and territories worldwide, with the net economic benefits estimated at £37.4b.
  - TNE can take various forms, e.g. branch campuses, joint degrees, franchise programmes and distance learning.

The Quality Assurance Agency for Higher Education (QAA) published its latest *Thematic Insights* report from its Quality Evaluation & Enhancement of UK Transnational Education (QE-TNE) Scheme. *[The full report is available to scheme members only.]*

- Over 70 UK HEIs currently participate in the scheme, representing about 70% of the sector's TNE student population.
- Throughout the range of engagements, visits and research activities generated since the scheme's launch in 2021, it has been clear that the work of the UK institution's link officer is fundamental to the smooth running of transnational partnerships.
  - Successful link tutors have strong organisational skills, aptitudes for communication and collaborative working and the ability to be proactive in pre-empting any issues.
- The report explores:
  - effective practices demonstrated by link tutors in relation to their responsibilities for: overseeing implementation, assessment, resourcing and the student experience; the monitoring and review of provision; and staff development
  - ways in which HEIs can support their link tutor's activities.

QAA published a further seven QE-TNE publications.

- Four are reports of visits by teams of academic and student evaluators exploring the collaborative provision offered by the Universities of: West London (Cyprus Business School), Sunderland (Banking Academy of Vietnam), Greenwich (FPT University, Viet Nam) and Coventry (National Economics University, Viet Nam).

- The other three are case studies produced by UK HEIs with their transnational partners, covering:
  - A co-creative, iterative EDI initiative by Lancaster University and Beijing Jiaotong University in Weihai, where students can take collaborative provision in e.g. accounting & finance, business studies, communications engineering, computer science, design interactions, environmental engineering and logistics
  - Cardiff Metropolitan University's TNE collaboration with the National Economics University in Viet Nam, where more than 600 students are studying for a Cardiff degree in accounting & finance, making it the university's third largest partnership in terms of student numbers.
  - Queen Margaret University, Edinburgh, in partnership with Metropolitan College in Greece, on the challenges and measures put in place to manage programmes in a language other than English.

HE: TEACHING, RESEARCH & INSTITUTIONS

Advance HE published *Embedding reward, recognition and promotion in teaching and learning: Perspectives from Australia, New Zealand, the UK & Ireland*.

- Several factors influencing the careers of university educators have significantly altered how teaching and learning are valued in career progression, including the following:
  - **Political shifts and market-driven policies** that have led to increased scrutiny, dependence on international student revenue, a focus on research metrics and the casualisation of academic staff.
  - **Increased focus on vocational outcomes**: HEIs are integrating experiential learning components into their curricula and collaborating more closely with industry partners, but this isn't necessarily rewarded and recognised.
  - **More diverse student populations**: policies promoting wider access, along with rising international student numbers, have resulted in a need for inclusive teaching strategies and support for students facing various barriers.
  - **The digitisation of education**: the shift to online and hybrid teaching, accelerated by the pandemic, has resulted in pressures to adapt to emerging technologies and increasing expectations for flexibility and efficiency in teaching.
  - **New career pathways** have seen the emergence of specialised roles and management systems, including the growth of academic positions with a focus on teaching and learning.
- There remains a persistent emphasis on research over teaching, driven by research performance being heavily linked to funding and prestige.
  - Research-driven agendas impact teaching priorities, often leaving educators with limited time to engage in activities that could enhance their teaching or build a scholarly profile in teaching and learning.
- Specific barriers hinder the recognition and reward of teaching, including: ambiguous and inconsistent promotion criteria; a lack of clarity and consensus around the definition and value of 'scholarship of teaching and learning'; and inadequate preparation for teaching, with many entering the profession without formal training in pedagogy.
- Eight recommendations include:
  - Clearer promotion criteria and robust frameworks to evaluate and reward teaching excellence.
  - Recognise and reward academic citizenship, in which senior academics demonstrate collegiality, mentorship and service.
  - More flexible career pathways for educators to adjust their focus on teaching and research.
  - Ongoing professional development opportunities for educators at all career stages.

The Russell Group published *Future Ready: The path to growth* by its Industrial Strategy Expert Panel, setting out how to increase and accelerate research-intensive universities' contribution to implementing the UK Government's industrial strategy.

- To realise the UK's innovation potential by strengthening university–business partnerships, the Government should:
  - Ensure mission-based funding schemes are designed with business in mind, compared with the successful Industrial Strategy Challenge Fund.
  - Improve incentives for university–SME collaboration and scale-up funding schemes with a proven return on investment, e.g. uplifting the value of England's HE Innovation Fund.

- Continue support for a pipeline of discovery research through to innovation.

- To increase the number of high-growth spin-outs and start-ups:
  - Research-intensive universities will: further improve their processes and policies to make them easier to navigate and more attractive to investors; and continue to support business incubation and scale-up space and incentivise entrepreneurship.
  - Government should: bridge the early-stage funding gap with a new 'spark fund'; encourage the venture capital community to invest in high-tech companies through a targeted training programme; use public procurement to pull through innovation; and address the specific planning and price barriers to new labs, business incubation and scaling spaces.

- To create an inclusive industrial strategy for the whole UK, Government should:
  - Play a strategic coordinating role in supporting universities' work with local government on place-based research, innovation and skills strategies.
  - Ensure place-based funding reflects genuine regional and national strengths with a clear path to strengthening the long-term international competitiveness of a region's research and innovation performance.

- To develop a skilled workforce to meet the UK's needs:
  - As well as supporting high-level skills in their regions, universities can support efforts to forecast UK skills needs across priority sectors and across qualification levels.
  - Government reforms – including England's Lifelong Learning Entitlement and the new growth and skills levy – should support higher level training, upskilling and reskilling.

- To leverage research-intensive universities' global reach:
  - Government must: provide policy stability on immigration; integrate universities' contributions into the wider UK offer to international investors; and work with them on a more joined-up global strategy for universities and research.
  - Russell Group universities are also committed to working with government, businesses and European partners to increase participation in and maximise the value of EU programmes.

The Tony Blair Institute published *A New National Purpose: Accelerating UK science in the age of AI*, calling for a 'detailed and actionable plan' to ensure the UK leads the world in applying AI to scientific discovery.

- The report sets out a series of 'foundational steps', focusing on five enablers: data, software tools, talent, infrastructure and institutions; key recommendations include:
  - **Reduce visa barriers for AI researchers:** introduce a dedicated global AI talent visa, exempt from the immigration health surcharge, to attract top researchers and engineers.
  - **Build non-academic research entities:** establish a mechanism for the creation or designation of disruptive invention labs: high-autonomy spaces operating at the intersection of AI and various broad scientific disciplines, designed to support risk taking and long-term AI-driven discovery and invention.
  - **Improve cross-sector mobility:** to provide greater flexibility for top AI talent to work across academia and industry, establish a new 'AI industry fellowship programme', funding three- to five-year joint appointments between universities and industry partners.
  - **Enhance AI training programmes for researchers** across disciplines to equip them with basic AI skills, as well as specialised training; this should be the responsibility of HEIs, degree-accrediting bodies, learned societies and other relevant academic and professional bodies, as well as private sector training providers.

***Times Higher Education* published *Measuring the Impact of UK HEIs Against the UN Sustainable Development Goals [SDGs]*, a study commissioned by the University of the West of Scotland (UWS).** *[An email address is required to access the full report.]*

- The 'white paper' is based on data from the 69 UK HEIs that submitted to be included in the latest 2024 Impact Rankings.
  - It covers research, teaching and community engagement successes, best practice and areas for improvement in tackling global challenges.

- Recommendations include creating regional SDG hubs and enhancing thematic collaboration to address disparities.

The Workplace

RECRUITMENT

The UCL Centre for Education Policy & Equalising Opportunities published *Inequalities in Access to Professional Occupations*, a working paper drawing on data from 17 large employers' entry programmes.

- Of 117,043 applicants to the graduate entry route, just 3.9% received an offer for an entry-level professional role.
- Although well represented in the applicant pool, and over-represented in the case of ethnic minority groups:
  - those from a low socioeconomic background were 32% less likely to receive an offer than more wealthy applicants; the rate was 18% vs 'like for like' candidates from a professional background
  - Black and Asian applicants were 45%/29% less likely to receive an offer than white applicants; Black applicants were 33% less likely to receive an offer than 'like for like' white candidates.
- In terms of recruitment for apprenticeships or school leaver roles, applicants from low socioeconomic backgrounds were 17% less likely to be recruited; Black and Asian applicants were over-represented but were 43%/35% less likely to receive offers than white, regardless of their background.
- Black applicants were 20% more likely to receive offers of internships than their white or Asian peers, reflecting the use of such schemes to build more diverse talent pipelines.
  - However, applicants were more likely to be from advantaged backgrounds, London or southern England and/or a Russell Group university.
  - Privately educated applicants received offers at the same rate but were twice as likely to apply for internships.
- Around half of the gap in graduate offer rates for those from low socioeconomic backgrounds occurs at the face-to-face assessments stage, whereas most of the gap for Black applicants occurs at the online stage.

The employers in the sample all have proactive social mobility strategies and are strong performers in the Social Mobility Employer Index.

The Institute of Student Employers (ISE) published *From Early Career to Emerging Talent*, setting out the case for a skills-based approach to student recruitment and development.

- The two forces of demographic and technological change will alter the shape of labour markets and make talent scarcer, leading organisations to:
  - focus less on a person's age, education exit point and prior technical experience
  - integrate at least an element of the skills-based approach, which places less focus on technical experience and a greater emphasis on other factors, such as skills, capabilities or aptitudes.
- The impact on the early career end of the labour market will be two-fold:
  - As the definition of early careers broadens, student recruitment and development teams will work with a much broader definition of talent that includes career changers and those reskilling or upskilling.
  - Early career teams will work as part of a broader organisational ecosystem in which greater integration via HR and the business will become the norm, where strategic workforce planning, learning cultures, technology and data play a crucial role in how talent strategies are deployed.
- Five recommendations for employers to consider in creating a long-term skills-based talent strategy:
  - Adopt a future-focused emerging talent strategy: 58% of employers are already partially adopting a skills-based strategy and another 29% are considering it.
  - Develop workforce planning and skills-based hiring capabilities.
  - Build internal mobility and career pathways.
  - Source optimal tech solutions: investing in skills identification and mapping platforms, career development software and agile working platforms can support talent strategies if done well.
  - Create diverse hiring and development pathways: specific attraction and recruitment strategies for older workers, career changers and other under-represented groups can diversify the talent pool.

Prospects Luminate published *5 predictions for graduate recruitment in 2025*, an article by the managing director of Gradconsult, based on recent research and events.

- **AI reaches a tipping point employer side**: thanks mainly to rapid student adoption of new applicant AI tools, applications per vacancy rose 26% in 2023/24 and recruiters are seeing further acceleration in 2024/25.
  - While there are options to reduce this volume, most employers will be turning to AI themselves to manage it; 2025/26 is likely to be the year when more employers than not are using AI for screening in student/graduate recruitment.
- **Professional services hiring reduces**: CEOs/senior partners in accounting, consulting and legal firms, banks and tech businesses are probably all looking at what work can/should be done by AI.
  - While AI won't replace white collar jobs, leaders are already reducing headcounts thanks to AI efficiencies and many anticipate further job cuts as AI improves in the coming years.
- **The market is stable overall but the private/public mix looks very different**: with sluggish economic performance, impending large tax rises for employers and US tariffs on the way, the private sector is likely to be reducing hiring numbers; universities – significant employers of their own graduates – are experiencing financial constraints and job losses.
  - However, there are some exceptions in the private sector, mainly in defence and utilities where global security concerns continue to drive investment, and demand – for engineers in particular – will continue to be high.
  - Most significantly, the UK Government is expected to invest in public sector student and graduate recruitment, particularly in areas like teaching, social care, prisons and immigration.
- **EDI takes more of a back seat**: against the current political and economic backdrop, with escalating budget and resource pressures and mass redundancies in 2023/24 for EDI professionals.
  - It is highly unlikely this will affect the public sector in the same way and some organisations in the private sector will continue to be fully committed; however, there is likely to be less spend, focus and time invested by employers in explicit EDI initiatives than in previous years.
- **Employers who take human-centred approaches will win**: in person, on campus, adding value and connecting with real people is what is going to really stand out from the mass of chatbots, platforms and social noise that exhaust and bewilder so many job-seeking students.

IZA published *Helping Jobseekers with Recommendations Based on Skill Profiles or Past Experience: Evidence from a randomized intervention*, testing alternative forms of personalised online advice to consider in job searches.

- In a randomised controlled trial involving 1,264 participants in Zurich, Switzerland, participants were assigned to one of two treatments: one with recommendations based on the skill profile (profile-based), and one with recommendations based on their previous job (experience-based).
- On average, both types of recommendations improved job finding rates, highlighting the need to align job search advice with jobseekers' skills:
  - Profile-based recommendations are particularly effective for those with limited experience and mismatch with their previous job.
  - Experience-based recommendations may slow down job finding for those with limited experience but with a well-matched previous job.

APPRENTICESHIPS & TRAINEESHIPS

England's OfS published *Degree Apprenticeship Funding Competition [DAFC] Evaluation: Equality of opportunity interim findings report*.

- The DAFC is a strategic initiative providing £40m over three waves to expand and enhance the provision of Level 6 apprenticeships across England.
  - It has a particular focus on boosting HE enrolment from traditionally under-represented groups, including students who are: from ethnic minority backgrounds; under 21; eligible for FSM; with long-term health conditions/disabilities; from low socioeconomic backgrounds; from areas with low HE participation; mature; and care leavers.
- Interim lessons include:
  - Providers report that 'wave 1' funding has successfully stimulated new and additional activities aimed at increasing equality of opportunity.

- Designated roles, targeted outreach initiatives and activities that challenge ideas and assumptions about HE and particular industries all show promising signs of contributing to increased awareness and demand for Level 6 DAs.
- Providers aren't yet certain about the extent to which DAFC-funded activities will contribute to an increase in applications from under-represented groups, partly due to the employer-led recruitment process, which limits their access to detailed application data.
- Some funded activities also have longer timeframes, including those in schools, where the impact on starts isn't expected to be fully realised for another two to five years.

Edge published *Degree Apprenticeships in England: What can we learn from the experiences of apprentices, employers, and education and training providers?*, the final report in a series examining the impact and effects of DAs.

- There is a sustained lack of understanding of the purpose of DAs, with engagement much stronger in some sectors (e.g. health) than others and low awareness among SMEs; providers have to manage employer expectations of apprentices.
- Employers embraced DAs as a means to secure long-term, sustainable employees while simultaneously addressing skill gaps within their industries.
  - Strong partnerships with government and, increasingly, education and training providers are essential to ensure that occupational competencies fit into technical pathways.
- 'Trailblazer' employer groups – tasked with designing apprenticeship standards – were criticised for: failing to engage SMEs; being too inflexible; and offering little immediate return on investment for businesses and education and training providers.
  - There was some tension as to whether professional body requirements and standards were able to keep up with current workplace practices.
- Providers report much of their activity around DAs is compliance driven and over-regulated, with complex and duplicative auditing and financial reporting processes; they have mixed views as to whether these activities improve quality and some are considering whether to continue their DA offer.
  - Providers often report that DAs aren't economically viable and are more expensive than other forms of provision; some, however, see them as a strategic opportunity to diversify their offer and develop new relationships with employers.
- Some employers and providers point towards DAs as tools to diversify workforces, particularly in attracting women to traditionally male-dominated roles and sectors, and hiring from local, sometimes underprivileged, groups; however, workforce diversification is not a major consideration for most employers when recruiting.
- Recommendations include:
  - The Government needs to consider a more systematic approach that will rationalise the way that employers are supported to offer a wide range of work-related and work-based opportunities to create their talent pipeline.
  - Employers and providers should work together to ensure that the taught elements and on-the-job learning connect and relate to each other as regularly and deeply as possible.
  - The Government should pilot the introduction of flexibility in apprenticeship standards to enable employers and education and training providers to work more closely together to ensure that these opportunities can meet the emerging needs of the economy.
  - The Government needs to develop a clear and coherent communications strategy about DAs with a particular focus on: support for SMEs; improved information for prospective apprentices; sharing of best practice for providers; and improved awareness of levy transfer schemes.
  - The Government's commitment to a new growth and skills levy offers opportunities to improve DA provision; however, it should consider modelling the impact of differentiating DA levy funding by age and/or staff status, and diversification of the workforce.
  - Education and training providers should work together to continue to improve the offer of support to degree apprentices and ensure that this is universally available.

The earlier reports examine what makes an effective work-based mentor in allied health professions and the extent to which DAs are part of existing university outreach plans.

The Chartered Management Institute (CMI) published *The Economic Impact of Management Apprenticeships*, an independent report by Oxford Economics.

- The study is based on: anonymised data on CMI management apprentices; a CMI survey of 802 apprentices; data from England's Department for Education on the total number of management apprentices among all accrediting bodies for 2023/24; and a range of reports by the Office for National Statistics.
- Findings include:
  - Management apprentices produced an impact on business revenues of £106.1m in 2024 alone, showing a strong link between skills investment and business growth.
  - Management apprentices helped create an average boost to their firm's revenue of £20,900 per apprentice, per year.
  - Level 7 apprenticeships (the highest level) had the biggest impact on business turnover, equating to an average increase of £36,700 per apprentice, followed by £18,300 for each Level 6 apprentice, £14,600 for each Level 5 and £13,400 for each Level 3 management apprentice.
  - Employers supporting these apprenticeships benefit from higher productivity, stronger leadership and more effective teams.
  - 35% of management apprentices received a significant salary increase after completing their training, with an average pay rise of £12k.
  - 71% of management apprentices come from families in which neither parent attended university, demonstrating the role they play in widening access to leadership opportunities.
  - 59% of management apprenticeships are now women, compared to 46% in the UK's overall management workforce.

The Social Market Foundation (SMF) published *A level of uncertainty: How to resolve the debate over the future of Level 7 apprenticeships*, challenging concerns that England's proposed shift from funding master's-level apprenticeships will worsen social mobility and employer flexibility.

- New data for 2023/24 show the following:
  - 17% of apprenticeships are now taken by university graduates.
  - An estimated £431m of apprenticeship funding was used by university graduates, including £182m for graduates starting Level 7.
  - Management courses for existing staff that have been rebadged as 'apprenticeships' used an estimated £150m of funding.
- Recommendations:
  - Young people and adults who are already qualified at Level 6+ should be banned from accessing levy-funded apprenticeships.
  - Management training courses should be removed from the apprenticeship system and funded as non-apprenticeship training within the growth and skills levy.
  - Employers should be expected to pay up to 50% of the costs of non-apprenticeship training in future to encourage them to identify training courses that offer the best value for money.

Skills Development Scotland (SDS) and the Scottish Apprenticeship Advisory Board published *Commission on Race in Apprenticeships: Report and recommendations*, on the challenges faced by minority ethnic groups in accessing and sustaining apprenticeships.

- Key findings include:
  - Barriers to apprenticeships include cultural expectations, lack of awareness, and misconceptions about apprenticeships as lower-status opportunities.
  - Minority ethnic people are over-represented in lower-paying sectors and under-represented in e.g. engineering and manufacturing.
  - Using targeted recruitment, mentoring and diverse role models have shown promise in improving minority ethnic participation.
- 20 recommendations on four key themes – anti-racism, women & girls, refugees & asylum seekers, and key influencers – include:
  - Employers to implement the Anti-racism Framework developed by the Commission.

- Government to: embed equality considerations in funding reviews and allocations; and improve access by subsidising fees used in recognising prior learning for qualifications from overseas.
- Agencies to ensure minority ethnic customers receive the highest level of careers information, advice and guidance.
- More work with schools to ensure the benefits and value of apprenticeships are understood; and dedicated curriculum time to learn about them and their place relative to other qualifications.

Nesta published *Boosting the heat pump workforce: Overcoming apprenticeship barriers*, investigating the challenges faced by employers, colleges and apprentices.

- The challenges identified can be broken down into three themes:
  - Those employers face when taking on and employing an apprentice: the financial investment; finding appropriate training courses; perceptions around post-apprenticeship retention; and poor communication from some colleges.
  - Those colleges face with implementing the plumbing & domestic heating apprenticeship environmental pathway and the low-carbon heating technician apprenticeship: demand from local businesses; a lack of competent trainers; multiple similar apprenticeships; and the need to invest in new courses and facilities.
  - Those with using apprenticeships to rapidly grow the heat pump engineer workforce: the preference among employers for older apprentices but a reluctance to pay the higher associated costs; the practicalities of initial assessment; and the limitations created by operating a one-to-one apprentice-to-mentor ratio.
- The report includes ideas for interventions on designing, testing and scaling, including:
  - Local funding pots that allow businesses to take on an apprentice for free.
  - A scheme to bring engineers into the classroom to teach parts of the course.
  - A programme to match two businesses to take on and share an apprentice.
  - A managed learning programme for heat pumps, similar to those used in the gas heating sector – usually an 18-month course that combines classroom learning and on-the-job experience.

TRAINING & DEVELOPMENT

LEI published *Skills & Productivity: Why does it matter?* in partnership with City & Guilds, drawing on a survey of 2k working-age adults and 1k senior decision-makers across key industries.

- Less than 20% of employers define productivity in terms of the standard measure or ratio of economic inputs to outputs.
  - 30% understand it as a specific measure of efficiency/effectiveness, which impacts their bottom line; 14% relate it to the achievement of business outputs, targets and goals; 7% define it in terms of working hard and 8% as an effect of good time management.
  - Only 4% identify skills or workforce development as a major component or driver of productivity.
- 89% of employers say their businesses are productive (50% 'very productive'); 20% feel they are less productive than 10 years ago.
- Asked what might hamper or improve productivity:
  - Employees cite higher salaries (43%), improved work–life balance (36%) and flexible working options (30%) as key motivators
  - Employers identify technological needs (32%) and skills (31%) as major barriers.
- Among job seekers, 31% feel they lack the right skills for employment.
  - There were large regional variations in confidence among those entering the workforce, with 71% in NI feeling they lack the right skills, and 47% in the West Midlands and Wales.
- 67% of workers cite on-the-job learning, 53% online courses as main sources for skills development.
- 67% of employers are planning upskilling initiatives in the next 12 months, however junior staff receive less training than senior staff (every 17 weeks compared with every 15 weeks).
  - Over 33% of employees feel that a lack of skills has prevented career progression or higher salaries.

- 58% of employees aged 30–39 feel that their education aligns naturally with their career path compared with 38% of those aged 50–60.
- Recommendations include: increasing employer understanding of productivity and its drivers, including the critical role of skills; and investing in upskilling, particularly training in under-resourced sectors with high growth potential.

Cedefop published *Towards organisations as learning workplaces: Moving beyond certified, institutionalised continuing vocational education and training*.

- The European Commission's March 2024 action plan on skills and labour shortages advocated for immediate measures pertaining to skills policies, working conditions, intra-EU mobility and talent attraction from outside the EU.
  - Adult learning, including in and through the workplace, is reaffirmed to be a cornerstone in the renewed approach to skills.
  - However, adult learning participation remains insufficient and this, combined with declining educational system performance, low labour mobility and sub-optimal working conditions (restricted access to training, limited career development opportunities, poor work–life balance and inadequate management practices), has become a primary driver of skills shortages.
  - The urgency of addressing labour and skills shortages underscores the need to overhaul the entire approach to skills development in adulthood and address it systematically.
- There are significant structural transformations in the landscape of adult skills development:
  - The rise of digital learning environments, particularly GenAI and social media platforms, has created new contexts for self-regulated training.
  - Learning in and through the workplace has become increasingly necessary for business competitiveness and innovation capacity.
  - However, there is systematic underinvestment in adult workers' participation in learning.
- Employers need systematic support to shift from viewing skills development as an externally provided, periodic activity to seeing it as a core organisational responsibility.
  - This requires a sector-based approach to: governance; the design of learning ecosystems; SME challenges; intelligence gathering and strategic planning; and recognition frameworks.
- Drawing on case studies from Finland, the RoI and Spain, the brief explores such sectoral approaches.
  - Finland's transformative model puts workplaces at the core of learning, while the RoI relies on more traditional, institution-based training provided primarily outside the workplace.

SKILLS GAPS & SHORTAGES

The UK Department for Culture, Media & Sport published *Skills gaps and shortages in the creative industries: Employer perceptions and actions, UK, 2022*, drawing on UK Employer Skills Survey data.

- The incidence of skills gaps and shortages vacancies in the creative industries is smaller than overall statistics.
  - However, there are specific skills gaps and specific types of skills difficult to obtain in job applicants that are higher than in businesses overall.
- Creative industries have larger proportions of skills gaps among professional occupations and sales and customer service occupations, and higher proportions of skills shortages vacancies among professional occupations and associate professionals positions.
  - This partly reflects the higher proportion of the workforce employed in higher level occupations.
- Skills found difficult to obtain include:
  - Specialist skills and knowledge needed to perform the role (76.4% of creative industries businesses with a skills shortages vacancy vs 65.4% of all businesses with skills vacancies)
  - Solving complex problems (51.4% vs 43.0%)
  - Knowledge of products and services (51.1% vs 44.5%)
  - Creative and innovative thinking (49.9% vs 43.0%)
  - Advanced and specialist IT skills (48.5% vs 20.9%).

The Creative Industries Policy & Evidence Centre (Creative PEC*) published *Skills mismatches in the UK's creative industries* as part of its *State of the Nations* series, based on labour market data from the UK Employer Skills Survey and an examination of employers' perspectives.

- Creative industries employers are more likely to report having to delay developing new products or services because of the skills shortages they face.
  - Skills shortages are most pronounced for higher skilled roles – 78% of creative industries employers experience these shortages vs 31% across all industries.
  - 65% of hard-to-fill vacancies in the sector are attributable to skills shortages vs 41% of hard-to-fill vacancies across all sectors.
- Skills gaps caused by the introduction of new technology (including but not limited to AI) and the development of new products and services are a particular challenge and are rising – in 2022 nearly 60k workers in the sector were not fully proficient for their roles, up 15k since 2017.
  - Technological advancement and innovation is expected to create a need for new skills in the year ahead; 69% of the sector's employers expect their employees will need to upgrade their skills (vs 62% of all employers).
- Creative industries employers are not investing sufficiently in upskilling their workforce.
  - In 2022, 45% of the sector's employers had not provided any training over the previous 12 months (vs 40% across all industries).
  - Training is also: of shorter duration; more likely to be on the job; and less likely to lead to a formally recognised qualification.
- Emerging policy messages include:
  - Robust labour market information is key in helping the skills system to better understand, anticipate and respond to employer needs.
  - Stronger mechanisms are needed for collaboration between education and industry, and provision needs to be more effectively coordinated across education pathways.
  - It is important to stimulate greater employer investment in skills and strengthen the management practices of creative firms.

**Creative PEC is led by Newcastle University with the Royal Society of Arts and funded by the Arts & Humanities Research Council.*

The Scottish Government published *Review of transferable skills in Scotland's land-based and aquaculture sectors*, research recommended by the 2023 Commission for the Land-Based Learning Review, based on a literature review and interviews with key stakeholders.

- Upskilling workers in transferable skills can offer a range of benefits, including new income opportunities and the chance to build social networks across different industries.
- Transferable skills include both technical and non-technical skills that enable workers to adapt across various roles and industries.
  - Key non-technical transferable skills include verbal communication and IT, coordination, the ability to work under pressure, and an awareness of health and safety.
  - Some of the most transferable non-technical skills, e.g. verbal communication and IT proficiency, have been identified as significant skills gaps across the sectors and are crucial for development.
  - Some technical skills are also transferable across industries, including: advanced digital skills, e.g. drone operation and geographic information systems; and more hands-on skills, e.g. tree planting.
  - Operation of some types of machinery, e.g. rough terrain forklifts, is also transferable, but workers need appropriate training on using equipment in new environments or industries.
- However, many roles are highly specialised, making transferring technical skills a challenge.
  - Barriers to skill transfer include mindset challenges, limited business capacity for upskilling and the location of training courses.
- Some industries have skill-set overlaps, e.g. skills clusters in: agri-environment, including horticulture, landscaping and agriculture; animal & logistics, including animal care, equine, land-based engineering and warehousing & logistics; and natural resources & conservation, including wildlife management, highways, forestry & arboriculture, fisheries management, environmental conservation and aquaculture.
  - Future skills training courses could be aligned between these industries to promote efficiency in skills development.

- Next steps include:
  - Clarifying the skills needed as the sector adapts to 'just transition' and automation.
  - Examining how seasonal workers can use transferable skills to navigate between jobs.
  - Considering aligning training courses between skills-overlap industries to promote efficiency.

Think tank Civitas and Make UK published *The Growth Mission: A blueprint for scaling up SME manufacturers*, in partnership with the ERA Foundation.

- Key findings include:
  - Almost 66% of SMEs aspire to grow into large businesses in the next 5–10 years; helping manufacturers scale up would add £83b to manufacturing gross value added (GVA) and make the UK the seventh largest manufacturer in the world by value.
  - Labour is the top challenge cited by SMEs wanting to grow, including both engineering and leadership skills; apprenticeships starts have fallen by 42% since the apprenticeship levy's inception, creating a strong need for reform.
- Recommendations to government include: improve accessibility to skills funding with the transition to the growth and skills levy; and provide long-term funding and strategic reinforcement for the Made Smarter adoption programme to ensure sustained SME engagement in digital transformation.
- Recommendations include: SME manufacturers collaborating more with the education sector by sharing information to shape future skills needs; and educational institutions creating clear channels that allow SMEs to engage in an accessible way.

Edge published *Skills shortages in the UK economy 2025*, its annual summary of key messages from its regular *Skills Shortages Bulletin* series.

- Eight sections of the report use recent evidence to expand on key findings for 2025:
  - Overall labour market conditions remain challenging.
  - Profound changes to patterns of employment are intensifying.
  - Skills shortages are numerous and have grown significantly.
  - The rate of skills investment is in decline.
  - Skills shortages have significant costs for UK businesses, the economy and the environment.
  - Employers prize work experience and broader transferable skills when recruiting.
  - Young people lack confidence in their future ability to meet skills requirements.
  - The education system struggles to respond to skills needs and is under-resourced.

Cedefop published *Labour and Skills Shortage Index (LSSI): How employment growth, replacement needs and skills imbalances will affect EU labour markets*.

- Overall, labour shortages are estimated to appear across the skills spectrum, as professionals (high skills), service workers (medium skills) and elementary occupations (low skills) are all due to experience a 'type 3' shortage (on a scale of 1 to 4, based on intensity) by 2035.
- The causes vary and require different policies to tackle them.
  - For professionals, while the shortage is expected to come from demand for both expansion and replacement, imbalances are less likely to cause shortages as the future workforce will be equipped with a high level of skills.
  - For elementary occupations, even though they will not expand as much, shortages are likely due to the need to replace existing workers, drawing from the pool of higher educated workers that will be in excess supply by 2035.
  - For service workers and sales workers, all three elements will create a type 3 shortage, making it a multifaceted issue for the future.

The briefing looks into occupational groups and EU member states to explore future labour shortages.

SKILLS POLICY

The Gatsby Foundation published *Good Adult Career Guidance: International case study evidence: Summary report*, exploring practice in seven case study countries*, drawing on the expertise and experiences of those involved in designing, resourcing and running the services.

- Whereas for young people the education system can act as the principal conduit for career guidance, provision for adults needs to be more varied and flexible to address the complexity of their lives and the diverse circumstances in which they are building their careers.
- International evidence demonstrates that other countries value career guidance for adults and have developed a range of mechanisms to provide it.
  - Each case study country has developed its own systems in response to national and local needs, often tailoring services for different regional labour markets and different groups of people.
- Maximising access for the whole population requires a range of mechanisms – the public employment service is critical but insufficient on its own; most countries supplement provision including by local government, education providers, employers and trade unions.
  - This requires structures for cooperation and coordination so that a wide range of stakeholders can engage with each other, share good practice, identify key issues and propose alternative solutions.
  - Practitioners also need to be involved in outreach to access communities that are poorly served.
- Other common key features: national visions for guidance clearly articulated in policy, supported by multiple government departments and aligned to implementation plans; services run by respected national and local providers; clear referral systems help people access the right support at the right time, in a way that works for them; quality assured labour market data underpinning advice and services; guidance provided by appropriately trained and deployed professionals.

**Belgium, Denmark, Estonia, Finland, Germany, the Netherlands and Australia.*

ISER published *The importance of host country human capital for the labour market integration of different migrant groups in Europe*, investigating EU, third-country economic and third-country non-economic migrants.

- The report examines the role that acquiring 'human capital' in the host country (e.g. language skills, new qualifications or 'equivalising' qualifications) plays in the labour market trajectories of these three groups of migrants.
- Non-economic migrants – migrating for reasons such as family reunification or seeking protection – face significant disadvantages compared to those who migrate primarily for employment.
  - This disadvantage is evident in both employment probabilities and occupational status, although the differences are much smaller for occupational status than for employment.
- Having better language skills and obtaining equivalent qualifications is beneficial for employment opportunities, but particularly helps close the gap in occupational status.
- Non-economic migrants are more likely to acquire host country human capital over time and it has a sizeable impact.
  - When considering migrants with equivalised qualifications and good language skills there are far fewer differences in terms of outcomes between types.
- Overall, the findings show: the importance of considering migrants' diverse motivations; that targeted policies to support language acquisition and the recognition of foreign qualifications help non-economic migrants to integrate into the labour market; and the need for integration programmes tailored to the specific needs of different groups.

IZA published *Closing the Mismatch: Encouraging jobseekers to reskill for shortage occupations*, based on a large-scale field experiment with a public employment service in Belgium involving 100k recently unemployed individuals in 2021.

- 50% of the individuals were sent information about shortage occupations and related training opportunities, then their actions were tracked for up to 18 months to investigate whether the information had affected their beliefs, training enrolment, job search and employment.
- Findings include:
  - The intervention increased training participation by 6%, but only in transversal training courses – it did not boost enrolment in occupational training for shortage jobs.

- Treated jobseekers were more likely to position themselves as searching for a job in a shortage occupation.
- However, neither the increased training participation nor the change in job search focus led to an increase in employment; in fact those who reacted the most to receiving the intervention were least likely to find employment quickly.
- Jobseekers shifted their search towards high-demand occupations, yet employment remained unchanged.
- Therefore, although low-cost information interventions can influence job search and training behaviour, different approaches are needed to drive substantial reskilling among jobseekers.

SKILLS FORECASTING

Lightcast published *The UK Skills Revolution: Building a data-driven skills system in an era of disruption*, using its Skills Disruption Index to look at skill change over the past three years in order to better understand where and how skills development should be prioritised. *[An email address is required to access the full report.]*

- The report focuses on the key trends driving skills changes in the four sectors identified as priorities by the new Skills England: digital technology (including AI and cyber security); the green workforce; housebuilding & construction; and life sciences.
- The top 20 skills for the average job in the UK have changed by 33% since 2021; breaking this down by industry and occupation reveals deeper trends about the country's workforce needs.
  - E.g., of the 20 skills most frequently mentioned in 'mobile applications developer' job adverts in 2021, only eight were still listed in 2024; and all the other skills changed in frequency of demand.
- Several factors are driving disruption: digital transformation; the rise of AI; the growth of the green economy; and a changing regulatory environment.
  - Skills such as AI and machine learning grew by 86% between 2021 and 2024; safety and security skills have grown 82%; and demand for air quality and emissions is up 52%.
  - Higher skilled, professional occupations with HE requirements are seeing more disruption than more hands-on, labour-intensive sectors like construction and hospitality.
- Key findings:
  - The explosive growth in GenAI is being seen in more non-tech than tech jobs, e.g. administrative assistant, writer and translator.
  - The rise in the green economy is being seen more in the 'greening' of existing roles than in the creation of new green jobs.
  - Meeting the Government's housebuilding target will require a data-driven solution for reskilling or retraining from other jobs; skills adjacency is one possible solution – by understanding the skills components of two jobs, it is possible to identify the transitional skills needed for a person to upskill or retrain from one to the other.
  - Life science companies tend to cluster geographically; attempts at meeting their skills needs must account for this; using data to understand where the talent pools are with the right skills could be critical in strengthening and growing the sector to thrive and drive innovation and growth.

HundoLAB published *Skills: The new global currency?*, with lead partner City & Guilds, the first in a series of reports featuring insights and recommendations from international future skills experts in industry, education and government. *[An email address is required to access the full report.]*

- The report explores three main trends driving the skills economy: technological advancement; shifting workforce demographics; and the green transition.
  - It addresses workforce development, education, policy and social impact and considers how skills can be leveraged to boost social, economic and organisational resilience.
- The future workforce will be defined by adaptability, innovation and continuous learning.
- Skills gaps in the labour market are common: 19 of 22 industries recognise skills gaps as the primary barrier to transformation.
  - Financial impacts include lost productivity, higher recruitment costs and increased staff turnover.

- A call to action includes the following:
  - Employers need to invest in skills development now to build the resilient, adaptable workforces needed in future.
  - Traditional qualifications must adapt in line with the labour market; collaboration is needed across sectors and borders to drive a new model of skills development.
  - Direct pathways should be built for young people to ensure they have the skills and experience to contribute from day one.

Future reports in the series will focus on 'actionable frameworks' for navigating the skills economy in critical topics, e.g. human–machine collaboration, democratisation of skills and intergenerational impact.

The World Economic Forum (WEF) published *The Future of Jobs Report 2025*, based on a survey of 1k leading global employers, representing 14m workers across 22 industry clusters and 55 economies, including findings relating to skills.

- The three most transformative overall trends to 2030 are: broadening digital access (60%); the increasing cost of living (50%); general economic slowdown (42%); and climate change mitigation (47%).
- Ageing and declining working-age populations are increasingly transforming economies and labour markets, predominantly in higher income economies; expanding working-age populations are transforming them in lower income economies.
  - These trends drive increased demand for talent management, teaching and mentoring skills and motivation and self-awareness.
- It is estimated that structural labour market transformation will result in a net growth in jobs equivalent to 7% of today's total employment (78m).
- On average, 39% of existing skill sets will be transformed or become outdated by 2030, a slowing of 'skill instability' from 44% in 2023.
- Analytical thinking remains the most sought-after core skill (70%), followed by resilience, flexibility & agility, and leadership & social influence.
  - AI & big data, networks & cybersecurity and technological literacy are anticipated to be the three fastest growing skills, complemented by creative thinking, curiosity and lifelong learning.
  - The main skills differentiating growing from declining jobs are anticipated to be: resilience, flexibility & agility; resource management & operations; quality control; and programming & technological literacy.
- If the world's workforce comprised 100 people, 59 would need training by 2030, of whom 29 could be upskilled in their current roles and 19 could be upskilled and redeployed elsewhere in the organisation; 11 would be unlikely to receive the necessary reskilling or upskilling.
- 63% of employers see skills gaps as a major barrier: 85% plan to prioritise workforce upskilling; 70% to hire staff with new skills, 40% to reduce staff as their skills become less relevant; and 50% to transition staff from declining to growing roles.
  - 64% identify supporting employee health and wellbeing as a key strategy for talent attraction, along with effective reskilling/upskilling and improving talent progression and promotion.
  - Funding for and provision of reskilling/upskilling are the two most popular public policies to boost talent availability.
- The adoption of EDI policies is rising (47%, +37ppt on 2023); 83% report EDI initiatives (+16ppt).
- 50% plan to reorient their business in response to AI, 66% to hire for specific AI skills and 40% to reduce their workforce where AI can automate tasks.

LMI [Labour Market Information] for All published *Insights into emerging skills needs*, a series of 'foresights posters' on the skills needs of seven (sub) sectors: energy, waste management, circular economy, manufacturing, construction, health care and agriculture.

- The posters present forecast data to 2035 and provide insights into: employment, including by qualification level; the driving forces behind sectoral changes; and emerging skill needs.

GREEN SKILLS & JOBS

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

- Examples of key occupations expected to be in demand across clean energy sectors include:
  - Engineers, particularly at Level 6+, including: civil, mechanical and electrical in sectors such as offshore wind, nuclear and engineering construction; and design, chemical and environmental.
  - Welding and mechanical trades: ranging from Level 2 welding support operatives to Level 4 high-integrity welders and Level 6/7 welding engineers; as such roles are difficult to recruit for, there may be labour supply challenges.
  - Electrical trades: including Level 2/3 fitters in electricity networks, senior electrical roles in offshore wind, and Level 2–4 roles in engineering construction.
  - Planning roles will be critical, with shortages already affecting a high percentage of planning applications; research by SDS projects an 11% growth in Scotland's planning sector up to 2030.
  - Demand for construction project managers will be particularly high, including new specialised roles, such as retrofit coordinator; there are opportunities for existing workers to move into managerial roles, but many will require upskilling in energy systems knowledge.
  - Opportunities will also exist in roles across the legal, finance, procurement and corporate services sectors; some roles may require specialist sector knowledge.
- Engineering professions, electrical trades and construction trades made up the three largest proportions of clean energy job adverts in 2021–24.
  - 24% of adverts for clean energy jobs were for engineering professionals compared with less than 5% of all job adverts.
- Most clean energy jobs will need to be filled by the existing workforce, with the skills and expertise of workers in carbon-intensive sectors particularly crucial.
  - Over 90% of the UK's oil and gas workforce possess skills that have medium/high transferability to the offshore renewables sector.
- Common challenges: qualified workers in demand from other competing sectors; lack of awareness of opportunities in clean energy; lack of diversity in clean energy jobs; the ageing and retiring workforce, e.g. 38% of engineering construction workers are aged 50+; constraints on training capacity due to teacher shortages; and limited capacity in SMEs and micro-firms to organise and engage with training.

The analysis also presents findings by sector.

The Gatsby Foundation published *Closing the Retrofit Skills Gap* with Ashden Climate Solutions and the National Retrofit Hub, analysis of progress between 2023 and 2024 and on what more can be done.

- Demand for retrofit skills was rising in 2024 because of the ongoing rollout of government-funded schemes.
- More FE colleges were gearing up to offer training by developing new facilities and courses; however, it was proving difficult to recruit tutors with up-to-date knowledge and take-up was low.
  - Some were establishing industry partnerships with major manufacturers and housebuilders, which had the potential to be mutually beneficial but also brought potential risks.
- Construction employers – 99% of which are SMEs – still lacked awareness about retrofitting and net zero more generally; their preference was for very short courses to minimise loss of earnings.
- More strategic cross-sector partnerships were being developed in some areas, bringing together employers, local government, housing providers and schools.
- Recommendations:
  - The next iteration of the UK industrial strategy should recognise the growth that is needed in the construction sector to achieve its net zero targets.
  - DESNZ should develop a national retrofit strategy to meet net zero and support the Government's missions on clean power, health and growth; it needs to coordinate national and local supply-side policy, demand-side interventions and quality standards.

- Skills England should forecast the full range of retrofit skills needed to fulfil the strategy and should ensure that all construction qualifications are regularly updated to include relevant physics.
- DESNZ should consult with sector bodies on the best approach to making training mandatory for all individuals involved in retrofitting and how to phase this in.
- Public procurement should be used to ensure that construction firms support considerably higher numbers of construction apprenticeships and T-level work placements for students than they currently do.
- Funding for FE tutors should be increased to acknowledge the pay gap between teaching and industry roles; FE colleges should be able to pay tutors a premium where necessary.

SDS published *Career Opportunities in Scotland across Offshore Wind* with the Scottish Offshore Wind Energy Council *[a public sector-industry partnership]***.**

- The sector's workforce is estimated to grow from around 9k in 2024 to over 40k by 2029.
- The report lists 85 different key job roles under nine headings, from entry level to senior levels, and the qualifications required, with jobs where there are shortages highlighted.
  - Critical skills gaps and shortage areas include: project management and development; ICT; maritime; manufacturing; engineering; electrical services; and operations and maintenances.
  - Relevant training is currently provided via: 256 private sector specialist courses at 16 providers; 578 courses at 36 colleges and universities; and 39 apprenticeship programmes.

Skillnet Climate Ready Academy, the RoI, and the University of Limerick published *Breaking Boundaries: Building capacity to manage sustainable supply chains*, a research report including a literature review, survey and focus groups, in partnership with 20FIFTY Partners.

- Research aims included identifying the challenges, enablers and solutions towards environmentally sustainable supply chains; findings include:
  - There is a critical need for upskilling to support businesses in implementing measures to reduce their carbon footprint.
  - Upskilling for employees is a crucial first step in addressing the knowledge gap surrounding net zero emissions.
- Recommendations include:
  - Organisations should ensure senior leaders undertake executive leadership training in climate action, and support the upskilling of its key supply chain decision-makers in sustainability.
  - To help increase the knowledge and skills of their employees, senior leaders should encourage academic awards with a focus on supply chain sustainability to all those involved, and throughout their organisation.

***A Just Transition? Green jobs, good jobs and labour market inclusivity in Scotland*, by University of Warwick and University of Strathclyde researchers, was published in the *European Journal of Workplace Innovation*.**

- The analysis used data from Scotland from the UK Labour Force Survey and 'webscraped' job vacancy data to assess the extent and demand for green jobs, plus the pay and gender composition of these jobs.
- Findings are mixed:
  - There are few new green jobs but a strong greening of existing jobs.
  - While green jobs offer higher wages, they tend to be dominated by male workers.
  - The employment benefits of the transition to net zero are less inclusive than anticipated, and policy and practice need to adjust.
- The report proposes improved definitional and empirical understanding of green jobs, and provides insights into how green jobs might be made more inclusive.

The European Commission published *Labour market transitions and skills investment needs of a green transition – a new approach*, based on data from the EU Labour Force Survey.

- In recent years there was a net in-flow of workers into all of the 'transforming sectors' in the EU except for mining and extraction.
  - Training and education is lagging behind in some key sectors.

- Additional installations of wind turbines and solar panels to achieve the EU Green Deal targets would require 130–145k additional skilled workers, with associated investment in skills reaching €1.1–1.4b by 2030.
  - Job creation differs across member states, and those with relatively higher shares of renewable capacity already installed may present lower retraining costs per worker in 2030.

AUTOMATION & AI

The three-year Pissarides Review into the Future of Work & Wellbeing published its *Final Report*, examining the impacts of automation on the labour market, who is benefiting and who is being hit hardest by the disruption caused.

- Through a new social and economic paradigm of 'good work', the report proposes a new model of human-centred automation, a comprehensive sociotechnical approach that understands technological transformation as highly interconnected and interdependent with socioeconomic change.
- Key findings include:
  - Automation is continuing at pace, but with huge variation across geography and sector.
  - Workers are experiencing new types of automation in new combinations, often obscured, which are having cumulative impacts on work and wellbeing; good impacts, including upskilling and the substitution of routine tasks, cannot be assumed and must be consciously shaped.
  - Skills are changing in new ways in response to the new modes of automation, e.g. the changing importance of communication skills and creativity, plus tech/digital skills.
  - Skills diversity (i.e. combining social and technical skills) is increasing across the board, including within high-tech/digital roles.
  - Firms are driving social and economic transformation within the system, but most UK SMEs are not ready for transformation, responsible innovation or governance of AI and automation.
  - Good work is the foundation for individual wellbeing and should be recognised as a mediator of good outcomes and social value, and a cross-cutting policy goal to drive mission-led government.
  - National statistics mask dramatic, cumulative inequalities across the innovation ecosystem, with significant differences in innovation infrastructure and resource across the UK.
  - Left unchecked, technological transformation will further entrench regional inequalities; better – and more accessible – regional data and information on work, wellbeing and skills are needed to shape good transitions.
  - Investment in the infrastructure to support innovation, including skills and connectivity, is vital.
  - New workplace technologies have divergent impacts and don't necessarily lead to less dull, dangerous and dirty work.
  - AI and automation can lead to fairer, better work, but attitudes must change and trust needs to be built.
- 26 policy recommendations are provided, covering aspects including 'people and capabilities'.

The review, funded by Nuffield, was run by the Institute for the Future of Work with Imperial College London and Warwick Business School.

The Pissarides Review published *Taking work, or changing work? Understanding how technology adoption is reshaping work in the UK*, a working paper drawing on 12 focus group discussions to provide a worker-centred perspective.

- By giving voice to workers, the research uncovers a 'rich tapestry of experiences' that illustrate how technology is not just eliminating or creating jobs, but fundamentally altering the fabric of work and working lives.
  - Overall, the rapid technological transformation of workplaces has simultaneously enhanced and challenged different aspects of working life.
- A prominent theme is the perceived inevitability and accelerating pace of technology adoption, with mixed responses: enthusiasm for efficiencies and new capabilities, but also anxiety, fear and uncertainty.
  - Digital tools have improved efficiency, flexibility and collaboration across distances; but while some workers report increased work intensity and blurred work–life boundaries, others experience benefits in these areas.

- The social fabric of workplaces has also been affected, with positively enhanced connectivity often coming at the cost of meaningful face-to-face interactions.
- Experiences regarding autonomy, skill development and the meaningfulness of work are similarly mixed, highlighting the context-dependent nature of technological impacts.

- Overall, the findings underscore the importance of a human-centred approach: comprehensive training and support programmes; inclusive design processes that consider diverse worker needs; and strategies to preserve meaningful human interactions in increasingly digital workplaces.

The Pissarides Review also published *Analysing the distribution of capabilities in the UK workforce amidst technological change*, commenting on the unequal distribution of a potentially important measure of freedoms and resilience to transition.

- The analysis employs the 'ICECAP-A questionnaire', a preference-based measure of capabilities comprising five domains: the freedom to feel stable, attached, autonomous, and to have a sense of achievement and enjoyment.
- There are significant disparities in capability levels across age, ethnicity, relationship status, occupational level and industrial sector.
  - Older employees, those partnered, in higher occupational roles and in the professional, scientific and technical sector generally report higher capabilities.
  - Employees from Asian backgrounds report significantly lower capabilities than their counterparts from white ethnic backgrounds.
  - Institutional factors, including HR philosophy, employer-provided training and access to formal representative structures, are positively associated with capabilities.
- The divergent impacts of newer technologies on capabilities, which vary across demographics and sectors, mean that policymakers should consider the best way to mandate or incentivise higher levels of involvement in the process of automation and design of work, as well as the assessment and monitoring of impacts on perceived capabilities.

The Productivity Institute published *Adoption of Advanced Digital Technologies [ADTs] and Platforms: Insights from a UK national survey*.

- The report uses sectoral, regional and organisational comparisons to shed light on the widespread but varied adoption of AI, big data, cloud computing, 3D printing, internet of things and robotics, offering insights into firms' productivity, skills development and business processes.
- ADTs are extensively adopted UK-wide, with cloud computing being the most widely used (up to 80% in all sectors and regions); however, AI adoption remains moderate, with low usage intensity.
  - More specialised technologies such as robotics and 3D printing are adopted less frequently, mainly in the manufacturing and extractive sectors.
  - Companies increasingly use multiple technologies together, with cloud computing most frequently paired with AI and big data, underscoring a trend towards data-driven business processes.
- The adoption rate is notably higher in regions with established business hubs, such as London, and England's North West and West Midlands.
  - There are significant regional disparities in the adoption and usage intensity of ADTs, with London showing higher adoption rates and greater integration of technologies such as AI and robotics.
  - Smaller businesses, however, face greater challenges in adoption, although cloud computing is an exception where SMEs show similar adoption levels to larger firms.
- The main drivers for adopting ADTs include: process improvement, quality enhancement and automation.
  - Barriers to adoption vary by technology, but common challenges include high costs, skill shortages and concerns over security, reflecting the challenges of integration and adaptation during initial adoption.
- ADTs increase the need for STEM capabilities and digital skills among employees, necessary for operating advanced technologies.
  - ADT adopters report a pronounced need for skills like digital information literacy and cybersecurity, reflecting the increasing reliance on data and the necessity for secure information handling; but non-digital skills – particularly in resource management and social skills – are also highly relevant.

- Platform adoption is increasing, with larger firms leading the way, particularly in operations-centred platforms; however, many smaller firms struggle, especially with distribution-centred platforms, due to resource constraints and misalignment with their needs.
  - Adoption is concentrated in the service sector, particularly in London and the South East, highlighting a regional digital divide.
  - Platform adoption shows strong results, with operations-centred platforms improving internal efficiency and distribution-centred platforms driving innovation, especially in customer engagement and product development.
  - Significant barriers remain, with many firms seeing platforms as irrelevant to operations; high costs, the need for structural changes and resource limitations hinder broader adoption, emphasising the need for better alignment, communication and support to overcome obstacles.

McKinsey published *The state of AI: How organizations are rewiring to capture value*, based on its latest Global Survey on AI of 1,491 participants in 101 nations, representing all regions, industries, company sizes and functional specialities.

- Among the findings:
  - 78% use AI in at least one business function, +6ppt on 2024 and +23ppt on 2023; for the first time, most also report the use of AI in more than one business function (average three).
  - The CEO's oversight of AI governance is one of the elements most correlated with higher self-reported bottom-line impact from using GenAI, particularly in larger companies; 28% of respondents from organisations using AI said their CEO was responsible for its governance.
  - Out of 25 attributes related to the use of GenAI, the redesign of workflows has the biggest impact on organisations' earnings; 21% said their organisations had fundamentally redesigned at least some workflows.
  - 21% said employees review all GenAI-created content before it's used, e.g. a chatbot response or an image in marketing materials; a similar share say 20% or less is checked.
  - Respondents are more likely than in 2024 to say their organisations are actively managing risks relating to inaccuracy, cybersecurity and intellectual property.
  - Most aren't yet implementing the adoption and scaling practices recommended by previous research and most have yet to see organisation-wide, bottom-line impact from using GenAI.
  - 13% say their organisations have hired AI compliance specialists and 6% AI ethics specialists; larger organisations are more likely to hire AI data scientists, machine learning engineers and data engineers; these roles are challenging to fill, though challenges have eased in the past two years.
  - Many report that their organisations have reskilled employees as part of their AI deployment over the last year and expect to undertake more reskilling in the years ahead.
  - Time saved via GenAI is mostly being used for entirely new activities or on existing responsibilities that haven't been automated; larger organisations are more likely to use it to reduce employee numbers, although 38% predict little effect on workforce size in the next three years.

The European Commission published *Future-oriented occupations in the EU: Main features, employment conditions, and job strain*, exploring the impact on labour shortages of the green and digital transitions plus demographic change.

- The paper considers job holder profiles, their employment conditions and some aspects of job quality experienced by workers in relevant occupations.
  - As part of the digital transition, it looks at occupations more likely to be exposed to the impacts of AI, to provide an early indication of the types and characteristics of jobs and subgroups of workers that may be affected by technological advances.
  - It provides a starting point for mapping the occupational characteristics of the digital and green transitions, building on existing methodologies, as well as their interaction with current and future labour shortages.
- Gender segregation is identified in most future-oriented occupations and (residual) occupations of interest.
  - However, both female and male workers experience approximately the same level of higher occupational exposure to AI.
  - Women are at higher risk of being left behind in the digital transition and are thus in greater need of education and training on digital skills.

- For all occupations of interest and future-oriented occupations, the majority of workers have not recently participated in training.
  - Occupations at higher risk of exposure to AI and with higher digital skills intensity report the highest share of training, while only a minority of workers in jobs with critical labour shortages had received training.
  - Given that workers aged 25–55 make up the majority of future-oriented occupations, this underlines the need to support lifelong learning, accessible to workers at various stages.

Cedefop published *Skills empower workers in the AI revolution: First findings from Cedefop's AI skills survey*, based on responses from 5,342 16–64 year-olds in 11 EU member states*.

- 28% reported that they or colleagues used an AI tool or system at work, more commonly in western (Belgium, Germany, France and Luxembourg) than southern Europe (Greece, Spain and Portugal).
  - This geographic divide has widened, raising concerns that a two-tier Europe may emerge, accentuating the existing digital divide.
- 15% of employees are afraid of losing their job in the next five years because of AI tech; the perceived threat is larger in southern and central Europe.
- 67% of those using AI systems at work say that these have helped increase the speed with which they carry out their work tasks.
- Despite large skill gaps, only 15% participated in education or training to further develop their AI knowledge and skills.
- 40–60% had a poor understanding of AI tech, how it operates and its likely consequences for society.
- Policy recommendations:
  - Promote inclusive AI literacy: workers in occupations at all levels need skilling to cope with AI-driven work transformation; improving AI literacy transversally is an investment with enormous pay-off potential.
  - Empower social dialogue in the workplace: up to 50% of workers doubt that their organisation will use AI tech in a way that benefits them; AI take-up and training are higher in organisations that have a trade union or other worker representation body.
  - Tackle the productivity paradox: many workers still feel they have gained little in terms of improved productivity and 54% of AI users haven't become better at doing their job.
  - Foster a human-centred revolution: investing in skills will be vital in shaping an AI revolution that empowers and benefits all citizens.

**Belgium, Czechia, Germany, Greece, Spain, France, Luxembourg, Poland, Portugal, RoI and Slovakia.*

IZA published *Technological Change and the Upskilling of European Workers*, on the relationship between change that automates or augments workers' job tasks and their participation in work-related training.

- The study uses data from the Cedefop European Skills & Jobs Survey for 29 countries in 2020–21.
- 58% of employees experienced no change in the need to learn new technologies in their jobs.
- Of those exposed to new digital technology: 14% didn't experience any change in job tasks; 10% said new tasks had been created; 5% only saw some of their tasks displaced; 13% experienced both task displacement and task creation.
  - Employees in jobs impacted by new digital technologies are more likely to have to react to unpredictable situations, demonstrating a positive link between technologically driven task disruption and job complexity.
- There is a strong linear relationship between technologically driven job task disruption and the need for job-related training: those in jobs where new technologies resulted in both task displacement and task creation were over 30ppt more likely to have undertaken job-related training in the previous 12 months than those in jobs not impacted by new tech.

The Centre for European Policy Studies (CEPS) published *Generative AI and foundation models in the EU: Uptake, opportunities, challenges, and a way forward*, the final report of a study for the European Economic & Social Committee.

- The report examines the impact, technological advancements and regulatory implications of the burgeoning GenAI landscape within the EU, and explores applications across the automotive, renewable energy and education sectors, highlighting opportunities and challenges.
- A 'SWOT analysis' of the EU's position as a producer and a user of GenAI finds:
  - **Strengths** include: a strong base in underlying research; a capable and well-developed open source development community; moderate digital infrastructure; and a good ability to train AI professionals.
  - **Weaknesses** include: weak large-scale computing infrastructure; and limitations in access to training data.
  - **Opportunities** include: better education and training and increased access to skilled workers; increased access to training data; a focus on green AI; and the potential to use sophisticated software and open source development to offset the weakness in infrastructure and skills staff.
  - **Threats** include: threats to the workplace, including job displacement, accelerated skills obsolescence and mental health impacts; and inaction or insufficient action on the part of policymakers.

WEF published *Blueprint for Intelligent Economies: AI competitiveness through regional collaboration*, a white paper encompassing every stage of the AI journey: innovation, development, deployment and adoption.

- The report aims to assist nations and regions, irrespective of their AI maturity level, in identifying the necessary capabilities to advance their AI development.
  - It provides practical guidance and examples of initiatives that are already proving successful in addressing common challenges.
  - It is grounded in observations from existing national strategies and insights gathered from interviews with diverse stakeholders – including from the public sector, AI industry, infrastructure providers and non-profit organisations – operating across various regions.
  - It explores the most commonly prioritised strategic objectives: build sustainable AI infrastructure; curate diverse, high-quality datasets; and establish guardrails for ethics, safety and security.
- Successful implementation of an AI strategy doesn't depend on simultaneously achieving all outlined strategic objectives and capabilities.
  - Each country/region will take a different approach depending on: unique challenges; resources (natural, human, financial); current AI capabilities (connectivity, data infrastructure, AI innovation, talent); and leaders' ambitions to prioritise AI as a lever for transformational impact.
- International consultation and collaboration between stakeholders will be required to facilitate global trade across the AI value chain and secure cross-border data flows.
  - Approved international or regional frameworks for AI safety, standards, ethical AI guardrails and data governance will contribute to promoting the development of inclusive AI models and applications.
- Close collaboration between national and regional governments, global AI leaders, enterprises, small businesses, academia, civil society and end users is essential.
  - Public–private partnerships and academic collaborations are particularly important ways to accelerate the development of successful and agile national AI ecosystems.
  - Such cooperation is crucial for creating initiatives and solutions that address the needs of local end users and key industry sectors, as well as encouraging the growth of domestic AI innovators.

ADULT & LIFELONG LEARNING

QAA published *Achieving credit transfer at scale: Do we want it, and how might we achieve it?*, a 'deep dive' analysis based on stakeholder engagement and focusing mainly on credit transfer under England's Lifelong Learning Entitlement, i.e. for domestic undergraduates.

- Credit transfer is defined as credit a student has accrued elsewhere, exempting them from modules or years of learning already undertaken.
  - 84% agree a sector-owned framework would be helpful in achieving credit transfer at scale.

- The main barriers to achieving credit transfer include: minimal strategic incentives for providers to engage with it; cultural aversions to accepting credit from other HEIs at face value; and the complexity and burden of processes.

- Solutions and levers through which the sector could improve its practice fall into three categories:

- **Making the process smoother for applicants**, including through: greater transparency and promotion; and simplifying and standardising the language used.
  - This would address the second biggest barrier – applicants don't realise credit transfer is an option, as it's not well advertised and is complex to understand.
  - Because it focuses on underpinning processes rather than the policy itself, providers retain full autonomy and circumvent many potential cultural barriers.
  - It is unlikely to increase enrolments via credit transfer beyond a provider's practical capabilities and better informed and prepared applicants would reduce the burden on providers.
  - It doesn't directly address the inherent strategic barriers, but requires the least investment; it may also enable a better understanding of true demand.

- **Improving credit transfer policies**, including through: developing a sector-owned good practice framework; actively engaging students on what information they need; exploring standard routes for sub-degree qualifications that can be automatically recognised for credit transfer.

- **Credit transfer at scale**, including through: exploring learning from existing models, e.g. articulation agreements and regional consortiums; a best practice threshold or charter for providers; potential 'light touch' regulatory action, e.g. through England's Access & Participation Plans.
  - This would be the most transformative but causes the greatest reluctance and the widest range of views, as it would require the biggest investment and the biggest compromises.
  - However, it aligns with broader trends within the sector in England and particularly the rest of the UK; an increasing focus on tertiary education and easier movement between FE colleges and HEIs would hasten this approach.
  - It would also encourage greater local and regional cooperation, prevent duplication of provision and enable more flexible skills pathways.
  - Degree apprenticeships demonstrate how it can be achieved; and it is already happening through articulation and progression partnership agreements.

WEF published *Future-Proofing the Longevity Economy: Innovations and key trends*, a white paper synthesising five key trends shaping financial resilience, including the need to ensure financial security.

- By 2031, nearly 25% of the workforce in developed economies will be aged 55+, highlighting the need for financial and employment systems that can enable career transitions and continued workforce participation.

- More than 60% of workers globally are in the informal sector and hence lack the safety nets provided by formal employment and pension systems, which increases financial vulnerability and limits economic mobility.

- The traditional notion of a linear career ending in a single retirement event is no longer a reality for many people.
  - Today's workers may make multiple career changes and undertake entrepreneurial ventures, as well as taking on caring responsibilities, while enjoying longer lifespans.

- This means they need to have access to, among other things, skill-building opportunities that enable them to meaningfully engage in the economy.
  - Many individuals who may be near or over retirement age but remain in good health may wish to continue working.
  - However, the lack of accessible, affordable training programmes means that they are often unable to transition into higher paying or more stable roles as they age, especially those who may have taken time away from their careers for caring responsibilities.
  - Additionally, older workers or those in marginalised communities are often overlooked when it comes to career development programmes, further exacerbating inequalities.

- Important actions include:
  - Support lifelong skill-building and career mobility by expanding access to continuous education and reskilling programmes.

- Encourage phased retirement and flexible work structures, allowing individuals to work in a reduced capacity while maintaining income security and essential benefits.
- Enhance financial protections for non-traditional workers, creating tailored retirement savings, insurance and emergency support structures for gig workers, freelancers and those in informal employment.
- Strengthen public policy guardrails for financial stability, establishing robust protections and benefits to support individuals navigating career transitions or other life events that mean they are unable to work for a period.
- Enable carer-related career transitions, providing resources and workplace flexibility to mitigate the financial strain of unpaid caring responsibilities.

- Innovative national practices include Denmark's 'Flexicurity' system, integrating various services, including job placement, training and financial advice to support individuals through various life stages.
  - The government invests significantly in education and training, with more than 20% of the workforce participating in adult education programmes in 2023; this promotes continuous skills development, helping workers adapt to the evolving demands of the job market.
  - It also provides generous parental leave policies, allowing up to 52 weeks of leave, with benefits covering a substantial portion of their salary.

[See also the Eurofound research on p. 42.]

QUALITY OF WORK & GOOD JOBS

The Warwick Institute for Employment Research (IER) published *The case for creating health jobs: A review of the evidence*, a ReWAGE* paper, identifying job aspects linked to ill health and good health and the policy implications.

- **Linked to ill health**: job insecurity; low pay; job strain/effort–reward imbalance; bullying and aggression; low task control/autonomy; role ambiguity; low skill and task variety; poor management; long working hours; and shift work.
- **Linked to good health**: job security; paid maternity/parental leave; a minimum wage/higher income level; task control; task variety; teamworking; peer and supervisory support; and scheduling choice and control.
- Policy implications:
  - If the Government is serious about wanting to shift to preventive healthcare, then greater attention needs to be paid to the interaction between jobs and population health; the link needs to become a commonplace consideration at sector and workplace level.
  - Change is likely to require regulation that mandates organisations to undertake proactive assessment of some potential health risks, including terms of employment as well as working practices, and the consideration of the short-term and longer term health impacts of both.
  - A mechanism for identifying, monitoring and enforcing minimum standards for each of the dimensions would be advantageous.
  - Beyond a regulatory framework, information, guidance and support for employers, from e.g. the Health & Safety Executive and ACAS, could ensure compliance with minimum standards and promotion of best practice.

**ReWAGE is an independent expert advisory group co-chaired by Warwick and Leeds Universities and hosted by Warwick IER.*

The Poverty Alliance published *Understanding Experiences of Low-Paid Work in the Hospitality Sector Over Time*, with the Fraser of Allander Institute, University of Strathclyde – a 'Serving the Future' project on workers in Scotland, funded by the Robertson Trust.

- The study was conducted via three waves of longitudinal interviews from 2022 to 2024, examining a group of hospitality workers' lives in the context of rising living costs, job insecurity and broader societal changes such as Brexit and the pandemic.
- Positive experiences often stemmed from: supportive management and respectful workplaces; access to training and career progression; and fair scheduling of shifts.
  - Very few participants were aware of any formal training or progression opportunities within their workplaces; those who mentioned training highlighted how it could help signal that their employer valued them and supported their growth, which fostered a sense of belonging and motivation.

- Negative experiences, e.g. unpredictable hours and poor management practices, created dissatisfaction and prompted some workers to leave the sector entirely.
- Challenges related to sustaining employment in the sector included: high turnover; a lack of progression opportunities; and physically and emotionally demanding work.

EQUALITY, DIVERSITY & INCLUSION (EDI)

ISER published *How has gender income inequality in Ireland and the UK changed and why?*, a Centre for Microsimulation & Policy Analysis working paper.

- The report examines the evolution of the gender income gap between 2008 and 2019 and evaluates the relative importance of gender differences in working hours, self-employment and hourly pay, as well as the redistributive effect of the tax–benefit system.
- The biggest driver of the gender income gap in both countries is differences in employment/self-employment and working hours.
  - These differences are especially large in the lower half of the income distribution, but their gradual reduction over the period studied led to a closing of the income gap in both countries.
- In contrast, the gender gap in hourly wages is more important in the middle and upper middle part of the income distribution, especially in the UK.
- The redistributive effect of the tax–benefit system by gender has fallen in the UK due to austerity measures but slightly increased in the RoI, primarily as a result of increased taxation.
- Further policy initiatives to align the employment rate and work hours of men and women in both countries could substantially reduce the gender gap in income in the future.

The City & Guilds Foundation published its third *Neurodiversity Index Report* with Do It Solutions, based on a survey of 1,050 individuals and 335 organisations in Sept–Dec 2024.

- The report examines the evolving landscape of neurodiversity in the workplace, including support systems, trends and ongoing challenges; among the findings:
  - 38% of organisations mention neurodiversity in their EDI policy and 36% have a neurodiversity policy; however, 59% haven't considered neurodiversity in the context of health & safety risks.
  - 21% have neurodiversity champions (-22ppt on 2023); 34% have peer mentoring (+6ppt).
  - 51% of employers have adapted their recruitment processes to accommodate neurodiversity (-1ppt).
  - 13% of UK employers have been involved in employment tribunals relating to neurodiversity.
  - Barriers to neuroinclusion include: lack of knowledge (39%); a focus on other priorities (30%); and cost (25%).
  - 41% of those in HR (+20ppt), 43% of senior leaders (+10ppt) and 35% of other managers (+7ppt) had specific training relating to neurodiversity.
  - 41% of neurodivergent employees have faced challenges in the workplace most days and 51% have had to take time off work because of this; the top four challenges are: balancing work and life; emotional wellbeing; being valued for the skills they have; and time management.
  - Three key themes: burnout due to excessive stress and fatigue; workplace conflicts; and mental health needs.
  - The top three ways of helping people thrive in the workplace are: flexible working; adjustments put in place; and attitudes of peers; only 5% highlight specific tools or software.
- The report offers more detailed findings for each stage of the employment cycle – attraction and recruitment; onboarding; performance management; development; retention; and change – as well as two company case studies (Cap Gemini and Harbour Energy).

Eurofound published *Keeping older workers in the labour force*, analysis of employment developments, job quality differences across age groups and differences in job quality among older workers, plus the policies and practices implemented by EU member states.

- Older workers in the EU are less likely than mid-career workers to become unemployed, but once they do, their risk of long-term unemployment is higher, and they face greater challenges in securing employment.

- 33% of older employees hold empowered jobs with good job quality, while 20% are in high-risk jobs with the highest levels of job strain, linked to lower mental wellbeing, financial insecurity and a poorer work–life balance.
- Gender inequalities in the workforce can worsen career prospects for older women and increase disparities in employment.
- Care facilities and social support are crucial for older workers, especially women, as many exit the labour market early to care for family members.
- Retention of older workers increased from 44% in 2010 to 57% in 2022, reflecting pension system reforms and tight labour markets.
- Job quality is better for older employees; this may be partly driven by the 'healthy worker' effect: employees tend to retire earlier from worse-quality jobs; older women have worse job quality than older men.
- Motivation to remain employed differs from motivation at work: older workers who are highly motivated at work may not be motivated to continue working until/beyond pension age; this may be influenced by e.g. self-determination, positive attitudes towards early retirement and cultural preferences.
- Ageism and discrimination persist in workplaces; despite legislation, many older workers face harassment and unfair treatment in recruitment, promotion and dismissal processes.
- Member states are incentivising extended working lives: many encourage delayed retirement by providing additional pension benefits for those who work beyond statutory retirement age.
- Flexible options for retirement have been introduced, e.g. allowing older employees to retire gradually, which helps retain workers who might otherwise leave work entirely.
- The retention of older employees requires work in e.g.: digital skills, hybrid and telework, HR practices, healthy workplaces, and occupational safety and health practices.
- Collective agreements focus on retention schemes and provisions targeting older employees, e.g. reduced working time, part-time work and phased retirement schemes.

A range of policy pointers are provided, including on: pensions, active labour market, social and gender issues, company policies and practices, and efforts by social partners. [See also the WEF report on p. 40.]

MANAGEMENT & LEADERSHIP

IZA published *Managing Skills in Organizations: Evidence from a field experiment*, a study of the value of skill management based on 2,582 technicians in a large tech company in Germany.

- The study varied managers' ability to monitor and manage employee skills; key findings include:
  - Reducing managers' ability to monitor and manage employee skills had crucial consequences for employee development, as it led to a substantial reduction in the likelihood of receiving training.
  - The intervention reduced employee performance, increasing the time to complete key work tasks; the negative effect on work performance would be associated with about US$1m higher personnel costs per annum.
  - The treatment also significantly reduced employee job satisfaction, meaning a reduction in monitoring not only had *no* positive effect on employee satisfaction but that monitoring of skills assessments is associated with higher employee wellbeing.
  - It also diminished employees' willingness to assess their own skill gaps, particularly among low-skill employees; instead of encouraging these employees to identify training needs, the removal of monitoring had the opposite effect.
  - High-skill employees, however, did not reduce their participation but appeared to reduce their effort in these assessments; this behaviour is driven by reduced reputational incentives when employees know their assessment outcomes are not observed.
- Conclusions include:
  - Active skill management and close managerial scrutiny of skill levels are crucial for organisational performance.
  - It fosters the willingness of low-skilled employees to assess their own skills, encourages high-skill employees to improve and acquire new skills, and ensures that leaders invest time in helping both groups strengthen their human capital.

International Comparisons

The OECD published *Empowered Citizens, Informed Consumers and Skilled Workers: Designing education and skills policies for a sustainable future*, taking a strategic lifespan perspective, spanning primary to HE and lifelong learning.

- Drawing on multi-disciplinary insights and examples from around the world, it provides insights and recommendations on the role that education and training can play in fostering transformative change and building resilient societies.
- The recommendations focus on: empowering citizens and communities for action; fostering informed consumption and lifestyle choices; and equipping individuals with the skills needed for changing labour markets in response to the greening of economies and societies.

Government

NORTHERN IRELAND (NI)

Matrix, NI's Science Industry Panel, published *Building On Our Strengths: Northern Ireland's growing space industry*, a study identifying NI as a key player in this rapidly expanding sector.

- The scoping study provides a comprehensive analysis of the nation's strengths in space-related industries and outlines a strategic roadmap for enhancing NI's role in the sector.
- Seven key pillars of opportunity: advanced manufacturing & engineering; aerospace; public sector applications; next-generation communications; cyber security resilience; green technologies & solutions; and dual market access.
- Among the recommendations:
  - Leverage existing capability in advanced manufacturing and space to align with future market requirements.
  - Expand on public sector–industry/research collaboration.

The Department for the Economy (DfE) published *Northern Ireland Skills Barometer 2023–2033*, developed by the Ulster University Economic Policy Centre.

- The NI workforce is projected to grow by 79k jobs to around 1m by 2033.
  - High rates of growth are forecast in sectors closely aligned with the DfE's priority sectors: agri-tech; life & health sciences; advanced manufacturing; materials & engineering; fintech/financial services; software & cyber; screen industries; and low carbon/net zero.
- Increasing labour force participation will be essential to ensure that businesses have access to a sufficient supply of labour to achieve growth objectives.
- Demographic trends and the structure of the labour market suggest a potential overall skills undersupply across all qualification levels, with a shortage of 5,400 individuals per annum. under a high-growth scenario over the next decade.

The Productivity Institute published *NI Productivity 2040: Addressing Northern Ireland's productivity gap for greater prosperity*, providing a roadmap to closing the gap.

- The report identifies the five key categories of productivity driver that result in NI's productivity persistently and substantially lagging that of the UK and the RoI.
- The categories of driver include **skills and training**, where the four key policy objectives that need to be addressed are:
  - Reduce the attainment gap by ensuring that fewer young people leave education with no or low qualifications, and increase the proportion of the workforce with higher level qualifications
  - Retain more graduates in the region and increase attractiveness for returning graduates and students from outside NI
  - Reduce the skills deficit by supporting employer training and helping firms improve their management practices
  - Increase rates of lifelong learning.

- The other categories are: business performance & characteristics; policy & institutions (where NI lags other jurisdictions substantially); the health & wellbeing of citizens; and investment, infrastructure & connectivity.

The Productivity Institute also published Regional Productivity Agenda: A guide to the productivity performance of the English regions and devolved nations*.*

ENGLAND

The Department for Education published *Curriculum and Assessment Review: Interim report*, based on over 7k responses to the independent panel's call for evidence and a range of research and polling.

- As part of its research, the panel considered post-GCSE pathways, identified as one of four key areas that offer the greatest opportunities and are in need of improvement.
  - Change is needed to ensure they support successful routes to further study or employment for all young people, especially those from less privileged backgrounds.
- In line with the aim of 'evolution, not revolution', particular areas of focus for the next stage will include considering:
  - the impact of current performance measures on choices and outcomes, and on institutional behaviours
  - how best to equip learners with the essential knowledge and skills to adapt and thrive in a rapidly changing and AI-enabled world
  - Level 3 pathways, with particular attention on how best to support learners who don't study A levels or T levels
  - how best to develop strong occupational pathways at Level 2 and strengthen progression routes from Level 2 to Level 3
  - how best to ensure learners who failed to achieve the required standard in English and maths GCSE are best supported to do so by age 18.

HEPI published *One Step Beyond: How the school and college curriculum in England can prepare young people for higher education*, its response to England's Curriculum and Assessment Review, based on a survey of 1,105 England-domiciled, full-time undergraduates.

- 83% said the curriculum prepared them well vs 14% quite/very poorly, but only 38% agreed they were 'ready for life and ready for work'.
  - 63% wanted more vocational skills, 52% more digital/IT skills and 49% oracy (speaking) skills.
  - 59% wanted more education on finances and budgeting and 44% on career pathways; 51% wished they'd had the opportunity to 'learn more life skills'.
- 47% felt well prepared for sex and relationships in HE, up from 27% in 2021; 28% disagreed; 58% wanted personal, social & health education to be compulsory to 18, while 36% didn't.
- 34% thought studying four/five subjects post-16 would give them 'greater fulfilment and satisfaction', while 50% supported the current two/three.
  - 41% wished they had taken different subjects.
- A sizeable minority, particularly women and those with SEN, didn't feel assessments prepared them well for HE or allowed them to fulfil their potential.
- Recommendations include:
  - A greater focus on ensuring all young people reach minimum standards in maths and English, alongside a greater push for digital, oracy and critical thinking skills
  - A renewed focus on creative subjects
  - A broader 16–18 curriculum, with students able to take four/five subjects
  - A clear alternative vocational route into HE
  - More education on financial planning
  - A 'pathways mentor guarantee' for every young person – a one-to-one conversation with an expert to advise on the best post-16 choices.

The National Audit Office published *Investigation into introducing T Levels*, including findings of general interest.

- The Department for Education initially overestimated student demand significantly but has revised down its estimates and meeting its estimate for student numbers in September 2024.
  - It has reduced its enrolment ambitions from 100k by September 2025 to 70k by 2027 and, due to low numbers, expects to spend £0.7b less introducing them than estimated in 2021 (£1.94b).
- Low student numbers, the announcement by the last Government of the Advanced British Standard (now reversed) and delays defunding overlapping qualifications have impacted market interest; some awarding organisations have made a financial loss.
- Apart from low awareness, a potential future constraint on numbers is a shortage of industry placements, although the Department has just downgraded this risk for the current year.
  - 98% of those completing in summer 2024 had undertaken an industry placement; the Department has various initiatives to help expand placements but no longer provides employers with financial incentives.
- Fewer students complete T Levels than other Level 3 qualifications, with pass rates declining year on year, although this is in line with expectations.
  - T Levels are also more expensive due to the cost of additional teaching hours and industry placements, as well as extra funding to support providers.
  - However, they are estimated to be 25% more economically valuable to students than comparable qualifications.

The House of Commons Library published *Technical education in England: T Levels*, covering their development, how they work and reactions, issues and reports; and *The review of level 3 qualifications reform*, providing background to the Government's review.

The Careers & Enterprise Company (CEC) published its annual report *Ready for work: Careers Education in England 2023/24*, drawing on insights from 230k young people, 4,751 schools/colleges and over 800 employers.

- Headline statistics include:
  - Average Year 11 career readiness score: 68%, +19ppt on Year 7.
  - 80% of Year 11 students understand apprenticeships vs 84% for A levels.
  - 80% of employers working with CEC Careers Hubs say it is helping to bring them apprentices.
  - Stated-funded schools/colleges met 5.8 of the eight Gatsby Benchmarks on average, up from 2.1 in 2018/19.
  - Schools/colleges in Career Hubs achieved 6.3 Gatsby Benchmarks on average vs 3.8 for non-members and 5.3 who had joined since 2022.
- The report provides analysis on three areas of focus: how careers education addresses disadvantage; its contribution to economic growth; and how it drives all young people's readiness for work.
- In order to drive more progress, it proposes that:
  - Employers of all sizes across all sectors should provide more meaningful workplace experiences to help remove barriers for disadvantaged young people.
  - Careers leaders should work with Careers Hubs to build relationships with employers and develop data-driven practice, helping young people make informed choices, strengthening talent pipelines and supporting key industries' growth.
  - Teachers and parents should engage with careers leaders and employers to give all young people early exposure to the world of work.

Based on evidence of the value of multiple work experiences throughout secondary, CEC is piloting a new framework approach – called equalex – with four Mayoral Combined Authorities across England.

The SMF published *Saving apprenticeships: A policy primer*, outlining short- and long-term strategies to create a skills system that properly encourages genuine apprenticeships.

- Apprenticeships are critical for filling skill shortages in key industries like construction and IT, addressing youth unemployment and driving economic growth.
  - Public support is strong, with 76% of people prioritising greater apprenticeship opportunities over university expansion.

- However, the number of apprenticeships for young people in England has fallen significantly, with only 23% of all starts being by under-19s in 2023/24 vs 41% in 2008.
  - 49% of apprenticeships are now taken by those aged 25+.
- In 2022/23, 69% of total apprenticeship spending went to levy-paying employers, with many using funds for existing employees' upskilling rather than new hires.
  - SMEs, which employ 61% of the UK workforce, struggle to access apprenticeships due to limited funding and administrative barriers.
- Non levy-paying SMEs account for under 33% of apprenticeship starts, yet over 50% of these apprentices are under 19.
  - Large firms concentrated in economically successful areas dominate levy usage, leaving disadvantaged regions with fewer training opportunities.
- Recommendations include:
  - Ringfence apprenticeship funding for under 21s
  - A universal levy system that includes all employers as contributors
  - A policy framework to fund workplace upskilling separately from apprenticeship programmes
  - Devolve apprenticeship funding and oversight to local authorities.

The House of Commons Library published *Institute for Apprenticeships & Technical Education (Transfer of Functions etc) Bill 2024–25*, a briefing including information on the state of skills in England, apprenticeships and skills bodies, and apprenticeships policy.

The House of Commons Library published briefings on *Higher education finance and funding in England*, *Tuition fees in England: History, debates and international comparisons* and *The value of student maintenance support*.

SCOTLAND

The Scottish Government introduced the *Tertiary Education and Training (Funding and Governance) (Scotland) Bill* in the Scottish Parliament.

- The Bill aims to simplify the way funding is provided for post-school education and skills training, including apprenticeships and WBL.

The SFC published a set of reports from its Regional Tertiary Pathfinders programme launched in 2022.

- The project explored how collaboration among tertiary institutions, employers and stakeholders could lead to 'more coherent, well communicated and sustainable education pathways and provision', aligned with regional economic and skills priorities; the reports are below:
  - *A System Level Report*: an overview of the seven pilot projects conducted in two regions, North East and South of Scotland, led by partnerships including colleges, universities, enterprise bodies, local councils and SDS; it includes lessons from the different models
  - *Developing Demand-Led, Aligned and Sustainable Learner Pathways* led by North East Scotland College (NESCol) and Robert Gordon University (RGU), on new learner pathways in ten curriculum areas
  - *Enhancing the Senior Phase*, two local authorities, NESCol, RGU and the University of Aberdeen developed new HNC level 7 pathways for senior school students
  - *Enhancing and Coordinating the Region's Simulation Infrastructure for Health and Social Care Education*, involving two universities, two colleges, NHS Grampian and private employers
  - *Energy Transition Skills Interactive Pathway*, on the National Energy Skills Accelerator's development of an Energy Career Pathways Tool to help people identify qualifications needed for specific jobs and where to study them
  - *South of Scotland Digital Pathfinder*, led by Dumfries & Galloway and Borders Colleges on improving the digital skills of post-16 learners and meeting employers' skills needs; an interactive Digital Skills Map was developed
  - *South West Educational Pathways*, led by UWS and Dumfries & Galloway College, developed two new integrated degree pathways in cybersecurity and business

- *Developing a Joint Prospectus for Learning and Innovation in the Land-based Sector*, involving Scotland's Rural College and Borders College working in partnership.

- Evaluation Support Scotland also published a *Final report* summarising the views gathered from participants at sessions on lessons learnt from the pilots, on themes including good practice in learner engagement and in employer engagement, gathering and using intelligence and data, and:
  - **Collaborative working to achieve curriculum change**: improved course content and made it more responsive to employer needs; and made it easier for students to transition between institutions, e.g. by providing credit for prior study or creating specific school-to-college programmes
  - **Conditions to enable change**: clear governance structures; a project coordinator and team with on-the-ground knowledge and the authority to make decisions; creating a culture of trust; and seed funding.

The Carnegie Trust for the Universities of Scotland published *Public Perceptions of Higher Education Funding in Scotland*, based on findings of an Ipsos survey of 1,057 adults aged 18+ living in Scotland in December 2024.

- Knowledge of how university education is funded in Scotland is relatively low – 65% of respondents felt they knew little or nothing about it.
- Support for Scottish Government funding was widespread; 44% said it should cover costs for all first-time undergraduates in Scotland, 43% said it should only cover the costs of those on low incomes, with the rest paying at least some of the cost of tuition.
- 72% said the cost of living is the main barrier to applying to or going to university in Scotland.
- Priorities for funding for post-school education included: apprenticeships in key areas, e.g. trades or accountancy (61%); grants/bursaries for those from disadvantaged/low-income households (50%); and opportunities for working-age adults on low income to upskill/retrain for higher paid jobs (43%).

The Trust is now commissioning a 'Citizen Jury' to consider evidence and make recommendations.

WALES

The OECD published *What Shapes Pathways and Transitions? A comparative perspective on learners' trajectories through upper secondary education in Wales*, commissioned by the Government to support implementation of the Curriculum for Wales across 14–19 education.

- Drawing on insights from eight comparison systems* and OECD-wide data, the report highlights policy pointers for Wales to support progression in learners' pathways and to enable transitions to FE and HE – and the world beyond – for all learners; these include:
  - Provide further support and guidance for schools on how to integrate careers & work-related education into their curriculum, in partnership with other schools, FE providers and employers.
  - Ensure that accountability measures and school improvement processes prioritise the role of schools in informing learners about future options.
  - Explore creating pathways that build on the foundations learners have as they enter post-16 education, including filling in gaps in knowledge and skills, and creating a pathway towards 'completion'.
  - Ensure opportunities for employers to engage in high-level conversations about what young people who have completed upper secondary education and with particular qualifications should know and be able to do; this can be a part of wider activities to ensure that learners don't fall through the cracks during transition periods.
  - Consider how to collect a broader range of information about learner experiences and the support they receive in advance of post-16 transitions; in Estonia, upper secondary learners complete a satisfaction survey focused on their upper secondary experience.

**British Columbia (Canada), Estonia, the Netherlands, New Zealand, Portugal, the RoI, Singapore and Sweden.*

REPUBLIC OF IRELAND (RoI)

The National Council for Special Education published *Paths, Tracks, Gaps and Cliffs: The post-school transitions of students with special educational needs*, by the Economic & Social Research Institute, based on surveys, interviews and the Growing Up in Ireland study.

- The experiences of young people with SEN or disabilities are explored as they transition from second-level education into subsequent pathways.
- Key findings include:
  - Transition preparation at school was generally perceived positively, particularly by young adults and their parents in special schools; however, schools are doing less well in preparing students for adult life, independent living and career decisions.
  - Students, especially those reporting multiple conditions, were less likely to report being encouraged to pursue education or training and to feel adequately supported.
  - Most students either planned to continue their education or progress to work after leaving school; students from more highly educated families are more likely to apply for post-school courses.
  - In some schools, a lack of information on non-HE pathways pushed students in that direction; in schools in more disadvantaged areas, students felt funnelled into Post Leaving Certificate courses and apprenticeships rather than HE.
  - There was a desire for increased work placement opportunities, but schools reported growing barriers to organising and supporting student work experience and placements.

SOLAS (Further Education & Training Authority) published *Monitoring Ireland's Skills Supply 2024: Trends in education and training awards*, aiming to show the potential skills available from those leaving Ireland's FE & training and HE systems.

- The report includes: a summary of the number of awards made to learners by field and National Framework of Qualifications level in 2023; and the profile of the educational attainment of the population based on data from the Central Statistics Office Labour Force Survey.

Skillnet Ireland published its second report on *Ireland's Talent Landscape 2025: Future skills challenges of Irish business*, based on an Ipsos Behaviour & Attitudes survey of 500 business leaders across all sectors, sizes and regions.

- Businesses recognise that upskilling, reskilling and talent development are crucial in enabling continued competitiveness in the marketplace.
- There is growing consensus on the importance of AI, diverging levels of AI usage across sectors and a strong awareness of the skills required to integrate AI successfully and the barriers businesses face to do this.
  - 54% of companies are yet to use AI but 66% believe it has the potential to grow their business within the next two years.
- 60% of SMEs said digital technologies would increase the productivity of their business in the coming years; key skills include use of Microsoft Office (77%), cloud computing (63%) and AI (37%).
  - 66% of SMEs said a shortage of skilled workers was a challenge in becoming more sustainable.
- Large businesses need more specialised digital skillsets, including in blockchain (80%), business intelligence (90%), internet of things (87%), cloud computing (87%), data analytics (87%) and AI (64%).
- There is a 'green talent' shortage – 19% struggled to source staff with adequate skills; 33% of business leaders said over 50% of their workforce would require climate action or sustainability support over the coming years.
  - 98% of larger companies reported a pressing need for upskilling for climate action and sustainability.

Cedefop published *Inventory of lifelong guidance systems and practices – Ireland*.

- Since publication of the *National Strategic Framework for Lifelong Guidance (2024–2030)* in 2023, responsibility for career guidance policy provision has been shared by different national authorities.
- The vision is to have 'a more unified guidance system', which will allow all individuals to have access to high-quality, holistic and appropriate lifelong guidance aligned to their requirements at different phases of their lives.

- Four strategic action pillars:
  - Visibility and awareness of lifelong guidance services and information provision
  - Standards and quality throughout the lifelong guidance system
  - Access, inclusion and universal design
  - Career-management skills and lifelong career mobility.
- Eight objectives:
  - Enhance cooperation and coordination between those responsible for lifelong guidance with clear division of responsibilities and strong coordination.
  - Ensure greater awareness and access to lifelong guidance to make meaningful, well-informed and conscious decisions about education and careers in an everchanging world.
  - Embed lifelong guidance within the world of work.
  - Improve clarity around standards and quality in lifelong guidance.
  - Further develop evidence-based policies that will help to improve the quality and impact of lifelong guidance.
  - Promote inclusion and equity of access through the provision of lifelong guidance, which is underpinned by a universal design approach.
  - Strive to ensure career-planning and management skills will be a consistent focus of guidance provision.
  - Support career mobility for individuals through guidance provision throughout the lifespan.

EUROPEAN UNION (EU)

The European Commission published *Union of Skills: Investing in people for a competitive European Union*, a strategy to address the skills and labour gaps across the EU by improving education, training and lifelong learning.

- The strategy aims to: support higher levels of basic and advanced skills; provide opportunities for people to regularly update and learn new skills; facilitate recruitment by businesses across the EU; and attract, develop and retain top talent in Europe.
  - In education, the strategy focuses on basic and STEM skills, with an *Action Plan on Basic Skills* and a *STEM Education Strategic Plan*.
- Key components of the Union of Skills include:
  - **Building skills, education and training** is essential for creating good jobs and improving lives, e.g. piloting a basic skills support scheme, improving skills in STEM, promoting STEM careers, attract more women, and preparing people for digital and clean-tech transitions.
  - **Regular upskilling and reskilling** as part of people's professional lives, e.g. expanding the use of microcredentials, helping more workers gain new skills in strategic sectors, piloting a skills guarantee for those at risk of unemployment.
  - **Helping the free movement of workers**, e.g. enhancing the portability of skills and qualifications across the EU; working towards a new European VET diploma; strengthening European universities alliances.
  - **Attracting, developing and retaining talent**, crucial for innovation, growth and competitiveness, e.g. an EU talent pool for recruitment of those from outside the EU at all skills levels; a visa strategy to make it easier for top students, skilled workers and researchers.
  - **New governance**, informed by a European Skills Intelligence Observatory, involving education and training providers, business leaders and social partners via a European Skills High-Level Board.

The European Commission published *Report on the outcomes and transformational potential of the European Universities initiative*, an assessment of achievements since alliances were established in 2019 and their impact on European HE and transnational cooperation models.

- The European Universities initiative comprises 65 alliances involving 570+ HEIs across Europe.
- Five core dimensions: transnational institutional cooperation and shared governance; joint education provision and mobility; cooperation with society and economy; research and innovation; and outcomes for the wider HE system.

- Benefits of the initiative include: bringing Europeans closer together to study and work and nurturing understanding; significantly multiplying opportunities for students and staff; and universities pooling their expertise, knowledge and resources, enhancing competitiveness.

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 *Monitoring progress: Key developments in national VET implementation*, a news report summarising common trends in VET captured by its recent series of country reports on *Implementing European priorities in VET*. *[See* Skills Research Digests *Q3 & Q4 2024.]*

- Strengthening the attractiveness of VET and making it an inspiring choice for learners and workers is among the EU's top priorities; common trends from the country reports include:
  - **Aligning VET with labour market needs:** countries have increasingly tailored curricula to meet workforce demands, supporting learning pathways and lifelong learning opportunities.
  - **Curriculum reforms and modernisation:** many countries have updated and introduced new VET programmes incorporating emerging technologies and green and digital skills.
  - **Expanding WBL:** strengthening apprenticeships and other WBL models is seen as crucial for bridging education and employment.
  - **Flexible and modular learning:** more countries are implementing microcredentials, modular training programmes and recognition of prior learning to enhance flexibility.
  - **Investing in VET infrastructure and advocacy:** governments are modernising facilities, promoting VET careers through success stories and encouraging participation in national and international skills competitions.
- The evolution of learning methods has significantly contributed to making VET more attractive.
  - Key trends include: increased adoption of blended and distance learning models; greater support for cross-border learning experiences; easier transitions between VET and HE; continuing professional development (CPD) for teachers and trainers; and the development of online learning platforms to improve accessibility.
- Engaging various stakeholders – local governments, employers, VET providers and experts – has been crucial in shaping and implementing VET policies.
  - Efforts have been made to strengthen partnerships, with employers playing a key role in defining WBL demands and trade unions advocating for apprentices' rights and training quality.
- While national priorities and measures vary based on individual contexts, some common challenges persist:
  - Sustaining reforms and ensuring policy continuity
  - Financial planning and securing long-term investment in reforms
  - Strengthening stakeholder collaboration and the involvement of employers, educators and policymakers in VET development.

Cedefop published *Bridging the gender gap in vocational education and training: National success stories*, a news report.

- Across Europe, female graduates in STEM subjects remain scarce: engineering (7.1% of all graduates); architecture and construction (12.6%); ICT (2.5%); natural science, maths and statistics (15.4%).
  - Conversely, certain VET fields are predominantly female, such as health (83.1%), welfare (86.6%) and education (96.3%).
- However, some countries are forging a new path to challenge stereotypes and foster inclusivity in VET through initiatives to shift these trends, implementing policies and campaigns to challenge gender norms; they include:
  - **The RoI –** Fact, Faces, Futures campaign showcasing diverse female role models and success stories to encourage girls to consider apprenticeships, leading to a significant rise in women's registrations.

- **Austria – Promoting gender equality in apprenticeships**: Austria has seen a sharp increase in female apprentices thanks to initiatives like the Digital Pioneers project, which trains young women in programming, digital skills and business innovation; the Austrian Economic Chamber also funds projects supporting women in non-traditional fields, while Women Entrepreneurs Go to School has been inspiring girls to pursue entrepreneurial careers since 2017.
- **Sweden –** Science and technology for all: this programme develops materials and activities to increase interest in STEM subjects, especially among women; in 2022, curricular changes were also introduced to challenge traditional gender roles and combat sexism and sexual harassment.

The OECD published two policy papers on 'Promoting Quality and Excellence in HE & VET', focusing on ten European jurisdictions, including: Austria, Denmark, Estonia, Finland, Norway, the RoI and Scotland.

- *Ensuring quality in VET and higher education: Getting quality assurance right* reviews recent policy developments in external evaluation and quality assurance
- *Fostering excellence in higher education and VET: Going beyond quality assurance* examines a wide range of quality-focused policies, other than quality assurance, used by governments to promote pedagogical innovation and enhancement in HE.

Czechia

Cedefop published *Czechia: Preparation of national support for microcredentials*, a news report.

- Czechia is implementing the 2022 European Commission recommendation on microcredentials with projects that aim to create a unified framework for recognising and accrediting them across education sectors.
  - The goal is to integrate them into existing education programmes and raise public and employer awareness of their benefits.
- The system is still developing: large companies – such as IBM, Microsoft Learn and Unicorn University – use their own microcredential systems linked to internal quality assurance mechanisms.
  - However, these models aren't interconnected and target only specific market segments.
- Upper secondaries are also showing interest, particularly in lifelong learning, as they address legislative requirements that set qualification criteria for different job roles.
  - However, the adoption of microcredentials poses challenges for many institutions, particularly in terms of the quality and attractiveness of the courses offered.
- In 2022, all 26 public HEIs joined a two-year project under the National Recovery Plan to: adopt a common microcredentials format; standardise learning outcomes and credit volumes; develop a methodology for recognition; and launch a joint verification system.
  - They are currently finalising an online catalogue of public HE courses leading to microcredentials and some have already issued the first microcredentials, while others are preparing for their launch.
  - Czechia has now caught up with the RoI and the Netherlands, which introduced national frameworks for microcredentials earlier.
- In October 2024, the Ministry of Education, Youth & Sports, in collaboration with the OECD, launched a two-year project to harmonise microcredentials across HE, VET and non-formal learning.
  - It includes meetings between national and international education and labour market experts and regional focus groups to get input from employers, education institutions, professional associations and authorities.
- A separate project, running to the end of 2027, is setting quality standards for microcredentials, supporting economic transformation in individual regions by targeting both students and adults and aligning with the emerging system.

Denmark

The Ministry of Children & Education published *Fewer people will drop out of vocational education: Large investments will increase expenses per skilled worker by up to 50 percent*, a news report.

- The Government plans to allocate 660m kroner (£76m) annually from 2030 to significantly strengthen VET programmes through Prepared for the Future VII – its third proposal on VET.

- While VET is already a success in many ways, 40% of students drop out and access to VET has decreased significantly over the last 10 years, resulting in a decreasing number of skilled workers.

- The proposal includes five key initiatives:
  - Schools will be funded directly, giving them the freedom to assess locally how they create the best VET framework and support their students to complete it, including by increasing wellbeing and creating greater coherence between teaching at school and the time spent training in a company.
  - Funding will be allocated to provide teacher CPD and for schools to bring in skilled workers from companies to teach at their school.
  - Funding will be allocated to 'strengthen youth environments', including increasing cooperation between vocational schools and 10th grade, e.g. by setting up homework cafes in vocational schools and running excursions and company visits.
  - Vocational schools will also be required to visit students in their training establishments, to ensure greater coherence and better support; schools will have clear responsibility for facilitating and following up on collaboration with the training establishment.
  - The Government wants it to become as common for vocational students and apprentices to spend time abroad as it is for students in HE; the ambition is for numbers to increase five-fold by 2035.

Estonia

Eurydice published *Estonia: AI Leap Initiative to enhance learning and teaching*, a news report.

- The AI Leap (TI Hüpe) Initiative is a national programme to integrate AI into education.
  - Led by the Ministry of Education & Research, it aims to strengthen students' digital and AI competencies, alleviate teachers' administrative workload and enhance decision-making tools for education policymakers.

- 20k students in grades 10–11 and 3k teachers will gain access to AI-powered learning applications in a cross-sector collaboration supported by government and leading technology entrepreneurs.
  - In 2026, the initiative will be introduced to vocational schools and new 10th-grade students, reaching an additional 38k students and 2k teachers.

- Built on Estonia's rich history of advancing digital skills in education, the initiative follows in the footsteps of the Tiger Leap (Tiigrihüpe), which was launched nearly 30 years ago to introduce cutting-edge technology in schools.

- Teacher training is planned for autumn 2025, followed by the introduction of the tools for students.
  - Negotiations with partners such as OpenAI and Anthropic have been initiated and additional international partners are planned in the future.

Finland

Cedefop published *Finland: Foresight reports on skills and education needs added to education statistics*, a news report.

- Foresight reports published by the Finnish National Agency for Education (EDUFI) are now available as customisable, interactive data visualisation reports; they report on four topics:
  - Qualifications: published for the first time in 2024, this estimates the number of graduates expected to enter the workforce in 2030, by education field.
  - Competence needs: outlines what type of field-specific competences will be needed at work by 2030.
  - Education & training needs: assesses what kind of education and training will be needed for the workforce from 2019 to 2040, by education sector and field.
  - Match between supply and demand of labour: assesses the balance of the two from 2019 to 2028, by occupational field.

- The data can be used for e.g. planning the number of qualifications offered, redesigning qualifications, identifying organisational skills needs and supporting study and career guidance.
  - Visualisations are easy to use in presentations, while numerical data are also available for download as data tables.

The reports will be revised every two years and are available in English, Finnish and Swedish.

Cedefop published *Finland: Share of VET students with migrant background increasing*, a news report.

- A recent EDUFI report shows that in 2023, 15% of VET students had a native language other than Finnish, Swedish or Sámi, up from 13% in 2021 and 11% in 2018.
  - They represent 17% of initial vocational qualification students but only 9% of those taking further and specialist vocational qualifications.
  - They pursue qualifications in social & health care, restaurant & catering and cleaning & property services more often than other students.
  - In 2023, most of them were originally from Russia, Estonia, the Philippines, Iraq and Ukraine.
- Although surveys show that students with a migrant background are generally satisfied with their studies, they experience bullying and harassment more frequently (9% vs 5% of all respondents).
  - In a 2022 survey, 13% reported that discrimination and racism had led them to consider changing study fields, switching VET institutions or discontinuing their studies vs 7% for Finnish and Sámi-speaking respondents and 12% for Swedish speakers.
  - 20% cited language difficulties as a reason for considering a change in field or institution or discontinuation of studies.

Eurydice published *Finland: Streamlining university admission with unified entrance examinations*, a news report.

- In Finland, most students are selected for university study through two methods: their performance in the matriculation exam at the end of general upper secondary ('certificate based'); and entrance exams that assess general academic readiness and field-specific skills.
  - In recent years, most students have been admitted through certificate-based selection.
- From 2025:
  - The number of entrance exams will be reduced from 120 covering different universities and fields of study to just nine common national exams combining multiple fields of study and organised to avoid clashes, so that students can apply for all the programmes they are interested in.
  - The entrance exams will take place slightly later in the year, so that applicants receive their certificate-based results before taking the entrance exams.
  - All the new entrance exams will consist of: a section for all applicants, assessing general academic readiness and skills and competences relevant to all fields covered by the exam; and a separate field-specific section; some fields of study will also have an aptitude test.
  - Applicants will still receive preparatory materials, but these will be significantly shortened and provided only two to four days before the exam, depending on the field of study.
- The aim is to reduce the burden on applicants and to give them a better opportunity to apply to various fields and to several universities.
- Fields like engineering and education have had joint entrance exams for years and they have proved effective for both applicants and universities; this provides a solid foundation for the wider reform.

Iceland

Cedefop published *Iceland: Competence requirement on sustainability added to VET job descriptions*, a news report.

- For many years, the Icelandic government has emphasised environmental and climate issues in official development cooperation.
  - Iceland's policies are aligned with the international agreements it has joined, approved or ratified, forming a comprehensive framework for global development.
  - The government now supports the UN's SDGs for a sustainable world by 2030.
- As a member of the UN Framework Convention on Climate Change and other related agreements, the Ministry of Education & Children has encouraged educational bodies to emphasise environmental and climate issues when drafting or revising curricula.
- This includes VET: when reviewing job descriptions and competence requirements, not only are technical changes in jobs considered, but also environmental issues, feeding in turn into the national VET curricula.

- In September 2023, a new competence requirement concerning sustainability and environmental issues was added to all job descriptions and competence requirements across all VET sectors.
  - The requirement is assessed personally for every apprentice at the workplace, with the master craftsman evaluating work performance against viability goals, e.g. choice and use of materials and work processes while working on different tasks.
- As a result, when job descriptions and competence requirements are drafted or updated, reviewing them through this method has become a widely accepted practice across various professions.

Luxembourg

Cedefop published *Luxembourg: Language-integrated work-based learning for young adult migrants*, a news report.

- In September 2024, Luxembourg introduced a new apprenticeship programme format, combining WBL with intensive French language training.
- The programmes target 18–23 year-olds who can't access regular VET programmes due to insufficient proficiency in the country's teaching languages (German, French and English).
  - Many participants have experienced disruption in their educational pathways and learning, and have been schooled in multiple languages during transitions between countries.
  - Although many have prior professional experience or have acquired skills through formal, non-formal or informal learning, they may struggle with independent reading and writing in the Latin alphabet.
- 10 language-integrated VET programmes leading to a Certificate of Professional Capacity at European Qualification Framework Level 2 are offered in a range of occupations.
  - The curriculum follows the standard dual-learning programmes involving in-company training and leads to the same national exam, ensuring uniform quality standards.
- After a six-week introductory phase, learners sign a contract with the National Centre for Continuing Vocational Education & Training (CNFPC) and earn a salary equivalent to 60% of that earned by in-company apprentices.
- The WBL is conducted on CNFPC premises, combining practical training with language instruction, using team teaching during both practical sessions and theoretical classes.
  - Classes comprise six to eight learners to encourage interaction and provide tailored, individual support.
  - The innovative methodology emphasises fluency over accuracy, enabling learners to build confidence and autonomy in their language use more quickly.
  - To ease the apprentices' transition into the labour market, opportunities for internships in partner companies are offered during school breaks, starting in the second year.
- The initiative aims to make VET in Luxembourg more inclusive, reduce language barriers, improve accessibility for young, recently immigrated third-country migrants and increase their chances of sustainable labour market integration upon achieving a qualification.

New Zealand

BCG (Boston Consulting Group) published *What Will New Zealand Be Known for in 2050?*, an investigation into the future of NZ Inc.

- Over the last 50 years, New Zealand's economy has been reshaped and bolstered by growth in export industries such as dairy, film and tourism; however, milk production is reaching its peak, film has limited possibilities and travel habits are changing.
  - Climate change, the war for talent, technological innovation and global fragmentation threaten its current and future industries.
- NZ faces a growing talent gap, particularly in highly skilled industries, with a significant number of skilled migrants, including doctors and engineers, preferring countries such as Australia and Canada, while emigration has steadily increased.
  - NZ has a net migration gap of 60k compared with pre-Covid, 70% of whom are 15–34 year-olds.
  - In a 2023 survey, 90% of NZ employers said they were struggling to fill vacancies with 71% saying that highly skilled jobs were the hardest to fill.

- Historically, NZ has underinvested in innovation that drives high-value industries, with R&D expenditure at 1.4% of GDP, well below the OECD average (2.5%) and far behind innovation leaders such as Denmark (3.0%) and Israel (4.9%).
- Geographically concentrated ecosystems have many advantages: players can share specialised resources, including infrastructure, training and venture capital.
  - Proximity concentrates talent, creating a common labour pool and making it easier to match demand and supply.
  - All of this facilitates knowledge transfer between start-ups, established firms, universities, research institutions and investors; but it is a radical change for NZ and requires high-level coordination.
- Using three criteria – global market size, global rate of growth and 'right to win' (natural advantages and existing infrastructure) – five potential ecosystems are identified: agriculture 4.0; space and satellites; green tech; future of medicine; and creative industries.

Norway

The Ministry of Culture & Equality published *Strategy for Gender Equality 2025–2030*, including 'objective 2: fewer gendered educational choices', with three goals.

- Fewer gendered choices in upper secondary education, by:
  - Reversing the decline in educational attainment, particularly among boys
  - Making it mandatory for lower secondary schools to offer career guidance and by better integrating career education, education choices and elective subjects
  - Following up on a 2024 report on reducing gender-divided educational choices
  - Monitoring the impact of the national competence standards for career guidance in schools
  - Following up on and continuing relevant ongoing projects, e.g. Men in Health.
- Lower drop-out rate among boys in upper secondary school, by:
  - Continuing the pilot project for an apprentice/trainee 'buddy' scheme to help upper secondary pupils secure a placement.
- Better gender balance in HE, by:
  - Developing the Boys into Health Studies project into a national multi-year initiative
  - Continuing ongoing projects, including Girls & Technology
  - Continuing the national teacher recruitment project to increase the number of applicants and promote greater diversity.

Cedefop published *Norway: New national centre to champion vocational excellence*, a news report.

- Norway is taking a significant step forward in improving its VET landscape, with the establishment of a National Centre for Vocational Studies that will open in Molde in 2025.
  - It marks a shift towards modernising and integrating VET with advanced research and industry feedback.
  - Collaborations with social partners, such as the Norwegian Confederation of Trade Unions and the Confederation of Norwegian Enterprise will be crucial in shaping its programmes.
- The initiative shows the Government's commitment to strengthening vocational pathways; its primary mission is to act as a hub for innovation and collaboration, bringing together educators, industry leaders and policymakers.
- The decision to locate the centre in Molde also aligns with strategic goals, as the city offers a strong vocational programme enrolment and proximity to a diverse industrial base.
  - By establishing the centre in Molde, the Government is also laying a foundation for sustainable growth in Norway's workforce capabilities; it reaffirms the country's dedication to nurturing talent that meets both national and global standards in technical and vocational professions.
- A recent Ministry of Education-commissioned report, by a working group including stakeholders from unions, employer organisations and regional authorities, highlighted the need for such a centre.
  - It pointed out that while Norway had made progress in VET, a centralised approach was essential for scaling successful models and driving forward-thinking VET strategies.

- The new National Centre aims to comply with European standards for: quality assurance (EQAVET); documentation of skills and qualifications (Europass); transferring study credits across borders (ECVET); and terminology for jobs and skills (ESCO).
  - The standards will help align Norwegian VET with European guidelines, supporting the quality of training and mobility for Norwegian skilled workers.

Sweden

Cedefop published *Sweden: online training supports implementation of work-based learning*, a news report.

- In Sweden, upper secondary VET is available through: school-based programmes that incorporate at least 15 weeks of WBL; and apprenticeships, in which at least 50% is WBL.
- In 2021, the Swedish National Agency for Education (Skolverket) launched an online training programme to strengthen the implementation of WBL in upper secondary VET.
  - Its goal was to inspire schools to adopt a systematic approach to ensuring that upper secondary students acquire high-quality vocational skills in the workplace.
- The programme was revised in 2024, and divided into five core four-hour modules that can be taken in any order:
  - Action plan: baseline analysis and action plan
  - Working life: promoting long-term and successful cooperation with the labour market
  - Work-based learning: creating and maintaining high-quality WBL
  - Learning: improving student learning in the context of WBL
  - Work-based learning for everyone: preparing students for WBL.
- The online programme includes video examples illustrating various perspectives from schools and researchers; these are accompanied by discussion material for peer learning at school.
  - The programme is free of charge and no login is required; an updated version was launched in January 2025.

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