

CONSULTATION

NCUB Response to the Public Accounts Committee (PAC) call for evidence: Developing Workforce Skills for a Strong Economy

Submission by: National Centre for
Universities and Business (NCUB)

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About NCUB

1. The National Centre for Universities and Business (NCUB) represents a collective voice of leaders across higher education and business and aims to tackle issues of shared interest. The NCUB is an independent and not-for-profit membership organisation that promotes, develops and supports university-business collaboration across the UK.

Context

2. Research, development and innovation are vital drivers of economic growth and productivity gains in any modern, globally connected economy. The UK government has recently set out an ambitious growth target of a 2.5% trend rise in GDP through its Growth Plan, supported by a package of supply-side policies including tax cuts, investment incentives and deregulation, intended to unleash the private sector.
3. NCUB supports the government's aim of driving economic growth, but this will only be achieved if it is backed up with targeted policy interventions and investment in research, development and innovation (RDI), and skills. Innovation and growth policy must equip universities and innovative businesses with the resources and skills they need to create and develop next generation technological innovation; innovation which will then shape the future global economy.

The UK skills gap

4. The UK and the global economy will continue to become more complex. New technologies will transform existing sectors and create new ones. Global challenges such as mitigating and adapting to climate change, and identifying, containing and managing future health threats will need novel, integrated solutions. At the heart of the UK's ability to respond to, and indeed benefit from, such issues is our ability to train and attract people with the right skills to thrive in such a complex world.
5. However, the nation is facing acute skills-gaps and staff shortages, and a reduced supply of workers from around the world. Demand for skilled workers now outstrips supply, as the total number of Workforce Jobs in the UK in June 2022 sat at a record 35.8 million, whilst the employment rate is at an all time high of 75.4%.¹ Vacancies have risen above a million for the first time in history.² These labour shortages, which are likely to become a permanent rather than a temporary feature of the UK labour market, risk holding back growth and pushing up inflation even higher, as skills-gaps lead to higher wages which compounds inflation.
6. On behalf of UK businesses and universities, NCUB has voiced serious concerns that this skills mismatch will disrupt economic recovery.³ There are worrying signs that employers across a multitude of sectors, from manufacturing to medicine,⁴ are currently facing difficulties in hiring, whilst unemployment remains high. For the UK economy to be competitive internationally, in an increasingly complex global market, **businesses require more skilled workers in order to operate efficiently and fulfil their potential.**
7. In the 2021 Spending Review, Government committed around £10bn to employment and skills support for those who are unemployed. Government initiatives to tackle unemployment, such as the "Way to Work", Kickstart, and Restart schemes, should be revisited, as the labour market is now different, and unemployment is at historically low levels.
8. The skills gap has worsened since the UK's vote to leave the EU and the COVID-19 pandemic; the number of job vacancies has soared by 65% since 2017 and by 54% since the onset of the pandemic. NCUB urges the Government to review and reform student and working visas, such as the Global Talent and the High Potential Individual visas, which cost between £600-£700 in application fees alone. Reducing cost and bureaucracy in the visa system will allow the UK to attract and retain overseas students and workers.⁵ More than half of the UK's postgraduate

¹ ONS Labour Market Overview, UK: September 2022. Data from May to July 2022 for those aged 16 to 64 years: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/september2022>

² ONS vacancies data shows that in June to August 2022, the number of job vacancies sat at 1,266,000 nationally.

³ NCUB Insights (2022): <https://www.ncub.co.uk/insight/new-unemployment-statistics-reveal-a-skills-mismatch-says-ncub/>

⁴ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936488/ESS_2019_Summary_Report_Nov2020.pdf

⁵ <https://royalsociety.org/-/media/policy/Publications/2019/international-visa-systems-explainer-july-2019.pdf>



students are from overseas,⁶ and without an immigration policy which seeks to retain international talent developed in UK universities, the UK will lose many from the skilled workforce it requires and struggle to maximise its economic potential.

9. NCUB further urges the Government to restore a National Labour Market Intelligence Body, to replace the now-dissolved UK Commission for Employment and Skills. This body will be vital for businesses, universities and the Government alike to better understand the labour market needs. It will allow universities to produce the highly-skilled, adaptable workforce that businesses need, to help the nation's post-pandemic economic recovery.

Training a workforce to meet future skills demands

10. The Fourth Industrial Revolution is already driving changes in employers' skills requirements at an unprecedented pace, as new technologies and innovations transform industries across the economy. The aggregate UK skills mismatch is predicted to worsen significantly as workplace demands change and as UK businesses face rising levels of global competition for scarce skills. The UK's choice to leave the EU has also created immediate barriers to accessing skilled people from EU member states. In order to reach the volume of workers and skills required to achieve national ambitions, urgent action is needed.

Training the next generation

11. The proportion of students graduating from Higher Education Providers (HEPs) with academic degrees each year is comparable to that in many other OECD countries, and this route is a vital talent pipeline for employers. However, the UK falls behind in the numbers of students educated in HEPs to Levels 4 and 5, qualifications which are generally technical in nature. Just 4% of 25 year olds hold a L4/5 certificate as their highest qualification level.⁷
12. There is an opportunity to uplift numbers going to HEPs to complete L4/5 technical qualifications, to boost the supply of technically skilled graduates. Continuing to develop HEP-delivered Higher Apprenticeship pathways, and promoting these to students, will go some of the way to providing this workforce. Attracting those who study a technical level 3 qualification, such as a BTEC, T-level or apprenticeship, into HE delivered L4/5 technical education, could equip nearly 800,000 students every year with the practical skills businesses require.⁸
13. In order to do so, the government should place an emphasis on technical education routes, which expose students to workplaces, provide them with practical and technical skills in emerging sectors and industries, and accelerate them into roles in established occupational maps. This route should not be competitive with academic university degrees, but complementary, to maximise the range of graduate's skills and knowledge.
14. Businesses must be at the forefront of developing and informing the curricula of these technical routes, through engagement with universities and qualification providers, to ensure streams provide relevant and required skills, directly applicable to the workplace. However, an NCUB survey of around 4,000 businesses found that only 4% of respondents interact with universities on 'curriculum development'.⁹
15. The major reported barrier to interaction for businesses is a lack of resources, and the pandemic has further reduced collaboration between businesses and universities, with SME interaction particularly negatively affected.¹⁰ On the other side, FE and HE providers face significant financial challenges. As a result, the sector needs increased external support to facilitate collaboration in curricula development. This must be visible and accessible to employers, and targets on collaboration on curricula should be developed, with achieved engagement measured.

⁶ HESA, (2019): <https://www.hesa.ac.uk/news/17-01-2019/sb252-higher-education-student-statistics>

⁷ House of Commons Research Briefing – Level 4 and 5 Education (2019): <https://commonslibrary.parliament.uk/research-briefings/cbp-8732/>

⁸ DfE Apprenticeship Statistics 2021/22: <https://explore-education-statistics.service.gov.uk/find-statistics/apprenticeships-and-traineeships/2021-22>

⁹ NCUB - The Changing State of Business-University Interactions in the UK (2021) https://www.ncub.co.uk/wp-content/uploads/2021/07/5334_NCUB_Changing_State_of_Business-University_Interactions-FINAL.pdf

¹⁰ NCUB – Modes and Motivations for Business-University Interaction (2022) https://www.ncub.co.uk/wp-content/uploads/2021/07/5552_NCUB_Business-University_Interaction_Survey_V6.pdf



Re-skilling the current workforce

16. Research shows that 7 million workers could be under-skilled for their job requirements by 2030, roughly equivalent to 20% of the workforce.¹¹ As 80% of the 2030 workforce are already in employment,¹² levers such as the Lifelong Loan Entitlement and the Lifetime Skills Guarantee are vital to upskilling.
17. The 2022 white paper 'Levelling Up the United Kingdom' set out the target that by 2030, the Government wants 200,000 more people in England to successfully complete high-quality skills training annually, including 80,000 more people in the lowest skilled areas. However, the National Audit Office (NAO) review's¹³ finding that participation in government-funded further education and skills training has declined significantly, particularly in disadvantaged areas, is concerning.¹⁴ Greater emphasis needs to be placed on business-led and university-delivered CPD, to ensure these targets are reached.
18. The Skills Bootcamps announced in September 2020, designed to help individuals adjust to the changing economy through training to upskill or reskill, have enabled transition from work in declining sectors and occupations into new career directions. This scheme has demonstrated positive impacts¹⁵ and should be scaled up.
19. Beyond this, in the long term, we call for a more coherent, stable and joined-up approach to co-investing in adult training. Alike to Local Skills Improvement Plans (LSIPs), DfE must work with BEIS to establish a system that enables local governments, local industry and employers, and local education providers to develop and deliver an adult upskilling and retraining system that gives local people the skills that match employer demand.

Teaching non-technical skills

20. Businesses also need staff with the ability to communicate and work well in teams. Digitalisation and automation will make the 'human' element of people's job roles increasingly important. Universities must embed the teaching of soft skills and attributes into their curricula. These include resilience and attributes such as initiative, innovation, creativity, curiosity, critical and creative thinking, self-confidence and resourcefulness. These are important skills that will be key to the leadership and growth of the country's economy.

Broadening the pool of talent

21. By capturing more students and upskilling greater numbers of those who previously didn't have the opportunity or resources to learn, we will create a wider pool of talent to fill skills vacancies, and provide businesses and universities completing innovation with the workforce they need to succeed.
22. Emphasis should be placed on skills interventions in parts of the UK that have more acute skills challenges, such as North East England, where only 40% of businesses are innovation active.¹⁶ Reducing local skills gaps can help boost workforce supply for industry, in-turn fuelling local economic growth.
23. Skills policies must be designed locally so that they centralise around the nuanced composition of the local economy, workforce skill availability, and business demand. Where possible, they should predict how local economic changes will affect the demand for skills, and how a local

¹¹ Industrial Strategy Council (2019): <https://industrialstrategyCouncil.org/20-cent-workers-could-be-under-skilled-2030-new-analysis-finds#:~:text=The%20analysis%20finds%20that%20by,skilled%20for%20their%20current%20role.>

¹² Industrial Strategy Council (2019): <https://industrialstrategyCouncil.org/sites/default/files/UK%20Skills%20Mismatch%202030%20-%20Research%20Paper.pdf>

¹³ National Audit Office – Developing Workforce Skills for a Strong Economy (2022): <https://www.nao.org.uk/wp-content/uploads/2022/07/Developing-workforce-skills-for-a-strong-economy.pdf>

¹⁴ The report found that the number of adult learners fell by 48% over the last decade, from 3.2 million in 2010/11 to 1.6 million in 2020/21. From 2015/16 to 2020/21, the number of participants aged 19 and over in England's 20% most disadvantaged areas dropped by 39%, compared with a 29% drop overall.

¹⁵ <https://www.employment-studies.co.uk/system/files/resources/files/Skills%20Bootcamps%20process%20evaluation.pdf>

¹⁶ BEIS UK Innovation Survey (2021):

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1074069/UK_Innovation_Survey_2021_Report.pdf



skills pipeline can boost industry. These should be written by consortia of local Government, employers and education providers, who collectively hold the key to creating pathways which are implementable and impactful.

24. To be effective the consortia must engage widely within their regions, make use of the best analytical methodologies available and be updated with sufficient frequency to maintain a clear and current understanding of skills demands. LSIPs have an essential role to play, alongside any replacement to the UK Commission for Employment & Skills, in bringing together these parties, to identify the current and future skills needs and inform any responses in terms of provision.
25. Where industry and/or local skill levels are yet to level up, it is particularly important that skills provisions and routes work in tandem with growth in the employment market. Supply must match demand; improving regional educational attainment must be mirrored by the strong demand for high-skilled jobs. Without this, high-skilled workers would face limited opportunities, resulting in local brain-drain and an uneven regional distribution of highly skilled people.¹⁷
26. Alongside the above actions to deliver on the Levelling Up agenda, workforce skills policies must advocate for employers to embed equity, diversity and inclusion (EDI) into their cultures. Without doing this, workplaces will fail to recruit and retain talent, cutting off a pipeline of skilled workers from certain backgrounds. If the UK fails to deliver on this objective, as well as continuing to entrench inequalities in society, we will also fail to reach skills targets and will miss out on the associated economic benefits diversity of thought and experience bring to the workplace.¹⁸

Mobility of talent and skills

27. The contributions of, and connectivity between, universities and businesses is crucial to a thriving skills system. The NAO report recommends DfE's skills strategy should set out: "how different parts of the system, and different programmes, will interact with each other to make a coherent whole." A key part of this must be supporting maximum collaboration between universities and businesses.
28. In terms of education, there is a natural and continuous flow of students from HEPs into the business workplace. Beyond this, businesses often partner with HEPs to upskill their staff, and as aforementioned, employers play a crucial role in developing and steering the curricula of technical qualifications and CPD delivered in HEPs. There must be an environment in which these touch points are optimised, and employer-designed technical skills must be embedded into the training ecosystem.
29. Beyond education, knowledge and skill sharing through university-business R&D collaboration networks enables improved innovation outcomes. Universities are an oasis of expertise, skills, knowledge, know-how infrastructure and resources, and when this is paired with the ambition and resources of industry, these partnerships can optimise innovation outcomes, growth, commercialisation opportunities and economic returns. Indeed, evidence suggests that approximately 10% of the new products and processes introduced by firms would not have been developed, or would have had great delay, without the contribution of academic expertise.¹⁹
30. University-business collaborations further bring substantial skills and talent benefits to businesses. Collaborating with academics provides one of the main sources of external knowledge and technologies for industry, and is particularly important for firm development. University-industry collaborations are regarded as one of the most important external knowledge sources for firms to increase their competitiveness. Industry's performance is considerably impacted by how well its networks of collaborators and partners are managed. Indeed, research shows that companies are "increasingly...turning to external sources...to acquire the technical knowledge they need to introduce product and process innovations"²⁰,

¹⁷ IFS Spatial disparities across the labour market (2022): <https://ifs.org.uk/inequality/wp-content/uploads/2022/02/Spatial-disparities-across-labourmarkets-IFS-Deaton-Review-Inequality-FINAL.pdf>

¹⁸ McKinsey – Delivering through Diversity (2018): <https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/delivering-through-diversity>

¹⁹ Mansfield, E., (1998). Academic Research Industrial Innovation: An Update of Empirical Findings. Research Policy 26, p. 775

²⁰ Lloyd Sherwood, A., Covin J., (2008). Knowledge Acquisition in University–Industry Alliances: An Empirical Investigation from a Learning Theory Perspective. Journal of Product Innovation Management, Volume 25, Issue 2 p. 162.



and dedicated bodies such as the Knowledge Transfer Partnership exist to partner businesses with knowledge, technology and skills that reside within the UK Knowledge Base, to improve business competitiveness and productivity.²¹

31. In innovation delivery, there is therefore a distinct need for university-business collaboration to facilitate the flow of knowledge, ideas, skills and people on projects. Project teams which are staffed with those from both academia and industry are better able to translate blue-skies and fundamental research into developmental and commercialisation stages, due to the range of skills required to progress innovation along technology readiness levels (TRLs). Innovation therefore requires frictionless movement of research and technical staff between businesses and universities.
32. Despite attention from policymakers and several successful initiatives, levels of mobility remain limited. Improving this situation requires better understanding of the problem, an area NCUB is currently investigating. The NCUB R&D Academia-Industry Workforce Mobility Taskforce will use established and novel analytical approaches to:
 1. Establish a natural baseline for mobility between academia and industry in the UK through comparison with peer nations;
 2. Explore variances in mobility between academia and industry by discipline and sector;
 3. Review the efficacy of existing interventions; and
 4. Produce a limited number of ambitious but practicable recommendations to achieve realistic improvements in mobility between academia and industry across the UK economy.

NCUB will share the outcomes of the investigation with the committee once complete.

Questions for DfE officials

1. Will the DfE work with BEIS to review student and working visas to attract and retain greater numbers of trained workers from overseas?
2. Will the DfE restore a National Labour Market Intelligence Body, to enable a better understand the labour market needs?
3. How will the DfE work to promote technical education routes as a pathway into the workforce?
4. What will the DfE do to promote business engagement with the curricula of technical education, to ensure content is employer-led and provides the skills needed by industry?
5. How will the DfE work with BEIS to improve workplace retention of skilled employees?
6. How will the DfE support local governments, regional businesses and education providers to improve and roll out Local Skills Improvement Plans (LSIPs)?
7. How will the DfE work with BEIS to uplift engagement between businesses and universities in innovation projects?

²¹ Innovate UK's Knowledge Transfer Programme: <https://www.ktp-uk.org/>

