

Written evidence from EngineeringUK Economic Affairs Committee Inquiry on Employment and COVID-19

COVID-19 & Engineering

1. The importance of engineers has rarely been more visible or significant than during the pandemic – engineers have been integral to producing personal protective equipment, ventilators, and medical infrastructure and supplies. However, despite the importance of the sector to the national efforts to address the pandemic, the [dashboard](#) [1] compiled by EngineeringUK on the economic impact of COVID-19 is a stark reminder that the engineering community is not exempt from the consequences of the pandemic. *Manufacturing Monitor* data [2] released on 7 September 2020 found that almost two-thirds of manufacturers are either planning to, or are considering, making redundancies over the next six months.

Supporting young people in STEM career pathways

2. As the UK enters a new economic chapter and grapples with the impact of COVID-19, having a skilled and diverse engineering workforce will be crucial if the UK is going to create a sustainable economic recovery and achieve its net zero, infrastructure and digitalisation goals. While these have been extremely testing times for the engineering sector we look ahead and are mindful of the ongoing need to support young people in their STEM career pathways and to focus on increasing diversity in the sector. Research has consistently shown that a more diverse workforce brings with it increased creativity and new ideas (essential for an innovative, solutions-based industry³) as well as enhanced motivation, retention⁴, group problem solving and financial performance.⁵
3. Within this context, EngineeringUK invites the Economic Affairs committee to consider making recommendations in the following three policy areas as part of its inquiry:
 - **Improving access to high quality careers advice and guidance**
 - **Boosting the supply of, and diversity of young people in, apprenticeships**
 - **Enabling regional solutions**

Summary of recommendations

4. **We would like to see BEIS and DfE work strategically to address the workforce and skills challenges facing the country. More specifically on careers, this needs to include support for young people to navigate the different pathways into engineering, particularly for those groups who experience barriers in accessing careers advice and guidance and are under-represented in the engineering workforce.**
5. **As the end of the Careers Strategy lifespan approaches, it is vital that future careers policies are underpinned by the right support and funding for schools to deliver careers activities, including resources for schools to ‘catch-up’ on any gaps in careers provision due to COVID-19.**

¹ EngineeringUK. ‘*The economic impact of COVID-19 on UK engineering enterprise*’, dashboard, July 2020. This digital resource tracks the economic implications on engineering in – as much as possible – ‘real time’. We will be updating and expanding upon this content as evidence emerges.

² MAKE UK, ‘*Manufacturing Monitor*’, 7 September 2020.

³ Scientific American. ‘How diversity makes us smarter’, October 2014. And Kellogg Insight. ‘Better decisions through diversity,’ October 2010.

⁴ Royal Academy of Engineering. ‘Creating cultures where all engineers thrive,’ September 2017.

⁵ McKinsey and Company. ‘Delivery through diversity,’ January 2018.

6. We were encouraged to see the Prime Minister respond recently to calls from Youth Employment UK and others for an ‘opportunity guarantee’. We were also interested to see the steps taken by some metro mayors in covering some, or all, of the salary costs of apprentices in their regions. We feel ambitious policy steps such as this need to be considered and scaled up, if necessary, with a particular emphasis on young apprentices from disadvantaged backgrounds.
7. We would like to see policy makers working together with young people, the engineering community and the FE sector to mitigate the disparities in participation and quality of engineering and technology apprenticeships across different groups, underpinned by a clearer common understanding of the barriers and blockers.
8. The Committee may want to consider whether BEIS could take a stronger lead in enabling and facilitating shared learning across regions, with resources for regions to pilot new approaches and update their labour market analysis in the context of COVID-19 (through Skills Advisory Panels established under the Industrial Strategy). It is also important that the new UK Shared Prosperity Fund proposed by the government is shaped and designed with local skills needs at the forefront. Further clarity is needed on the fund including timescales and approach, particularly given existing EU funds are expected to come to an end soon.

Improving access to careers advice and guidance for young people

9. In July 2020 EngineeringUK commissioned Ipsos Mori to undertake a survey of over 1,000 young people (aged 11-19) to gauge their attitudes and the degree to which their educational and career aspirations may have been affected by the pandemic. A briefing detailing the findings is available on our [website](#) [6]. Some of the key findings are highlighted below.

‘Pulse check’ survey with young people (July 2020)

The majority of young people surveyed believe the pandemic will adversely affect the educational routes and job opportunities available to them.

- **62% felt that finding a job in the future has become more difficult due to the pandemic.** 52% felt that going to university has become more difficult and 41% felt that becoming an apprentice has become more difficult.
- **44% felt that, when considering career choices, ‘having a job you can be certain to keep’ had become more important to them** when considering career choices, due to the changes brought about by the pandemic.
- **Our results also suggest that the pandemic is deepening already existing gender differences in career aspirations.** 12% of girls/young women said the pandemic had made them more likely to work in engineering, compared with 17% of boys/young men. 18% of girls/young women said the pandemic had made them more likely to work in technology, compared with 23% of boys/young men. 43% of female vs 28% of male respondents said they would be likely to consider a career in healthcare.
- **Over three quarters of young people (76%) surveyed had not received any careers advice or guidance since March 2020** when lockdown began (aside from talking to parents about careers or searching online).

10. EngineeringUK believes that giving young people access to effective and impartial careers education, information, advice and guidance (CEIAG) can play an important part in increasing the number of young

⁶ EngineeringUK, ‘Young people and Covid-19: How the pandemic has affected careers experiences and aspirations’, August 2020.

people following pathways into STEM careers. We agree with the recent report from the APPG on Diversity and Inclusion in STEM⁷, which argues that *‘Wider access to good careers education has the potential to raise aspirations around STEM and reduce inequity.’* **We would like to see BEIS and DfE work strategically to address the workforce and skills challenges facing the country. More specifically on careers, this needs to include support for young people to navigate the different pathways into engineering, particularly for those groups who experience barriers in accessing careers advice and guidance and are under-represented in the engineering workforce.**

11. Our research with young people suggests that many have missed out on encounters with the world of work since the pandemic began and careers support from schools has been limited. For example, just 24% of young people surveyed had taken part in any type of formal careers activity – that is, attending an online careers advice session via their school or outside of it, an online careers event with an employer, work experience, or another type of careers event since March 2020. **As the end of the Careers Strategy lifespan approaches, it is vital that future careers policies are underpinned by the right support and funding for schools to deliver careers activities, including resources for schools to ‘catch-up’ on any gaps in careers provision due to COVID-19.**

Boosting the supply of, and diversity of young people in, apprenticeships

12. EngineeringUK remains concerned about the impact of COVID-19 on apprenticeships, as they provide a vital pathway into engineering for many young people. According to DfE figures [8], the government’s own *Find an Apprenticeship* web portal has experienced an 85% drop in apprenticeship vacancies. Data recently published by the Association of Colleges [9] also found that 46% of colleges plan to make redundancies by the end of the autumn term 2020. These are worrying signs for the future of the Further Education sector and its ability to support young people with high quality apprenticeship opportunities in the months and years to come.
13. Earlier this year EngineeringUK carried out a ‘temperature check’ with some of our corporate members, major employers in the engineering world. Many firms were taking the difficult decision to either reduce, delay or cancel their apprenticeships recruitment plans for September. Over half the companies we spoke to had furloughed at least some of their apprentices. These engineering employers also talked about the very real challenges of home IT and internet access, particularly for disadvantaged students, as well as the practical barriers in finding meaningful engineering work placements due to COVID-19. **We were encouraged to see the Prime Minister respond recently to calls from Youth Employment UK and others for an ‘opportunity guarantee’. We were also interested to see the steps taken by some metro mayors in covering some or all of the salary costs of apprentices in their regions. We feel ambitious policy steps such as this need to be considered and scaled up, if necessary, with a particular emphasis on young apprentices from disadvantaged backgrounds.**
14. Diversity within apprenticeships continues to be a persistent challenge. Our *Educational Pathways* report finds that women made up just 8% of engineering and manufacturing technologies apprenticeship starts in 2018-19 as compared with half of overall apprenticeship starts. A recent report by the Social Mobility Commission also shows the quality of training received is not equal, even within the same sectors. For example, engineering apprentices from disadvantaged backgrounds can expect to receive between 1.5-3 months less training than their peers.¹⁰ **We would like to see**

⁷ APPG on Diversity and Inclusion in STEM, *‘Inquiry on Equity in STEM’*, June 2020.

⁸ DfE, *‘Apprenticeship and traineeships: June 2020’*, June 2020.

⁹ Association of Colleges, *‘Colleges and COVID 19 Summer Survey’*, July 2020.

¹⁰ Social Mobility Commission, *‘Apprenticeships and Social Mobility: Fulfilling potential’*, June 2020.

policy makers working together with young people, the engineering community and the FE sector to mitigate the disparities in participation and quality of engineering and technology apprenticeships across different groups, underpinned by a clearer common understanding of the barriers and blockers.

Enabling regional solutions

15. The economic shock of coronavirus continues to be felt more in some areas of the country than others too. For example, analysis by KPMG¹¹ shows that the West Midlands is likely to be one of the hardest hit areas due to the preponderance of manufacturing industries such as the car industry. They argue: *'the gap between performance in London and the rest of the UK will widen this year'*. It is important therefore that emerging policy reflects this context and supports locally tailored solutions.
16. Metro mayors are championing a raft of skills initiatives - some of which started before COVID-19 - while others have been turned around quickly since the pandemic. Pilots include mentoring schemes, careers portals and targeted apprenticeship funds. As the *Perkins Review* highlights¹², regional activity provides an ideal opportunity to experiment, learn and understand what works. **The Committee may want to consider whether BEIS could take a stronger lead in enabling and facilitating shared learning across regions, with resources for regions to pilot new approaches and update their labour market analysis in the context of COVID-19 (through Skills Advisory Panels established under the Industrial Strategy). It is also important that the new UK Shared Prosperity Fund proposed by the government is shaped and designed with local skills needs at the forefront. Further clarity is needed on the fund including timescales and approach, particularly given existing EU funds are expected to come to an end soon.**

About EngineeringUK

17. **EngineeringUK** is a not-for-profit organisation, which works in partnership with the engineering community to inform and inspire young people and grow the number and diversity of tomorrow's engineers. We produce a range of research reports exploring educational pathways into engineering and barriers to participation. We have a strong interest in increasing diversity and inclusion within the engineering sector and seek to use our research to help inform wider policy debate. For example, our publication [*social mobility and engineering*](#)^[13] delves into a range of topics including educational attainment, 'science capital', careers advice and the lack of appropriate monitoring data.

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For more information on our research, go to our website [here](#).

¹¹ KPMG, 'Chief Economist's Note: Levelling up and COVID-19', April 2020.

¹² Royal Academy of Engineering. 'Engineering skills for the future: The 2013 Perkins Review revisited', 2019.

¹³ EngineeringUK, 'Social Mobility and Engineering' Research Briefing, 2018.