

Written evidence submitted by Gatsby Charitable Foundation

Gatsby Charitable Foundation's evidence submission

In response to the Education Committee's [Call for Evidence: The Impact of COVID-19 on education and children's services](#)

Background

The Gatsby Foundation (Gatsby) is a philanthropic trust set up by Lord David Sainsbury over 50 years ago. The trust focuses on six areas, one of which is education. Within education our four key focus areas are technical education reform; STEM skills in the workforce; science and maths in schools; and good career guidance.

This response focuses on evidence regarding the impact of COVID-19 on careers education and practical science in schools and colleges, and follows an earlier submission focused on teacher recruitment and retention.

1. Career Guidance

Gatsby has a long-standing interest in career guidance, and the Gatsby Benchmarks for good career guidance¹ are built into the Careers Strategy which the Department for Education (DFE) published in 2017/18².

Students in schools and colleges planning their future study and career options, especially older students, face an uncertain future. Evidence published in June 2020 by the Unifrog study planning platform³ suggests that this uncertainty, together with the cancellation of formal public examinations, is demotivating and creates anxiety among students. This is understandably most severe for students in years 10, 11, 12 and 13. During the period of school and college closures these students may have been receiving guidance online from their school or college or through the National Careers Service, but inevitably the coverage is likely to have been patchy. Interim findings from a Gatsby-commissioned ongoing survey⁴ of over 300 leaders of secondary schools and colleges indicates that students in just under half (47%) of schools and colleges were spending less time on career guidance activities.

a. Career guidance must be at the heart of school and college recovery planning

Looking ahead to the new academic year, schools and colleges will naturally be focused on making up for missed teaching time, but with students facing uncertainty around study and training options and with a challenging employment market likely for some years to come, it is essential that schools and colleges not only keep their career guidance programmes

¹ Gatsby Foundation, 2013. *Good Career Guidance*. <https://www.gatsby.org.uk/education/focus-areas/good-career-guidance> Accessed 26.5.20

² DfE, 2017. *Careers strategy: making the most of everyone's skills and talents*. <https://www.gov.uk/government/publications/careers-strategy-making-the-most-of-everyones-skills-and-talents> Accessed 26.5.20

³ Unifrog, 2020. *Impact - a report on the effect of COVID-19 on students' wellbeing and next steps* <https://www.unifrog.org/insights> Accessed 26.5.20.

⁴ Pye Tait, 2020. *Ongoing. Understanding the impact of Covid-19 on career guidance in schools and colleges on current practice and on preparation for the academic year 2020/21*. Publication due August 2020. We would be happy to share the completed research with the Committee upon publication.

going, but intensify them. Particularly important elements of career guidance will be experiences and encounters with employment (Gatsby Benchmarks 5 and 6) and encounters with further and higher education (Benchmark 7), access to current labour market information (Benchmark 2) and access to personal guidance (Benchmark 8). Students from the most disadvantaged backgrounds will be in the greatest need.

Positively, our survey of school and college leaders indicates that the majority (73%) recognise the increased importance of career guidance and over 90% have already been planning their career guidance approach for the next academic year, with over half involving governors in these discussions. However, only a minority of institutions have increased budget (9%) or staff time (18%) for career guidance activities, and most worryingly just over 1 in 10 schools and colleges (14%) are anticipating students spending less time on career guidance activities next year. Under the DFE's Careers Strategy, schools and colleges are expected to have a Careers Leader. Senior leaders must continue to invest in, and support, Careers Leaders over the coming year.

DFE, the Careers & Enterprise Company (CEC) and other bodies supporting schools and colleges should send clear messages to school and college leaders that career guidance must form an essential part of their recovery planning, including supporting Careers Leaders and carving out sufficient time in the curriculum to ensure that all young people access high-quality career guidance activities.

b. Making use of CEC infrastructure

In the new environment in which schools, colleges and employers will find themselves, ensuring every young person has the chance to meet with and explore different employers and workplaces will be challenging. Employers will have competing priorities as they try to recover from lockdown, but it is more important than ever for young people to be exposed to the world of work. Innovative online approaches are already being developed to allow young people to access employer experiences online⁵, and Gatsby and the CEC have published guidance to help make these as meaningful as possible⁶. **The CEC should continue to build on their strong network of Enterprise Advisors and Cornerstone Employers to generate more real or online opportunities for young people to have encounters with employers over the next year.**

The CEC also oversees a network of Careers Hubs through which they can reach and support Careers Leaders. There is strong evidence⁷ that Careers Hubs accelerate the progress of schools and colleges in career guidance, increasing progress towards reaching the benchmarks and so improving student destinations and academic outcomes⁸.

Careers Hubs have been an effective source of support for Careers Leaders while schools and colleges have been operating in lockdown. For example, some Hubs have quickly developed continuing professional development (CPD) modules for Careers Leaders to

⁵ <https://www.careersandenterprise.co.uk/news/leading-employers-line-support-young-peoples-careers-education-during-lockdown>

⁶ https://www.careersandenterprise.co.uk/sites/default/files/1361_online_engagement_guidance_option_2_v6_.pdf

⁷ CEC, 2019. *Careers Hubs: one year on*.

https://www.careersandenterprise.co.uk/sites/default/files/uploaded/1235_careershubs-oneyearon-report-digital.pdf

⁸Hanson, J., et al (2019) 'Gatsby careers benchmark north east implementation pilot: interim evaluation (2015-2017)'. Derby: University of Derby. <https://derby.openrepository.com/handle/10545/623538>

support COVID-19 recovery planning, and others have ensured those at most risk of being not in education, employment or training (NEET) have had mentoring and interview support to assist with their transitions. **As a priority, the DFE should fund the CEC to expand the coverage of Careers Hubs so that every school and college in England is part of this network, enabling all Careers Leaders to benefit from the support, accelerated progress, and innovation that Careers Hubs offer.**

c. Supporting parents to have career guidance conversations with their children

We know that parents (used here to refer to parents, carers and guardians) have significant influence over their children's career decisions. Gatsby is leading a two-year programme of development and piloting to explore how we can help schools and colleges involve and support parents to talk to their children about key education and career decisions. With many parents feeling closer to their children's education than ever before during lockdown, we commissioned a survey of 2,000 parents of 11-18 year olds (carried out by Opinium in June 2020) to understand how the attitudes and confidence of parents have changed during this time. This research showed that parents universally believe that the career guidance of their children is important, but their experiences during lockdown have varied. Although 20% are more positive about their children's future and 48% have received information about career and education options from their school or college, over 30% are more anxious and over half have not received any additional information. This suggests a strong need to both capitalise on some parents' optimism, but also step in and support those in greatest need – particularly those families who may be hard hit by a potential recession. For these families, parents' personal knowledge and confidence in the labour market may be severely disrupted and hamper their ability to guide their children through decision-making.

Gatsby will continue to share our work on parents with DFE and others over the coming months, but action can be taken now. **The DFE must encourage schools and colleges to increase the information they share about education and career options in any communications with parents over the next academic year.**

Over the last few years, the Education Committee has kept career guidance high on the agenda of Government. Since the introduction of DFE's Careers Strategy in 2017/18, schools and colleges have made significant progress in career guidance. With support from the CEC and the National Careers Service, many schools and colleges are delivering world class careers programmes which now see at least 2 million young people receiving an encounter with an employer every year⁹. Despite the upcoming challenges, we must not slip backwards. Career guidance must continue to be high on the Government's agenda.

2. Practical work in science

Experimentation gives science its identity and is as intrinsic to young learners of science as it is to professional researchers. Practical science is key to motivating students, and students who are traditionally less engaged in science are most likely to want to do more practical work¹⁰.

⁹ https://www.careersandenterprise.co.uk/sites/default/files/uploaded/state_of_the_nation_2019_digital.pdf

¹⁰ Wellcome Trust, 2019. *Science Education Tracker* <https://wellcome.ac.uk/reports/science-education-tracker-2019>. Accessed 26.5.20.

During the period of school closures, laboratory practical work has of course been almost impossible. Research, funded by Gatsby, with over 800 science teachers and technicians carried out in June and July 2020 by the Association for Science Education (ASE) has shown that despite this some schools have managed to encourage safe home experiments (something which has been promoted by some professional bodies¹¹). That said, most students have not had any practical experiences while school laboratories have been closed. Online descriptions and simulations of experiments are helpful, but no substitute for real experiences¹².

a. Clear and regularly updated health and safety guidance for practical science

When schools and colleges return in September, there will continue to be significant constraints on practical work in science, imposed by social distancing and other health and safety considerations such as the need for cleaning surfaces after use. The research carried out by the ASE shows that 20% of schools do not anticipate doing any practical work from September with GCSE and A level classes. There are also high levels of anxiety and uncertainty about the impact of social distance in laboratories, what appropriate PPE is needed and how to manage cleaning of equipment. This has led to 40% of respondents being unable to plan for the start of next term.

The government has issued guidance¹³ on safe working during the COVID pandemic in industrial and research laboratories. **The government should issue similar health and safety guidance for school and college laboratories, in consultation with scientific professional bodies and school science safety experts CLEAPSS, relating to school and college laboratories. This must be updated regularly and communicated to not only science teachers and school laboratory technicians, but also to headteachers.**

b. Clear and consistent position on the continued importance of practical science in curriculum and assessment

During the transition to the 'new normal', schools and colleges will inevitably undertake less practical science, both due to COVID-19 safety considerations and the inevitable focus on catching up on missed content. **DFE and Ofsted should make clear the position that hands-on practical work is an essential part of science learning, and ensure it takes place in every year of a student's science education. This will send a signal to school leaders about the continuing importance of practical work in science education.**

For students in examination years, the need to develop and recognise practical skills is particularly important. **Ofqual should complete their recent consultation on assessment quickly and make it clear that for A level science awards in 2021 onwards, the practical endorsement will still be a requirement (with allowance to be made for experiments unavoidably missed). The proposed interim arrangements should not be considered a change in policy about the importance of hands-on practical work. Any arrangements should be monitored throughout the academic year, and guidance**

¹¹ Institute of Physics, 2020. Do try this at home. <https://beta.iop.org/athome> Accessed 26.5.20

¹² Gatsby Foundation, 2017. *Good Practical Science*.

<https://www.gatsby.org.uk/education/programmes/support-for-practical-science-in-schools> Accessed 26.5.20

¹³ HM Government, May 2020. *Working safely during COVID-19 in labs and research facilities*.

<https://assets.publishing.service.gov.uk/media/5eb9752086650c2799a57ac5/working-safely-during-covid-19-labs-research-facilities-240520.pdf>

should be updated to encourage more practical work when it is safe to do so.

c. Supporting teachers to deliver good practical science in new circumstances

Interim findings from the Practical Assessment in School Science (PASS) project¹⁴ - led by the University of York Science Education Group and King's College London - suggest that for those students not completing a practical for themselves, those watching a teacher demonstration achieved significantly higher scores in GCSE exam questions, on average, than those watching a video or reading about the practical. Observation of lessons suggests the quality of purposeful discussion may be part of the reason for these differences; in teacher demonstrations students were given opportunities to test their thinking against the teacher's expert view. **DFE should support professional bodies, such as the ASE, to provide further support and guidance to help teachers manage practical science in these new circumstances, including encouraging the use of well-planned teacher demonstrations as much as possible rather than relying on videos made elsewhere.**

d. Maintaining the school science technician workforce

Any short-term reduction in expectations regarding hands-on practical science could have long-term impacts on practical teaching and learning, particularly if this were to lead to a reduction in the science technician workforce, who are vital to ensure students experience a variety of high-quality and safe hands-on practical activities. Recent research by School Dash¹⁵, analysing the vacancy rates of school and college science technicians, shows that there has been a 55% reduction in job postings (equivalent to approximately 350 posts) from mid-March to July 2020, compared to the same period in 2019. This may be explained by technicians simply not leaving their current roles, but more worryingly, schools and colleges may be reluctant to recruit technicians if they are unsure of whether they can carry out practical science next year. **Government should monitor the number of technicians in schools to ensure that practical science has the technical support it needs, and the workforce is not permanently depleted.**

Once lost, the experienced and knowledgeable technician workforce would not be easily replaced. A weakened technician base in schools and colleges would make any return to normal expectations around practical science, and the subsequent quality of teaching and learning, much more difficult.

Practical science is important for learning, not only because doing experiments is a good way to learn scientific ideas and theories. The UK needs more scientists, engineers, and technicians if our knowledge economy is to flourish over the next few years, and practical science shows students first-hand how scientists and technicians work. It engages students to follow science further, on academic or technical routes, and gives them practical skills and attitudes that will be valuable in their future careers. With the challenges ahead, we must act now to ensure our international reputation for high-quality science education and practical work is preserved.

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¹⁴ This research is being funded by the Wellcome Trust, Gatsby Foundation and Royal Society.

¹⁵ <https://www.schooldash.com/blog-2007.html#20200720>