

Baker Dearing Educational Trust – Written evidence (EDU0015)

UNIVERSITY TECHNICAL COLLEGES

1. University Technical Colleges (“UTCs”) are academies that work alongside employers and universities to deliver technical education and core curriculum subjects. The first UTC opened in 2010. Today, there are 46 UTCs in England, educating over 19,000 students. Most UTCs recruit students at 14 years of age, although a number start at 13 years of age, and six UTCs at age 11. Collectively, UTCs work with over 400 university and employer partners.

2. **The UTC Curriculum**

UTCs are not required to provide EBacc and Progress 8 for 11-16-year-olds. 11-16-year-old mainstream secondary schools have been following EBacc and Progress 8 since 2010. The 8 academic subjects are the same as the curriculum announced in 1904, although that curriculum did include one technical subject – Drawing.

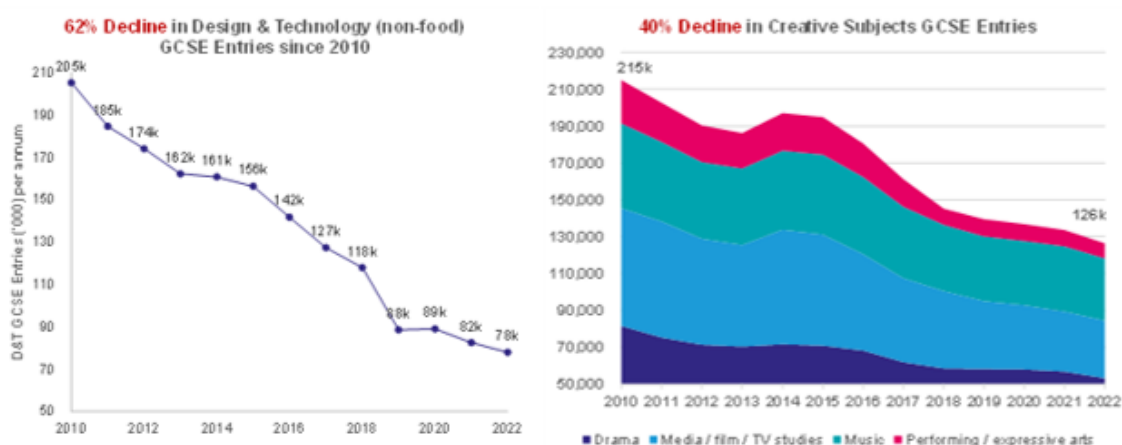
Pre-16 mainstream curriculum increasingly outdated

Comparison of
subjects in the 1904
curriculum with
today's English
Baccalaureate (Ebacc)



3. **The result has been that a number of important subjects have been squeezed from the curriculum with the numbers taking Design & Technology falling by 70% and cultural subjects by 40%.**

Technical and creative subjects have been squeezed out



4. The UTC Curriculum is modern and relevant.

From 14-16 years of age 40% of the UTC curriculum is focused upon studying technical subjects and 60% academic. From 16-18 years 60% of the UTC curriculum concentrates on 60% technical studies and 40% academic.

- Students from the age of 14 spend at least two days a week designing and making projects in well-equipped workshops, visiting technical companies, and on day release with local employers. For many of the young learners this is the first time they have held tools, and used technical and engineering equipment such as lathes, drills, laser printers and 3D printers. They learn the importance of accurate measurement becoming skilled in numeracy and maths.
- A UTC's well-designed curriculum ensures students are enthused, engaged, and make especially good progress in their chosen technical field. Pupils actively choose this pathway because they recognise that it helps to prepare them for the world of work, by providing the opportunity to immerse themselves in the practical elements of the specialism, and the ability to acquire technical knowledge. In a recent student survey (November 2022) to over 5,000 UTC students, 85% of Y11 (16-year-old) students said they felt they would not have had the same opportunities if they had stayed at their previous school. This view is consistent with the disproportionately high percentage of UTC students taking technical qualification nationally. **UTCs account for only 1.3% of all secondary schools, but UTC students take over 6% of all engineering qualifications at Key Stage 4 (age 16) nationally.**

7. In summary - **four key characteristics distinctive to the educational experience of students at UTCs:**

- a. a blended academic and technical curriculum;
- b. meaningful contributions from employer and university partners into the curriculum;
- c. an emphasis on employability skills (communication, teamwork, collective problem-solving, resilience, etc.) within the curriculum;
- d. and a focus on the destinations UTC students secure when they leave their UTC.

Distinctive Characteristics of UTCs



A well-designed technical curriculum



Employer engagement makes learning relevant



Pupils develop excellent employability skills



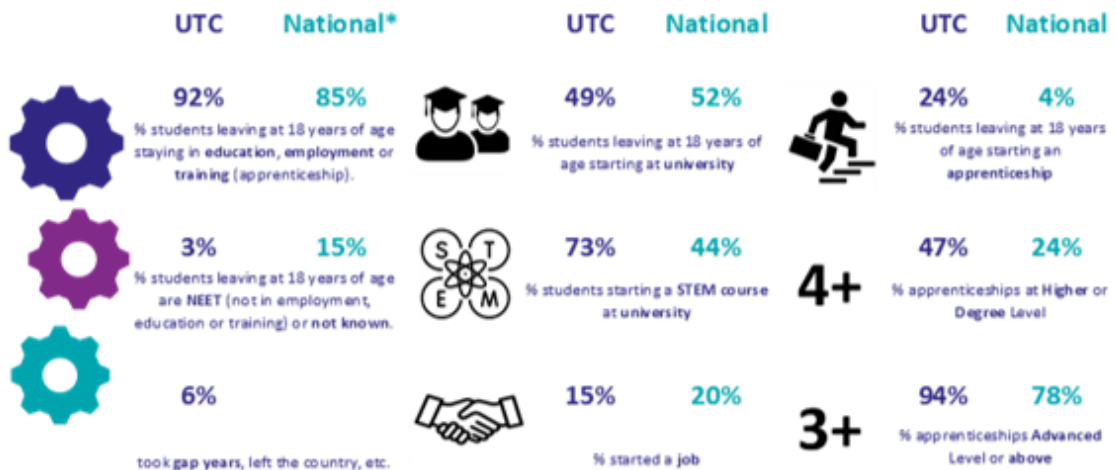
Students progress to ambitious destinations

8. **Employer and university 'sponsors' are vital to UTCs** forming the majority of the Governing Body. Local employers make the UTC curriculum relevant, agreeing the two technical specialisms appropriate to the region and community. They help with teaching and mentoring and provide projects for the students to work upon in teams. They link subject content to the world of work which stimulates interest and curiosity in students.

9. High standards of appearance, conduct, work, and responsibility are expected at UTCs, as they are in the workplace. UTCs experience little student disruption as the learners realise they are on a pathway that will help them to gain skills, unlock learning in the classroom, boost academic outcomes, perseverance, and self-belief. Developing essential employability skills, such as problem-solving, communication, teamwork and leadership, is also amongst the UTC's objectives. **In a recent UTC student survey (November 2022), 74% of Y11 pupils said that their UTC experience has given them the employability skills to be successful in the world of work.**

10. Whilst examination outcomes are important too, **leaver destinations are the highest priority**. 69% of Y11 students (16-year-olds) felt that studying technical and creative subjects at Key Stage 4 (14 years old) has helped them to continue to study these subjects at sixth form.

UTC Track Record: Excellent 2022 Student Leaver Destinations aged 18
Half to university (majority taking a STEM subject). Quarter to apprenticeships. Very low NEETs.



* National average for Level 3 leavers from mainstream schools and colleges (2020 - latest)

11. **Experience of UTCs and implications for the wider education sector**
UTC students quickly acquire data and digital skills – vital for today's modern workplace. Students are taught CAD/CAM (computer assisted design) which is necessary for designing 3D projects and they are familiar with 3D printers. These skills are not taught in any mainstream 11-16 schools. All UTC students have access to their own laptop.
12. **Pre-16 technical curriculum prepares UTC students for the rigorous demands of T Levels.** T Levels are central to the Government's plans to reform technical education and to provide young people with the skills for the 4th Industrial Revolution. EBacc in mainstream schools does not allow the same opportunities as students who have had no technical training pre-16 and so are less inclined to make the jump to a new technical subject. They tend to choose their A Levels from subjects where they performed best at GCSE.
13. **UTCs have clearly demonstrated the attractiveness of technical and vocational options in the 11-16 phase.** At age 13, UTCs are now 92% full, and at age 14, they operate at 82% capacity. Over half of all UTCs are now oversubscribed at one age of entry and this year over 5,000 students will be turned away due to lack of capacity. 85% of UTC students say they would recommend their UTC to a friend. The main reason given by UTC students for joining their UTC is the lack of availability of technical and creative subjects at their previous school.

Recruitment at 14 is challenging as local schools do not want to lose their students to UTCs as this will reduce their pupil premium. Baker Dearing has found those students persuaded to stay-on at their mainstream school often join UTCs at 16 years of age. UTC recruitment at 14, however, is improving rapidly.

14. The 2018 Department for Education study on the impact of UTCs, and Baker Dearing's submission for the 2019 Timpson Review, highlighted the fact that at age 14 UTCs receive a disproportionate number of students who may be described as 'challenging'. Ofsted inspection reports from UTCs have drawn the same conclusion. For example, the 2019 'Outstanding' inspection of Energy Coast UTC in Workington, Cumbria, found that: **"Many pupils start at this school disillusioned with what they have achieved in their Key Stage 3 education at other schools. Some are resentful about schooling. Through excellent support and guidance, staff transform the negative attitudes of these pupils in a remarkably short period of time."** The 11-16 system is undoubtedly having a damaging impact on the motivation and confidence of many pupils.

15. It has taken a decade to establish UTCs as successful schools. The first Ministerial approval came under the Labour Government Education Ministers Ed Balls and Lord Adonis who approved two UTCs. Under the Conservative Government of David Cameron and George Osborne, the number was increased to 24 UTCs. Michael Gove, as Education Secretary, did not support the concept of UTCs and would not allow the Department for Education ('DfE') to promote them, nor did he agree to meet the industrial supporters behind UTCs. The Baker Dearing Educational Trust was established to develop, promote, and support UTCs. Following a visit on 31 January 2023 to South Durham UTC, Michael Gove, as Levelling-up Secretary, has now welcomed the valuable role of UTCs. He stated: **"The students who I spoke to were true advocates and so passionate about their education at the UTC. It is clear that they are confidently preparing for their future careers and are willing to travel from across the region to access this opportunity."**

16. The Future - UTC Sleeves

Baker Dearing strongly believes a decision has to be made to maximise the achievements of the UTC programme. Many UTCs are in new buildings that cost between £12-15 million. There will be very few new schools built over the next decade due to declining student numbers and the need to spend capital on repairing the existing school estate. Baker Dearing has developed a proposal – UTC Sleeves – to insert a technical stream into mainstream 11-18 secondary schools. A UTC Sleeve would allow those secondary schools and students who wish to follow a UTC technical

curriculum the opportunity to do so, while the remaining students continue following EBacc and Progress 8. The UTC Sleeve will have separate principals, teachers, classrooms - some of which will be converted into workshops, and a separate Governing Body led by representatives of local employers and a local university. **The UTC Sleeve proposal is currently before DfE Ministers for consideration.**

17. A UTC Sleeve is already being piloted at Abbeywood School, Bristol, with positive feedback. Importantly, the UTC Sleeve does not require a significant amount of Government time or money to launch, nor does it require legislation changes. By drawing on existing funding allocations (such as T Level capital and specialist equipment funds), the additional cost to Government is low. Baker Dearing has secured interest from a dozen multi-academy trusts keen to introduce this alternative in at least one of their academies, so UTC Sleeves could launch very soon. Another very positive proposal has recently been received from a school in Bournemouth keen to set a UTC Sleeve working with the local airport. A UTC Sleeve provides a vehicle for young learners to re-engage with and become enthused about their education, and thus help them learn key employability skills. **Baker Dearing has recommended to Ministers that a pilot of 10-12 UTC sleeves should be set-up immediately.**

24 April 2023