



# Transforming education. Addressing the productivity crisis.

Baker Dearing's manifesto for the upcoming  
General Election

**Baker Dearing**  
Educational Trust

Autumn 2023

# Summary of recommendations

Our recommendations for the new government fall under four headings and can be found below. Further details about the rationale behind these recommendations can be found in the subsequent pages.

1

## The pre-16 curriculum should focus on employability

- **Prioritise digital skills** – A broader and more practical IT qualification should be reintroduced alongside GCSE Computer Science, preparing young people for employment and adulthood. Inspiring qualifications are needed, which are designed and taught in partnership with industry, covering artificial intelligence, augmented and virtual reality, automation and data analysis.
- **Develop skills to tackle climate change** – To meet the requirements of the expected boom in 'green' jobs to come, the importance of the knowledge and capabilities acquired through programmes such as design and technology will only increase.
- **Promote creative subjects** – The UK is a hotspot for creative industries, and encouraging schools to deliver creative subjects will help to further the success we have had in filmmaking, marketing, the arts, and other creative sectors.

2

## T Levels should complement, not replace, existing qualifications

- **Delay the defunding of Level 3 qualifications beyond 2025** – The next government should indefinitely delay the date after which alternative technical qualifications will no longer be funded. Ministers should consult employers, as well as education leaders and experts, more closely to determine the best way to approach Level 3 qualification reform.
- **Retain more of the existing suite of Level 3 qualifications** – Once this new consultation period has concluded, courses that benefit learners should be retained alongside very promising T Levels. Nonetheless, it is right that qualifications with poor student outcomes are defunded.

### 3

## Appropriate funding should be available for pre-16 technical education subjects

- **Introduce a funding increase for technical subjects at Key Stage 4** – This should be at a level similar to the increase at Key Stage 5, and should be used to pay for subjects that address local industry needs.
- **Extend continuous professional development for teachers of technical education subjects** – To deliver an industry-relevant curriculum, teachers must have up-to-date training on practices and processes.

### 4

## Technical education should be enhanced by establishing UTC provisions within existing schools

- **Support a nationwide roll-out of the UTC Sleeve** – This is currently under consideration by the Department for Education. However, support from the next government is needed to continue our work implementing the UTC Sleeve.
- **Re-allocation of funding to support pilot** – Development of the UTC Sleeve could be funded through the reallocation of existing available funds, enabling the roll-out of this popular and evidence-based solution without putting pressure on the public purse.



# An urgent need for education reform

The United Kingdom is experiencing a chronic productivity crisis. Over the past fifteen years, productivity, the output per hour worked by the nation's workforce, has lagged behind comparable economies and is now significantly below levels witnessed during any other period in the UK's economic history.

There are many causes behind this problem, but a large part of the solution must lie in supply side reforms, particularly through policies and education designed to equip the future workforce with the skills required to capitalise on technological developments.

Today, technical and skills education is not prioritised in pre-16 study. This must change if our nation is to address the productivity shortfall and remain competitive.

Encouragingly, despite these challenges, young people are increasingly aware of, and are actively considering, pathways in addition to university at age 18, including high-quality apprenticeships, to enable them to enter careers of the future. They recognise the value of technical subjects, employer-focused activities, and strong careers advice at a younger age, all of which signpost and prepare them for a wider variety of possible pathways. Unfortunately, today, a shortage of digital, engineering, design and creative courses, as well as of opportunities for employer-related educational activities, significantly limits the experiences and exposure available to young people before they reach the age of 16. By then, it is often too late.

The young people with whom we speak are ambitious for their future and knowledgeable about the different pathways that are open to them. They have a passion for technical education that must be unlocked if we are to face the challenges and possibilities of an overwhelmingly digital and green future.

These challenges and this exciting potential crystallise at a time when our economy is beset by serious shortages in digital skills, data analysis, engineering, health care, and so on.





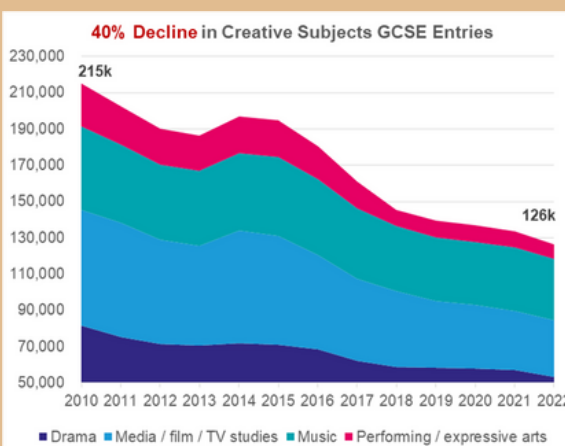
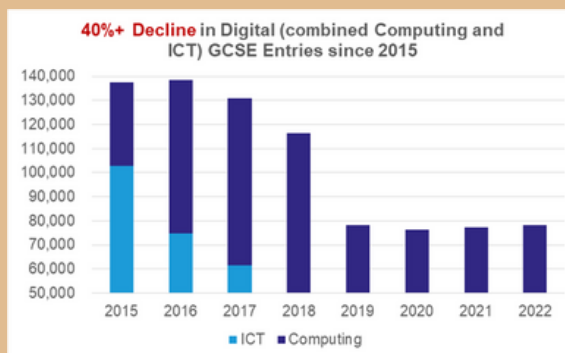
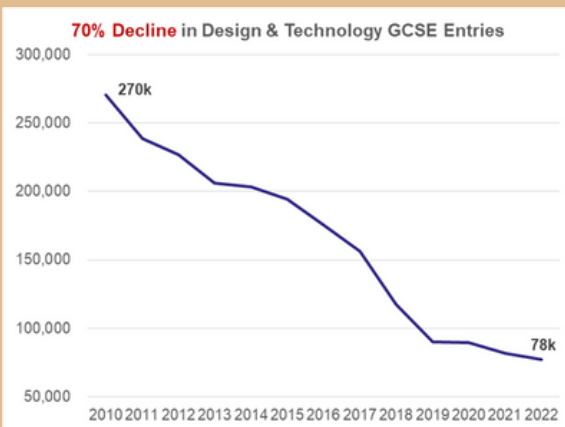
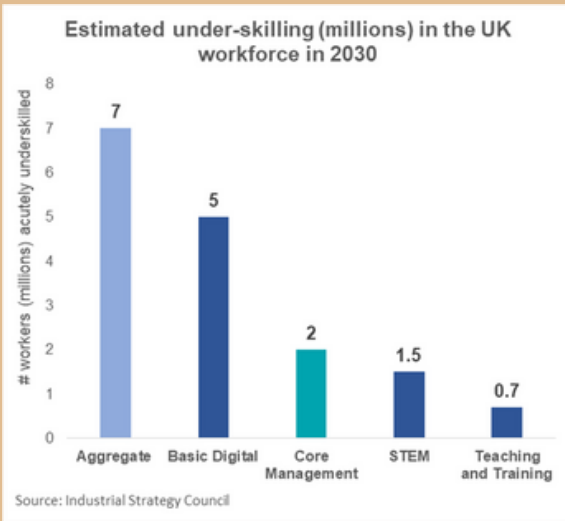
A root cause of these shortages has been this country's narrow pre-16 curriculum, which prioritises a select few academic subjects. At the same time, a precipitous decline has taken place in the take-up of technical subjects at GCSE:

- Design and technology entries have fallen by over 70%
- Digital GCSE entries have dropped by 40%
- Creative subject entries have also decreased by 40%

For many UK students, technical education only starts at 16. No other European country waits that long; in fact, in much of Europe, significant numbers of students take part in technical education from the ages of 13 or 14.

While T Levels are a step in the right direction towards achieving a 'parity of esteem' for technical education in England, it is difficult to ensure that the uptake of these new, complicated qualifications will be high while students have little experience of technical courses before age 16.

In the last 18 months, eight major reports from highly respected bodies, including the Times Education Commission and the House of Lords Select Committee on Youth Unemployment, have all come to the same conclusion: this focus on a purely academic curriculum is no longer 'fit for purpose'.



# What should the next government do?

We have set out below four key policy recommendations. These steps will enable our education system to deliver for students, employers, and the economy:

1

The pre-16 curriculum should focus on employability

2

T Levels should complement, not replace, existing qualifications

3

Appropriate funding should be available for pre-16 technical education subjects

4

Technical education should be enhanced by establishing UTC provisions within existing schools

“These are young people with brilliant minds. We have to get them into the jobs that they want.”

– Siobhan Baillie MP, House of Commons, July 2023

# 1

## The pre-16 curriculum should focus on employability

Since 2010, there has been a total mismatch between what employers in industry and commerce are seeking in their new employees, and the skills which the education system has provided to student leavers.

Industry leaders have specifically stated that they want students who have worked in teams; engaged in collaborative problem-solving; are experienced in making and fixing things with their hands; have advanced communication skills; and exhibit creativity, critical thinking and imagination. These are the skills that UTC students learn.

None of these qualities are tested by GCSE examinations which are based upon memory recall. This needs to change.

Many of the major reports from the past 18 months propose reforming the curriculum to prioritise employment outcomes, give students greater options for technical subjects, and ensure students are taught creativity, critical thinking and especially digital skills, which will prepare them for future employment opportunities and industry needs.

The timing of these reports is apt: teachers, on balance, feel the pandemic created a good opportunity to re-think and make changes to the education system [i]. This view is also shared by the most important stakeholders in this national debate, students [ii].



[i] Teacher Tapp Survey. 60% in favour of change, 40% against.  
[ii] <https://www.big-change.org/publication/subject-to-change/>

“Over the past five years there has been a clear transformation in the UTC programme, and it is now delivering against the original vision. Our country needs more skilled professionals and UTCs are an excellent example of how the education system can prepare young people for careers in engineering, digital, and health care”.

– Michael Gove MP, Secretary of State for Levelling Up, on a visit to UTC South Durham, January 2023



**Therefore, the next government should revise the pre-16 curriculum to incorporate the following:**

- **Prioritise digital skills** – A broader and more practical IT qualification should be reintroduced alongside GCSE Computer Science, preparing young people for employment and adulthood. Inspiring qualifications are needed, which are designed and taught in partnership with industry, covering artificial intelligence, augmented and virtual reality, automation and data analysis.
- **Develop skills to tackle climate change** – To meet the requirements of the expected boom in 'green' jobs to come, the importance of the knowledge and capabilities acquired through programmes such as design and technology will only increase.
- **Promote creative subjects** – The UK is a hotspot for creative industries and encouraging schools to deliver creative subjects will help to further the success we have had in filmmaking, marketing, the arts, and other creative sectors.



## 2

### T Levels should complement, not replace, existing qualifications

The government has introduced T Levels to align what students are taught at post-16 with what employers need, intending this to offer learners greater opportunities to progress onto apprenticeships, higher technical education, and employment than is possible with the current suite of Level 3 technical qualifications.

Even though existing qualifications – including Applied General and large engineering courses – are available in subjects similar to T Levels, these are a different type of qualification that provide a different type of educational experience.

Unfortunately, removing government funding for existing qualifications is likely to reduce the number of young people with the skills needed for future jobs, and could mean students dropping out of education entirely, due to disparities in the nature of these different educational experiences.

Young people in England can currently choose between three types of Level 3 qualification at the age of 16: academic qualifications such as A Levels; technical qualifications that lead to a specific occupation; and Applied General qualifications such as BTECs that combine the development of practical skills with academic learning.

The Department for Education has confirmed plans to replace this three-route model with a two-route model consisting of only A Levels and T Levels, with most young people pursuing one of these qualifications at the age of 16. As a result, funding for most alternative Level 3 qualifications will be removed.

There is a good case for T Levels; UTC students who have taken up these new courses enjoy them and appreciate the opportunity they afford to obtain meaningful work experience. There is also a good case for removing specific courses which do not provide students with the qualifications or experience to progress into the world of work.





However, the removal of most Applied General qualifications in a very short period of time (by 2025), will impact many students:

- Disadvantaged young people are amongst those with the most to lose if funding is removed from alternative technical qualifications such as BTECs, a conclusion from the DfE's own equalities impact assessment: "Those from SEND backgrounds, Asian ethnic groups, disadvantaged backgrounds, and males [are] disproportionately likely to be affected."
- BTECs are engines of social mobility. Research from the Social Market Foundation found that 44% of white working-class students that enter university studied at least one BTEC, and 37% of black students enter with only BTEC qualifications.
- Research from the Nuffield Foundation found that 25% of students now enter university with BTEC qualifications, and that these students are more likely to have disadvantaged backgrounds. The vast majority of BTEC students complete their studies successfully, with 60% graduating with at least an upper second-class degree.

**Therefore, the next government should undertake the following:**

- **Delay the defunding of Level 3 qualifications beyond 2025** – The next government should indefinitely delay the date after which alternative technical qualifications will no longer be funded. Ministers should consult employers, as well as and education leaders and experts, more closely to determine the best way to approach Level 3 qualification reform.
- **Retain more of the existing suite of Level 3 qualifications** – Once this new consultation period has concluded, courses that benefit learners should be retained alongside very promising T Levels. Nonetheless, it is right that qualifications with poor student outcomes are defunded.



### 3

## Appropriate funding should be available for pre-16 technical education subjects

UTCs increasingly stand out from most education settings by offering technical education to students before the age of 16. Giving them the opportunity to learn specialist skills before making decisions about their future (at 16 and 18) better prepares students for the rigors of higher technical education, including qualifications such as T Levels, Higher Technical Qualifications, and degree apprenticeships.

Applying programme weighting to subjects at Key Stage 4 will help encourage more settings to deliver technical subjects, helping students progress to relevant qualifications and to take their place in a professional and highly-skilled workforce.

Experience from across the UTC network shows that current funding for post-16 study, particularly in STEM subjects, is adequate to cover the cost of delivery of the UTC curriculum, provided sufficient student numbers are on roll.

Through the high value course premium at post-16, the government recognises that engineering courses cost more to run and are more valuable to the economy. Thus, they receive over 40% additional funding per pupil than purely academic subjects.

At Key Stage 4, funding for technical subjects does not receive a similar uplift, despite the fact this is needed to cover the full cost of delivery. This creates a challenge in delivering a UTC education, and will also pose a problem in rolling out the UTC Sleeve initiative (see page 12) across the country; existing secondary schools that choose to run the Sleeves will find it difficult to allocate adequate resources.

### Therefore, the next government should do the following:

- **Introduce a funding increase for technical subjects at Key Stage 4** – This should be at a level similar to the increase at Key Stage 5, and should be used to pay for subjects that address local industry needs.
- **Extend continuous professional development for teachers of technical education subjects** – To deliver an industry-relevant curriculum, teachers must have up-to-date training on practices and processes.

# 4

## Technical education should be enhanced by establishing UTC provisions within existing schools

Creating an inclusive education system by introducing a relevant pre-16 curriculum for students and ensuring choice at post-16 is one of the largest challenges facing the next government. Baker Dearing has developed a model, which is being piloted in schools right now, that provides a solution.

The 'UTC Sleeve' model has been designed by Baker Dearing in association with leading multi-academy trusts and University Technical Colleges.

It introduces specialist pathways, such as digital or engineering, within mainstream secondary schools, essentially creating a UTC within an existing school. The approach draws on many years of experience and tangible evidence, in particular the benefits of a UTC education to its students.

Specialist pathways allow young people to undertake a broad range of technical and creative qualifications, in addition to a core academic curriculum, at Key Stage 4, leading primarily to T Levels at Key Stage 5. An employer and university representative 'Board' is established to contribute to curriculum planning and delivery through, for example, employer-led projects. Specialist equipment and teachers, coordinated by a 'Sleeve Lead,' are also needed to meet the requirements of local industry.

The UTC Sleeve is aimed at secondary schools wishing to provide a relevant technical option for part of their student cohort, in addition to their existing curriculum. In doing so, the UTC Sleeve provides many young students the opportunity to develop their passion for technical education and to develop key employability skills which, in turn, should improve attendance, attainment, the quality of leaver destinations, and ultimately, students' life chances.





- **Deliverability:** 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 (T Level capital and specialist equipment funds [iii] and the Strategic Development Fund [iv]), the cost to government is low.
- **Value for money:** The financial benefits to the taxpayer of superior UTC student destinations at Key Stage 4 and Key Stage 5 have been quantified [v] and praised by government. However, these benefits have been, in part, offset by the high cost of building new schools, and the time required to recruit students from other schools at an atypical age. The UTC Sleeve removes these hurdles, providing a compelling 'value for money' case.
- **Proven track record of outcomes:** UTCs offer a balanced blend of academic and technical learning, as well as other practices which develop employability skills, personal values, and the professional behaviour required for rapid progression into the UTC's target technical sector.
- **Demand:** Baker Dearing has been approached by a significant number of large, highly regarded multi-academy trusts who wish to introduce the UTC Sleeve into at least one of their secondary schools. They can see the benefit of the UTC approach in improving student engagement, attendance, and outcomes for those students with a passion for technical education who want to realise their potential, and have witnessed the increasing interest in high quality apprenticeships for leavers aged 18.

### Therefore, the next government should do the following:

- **Support a nationwide roll-out of the UTC Sleeve** – This is currently under consideration by the Department for Education. However, support from the next government is needed to continue our work implementing the UTC Sleeve.
- **Re-allocation of funding to support pilot** – Development of the UTC Sleeve could be funded through reallocation of existing available funds, enabling the roll-out of this popular and evidence-based solution without putting pressure on the public purse.

[iii] <https://www.gov.uk/government/publications/t-levels-capital-fund>

[iv] Through LSIPS: <https://www.gov.uk/government/publications/local-skills-improvement-plans>

[v] Economic evaluation of the UTC programme – June 2018

# About Baker Dearing and UTCs

University Technical Colleges ('UTCs') were first established in 2009 to meet the unfulfilled skills requirements of employers. Forty-four UTCs across England now deliver a unique education designed by and benefitting local employers to nearly 20,000 young people between the ages of 11 and 19.

Former Education Secretary Lord Baker and former Post Office Chairman Lord Dearing together spearheaded the creation of the UTC programme. They created the Baker Dearing Educational Trust to assist the initial development of UTCs, and then to encourage the programme's expansion, while providing wide-ranging support to ensure maintenance of the unique characteristics of UTCs, as well as advocating for the network at large.

Today, UTCs are delivering against their original vision, and in doing so, are transforming the lives of many thousands of young people. In 2022, 25% of UTC leavers aged 18 progressed into apprenticeships – 6 times the national average – and 1/2 started at higher and degree levels. Just 3% of UTC leavers last year were classified as NEETs or did not have a confirmed destination – 1/5 of the national average. 82% of UTCs are now judged 'Good' or better by Ofsted, above the average for all secondary schools.

The impact of a UTC education on young lives is now clear and the scale of the UTC programme has provided a model of what can be possible more broadly across the education sector.

## Digital health pilot with Health Education England

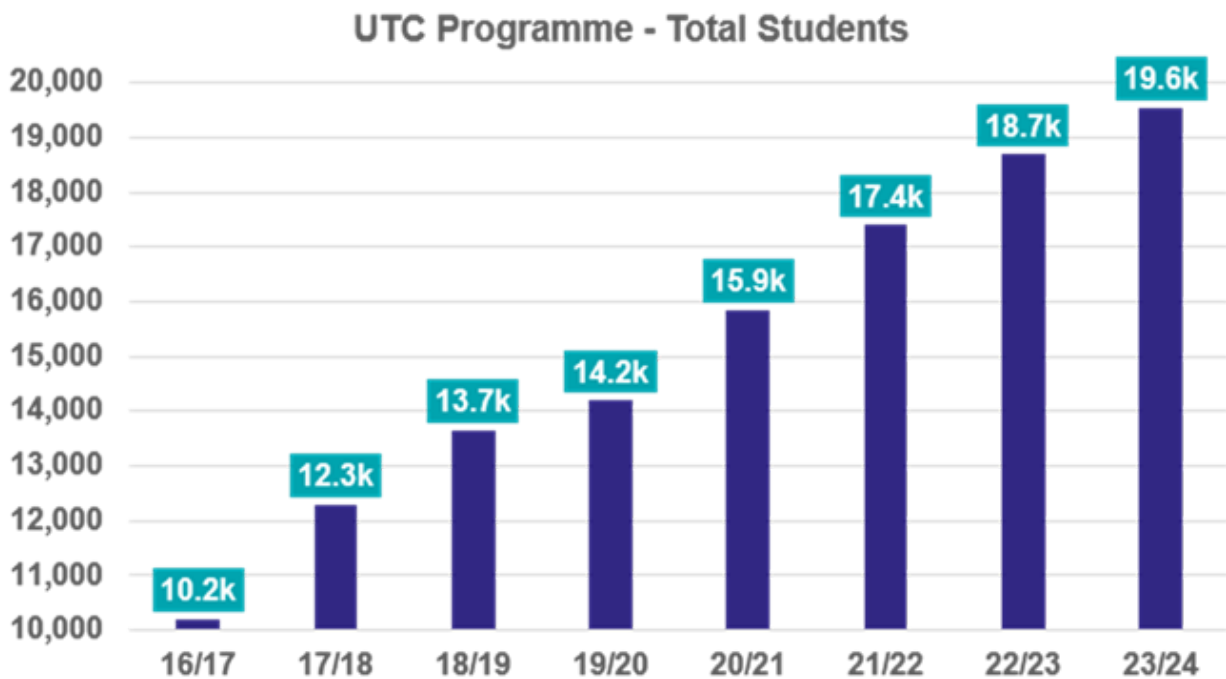
Working with Health Education England to address a shortage of data professionals in the NHS, Baker Dearing is piloting a digital health pathway in 10 UTCs over 2 years. The project gives students the opportunity to carry out industry projects and to develop their ties with local health service employers. The scheme will also increase the number of talented data professionals coming into the NHS, which otherwise is expected to have a shortfall of 30,000 skilled digital and data health professionals by 2030.

## UTC Heathrow Digital Futures programme

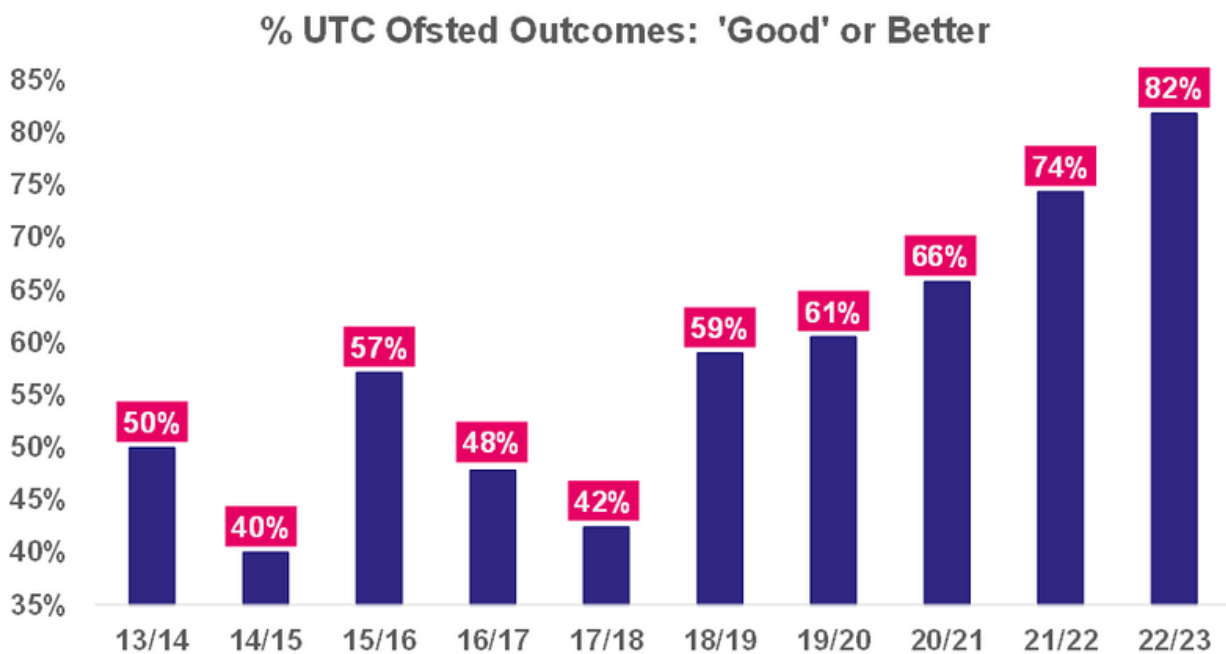
UTC Heathrow has partnered with a range of employers working in the digital field, including Amazon Web Services, CNET Training and Vertiv, to deliver the Digital Futures programme. Each year, hundreds of students compete in industry-led challenge days, develop employability skills, and receive masterclasses to hone their data skills. The programme has won multiple industry awards and has built significant links between students and local data centre employers.

## UTC summary

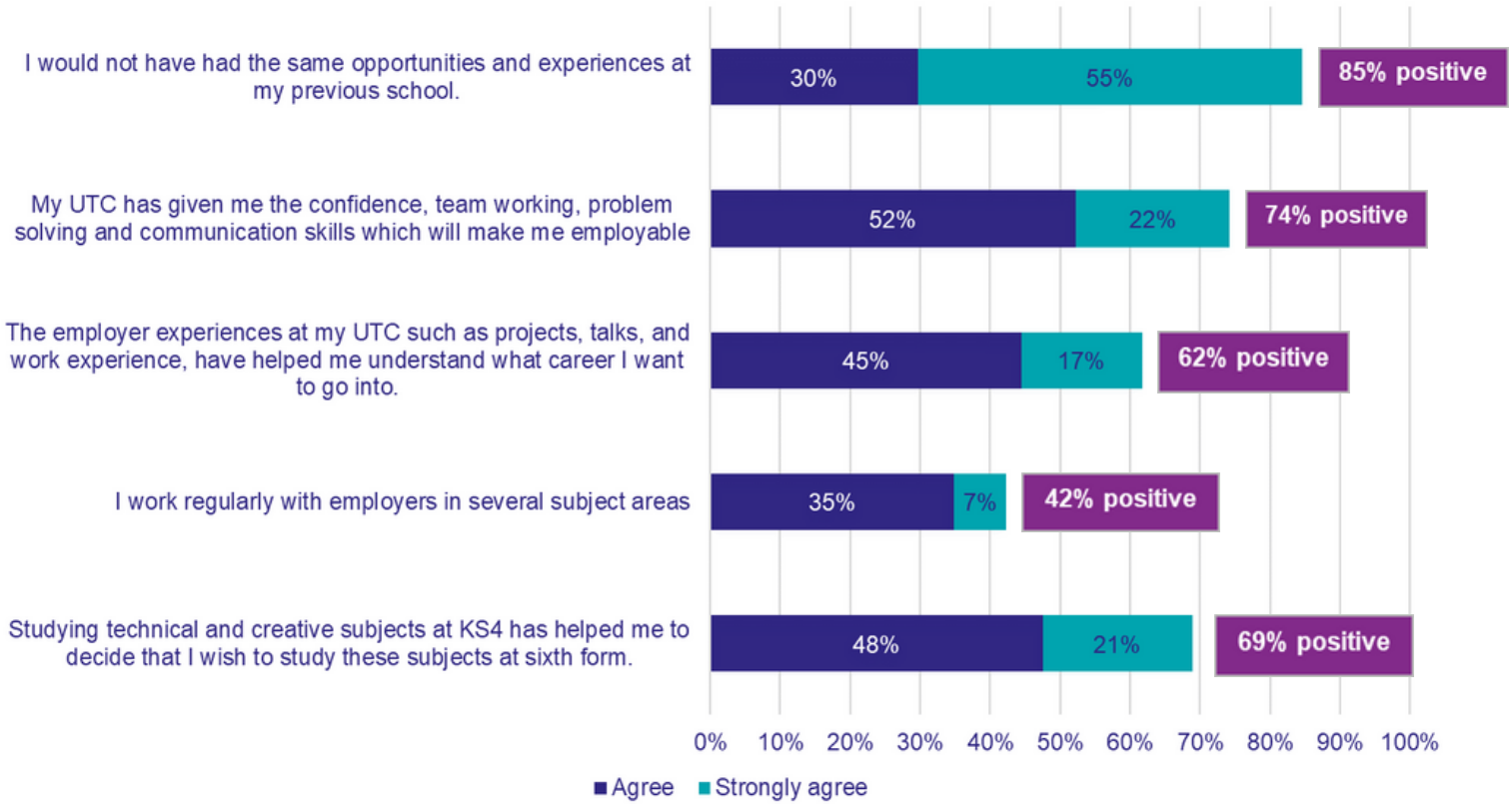
### Student enrolment accelerating



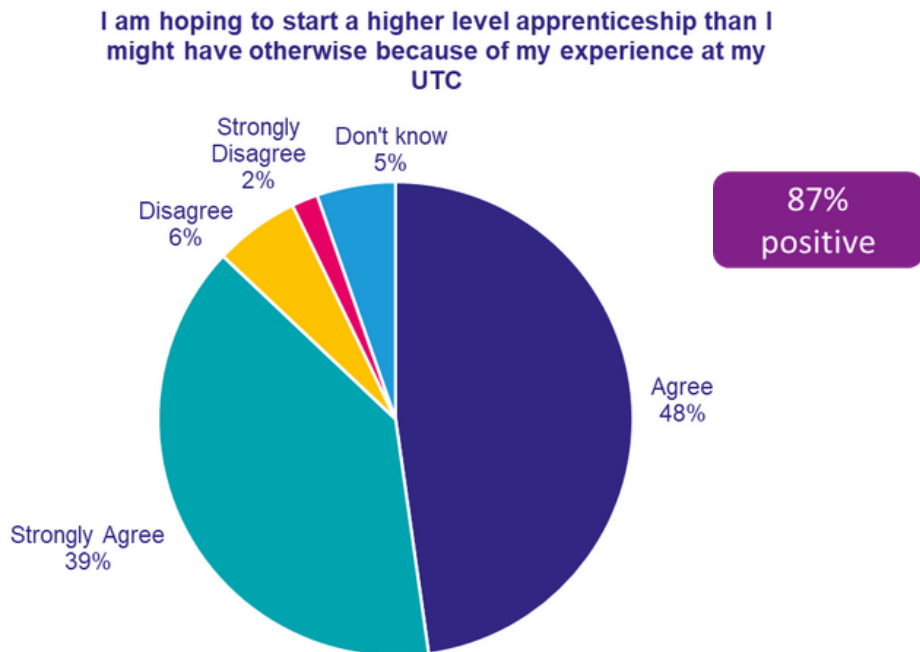
### Greatly improved Ofsted outcomes



### Y11 UTC student views on their experience (c.2,500 responses, Nov 22)





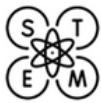




### Y13 UTC student views on apprenticeships (c.2,500 responses, Nov 22)






## Outstanding student leaver destinations - Summer 2022

		UTC	National*
	% students leaving at 18 years of age staying in education, employment or training (apprenticeship).	92%	85%
	% students leaving at 18 years of age who are NEET (not in employment, education or training) or not known.	3%	15%
	% took gap years, left the country etc.	6%	
<hr/>			
	% students leaving at 18 years of age starting university	49%	52%
	% students starting a STEM course at university	73%	44%
	% starting a job	15%	20%
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	% students leaving at 18 years of age starting an apprenticeship	24%	4%
<b>4+</b>	% apprenticeships at Higher or Degree Level	47%	24%
<b>3+</b>	% apprenticeships Advanced Level or above	94%	78%

Rounding may mean not all percentages add up

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



“Every time I visit the college (UTC Portsmouth) I am impressed with how it collaborates with local businesses and prepares young people with the skills and knowledge they need for their futures. This news (Southampton UTC) means that more young people in Portsmouth will be able to take advantage of these opportunities, so I am pleased our calls for the bid to be successful have been answered.”

– Stephen Morgan MP, Portsmouth News, August 2023

The Baker Dearing Educational Trust supports University Technical Colleges (UTCs) to deliver a high-quality, industry-focused curriculum to students. Established in 2009, the trust sits at the centre of the UTC network and is uniquely placed to provide co-ordinated support to, and advocacy for, UTCs, as well as communications both within the network and to a broader audience.

More information:

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