Baker Dearing Educational Trust Impact Report 2019



"I worked in manufacturing before becoming an MP, and I know how important it is to have the right skills."

"When you talk to the students, you get a true sense of their passion and enthusiasm they have for the skills they are learning here. It is truly inspiring, and we need to be doing more of this."

Gavin Williamson,
 Secretary of State for Education upon a visit to UTC Plymouth in October 2019.





Welcome

I created the Baker Dearing Educational Trust...

I created my charity just over ten years ago to support the establishment of University Technical Colleges (UTCs), and in doing so, provide young people with a relevant education in a fast-changing world.

Highly respected education experts argue that the 'linear thinking' skills prioritised by the school system are precisely those that algorithms are able to perform much more quickly, profoundly and reliably than humans. The digital revolution will eliminate the need for these skills. Thus, an education which truly prepares young people for the future must focus far more on active (as opposed to passive) learning; technical entrepreneurial skills; and personal and collaborative skills. In other words, while knowledge is as necessary as ever, it is no longer enough. Abstract knowledge and reasoning need to be linked to the 'real world' through practical applications. This is the philosophy behind UTCs, created by Baker Dearing.

UTCs, through their association with employers and universities, through project-based learning, and through a focus on technical subjects bridge the gap between the world of education and the world of work. Today, I am proud that 48 UTCs are open across England, educating over 14,000 students, and supported by more than 400 employers and universities.

I do hope you enjoy reading this impact report, which articulates Baker Dearing's progress to date and our goals in the months and years ahead.

- Lord Baker

UTCsToday's education for tomorrow's careers

UTCs are government-funded schools with a STEM focus. They provide a unique and relevant approach to education which addresses the changing needs of students and employers in the 21st Century. UTCs were established by companies and universities in areas of high demand for talent. In addition to a core curriculum of English, Maths, and Sciences, UTCs also provide sought-after technical qualifications and benefit from industry standard equipment and specialist staff to provide students with skills valued by employers.

The UTC programme has a strong emphasis on employer engagement, including real-life project-based learning, which engages students and develops their personal attributes. Because of their unique offer, UTCs provide a broad choice of pathways at 18 either to university, higher & degree apprenticeships, or directly into a career. The impressive track record of student destinations after leaving UTCs is testament to the quality of this distinctive educational experience.



WMG Academy has helped me grow not only as a student but as a person. The support of the teachers and good friends I have come across will always stay with me and benefit me in the future. I have learnt a variety of skills such as how to use the different engineering machines, how to program and how to use CAD for designing. These skills will help me a lot to build my future career. Most importantly though, it's an anti-bullying college – once I enter the school, it makes me feel like my second home with all the friendly teachers and students. They build you up as a character to be ready to face the real world.

Hamza Abo-Saaida, WMG Academy Coventry

What we do

Today, Baker Dearing exists to:

Foster a favourable policy and funding environment for UTCs

Baker Dearing works closely with senior personnel at the Department for Education (DfE) and Education and Skills Funding Agency (ESFA) to lobby / advocate for UTCs at a programme-wide level and to influence policy decisions. The charity also meets with other key government stakeholders including Ofsted, HM Treasury and Members of Parliament.

Raise greater awareness of UTCs

Collectively, on behalf of all UTCs, Baker Dearing co-ordinates publicity and marketing efforts to communicate the value of a UTC education and to celebrate the many student success stories around the programme.

Ensure UTC distinctiveness is preserved, and standards are upheld

Baker Dearing provides 'light touch' support to protect the nature and standards of the unique UTC education provision, as defined by the requirements of the UTC licence.

Facilitate connectivity and exchange amongst UTCs

Baker Dearing provides a rich programme of events for UTC staff; regular communication across all UTCs; data and analysis regarding programme developments; and the brokerage of UTC-to-UTC support, where needed.

Provide UTCs with access to advisory support

Baker Dearing offers individual UTCs advice and assistance in the areas of technical education, student recruitment, employer engagement, finance, re-brokerage, and DfE/ESFA negotiations.

Procure services and offer benefits for UTCs on a collective basis

Baker Dearing is able to achieve group discounts for third-party services through negotiation and procurement on behalf of all UTCs, such as SSAT and GL Assessment. In addition, Baker Dearing directly funds various highly valued UTC initiatives such as Redborne data analysis, UTC Hub for student destinations and the Baker Award for Technical Education.



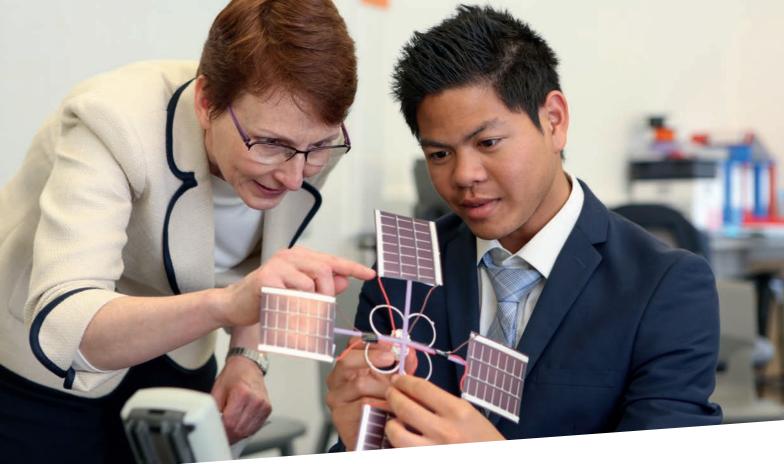
Looking back

In addition to on-going support and services for UTCs, the following are some notable programme-wide achievements in which Baker Dearing has played an important role (as articulated by UTCs themselves):

- There are 48 UTCs, most of which have opened since 2013;
- The DfE has supported the UTC programme and publicly acknowledged the UTC brand;
- Significant operational support within the DfE and ESFA has been ensured to help all UTCs to succeed:
- Ofsted and the DfE have recognised publicly that Progress 8 and EBacc are not appropriate accountability measures for UTCs, whereas destinations data might be a more suitable measure:
- Ofsted inspectors have developed a deeper understanding of UTCs: in 2018/19, c.70% of UTCs were judged 'Good' or better overall and 80% judged 'Good' or better for leadership;
- The ESFA and HM Treasury have a greater appreciation of the additional costs of running a UTC, when compared with a mainstream secondary school;
- A DfE award of £200,000 of transitional funding per UTC has been secured for each of the past four years;
- c.400 employers and universities have been recruited nationally to support UTCs;
- A practical model of employer engagement within a schools setting has been developed, and third parties recognise UTC success with project-based learning;
- Outstanding student destinations after leaving UTCs, into hard-to-fill areas of the economy including Level 4+ apprenticeships and STEM courses at university, have been achieved;
- Political support for UTCs has been demonstrated across parties;
- The Baker Clause aims to raise awareness of technical education by requiring all schools to permit UTC staff to talk to their students, and was incorporated into the 2017 Technical and Further Education Act;
- Most importantly, the life chances for tens of thousands of students have been materially improved, by providing them with an education today which really does prepare them for tomorrow's careers.



Examples of our impact



1 Policy successes

Baker Dearing has been successful in demonstrating that a UTC curriculum, which is typically 20% larger than a mainstream curriculum, requires more technicians and specialist teachers, and also that investment must be made into specialist equipment, which is more expensive to deliver. For the fourth year in a row, Baker Dearing lobbying enabled each UTC to obtain £200,000 of Transitional Funding to help it to deliver its programme.

Furthermore, through Baker Dearing's regular and structured dialogue with Ofsted and the DfE, both have recognised publicly that Progress 8 and EBacc are not appropriate accountability measures for UTCs: UTCs mainly take students at 14 years of age, and do not offer the breadth of subjects typically found in mainstream secondary schools.

In addition, in July 2019, the DfE published a Memorandum of Understanding with Baker Dearing, which sets out the key principles and working arrangements between the two organisations. In particular, the MoU articulates that the DfE is committed to improving technical education to address skills shortages by providing young people with the technical knowledge and skills that employers need, and that UTCs have an important role in delivering this.

2 Improving standards

Over the past calendar year, UTCs have shown a significant improvement in Ofsted inspection judgements. Out of eighteen inspections, none were found to be inadequate and an impressive eleven UTCs were judged good or better.

Two UTCs, which were in 'Special Measures' at the start of the year, received full Section 5 Inspections and were removed from this category.

Taken as a whole, the 2018-19 inspection reports indicate that:

- The quality of leadership and management across UTCs is greatly improved.
- Personal development, behaviour and welfare across UTCs is very good.
- Inspectors recognise the impact UTCs are making on pupils' engagement, progress and progression.
- Inspectors recognise that the UTC programme, which develops work skills alongside the acquisition of knowledge, is producing high quality destinations amongst student leavers.

Baker Dearing has directly contributed to improving standards by:

- **i.** Facilitating a programme-wide approach to school improvement, delivered jointly by the DfE's team of education advisers, Baker Dearing's Director of Education, and those UTC practitioners with proven credentials.
- **ii.** Structuring a common framework for dialogue between Baker Dearing's Director of Education and UTCs to prepare for Ofsted inspections.
- iii. Brokering support for UTCs where required, drawing down experience from our maturing network of UTCs.
- **iv.** Developing and deepening dialogue with the Ofsted leadership team, to improve understanding of the unique context, character and educational contribution of UTCs.
- **v.** Building the confidence of our Principals and Governors to acclaim the achievement of their UTCs and providing them with some of the tools to do so.



Enabling employers to work more effectively with young people

The unique and vital UTC emphasis on enhancing the destinations of student leavers relies heavily on the engagement of employers in the programme. Employers are brought into UTCs to work with students on specific project-based learning activities, to offer mentoring and to provide work experience; all of this has been proven to improve materially leaver destinations as measured by the level of apprenticeship start, university course, or the low number of NEETs. In addition, Baker Dearing research shows there is a clear link between the quality of employer engagement at a UTC and the number of students on roll.

In the past year, Baker Dearing personnel have worked closely with UTCs and employers to strengthen the links between the two. As a consequence, a much larger percentage of UTC leavers at 18 start higher and degree apprenticeships when compared with all other educational establishments.

57%

of apprenticeships undertaken by UTC students are Higher or Degree Level compared with 10% nationally. Apprentices receive a salary while they study and do not pay for their tuition or training. They are highly employable as they gain real-world experience. **75%**



of UTC leavers starting university chose STEM courses compared to 46% nationally. Graduates of STEM subjects can expect higher starting salaries and increased life time earnings compared to graduates of other subjects.

Our employers say

Today's employer is looking for tomorrow's innovation: Lincoln UTC provides an excellent opportunity for students to be prepared for that challenge, so that they can join employers such as Siemens as skilled technicians or as university graduates with a more informed understanding of business and industry in the vital fields of science and engineering.

Nick Muntz, Managing Director, Siemens Lincoln



We have taken on UTC Plymouth students to fulfil our apprenticeship placements from the college for the second year running. The students have always interviewed very well compared to students from traditional schools, as they are more in tune with the practical aspects and requirements of the job and have been exposed to a manufacturing and engineering environment before.

Karen Friendship, Industry Partner, UTC Plymouth

Health Futures UTC is a school with a difference. With its clinical area, partnership links and students with a real desire and enthusiasm to learn, it is training the health workers of our future. In conjunction with Health Futures UTC, we have worked closely to develop a bespoke paramedic challenge that provides the students with a working knowledge of the ambulance service and life of a paramedic through the use of real life scenarios and the equipment that might be used in an emergency. The UTC staff are caring, hardworking and always go that extra mile to put the students first, and the students are committed to learning and enriching their skills. It's always a real pleasure to work with **Health Futures and I look forward to developing** the links between us even further in the future.

Thomas Bytheway,
West Midlands Ambulance Service

Our Principals say



The GPUTC aims to support the development of the city of Peterborough's economy. To ensure the city thrives, we need to provide the correct workforce to meet the demands of our local employers, who are expanding through investment and developments throughout the city itself, as well as surrounding towns and villages. It is essential that we maximise the opportunities for people from within our own communities to develop the skills that enable them to access the jobs that our employers offer. The GPUTC sets out to train a workforce that has the required knowledge, skills and behaviours that enable them to develop new products, stretch and reuse existing resources, and meet all the challenges of the future.

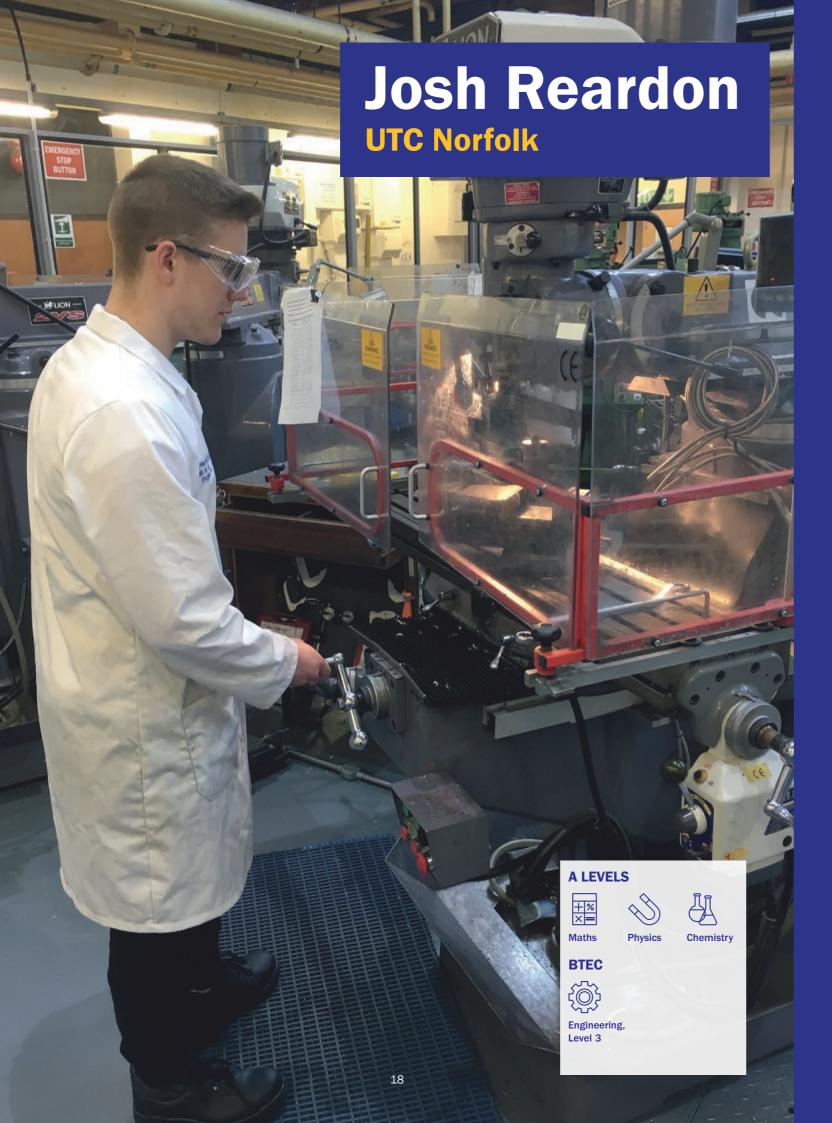
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David Bisley, Principal, Greater Peterborough UTC



So many lives are transformed at the Global Academy. We allow our students to access a world that they have previously not been able to experience. As a 14-19 academy, we are able to offer a very unique curriculum for students who felt that their previous schools were reducing the creative opportunities at GCSE due to the EBACC and Progress 8 pressures. Having Global as our sponsor has such major impact. They bring tremendous experience and an array of opportunities to the school. These include 'real life' projects, industry placements, specialist expertise, mentoring and apprenticeship opportunities. This has meant other creative and media companies want to work with our Academy and students, in turn leading to more opportunities for the school.

Jonty Archibald, Principal, Global Academy



'I went to Wisbech Grammar school until year 11, and discovered that maths and physics were the subjects I was best at. I knew I wasn't going to stay for sixth form,' says Josh, 'so started looking around. My brother had just started studying engineering at university, and I came across a brand new engineering college at UTC Norfolk. I was one of the first cohort to go – the photos looked good, and I liked the fact that there were big companies on the Board, like Lotus Cars.

'I'd never come across a UTC before and it felt like a bit of a risk, but you never know something's going to pan out when you start something new anyway – and the more I looked into it, the more excited I got about starting.

'I had no experience of BTECs before I went to the UTC, so I didn't know what it'd be like. My mum really pushed for it – she thought it was a very good idea, and it turned out to be one of the best things I did. I got a distinction* in my BTEC and a lot of universities would have accepted my BTEC instead of an A* – which is very hard to get – if I'd needed them to. A combination of A levels and a BTEC gives you a really good mix of exam practice and getting practical experience.'

Studying engineering, Josh made the decision to pick the areas of each A level subject that complemented his BTEC. 'So for maths, I chose mechanics; it flowed together with the physics and engineering I was doing,' he says.

'In my first year we worked on Green Kart – the battery go kart project. A lot of it was in our spare time, but we'd also work on it in lessons. We had the freedom to plan it on our own, as if we were in an engineering team in the real world.

'The biggest advantage for me in joining the UTC was doing two weeks' work experience at Lotus Cars,' says Josh. 'They were on the Board of Directors and came in to see us. Because the UTC was relatively small at that time – there were only year 12s – the teachers knew all of the students really well, and could 'tailor make' opportunities for you. They really made the most of their contacts to get the best opportunities they could for us.

'I've finished my year in industry with Rolls Royce's aerospace division, which was completely different to anything else I'd seen, and I've got one more year at university. I'll find out in September if I'll get a graduate scheme placement with Rolls Royce, which would be a 16-month course. But I've also always been interested in insurance and banking – it's one of the reasons I applied for mechanical engineering at university. Both are problem-solving and analytical and maths-heavy, so that option is still there for me. It's such a highly-thought of degree.

'If you're willing to work hard, you'll get so much from it,' he says. 'Go for it and take all of the opportunities you're offered – I didn't say no to anything, but I've had to work hard. A BTEC and three A levels is more work than other schools, but there are good opportunities there. UTCs are a mature environment that prepare you for university, so it's easier to make the jump from one to the other. You can have lots of free periods and you have to make the most of them, which is similar to university. You need to learn to do it for yourself.'



'I've just finished my HNC in engineering,' says Tiffany, 'and will move onto my HND with Williams next year. Then there's the possibility of going on for my degree and Masters.' Tiffany has spent her first two years rotating around sections in Williams' F1 factory in Grove, Oxfordshire. 'I've done everything from machining to inspection to laminating in the model shop, and 3D printing,' she says. 'I'm working with the race team now, on hydraulics.

'I didn't really know what I wanted to do for a long time,' she admits. After working with a group of engineers as part of an arts course, she settled on a Level 3 advanced engineering course, but stayed for just a month. 'I had no engineering background,' she says, 'and it felt like there wasn't much teaching going on. I struggled to get the information I needed from teachers. It was my dad who came to me with an advertisement about a new UTC opening in Didcot, specialising in engineering and science. It was a big decision for me to move again, but I applied and was accepted. I continued my engineering course there, and have never regretted it for a second - it's the best way to learn. The whole UTC is set up in a very work-based way; we wore formal dress, worked working hours and learnt how to communicate with employers, focusing on tasks and projects set by them. 'It got me ready for where I wanted to go, and working life,' says Tiffany. 'I created a good bond with teachers - I admire them for the way they were able to effectively pass across information in a way that the students could understand. They were so visual, I learnt things I'd struggled with at my previous college in a single session.'

UTC Oxfordshire's industry partners include UK Atomic Energy Authority, Oxford Space Systems, Mini Plant Oxford, Bloodhound SSC and Reaction Engines. 'They got into contact with Williams,' says Tiffany, 'which offered students at the UTC three months of paid work experience. Richard Hurrell, who was my main engineering teacher, was a real inspiration for me. He took me to one side and said "look, you really need to think hard about this. It's a very big opportunity for you and could be your ticket in."'

With support from her parents and teachers, Tiffany applied for work experience with Williams and was accepted. 'I did three months of work experience there and got my foot into the door, building good relationships. I can't stress enough how important work experience is. The first two times I applied to Williams I didn't look much on paper, as I had no engineering background. But doing work experience they got to know me and how I worked, and that opened the door.'

The UTC's tech environment is good, says Tiffany, 'but the main thing that appealed to me was that it was very work-based, and we had so much contact with employers. It boosted my confidence to speak to these people – they're so knowledgeable and you've got to communicate with them effectively. It pushes you out of your comfort zone, but it makes you realise how accessible people are. I was terrible at talking to people and nervous with presentations beforehand, but working on projects makes you do that.'

Tiffany is also at the forefront of UTC Oxfordshire's drive to encourage more women to get involved in engineering. 'Go for work experience,' she says. 'Make sure you're judged by more than what's on paper. Meet the employers and get out there, or you'll find it hard to be noticed; build contacts and volunteer. You'll have close contact to employers and get an insight into working life. UTCs integrate you into work, and how you communicate – it's the whole life aspect.'

Looking forward

Over the past ten years, Baker Dearing has been the driving force behind new UTC openings and has provided 'top-down' direction to the programme. Today, there is critical mass in terms of the number of UTCs, and clear evidence, through student destinations into hard-to-fill areas of the economy that the programme is delivering on its original aims.

To ensure the programme's continued improvement and to embed UTCs firmly within the English education system, Baker Dearing has four broad objectives:

1 To help all UTCs to fill up and to achieve high standards:

Baker Dearing supports UTCs directly to improve the effectiveness of their student recruitment, and to amend the age of entry, where required. Working with universities and employers is new to many UTC professionals and Baker Dearing acts as 'broker' and advisor to strengthen sponsor relationships with UTCs. Finally, as licensor of the 'UTC' brand, Baker Dearing safeguards and enhances 'UTCness' through a structured approach to assessing progress toward / maintenance of the standards defined in the UTC licence.

2 To shape a supportive policy and regulatory environment, and achieve broader stakeholder support:

Baker Dearing is uniquely placed to provide a co-ordinated approach for the UTC programme to engage with the Department for Education, the Education and Skills Funding Agency, Ofsted, Members of Parliament, national employers, press and research organisations.

Our lobbying and advocacy activities seek to shape a supportive policy & regulatory environment, and to influence wider stakeholders, media and research bodies.

To support connectivity and the sharing of knowledge around the UTC programme:

All UTCs have much in common. Baker Dearing fills the valuable role of facilitating the sharing of 'best practice' around the programme, by offering a rich programme of events, regular communication, and bespoke advice.

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Since my daughter joined UTC Plymouth in September 2019, she has gained in confidence and really enjoys taking part in all her lessons. Her teachers have given her amazing support and feedback about her work and she is part of the student council. In my mind it's an amazing opportunity and such a fun family to be part of, with fantastic learning, gaining qualifications and having the knowledge that the staff are always there to help. My daughter is so lucky to have this opportunity.

Louisa Mulroney,
Parent of Year 10 student at UTC Plymouth

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To support teacher recruitment and training:

We also recognise that the quality of the UTC programme cannot exceed the quality of its teachers. Therefore, it is necessary that Baker Dearing supports all UTCs to grow and develop teaching talent, at all levels, for their specialisms, and for the introduction of new qualifications such as T-Levels.



Our teachers say

I've often felt, working in traditional schools, that engagement with employers was severely lacking, whereas at the UTC, it's at the forefront of everything we do. Learning from highly skilled people already doing the jobs that our students wish to pursue as careers is an invaluable experience for them. Most of our students will leave after five years of study, having completed successful digital projects with dozens of organisations. This not only engages the student but allows employers to see the local talent pool as well, which is a powerful experience for everyone.

Shaun Whorton, UTC Sheffield Olympic Legacy Park



Lincoln UTC is successful because it fosters the interests of its students. The specialist focus on science allows us to spend more time with the students and therefore the quality of teaching results in deeper understanding. Seeing them learn and grow into successful careers in the STEM industry clearly shows that the programme works.

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The UTC ethos produces the highest standards of achievement and progress for our students reflecting a high level of professional commitment from all school staff, our linked employers and our students alongside their families. It is a privilege to work for an organisation which really does put students at the centre of our core purpose. Our focus is on destinations for the individual and this is driven by the moral compass that underpins the education offered by the UTC. It is genuinely a pleasure to work with young people knowing you are making a positive difference to their lives.

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Kay Dulley, UTC Sheffield City Centre

How we're organised and governed

Our Board of Trustees

Our Board of Trustees, comprising of up to 10 members with a broad range of skills and experience, is responsible for the overall control and strategic direction of our charity. The Board meets 3 times per annum.

Core Principals Group

To help us achieve our objectives, we benefit from our Core Principals Group, which comprises of 8 UTC Principals who act as an advisory body to our Board. The Core Principals Group meets 3 times per annum ahead of the Board meeting for that term.

Baker Dearing Trustees

Lord Baker (Chairman)

Kenneth Baker is a former MP and Cabinet Minister. He was the first Information Technology Minister introducing computers into schools. As Education Secretary he introduced the National Curriculum, testing, City Technology Colleges, grant-maintained schools, and freed polytechnics to become universities. Together with Lord Dearing, he founded the Baker Dearing Educational Trust in 2009.

Lord Adonis

Andrew Adonis is a British Labour Party politician and author. He served in HM Government as Secretary of State for Transport. More recently, he was founding Chair of the National Infrastructure Commission pioneering HS2 and Crossrail. During his time as Minister for Schools, he forged Teach First, the London Challenge, and was an early advocate for the introduction of the UTC programme.

Sir Mike Tomlinson

Sir Mike was HM Chief Inspector and Head of Ofsted between 2000 and 2002. He was Chair of the Working Group set up by government to propose reform of the curriculum for 14-19 year olds. He acted as Chief Adviser for London Challenge from 2008 to 2010. In 2014, he was appointed education commissioner for Birmingham to oversee reform

Dr Terri Simpkin

Terri is an industry-focused academic, consultant and public speaker, with expertise in linking the higher education sector and vocational training. She is an associate professor at the University of Nottingham and business owner of a company with a focus on empowering women within the work place.

David Land

David is a well-known figure in the manufacturing and automotive sectors in the North East of England. He has spent his entire career in these sectors, starting out as an apprentice. Today, he allocates his time between managing businesses as well as supporting local organisations. He is Chair of Governors at UTC South Durham.

Mike Wright

Mike is a former Executive Director of Jaguar Land Rover, retiring in 2016 after making a significant contribution to doubling JLR's scale since 2008. He acts as an advisor to FTSE and North American listed businesses, sports, arts and government-related organisations. Mike is Chair of Governors of WMG Academies, which has two UTCs near Birmingham.

Clive Barker

Clive has enjoyed a successful career as a businessman and entrepreneur. He is Chairman of CSB Logistics, a company he founded over 30 years ago. He is an active participant in the business community in South East London, having twice served as President of the region's Chamber of Commerce. Clive is Vice-Chair of the Leigh UTC in Dartford.

Madeleine Hallward

Madeline is a public affairs and communications expert having worked in-house for Diageo and Bloomberg. Most recently, she was a Director on Ford's UK Board leading on government affairs. She has a long association with the UTC programme, particularly through Ford's support for Elutec, which is based in Dagenham.

Financial Review

Baker Dearing cash flow (£'000)	2019
Income	
UTC licence income	480
Grant income	763
Other income	29
Total income	1,272
Expenditure	
Policy	142
Promotion	163
Standards	107
Connectivity	149
Advice	233
Benefits	109
Corporate and fundraising	207
Total expenditure	1,110
Surplus	162
Cash b/fwr from previous year	389
Ending cash balance	551

We would also like to thank all those who currently give and have previously given their time and support to Baker Dearing enabling us to continue our work, including The Edge Foundation, The **Gatsby Foundation**, **The Garfield Weston Foundation, The Michael Bishop** Foundation, and **The Peter Cundill** Foundation.



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