

Baker Dearing Educational Trust

FAO William Longhill
Head of Qualifications Review Unit
Department for Education

Response of the Baker Dearing Educational Trust to consultation on the Review of post-16 qualifications at level 3 in England: Second Stage

Introduction

Baker Dearing supports, through its licence, 48 University Technical Colleges. UTCs are schools for 14-18 year olds whose funding agreement requires them to provide technical education. Our 16000 pupils study a blend of academic and technical qualifications which at level 3 are predominantly STEM-related. Over the last four years, 77% of UTC leavers to higher education have taken STEM-related degrees. Over the same period, 22% of leavers have secured apprenticeships in a technical field. All UTC Trusts are required to have a majority of trustees nominated by employer and university sponsors.

The conclusions and recommendations within this submission are founded on:

- A study of the summer 2000 destinations of over 1100 UTC leavers and the level 3 qualifications which supported those progressions. This study is presented in full in as Appendix 1
- A survey of UTC Principal projections for over 1100 pupils currently on level 3 programmes in Year 12 (2020-21), in regard to the likely impact the proposals would have had on their access to level 3. See Section 4 :Table 1
- Feedback from employer and university sponsors. See Appendix 2.
- Interviews with UTC Principals providing qualitative and contextual data. This includes the illustrative pupil case studies provided in Appendix 3.

Executive summary

- **Baker Dearing welcomes the government’s intent to raise the profile of technical qualifications and to that end, the introduction of T Levels into the level qualifications landscape.** The T level is fundamentally different in structure to the existing technical qualifications at this level, and provides for a distinctive subset of young people seeking to engage in technical study. However, rather than investing in the complementarity offered by the T Level, the Review proposals remove existing technical and applied general qualifications. We provide compelling evidence in this submission that restricting the range of pathways into higher level technical study will be to the detriment of the critical industrial sectors the government is seeking to support.
- **The binary representation of qualification routes will reduce the number of young people progressing to higher technical study and apprenticeships.** The fundamental differences in educational design between the T Level and the technical qualifications it will replace, removes an enabling Level 3 option for a significant percentage of students aiming to progress to higher technical study through HE and apprenticeships. Across UTCs, charged as they are to provide technical education, this disenfranchised percentage is estimated to be as much as 40%. This presents a high risk of fewer young adults feeding into our essential, under-skilled technical sectors from 2026 onwards.

Baker Dearing Educational Trust

- **Social mobility will be negatively impacted by the proposals.** Disproportionate numbers of young people from disadvantaged and minority ethnic backgrounds currently access level 3 through technical qualifications scheduled for withdrawal. The Review's own Impact Assessment recognises that the proposals are *'likely to lead to a fall in participation at level 3, as well as achievement rates'* (Review IA para 17). The data from UTCs supports this general conclusion and in particular, the equalities assessment which identifies disproportionate risk to some characteristic pupil groups. However, the data on which that equalities impact is assessed is collated from qualifications across all curriculum domains. **Baker Dearing's own study suggests that the disproportionate impact across pupil groups may be magnified for qualifications spanning the STEM domain.**

Additionally, in conflict with the Review assessment, Baker Dearing's data identifies a greater percentage of UTC girls studying 'outgoing' technical qualifications than boys. Such a position, if translated nationally, would present a risk to the current slow progress in raising the number of girls in technical roles (Ref Wise – 2019 Workforce Statistics).

We therefore recommend a deeper equalities study which assesses impact on these groups at a curriculum area level.

- **The proposed binary qualification routes are not what our employers want.** The government white paper *'Skills for jobs: lifelong learning for opportunity and growth'* states: "We will place employers at the heart of defining local skills needs....The courses offered by providers will be tailored to meet the skill needs of businesses". Our own employer feedback advises: "As employers, we prefer our higher and degree level apprentices to have studied a mixture of technical and academic qualifications....In our view it would be a mistake to expect all young people who wish to study a technical qualification to specialise in one field at aged sixteen...if young people are not able to study technical qualifications alongside A Levels, this will deter them from taking any technical qualifications." (See Appendix 2).
- **The 'costs to employers' identified by the Review's own impact assessment may fall more heavily on STEM related industries.** The impact assessment recognises that *'In the short term, there may be some small costs to employers'* (para 43) and furthermore that the changes *'could make it harder for employers to acquire the skilled labour they need and reduce their productivity'* (para 44). Students in UTCs study predominantly STEM related qualifications. As a consequence, Baker Dearing's own analysis would suggest that such costs may produce a more severe impact in the growth of high-level technical skills in STEM related sectors, such as advanced engineering, health sciences and digital tech. The Review's assessment does not evaluate whether the 'costs' alluded to are likely to be distributed across industrial sectors in an equitable manner.
Baker Dearing recommends that a deeper assessment of this position is essential, and indeed to not do so would be negligent in the extreme.
- **Baker Dearing supports in principle the introduction of a level 3 technical qualification with the scale and ambition of the T level.** Twelve UTCs have been approved for first phase delivery in their specialist areas. The T level however is as yet untried and untested. With such comes associated risk. The true scale and impact of the unintended consequences of the T level's introduction (and more specifically its design) will only become apparent over

the next five to eight years. Whilst recognising the rationale for creating a 'space' for the T Level to root in the new qualifications landscape, its design and structure means that it does not occupy the same ground as the qualifications to be ejected. Whilst existing Technical Level qualifications do provide considerable overlap in knowledge content with linked T Levels, the qualification sets are distinctly different in terms of learning and assessment model. The two sets therefore respond to and develop talented young people with inherently different skill profiles. In particular, the fundamental educational differences between the current suite of level 3 Technical Levels awards and the T Level are projected to halve the number of apprentices feeding the respective technical sectors from UTCs (See Appendix 1).

This key difference and subsequent gap in provision, present a significant risk to many young people and the industries which need them.

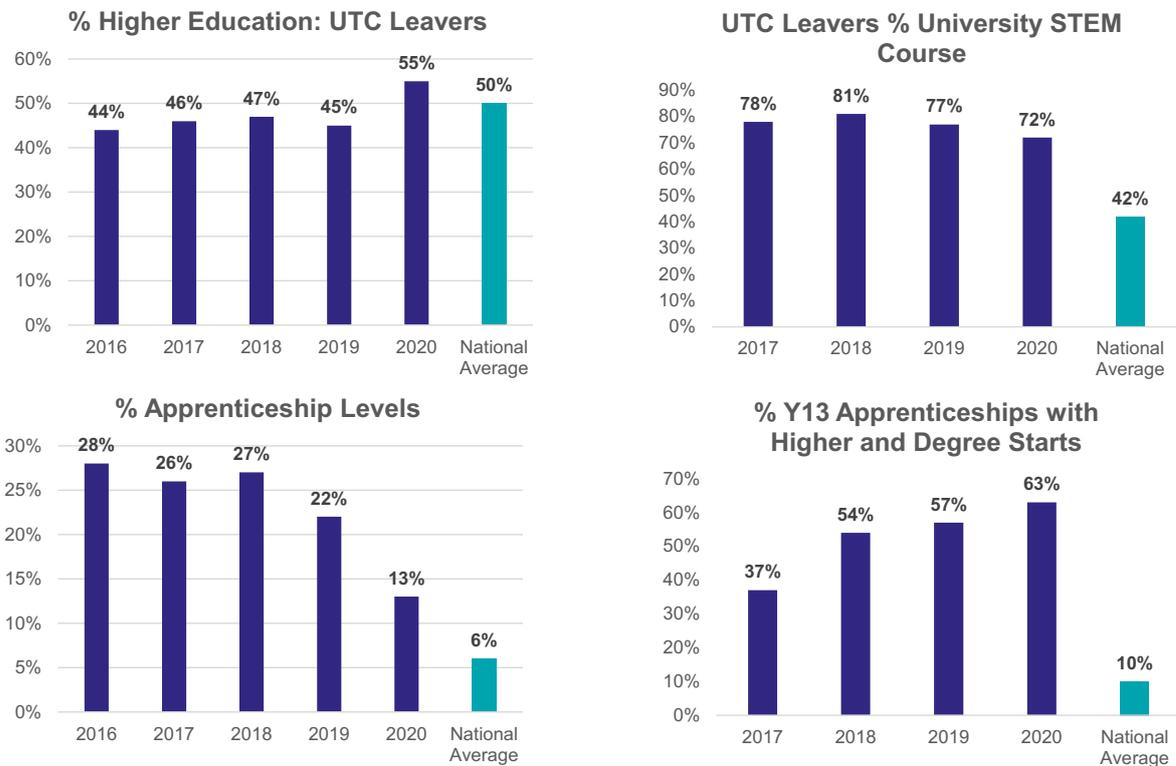
- Following consultation in Stage 1 of the Review, the Stage 2 proposals identify the potential for **academic qualifications which are complementary to A Levels**. The point of difference, and therefore existence in the framework, of this group of qualifications should be justified by educational approach and the skills profile of its intended clients, alongside difference in content. **We would recommend that this qualification space is utilised more expansively to reduce the aforementioned gap in provision.**
- The RQF revision of the qualifications framework was implemented in 2015, with funding finally withdrawn for all pre-existing QCF qualifications as recently as August 2020. **As a consequence, the impact of the revised applied general and technical levels qualifications in terms of providing a platform for subsequent success at level 4 and beyond (whether through HE degrees or higher apprenticeships) is yet to be assessed.**
- Consultation on Stage 1 of the current Review closed in June 2019, a full six months prior to the emergence of the current pandemic. As a consequence, there has not been the opportunity to assess the proposals and timelines in the context of the ongoing impact on both pupils' learning and the challenging economic climate to which our key industries are exposed. **We would therefore recommend that the impact assessment should be further expanded to consider the new educational, social and economic climate which could not have been anticipated at the launch of the Review.**
- As a consequence of the accumulation of risk identified throughout the above, and its national import, Baker Dearing recommends **funding should remain for identified 'high value' advanced general and technical level qualifications for the next five years at least, with a review of that position effective from September 2027.**

Baker Dearing Educational Trust

1. Background – leaver destinations from UTCs

UTCs have built a strong track record of leaver destinations for students aged 18. Whilst a similar percentage to the national average progress to university, an extremely high number (72% vs 42% nationally) take science subjects. Furthermore, historically, about one-quarter of UTC leavers have progressed into apprenticeships, which is significantly above national averages (6%). Of those students starting an apprenticeship over half do so at higher and degree levels, six times the national average. Very few UTC students become unemployed after leaving aged 18.

Chart 1



A critical driver behind these impressive destinations is the design of post-16 study programmes to meet individual need. Students can choose between predominantly academic pathways, such as 3 A-Levels or 2-A Levels plus a complementing applied general qualification (e.g. extended certificate in engineering), or take technical pathways, such as an extended diploma in engineering (equivalent to 3 A levels), or one A Level plus a diploma in engineering (equivalent to 2 A levels). This flexible offer ensures that students can select programmes of study most suited to their needs, interests and skills profile.

Baker Dearing’s own Impact Assessment of the Review proposals is built from data collated across a representative sample of 50% of UTC leavers in 2020, and is provided in its entirety in Appendix 1. For the purpose of this submission, key extracts are used to support assertions in the sections which follow.

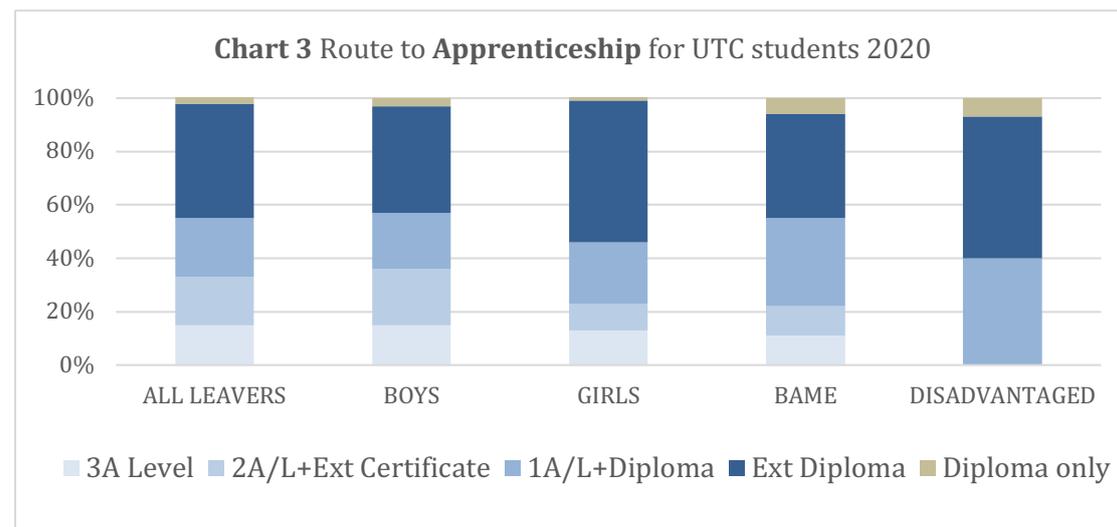
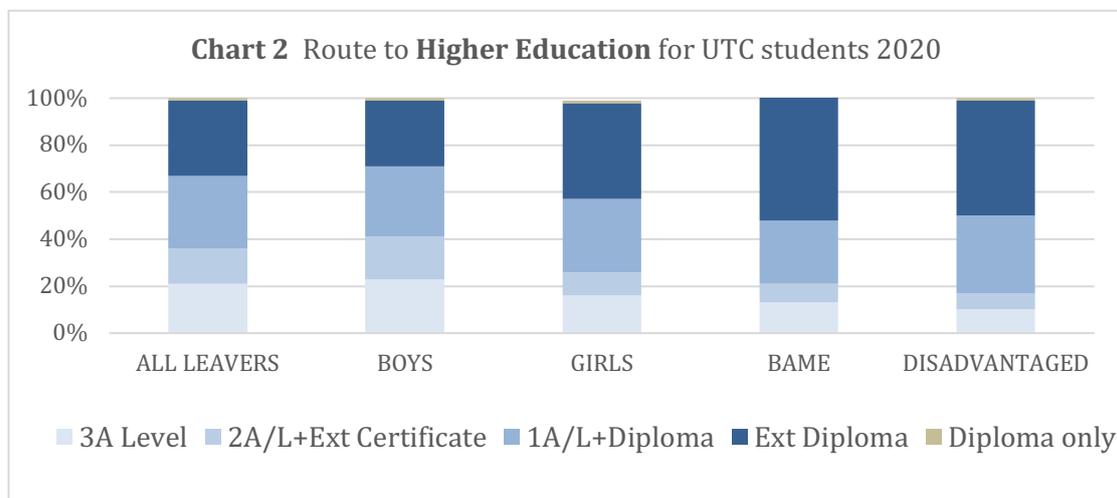
Baker Dearing Educational Trust

2. The proposed 16 to 19 level 3 landscape: academic and technical qualifications

Whilst a helpful construct for mapping the overall qualifications landscape, the binary modelling of level 3 qualification groups to distinct progression pathways is over-simplistic. Young people as diverse and complex individuals do not fall neatly into one category the other.

The current suite of academic and technical qualifications supports construction of a range of personalised study programmes which meet the disparate needs of learners at 16 years and lead to demonstrably successful progression two years later, as evidenced in Chart 1 above.

Destination outcomes for students in UTCs indicate that all the current level 3 qualification types are being used to meet the knowledge and skills requirements of both employers and higher education institutions. Charts 2 and 3 below illustrate the successful blending of qualification types and sizes to progress UTC students to university and apprenticeships.



Two-thirds of UTC students in the Baker Dearing research progressed to university through a study programme which contained predominantly technical qualifications, whilst blends of both academic and technical qualifications supported almost half of such progressions (Chart 2). On the other hand, one third of progressions to apprenticeships were from predominantly academic

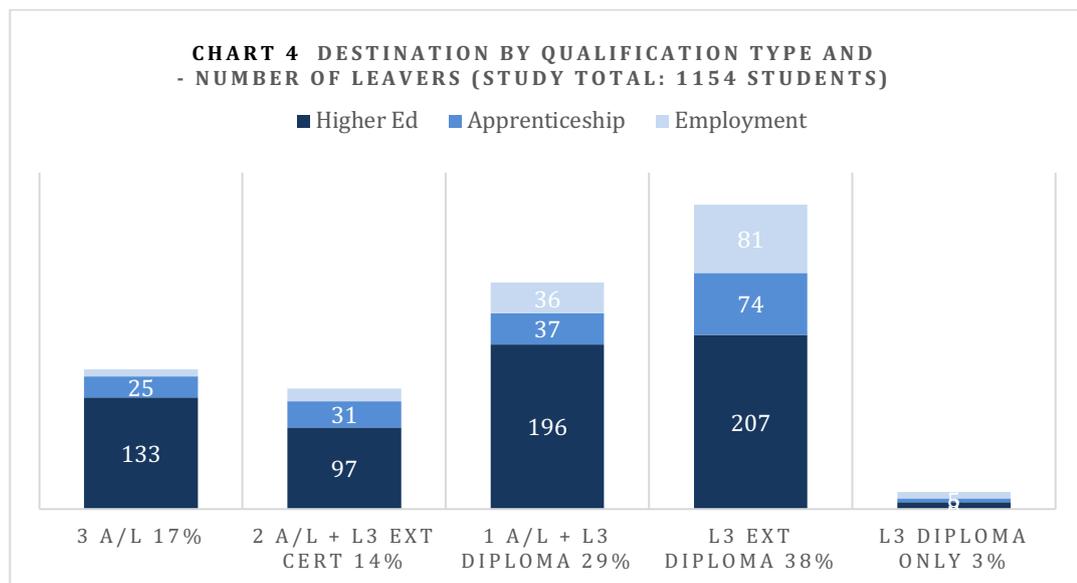
Baker Dearing Educational Trust



programmes (Chart 3). Both charts illustrate most starkly the very high proportions of BAME and Disadvantaged students who secured their progression to both university and apprenticeships via technical qualifications. Of BAME students progressing to university from UTCs in 2020, 80% did so through programmes built solely or predominantly from technical qualifications. The data for our Disadvantaged students was equally stark in that 83% of university places were gained through such technical programmes, whilst 100% of progressions to apprenticeships were via this route. For further detail see the study in Appendix 1.

3. Academic qualifications

The ‘academic’ qualifications described in the proposals are likely to meet the needs of about 30% of students in University Technical Colleges, where additionally, learning is deepened and stretched through its application in technical projects with employers and universities. Achieving this proportion in the new landscape will be dependent on the suitability of the complementary ‘academic’ qualifications referenced in the proposals for study alongside A Levels. Suitability in terms of **the wider knowledge and skills sets which they seek to develop outside those of the traditional academic A Level**. The first two bars in Chart 4 below provide the basis for this conclusion. For this purpose, the current Level 3 Extended Certificate is used as a proxy for the proposed complementary qualification.



Feedback from employers, and increasingly universities, recognises the value and additionality provided by this qualification ‘blend’ (see Appendix 2)

4. Technical Qualifications

The current range of technical qualifications underpin strong progression from UTCs to both higher technical study and apprenticeships, especially for those in the BAME and the Disadvantaged cohorts, as illustrated in Charts 2 and 3 above.

Technical Levels such as the 720gIh level 3 Diploma are not represented in the proposed new qualifications landscape. In combination with one A Level, this qualification

Baker Dearing Educational Trust

group supported one third of progressions to higher education and one quarter of apprenticeships from UTCs in 2020. The resulting blend of technical and academic study, enhanced by meaningful learner engagement with the relevant technical sectors, is valued by both employers and universities (see Appendix 2: An employer perspective: response from Ron Dearing UTC Employer Sponsors). All UTCs work closely with their own university sponsor. The lead academic sponsor for the oldest and highly successful UTC, the JCB Academy, is the Harper Adams University, in turn a member of GuildHE. In its own response to this consultation, GuildHE confirms: *'As the representative body for small/specialist technically focused HE it is vital for our members to recruit students with both academic and practical knowledge of a subject.'*

Feedback from UTC Principals indicates that, whilst a majority of students currently enrolled on a programme built from a Level 3 Diploma plus one A Level are likely to be able to access the T Level, a significant proportion (25%-30%) will not be equipped to do so. **In the absence of such flexibility with the proposed technical qualifications, then we would recommend that the complementing 'academic qualifications' are considered to rectify this gap, both in terms of style and structure (as previously outlined) and in terms of qualification size.**

The 1080glh level 3 Extended Diploma provides a popular route for progression to both higher education and apprenticeship. One third of progressions to university and almost half of apprenticeships (43%) were from students with this entirely technical qualification. For students wishing to study a level 3 programme of similar size and technical focus, the new proposals offer the T Level. However, it is indisputable that the two qualifications are very different in structure, especially in regard to their arrangements for assessment. As a consequence, it is highly improbable that the T Level will provide an accessible route for equivalent cohorts.

Feedback from UTC Principals indicates they consider the T Level is likely to be accessible and appropriate for only 5- 10% of those students currently following the Extended Diploma. In support of this assertion they reference the educational design of the (RQF) Extended Diploma and its continual application of learning and practical skills into the qualification's assessment.

Technical Levels such as the level 3 Extended Diploma support talented young people into apprenticeship and higher technical study by tailoring the assessment of the qualification to reflect the needs of students, employers and increasingly, of higher education. These forms of assessment also suit students who seek a more technical educational experience and who are able to demonstrate their learning through its application to tasks that assess skills as well as knowledge, and that relate to real or realistic working practice. The current Level 3 Technical Level qualifications approved by the DfE within the RQF framework, generally have around 30-40% assessment by written examinations. The remaining 60-70% may include assignments, projects, practical tasks and presentations, providing an educational experience which simultaneously builds a valued range of high-level professional skills which reflect the needs of the sector. The assessment structure also better reflects the schemes of assessment of undergraduate degree programmes, particularly in the more applied STEM areas, with universities having responded constructively over recent years to the challenge presented by the research report [Advance HE in 2012: Student Retention & Success programme](#), that *'Higher education must accept that the implications of offering access to non-traditional students do not end, but rather begin, at the point of entry'*.

The choices for this substantial cohort of 16 year olds for which the T Level is not fit for purpose are unclear. University Technical Colleges progress about 25% of KS5 leavers to apprenticeships annually (see Chart 1). The fundamental educational differences between the

Baker Dearing Educational Trust

Extended Diploma and the T Level are projected to **halve** the number of apprentices feeding their respective technical sectors from UTCs.

The Review's Impact Assessment assumes the achievement of at least five GCSEs at grade 4 or higher to be a suitable benchmark to access a level 3 programme. Applying this to students enrolled on qualifications no longer expected to remain, produces an estimate that the equivalent of around 4% of 16 to 19 year olds currently studying at level 3 may not be able to progress directly to level 3 study following the reforms. Indeed, survey data from UTCs identifies an average prior attainment for students on the non-continuing qualifications of Level 3 Diploma and Extended Diploma to be an average 4.4 GCSE points. However as previously stated, the critical design differences between the T Level and current level 3 technical qualifications renders this assumption invalid. It is a firm consensus across Principals in UTCs that the T Level, as currently constructed, will require application of a skills set akin to that required for A Level success. In the STEM domain, the vast majority of schools (including UTCs) have subject entry requirements for A levels which identify grade 6 at GCSE in a linked subject. Furthermore, a minimum of GCSE grade 5 in mathematics is normally required. Consistent with such expectations, the same survey identifies an average prior attainment for students studying A Levels and Advanced General Qualifications in UTCs to be an average 5.2 GCSE points. Evidence from UTC Principals, engaged and experienced as they are in the delivery of technical education, suggests that **the Review's Impact Assessment significantly under-estimates the reduced access to level 3 in their specialist curricular areas**. Survey returns based on current UTC Year 12 cohorts confirm the position presented in the Baker Dearing study of 2020 KS5 leavers, that in the UTC technical specialisms, as high as 40% of 16 to 19 year olds currently studying at level 3 are unlikely to be able to progress directly to level 3 study in the reformed landscape. The table below summarises returns from 16 UTCs. It provides provides information and projections for students currently in the Year 12 cohort enrolled on Level 3 programmes in September 2020. The UTCs involved span specialisms including engineering, health sciences and computing.

Table 1 Access to Level 3 for current Y12 students (1116 16 year olds on Level 3 programmes)

| No of Y12 students in sample | Prior attainment GCSE En&Ma | | Studying Level 3 Diploma or Extended Diploma | Projected on current quals | Projected on proposed quals |
|------------------------------|-----------------------------|-----|----------------------------------------------|-----------------------------------|------------------------------------|
| | 4+ | 5+ | | End KS5: Pass* | End KS5: Pass* |
| 1116 | 989 | 601 | 785 | 1034 | 641 |
| | 89% | 54% | 70% | 93% | 57% |

*Minimum pass in 3 A/L or equivalents

Aggregated returns considered that 57% of those studying the level 3 Diploma or Extended Diploma would not have pursued a technical route as available under the proposals. This group represents **41%** of all students in the Year 12 sample.

As will be presented in section 5 (below), this reduced access and progression will impact disproportionately negatively on BAME and Disadvantaged groups and quite possibly, in the STEM domain, on our under-represented girls.

Overall, the Baker Dearing research indicates that the proposals presented in the Review of post-16 qualifications at level 3 in England would be likely to meet the learning and progression needs of just 60% of students in our 48 University Technical Colleges.

Baker Dearing Educational Trust

5. Equalities Impact and social mobility

The equalities impact assessment which accompanies the Review proposals concludes that the following groups *'are likely to struggle to achieve level 3 qualifications in the future'*:

- Boys (Review Impact Assessment - para 103)
- Pupils from Black and Asian ethnic backgrounds (para 100)
- disadvantaged groups as identified by FSM and IDACI classification (para 109)
- with SEND (para 97)

Such a position it is noted, *'could lead to lower participation rates and achievement at level 3'*.

The data gathered in the EIA, relating to student enrolments to level 3 qualifications at 16 years is drawn from all curriculum areas. Enrolments from UTCs are predominantly to STEM qualifications. **Baker Dearing's own research study (Appendix 1) indicates an even more severe impact on the BAME and disadvantage cohorts and unlike in the Review's EIA, identifies a disproportionate risk to girls at UTCs.**

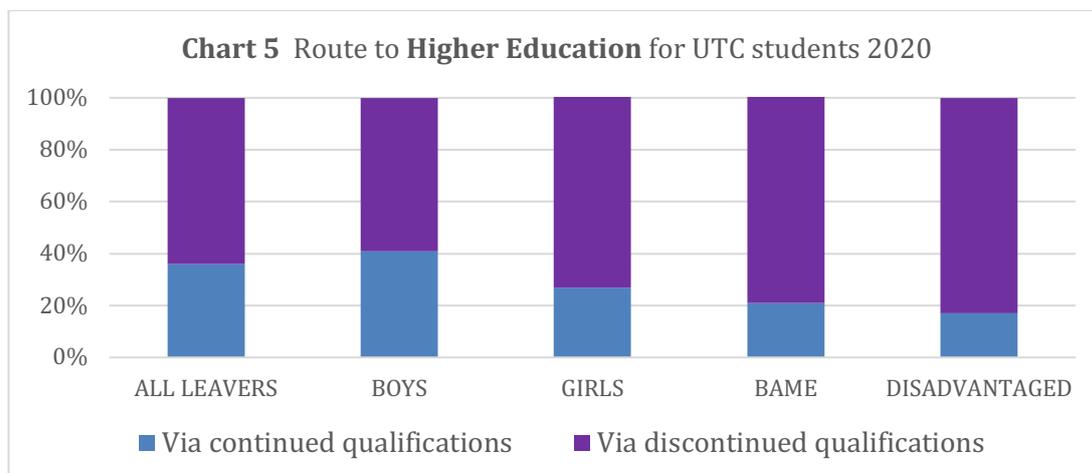
Table 2 Enrolments in the Baker Dearing study of KS5 leavers 2020 (1154 18 year olds)

| Level 3 Programme of study | ALL | Boys | Girls | BAME | Disadvantaged |
|--------------------------------------|------|------|-------|------|---------------|
| Qualifications which remain* | 31 | 33 | 23 | 18 | 15 |
| Qualifications removed** | 70 | 67 | 77 | 81 | 86 |
| Percentage of KS5 population in UTCs | 100% | 72% | 28% | 27% | 12% |

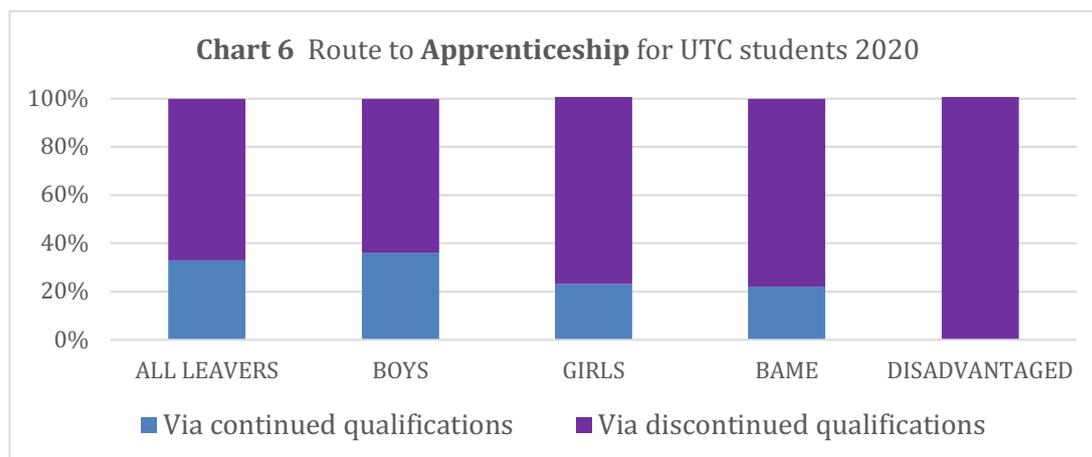
* Programmes of study built from qualifications which remain (such as A Levels) and those for which there are proposals for a broadly equivalent replacement eg currently 2 A Levels plus one complementary Applied General Qualification.

** Programmes of study built predominantly from qualifications which will no longer exist. eg 1080glh L3 Ext Diploma or 720glh L3 Diploma plus one A Level

Charts 5 and 6 below illustrate the proportion of students in the Baker Dearing study whose progressions were supported by qualifications which the proposals remove.



Baker Dearing Educational Trust



Data from UTCs supports the general assertion in the Review’s EIA, of increased risk to a number of characteristic groups. However, the Baker Dearing study would suggest **that the level of risk may be greater in those qualifications spanning the STEM domain.**

In recognising those groups which will be disproportionately negatively impacted, the EIA identifies just one solution for mitigation, that of the introduction of a T Level Transition Programme of one year’s duration. Given the findings of the EIA, such an approach would **knowingly compel disproportionate numbers of students from BAME and Disadvantaged groups to a three-year progression to Level 4** and as a consequence, a year’s loss of potential earnings over their working life. The alleviating statement that those students able to access Level 3 qualifications in the new landscape are likely to benefit from increased earnings over time, presents a consequence which would only serve to exacerbate the long-term disparity between those which this raised barrier discriminates. Notwithstanding the above, we consider a T level Transition programme, currently positioned to support students who have not yet secured Level 2 standard in English and maths, will not alleviate the hemorrhaging of young people from level 3 technical programmes on the scale our evidence suggests.

The expedient of assessing impact across all qualifications rather than in related curricular areas, risks missing significant inferences at a finer level. Whilst the EIA identifies that boys will be negatively impacted over girls by the reforms, Table 2 above indicates that in the technical domain of UTCs, thirty-nine of which have a specialism in high value engineering, girls are likely to be more negatively impacted. Such would present a risk to the current slow progress in growing the number of girls in technical roles (Ref: Wise – 2019 Workforce Statistics).

6. Case Studies

Five case studies are presented in **Appendix 3** which describe the bespoke manner in which the current menu of level 3 qualifications has been used to engage, develop and progress students with a range of starting point and individual need. The case studies are used to bring context to the construction of personalised post-16 study programmes. Each uses qualifications which would not be available in the proposed qualifications landscape.



7. Accumulation of risk

The sections above describe an accumulation of risk in the proposals generated by an overriding determination to clear a field for the new T Level to take root. However, we have provided evidence throughout this submission that the simultaneous withdrawal of a range of recently reformed technical qualifications, of different sizes and style to the T Level, will be severely detrimental to a vast range and number of stakeholders. The associated risk is further escalated by our current context. The impact of Covid-19 will be seen for many years to come. It is unrealistic to expect that the untried and untested T levels can be delivered on the scale of our existing technical qualifications within the next five years. As a consequence, there is a compelling case for suspending the proposed timeline for withdrawal of technical qualifications which are currently struggling to sustain the skills pipeline to our critical industries.

Ken Cornforth (Dir of Education, Baker Dearing)
Sir Mike Tomlinson CBE (Trustee, Baker Dearing)
Simon Connell (CEO Baker Dearing) Jan 2020

Appendix 1 Review of Post-16 Qualifications – Impact Assessment for UTCs

Research from University Technical Colleges suggests that:

- the proposed binary model of T-Levels and A-Levels will harm social mobility.
- significantly fewer students will progress to higher technical study and apprenticeships.

Executive Summary

UTCs have built up a strong track record of leaver destinations for students aged 18. Whilst a similar percentage to national averages progress to university, an extremely high number (72% vs 42% nationally) take science subjects. Furthermore, historically, about one-quarter of UTC leavers have progressed into apprenticeships, which is significantly above national averages (6%). Of those students starting an apprenticeship over half do so at higher and degree levels, six times the national average. Very few UTC students become unemployed after leaving aged 18.

One driver behind these impressive destinations is the design of post-16 study programmes to meet individual need. Students can choose between predominantly academic pathways, such as 3 A-Levels or 2-A Levels plus a complementing applied general qualification (e.g. extended certificate in engineering), or take technical pathways, such as an extended diploma in engineering (equivalent to 3 A levels), or one A Level plus a diploma in engineering (equivalent to 2 A levels). This flexible offer ensures that students can select programmes of study most suited to their needs and interests.

Importantly, research conducted by Baker Dearing shows that student progression into both university and apprenticeship is via technical and academic routes. Almost two-thirds of our university entrants (64%) studied technical courses through Key Stage 5, and one-third of all students starting an apprenticeship did so having studied an academic programme. For both destinations, university and apprenticeship, UTC students from disadvantaged backgrounds were more likely to have followed a technical programme at Key Stage 5 (83% and 100% respectively).

The proposed removal of many technical qualifications as part of the current government review, will harm social mobility. In particular, there is no replacement for the popular technical programme of a level 3 diploma plus one complementing A Level. One-third of students from disadvantaged backgrounds progress to university with this qualification mix, and 40% start apprenticeships. Other characteristic groups (such as BAME students and white British boys) also benefit from this programme which blends applied technical learning with an academic study.

The current level 3 Extended Diploma is not replaced in the proposals. Whilst of similar size and content, the new T-Level employs a significantly different assessment methodology (especially longer formal examinations). Whilst its structure will meet the needs of some students, including some studying the aforementioned blend of Diploma plus one A Level, it will not be appropriate for the vast majority of students whose learning styles are recognised by the Extended Diploma.

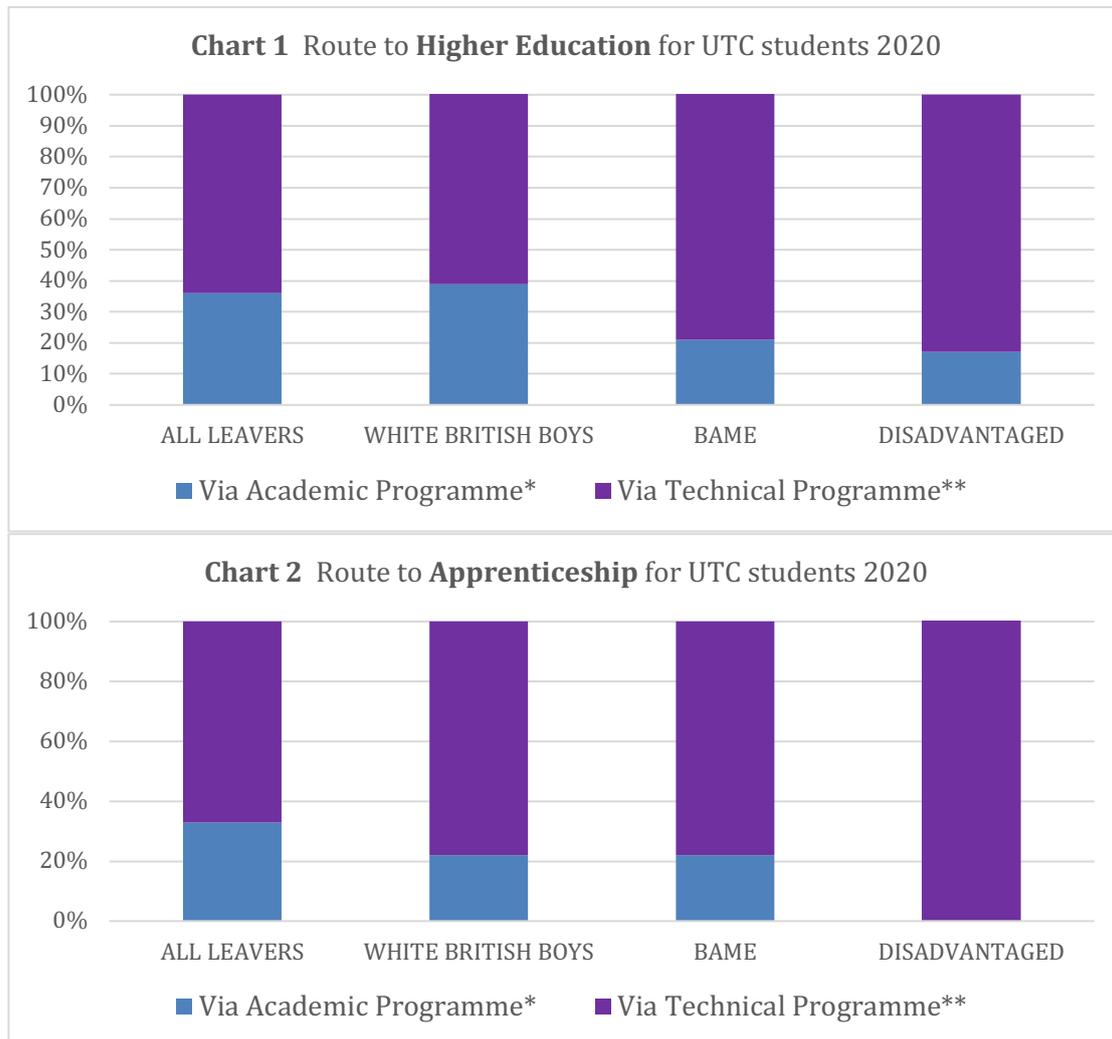
In this research, 80% of students from disadvantaged backgrounds who progressed to university, and 100% of those securing apprenticeships, mainly STEM-related, did so through technical programmes which are being phased out. As a consequence of the T Level being the sole replacement, about half of all students from disadvantaged backgrounds at UTCs will no longer have appropriate level 3 courses to study. It is very likely that this risk applies to many other post-16 providers. Overall, the proposed qualifications structure is likely to reduce progression from UTCs to higher technical study and higher or degree apprenticeships by as much as 40%.

Investigation of the impact of proposals in the Review of Post-16 Qualifications at Level 3

This research draws on data linking courses and subsequent destinations for 50% of Key Stage 5 leavers from University Technical Colleges in 2020. The distribution of this substantial sample (1154 students) is broadly representative of the destinations and characteristic pupil groups presented by the full UTC population.

1. UTC 2020 KS5 leaver progression by qualification type

The charts below are built from known destinations returned for 50% of UTC KS5 leavers in 2020. The sample distribution is broadly representative of that aggregated across all UTCs.



* 'Academic programme' includes 3 A Levels or two A Levels + one 360 glh L3 Ext Certificate

** 'Technical programme' includes one A Level + 720glh L3 Diploma or 1080glh L3 Ext Diploma

Chart 1 – progression to HE

- Of leavers progressing to Higher Education from UTCs, only **36%** currently do so via the 'academic qualifications' proposed by the Review i.e. A Levels or A Levels plus one Level 3 academic qualification providing a *practical or occupational component*.
- For **disadvantaged students** who progressed to HE, only 17% did so via such academic qualifications. **83% progressed to HE via a programme of predominantly**

Baker Dearing Educational Trust

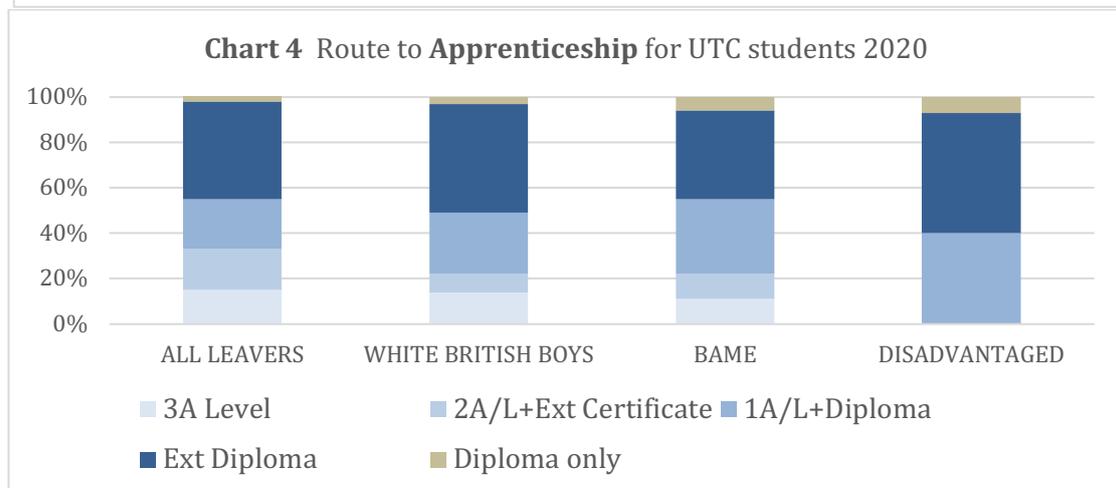
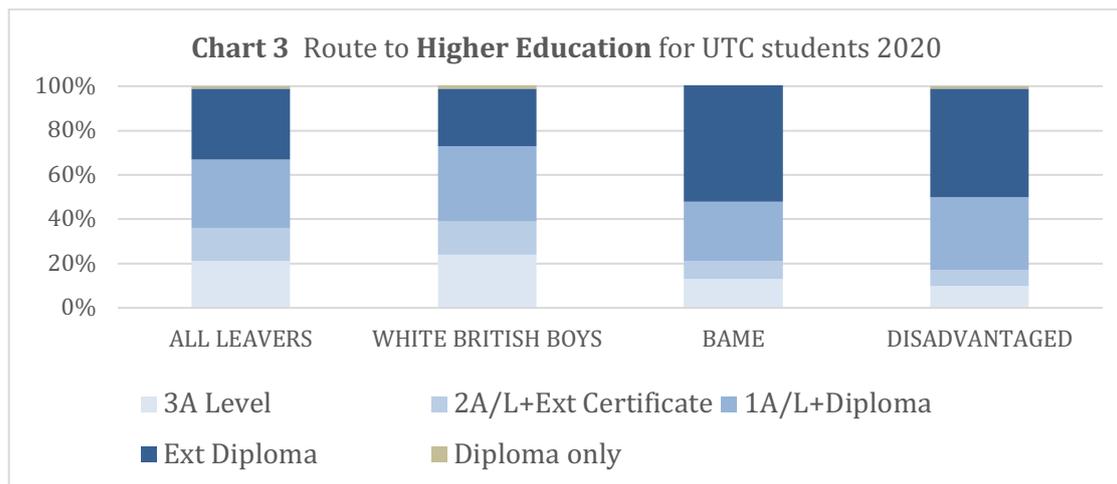
technical qualifications is one which included a minimum of 720 glh studying a technical qualification such as a Level 3 Diploma or the larger Extended Diploma.

- **Four out of every five BAME leavers** who progressed to HE did so via a programme of predominantly technical qualifications.

Chart 2 – progression to apprenticeship

- **One in three leavers** progressing to an apprenticeship did so via academic qualifications.
- **17% of White British Boys in the UTC sample progressed to an apprenticeship.** Four out of every five did so through a programme of predominantly technical qualifications.
- Whilst only 7% of BAME leavers progressed to an apprenticeship, again four out of every five did so via a programme of predominantly technical qualifications.
- **ALL disadvantaged students** who progressed to an apprenticeship did so via a programme of predominantly technical qualifications.

2. UTC 2020 Leaver progression by finer qualification group



Baker Dearing Educational Trust

Chart 3 – progression to HE

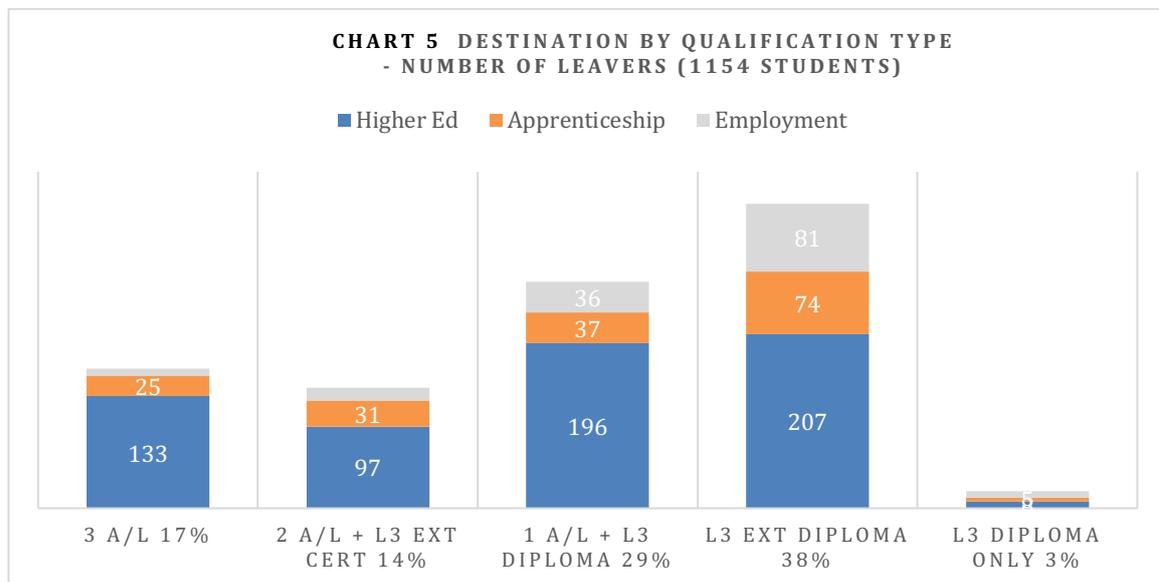
- Of ALL leavers progressing to HE, **almost half** (46%) did so through holding a **mix** of academic and technical qualifications eg 2 A/Ls + Level 3 Extended Certificate or 1A/L + Level 3 Diploma.
- The **Level 3 Diploma** (720 glh) provided a route to HE for approximately **one in three** leavers to that destination.
- The **Level 3 Extended Diploma** (1080glh) supports **one in three** progressions to HE.
Over half (53%) of BAME leavers in the sample progressed to HE via this qualification.

Chart 4 - progression to apprenticeship

- Post-16 study programmes **combining academic and technical qualifications** supported progression to approximately **40%** of apprenticeship destinations across cohort groups.
- The Level 3 **Diploma** supported **25%** of progression to apprenticeships.
- The Level 3 **Extended Diploma** supported **43%** of progressions to apprenticeships. This increased to 48% for White British Boys and **53%** for the **Disadvantaged** cohort.

3. Destinations by qualifications type – student numbers

Charts 5 below displays the number of KS5 leavers in the study who progressed to HE, apprenticeship and confirmed employment from each distinct qualification programme.



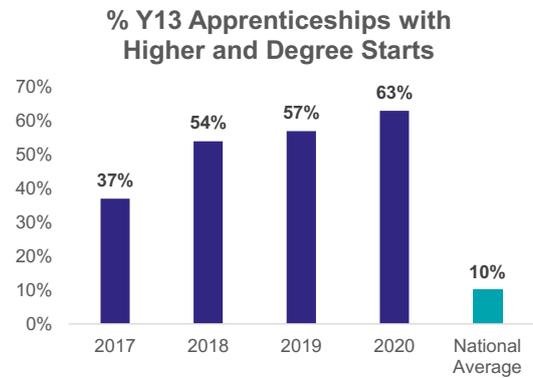
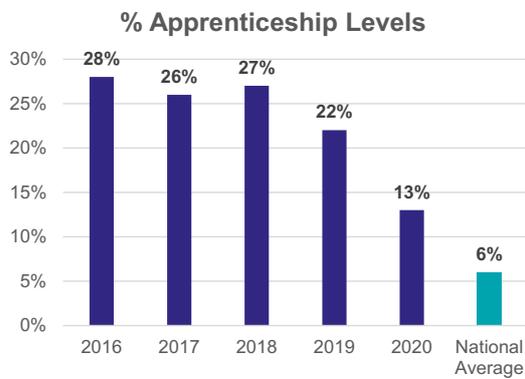
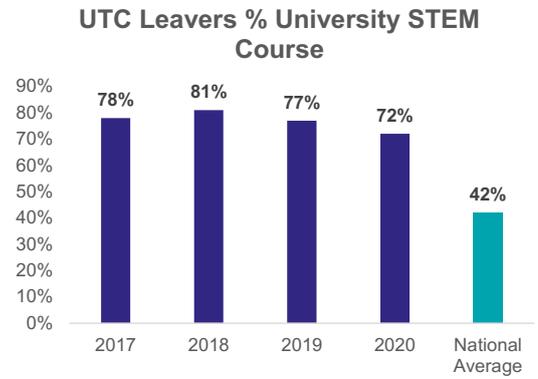
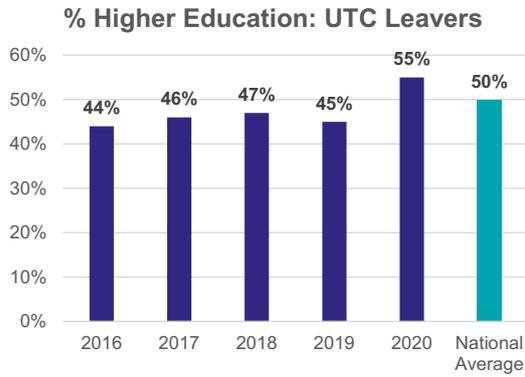
4. Conclusions of this study

- A binary modelling of level 3 qualification groups to distinct progression pathways is over-simplistic. Destination outcomes for students in UTCs indicate that **all the current level 3 qualification types** are being used to meet the requirements of both employers and higher education institutions.
- The ‘academic’ qualifications described in the proposals are likely to meet the needs of about **30%** of students in University Technical Colleges, where learning is deepened and stretched through application in technical projects with employers and universities. Achieving this proportion will be dependent on the suitability of the complementary ‘academic’ qualifications referenced in the proposals.
- The current **suite of academic and technical qualifications** supports construction of a range of personalised study programmes which meet the disparate needs of learners at 16 years and lead to **demonstrably successful progression** two years later. See Appendix to Study .
- The current range of **technical qualifications** underpin progression to both higher technical study and apprenticeships, **especially** for those in the **BAME** and the **Disadvantaged** cohorts.
- The 720glh level 3 **Diploma** is **not represented** in the current Review proposals. In combination with one A Level, this qualification group supported **one third** of progressions to **HE** and **one quarter** of **apprenticeships**. *Supplementary returns from UTC Principals estimate that either the T Level or the combination of two A Levels plus complementing academic qualification, are likely to be appropriate for the overwhelming majority of this group.*
- The 1080glh level 3 **Extended Diploma** provides a significant route for progression to both HE and apprenticeships. For students wishing to study a level 3 programme of similar size and technical focus, the new proposals offer the T Level. However, it is indisputable that the two qualifications are very different in structure, especially in regard to their arrangements for assessment. As a consequence, it is highly improbable that the T Level will provide an accessible route for equivalent cohorts. **The choices for those 16 year olds for which the T Level is not fit for purpose are unclear.** *Supplementary returns from UTC Principals suggest that the T Level is likely to be accessible and appropriate for only 5- 10% of this group. In support of this assertion they reference the educational design of the (RQF) Extended Diploma and its continual application of learning and practical skills into assessment.*
- University Technical Colleges progress about **25%** of KS5 leavers to apprenticeships annually (see appendix). The fundamental educational differences between the Extended Diploma and the T Level are projected to halve the number of apprentices feeding the respective technical sectors from UTCs.
- Overall, the research indicates that the proposals presented in the Review of post-16 qualifications at level 3 in England would **meet the learning and progression needs of just 60% of students in our 48 University Technical Colleges.**

Baker Dearing Educational Trust



Appendix to Study: UTC Student Leaver Destinations 2016-20



Simon Connell/Ken Cornforth Jan 2021

Appendix 2: An employer perspective: response from Ron Dearing UTC Employer Sponsors

As businesses that employ Ron Dearing UTC students from Year 13 onto Level 4 and degree apprenticeships, we have the following feedback in regard to the introduction of T Levels in the context of the current review of post-16 qualifications at level 3.

The content of many of the T levels looks very positive and we welcome the Government's commitment to raising the profile of technical qualifications.

Whilst we are very supportive of high-quality work experience, we have significant concerns about how the work experience element of the T levels would be achieved.

The downside of the current proposal is that any student taking a T level would be unlikely to have the time available to study other qualifications. This means that, for example, they couldn't take a T level in Engineering plus A Level Maths and/or A Level Physics. This concerns us for the following reasons:

1. As employers, we prefer our higher and degree level apprentices to have studied a mixture of technical and academic qualifications. Our preferred combination of qualifications for Engineering and Digital apprentices is either:

Combination A:

- OCR Cambridge Technical Certificate in Engineering/BTec Certificate in Digital Technologies
- A Level Maths
- A Level Physics

or

Combination B:

- OCR Cambridge Technical Diploma in Engineering/BTec Certificate in Digital Technologies
- A Level Maths or A Level Physics

These combinations of subjects provide a valuable blend of academic and applied learning which produces well-balanced employees with broad skill-sets who are able to integrate extremely effectively into our businesses

We rarely employ students onto apprenticeships who do not have any technical qualifications, such as those with straight A Levels.

We do employ young people with the OCR Cambridge Technical Extended Diploma in Engineering /BTec Extended Diploma in Digital Technologies although not onto degree apprenticeships.

In addition, we employ students that have the OCR Cambridge Technical Certificate in Engineering/ BTec Certificate in Digital Technologies plus two other technical qualifications in completely different subjects. Having qualifications in a broader range of subjects gives the young people a most valuable spread of experience.

2. In our view it would be a mistake to expect all young people who wish to study a technical qualification to specialise in one field at aged sixteen as the current T level

Baker Dearing Educational Trust

proposals would require. This situation is likely to deter many young people from studying T levels and reduce the number acquiring the valuable technical qualifications that we need in industry.

3. Finally, we are very concerned that, if young people are not able to study technical qualifications alongside A Levels, this will deter them from taking *any* technical qualifications. Many universities require A Levels as well as technical qualifications. Many young people, quite understandably, wish to keep their options open and take qualifications which enable them to progress onto university or apprenticeships. Many students with strong academic ability are, as a consequence, likely to reject a valuable technical qualification. Such presents a risk to the reputation of the T level, whilst preventing the brightest students acquiring the blend of academic and technical qualification that our companies seek. We therefore anticipate that the number of top performing students progressing onto apprenticeships within our businesses will decline.

In summary, it is our opinion that:

- T levels are a positive development and should enhance the technical curriculum available to young people
- There should be different sizes of T levels: T level equivalent to one A Level; T level equivalent to two A levels; T level equivalent to three A levels
- Young people should be able to take a combination of smaller T Levels and A Levels
- The work experience element of the T level needs rethinking because it is currently unworkable

Charlie Spencer OBE
Yvonne Moir
Lindsay Rodgers
Richard Martin

CEO, Spencer Group Engineering
HR Director, Spencer Group Engineering
Head of Systems, KCOM
Digital Director, Arco

Appendix 3 Student case studies

All students A-E below have studied at UTCs or are currently in KS5 at a UTC. They are provided by three different UTCs and are chosen to illustrate a range of individual context and specialism.

Student A

This student commenced his level 3 programme with basic level 2 passes in GCSE maths and science but not in English. His practical skills were however, strong. His study programme was therefore constructed around the level 3 Diploma in Engineering, complemented by A Level Product Design. Throughout he was challenged to apply his emerging technical knowledge to real-life projects which required him to engage and communicate with supportive employers. Discrete time was protected to develop his literacy deficit, and he secured a GCSE level 2 pass in English Language over this period. He is now studying for his degree in mechanical engineering at a Russell Group university close to his home.

Student B

At the end of Key Stage 4 this student had not secured basic passes in either GCSE maths or English language, but had excelled in the level 2 Cambridge National qualification in creative and digital media, where his career aspirations lay. He commenced a blended programme built on the Level 3 Diploma in Creative Digital and A Level photography, supported by further study of maths and English language at level 2. He secured a grade 5 GCSE pass in English language at the end of Year 12, but despite two re-sit attempts, did not gain a basic pass in GCSE maths. Nevertheless, on the strength of his performance in his level 3 qualifications he is now studying a degree in music technology at a northern university.

Student C

This student is from a BAME background with English an Additional Language. She had an EHCP and was in receipt of pupil premium. Student C joined KS5 at the UTC without basic level 2 passes in either English or maths, but with a distinction at level 2 in health and social care. On this basis she was allowed to commence the level 3 Extended Diploma in Health and Social Care, alongside continuation of GCSE maths and English Language, backed up by a well-constructed personal support plan. Despite consecutive re-sit attempts, she was not able to demonstrate (through the vehicle of the GCSE) basic skills above grade 2 in maths and grade 3 in English language. However, she was able to apply her functional skills in the context of her main qualification and as consequence excelled to achieve a 'triple star' distinction in level 3 health and social care. She has now progressed to university where she is studying for her degree in counselling.

Student D

This student entered KS5 with a GCSE average points score of just 3.83pts. Whilst holding grade 5 passes in maths and double award science, he had grade 3 in English language. His post-16 study programme therefore consisted of the level 3 Diploma in Engineering complemented by the single Applied General Award in applied science (360gIh) and level 3 core maths. Alongside this he continued his learning in English language, for which he ultimately achieved a grade 4 pass. Student D's study programme afforded him the opportunity to apply his developing autoCAD skills in projects with employers to the design of schematics for electrical systems. On

Baker Dearing Educational Trust

the basis of this secure preparation, he progressed to a degree apprenticeship in control systems engineering with a company specialising in the oil and gas industry.

Student E

This student has assessed social, emotional and psychological difficulties. As a consequence, in Key Stage 4 he studied a reduced set of level 2 qualifications which enabled him to succeed in GCSE maths and sciences. In anticipation of periods of poor health, a programme of study was built from the Diploma in applied science (720 glh) and A level Biology. This combination has served to build a valuable mix of skills and the presence of coursework served to mitigate risk presented by periods of unavoidable absence. Successful completion of course work built self-esteem and confidence. He is currently projected to secure a double distinction in applied science and a high grade in his A level. He is expected to be successful in progressing to a degree in science at university.

End