New research on University Technical Colleges has highlighted a number of key issues that might be preventing them from providing a viable route to improving technical and vocational education.

Daniele Bernardinelli looks at the findings

University Technical Colleges (UTCs) are academy schools for 14 to 19-year-olds, combining a core academic curriculum with vocational and project-based learning.

At the start of the 2016/17 academic year, there were 48 UTCs open across England. According to the January 2017 school census, 11,032 pupils were on roll at a UTC, about 0.3 per cent of all mainstream secondary pupils. There has been widespread criticism about the UTC model, and the data indicates clear challenges in both pupil recruitment and academic performance.

At the National Foundation for Educational Research (NFER), we looked beyond the headline figures, using data from the National Pupil Database to shed light on some of the key issues surrounding pupil recruitment and the performance of UTCs.

Attracting new pupils is a key challenge. While some UTCs have been relatively successful at attracting pupils, most are operating well under capacity and several have closed or have been repurposed due to recruitment problems. While it is difficult for any new school to establish itself without a track record of performance, the challenge UTCs face is increased because they recruit pupils at age 14, which is an uncommon transition stage for students in England.

In-take representative of local areas

To explore whether UTCs are meeting their policy aim of being a new technical option for students of all abilities, we analysed the characteristics of UTCs’ pupil in-take at year 10 over several academic years. This showed that the UTC in-take is, on average, similar to the average year 10 pupil population both nationally and in the local area.

UTCs have similar proportions of pupils eligible for free school meals (FSM) and only slightly higher proportions of pupils with SEND. Looking at the distribution of key stage 2 attainment for the UTC year 10 in-take compared to the national profile, we found that all levels of prior attainment are well represented, albeit with a slightly higher proportion of average attainers and a lower proportion of pupils from the top 20 per cent nationally.

One key characteristic that differentiates the UTC in-take from mainstream secondary schools is the low proportion of females on roll. While the proportion has been gradually increasing, from about 0.3 per cent in 2014/15 to 28 per cent in 2016/17, females still comprise less than a third of all UTC pupils.

UTC pupils perform less well at KS4

In contrast with their average prior attainment at key stage 2, UTC pupils tend to do less well at key stage 4, both on attainment and progress. We matched UTC pupils at the end of key stage 4 with a comparable group of pupils from schools they previously attended during key stage 3, based on attainment at key stage 2, gender, ethnicity, FSM and SEN eligibility. Our analysis shows significantly lower scores in both Attainment 8 and Progress 8. While there is substantial variability across different UTCs, even the higher achieving ones do not show particularly strong levels of progress.

Conclusion

In summary, our findings indicate a number of factors which make it difficult for UTCs to succeed when assessed in terms of standard performance measures. UTCs are set up to focus on technical subjects, combining academic and vocational study, and devote a substantial part of their curriculum to practical skills and project-based learning, in accordance with their employer sponsors. This curriculum is not fully accounted for by headline performance measures.

Added to this, progress measures are calculated over five years between key stage 2 and 4, while UTCs are only responsible for the final two years. This suggests that the perceived poor performance of UTCs may, at least to some extent, arise from the headline performance measures being used.

As these are important factors in influencing school choice, there are legitimate questions about whether these provide a fair assessment of the UTC curriculum. Consideration should be given as to how these measures can be modified or integrated to present a more accurate picture of their educational provision.

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To understand this, we looked at pupil attainment data in more detail. While the overall number of qualifications being taken is similar between UTC pupils and the comparison group, UTC pupils tend to have fewer qualifications that count towards their Attainment 8 score.

This is likely to be due to the emphasis on vocational qualifications and project-based learning within UTCs. Also, the UTC curriculum includes up to 40 per cent of time spent on practical learning, including, but not limited to, recognised vocational qualifications. On the other hand, the Attainment 8 calculations allow for no more than 30 per cent of vocational qualifications, and are restrictive in the type of such qualifications that count towards the final score.

Looking at specific subjects, we found that UTC pupils tend to do worse than their peers in English, but there is no evidence that they do any worse in maths or science. This is not surprising given the technical focus of the UTC curriculum.

Another important consideration is that UTC pupils attend different schools during their key stage 3 years. However, the lack of a national test at the end of key stage 3 makes it impossible to identify the actual contribution UTCs make to pupil progress between key stage 2 and key stage 4. Some indication that this might be problematic comes from the analysis of absence data during key stage 3 and 4. Using the same matched-comparison group already described, we found that levels of absence increase more sharply between year 7 and year 9 for those pupils who eventually attend a UTC in year 10. The gap then remains stable between years 10 and 11. This suggests UTC pupils might be experiencing some degree of disaffection during the early secondary school years with possible negative implications for their academic progress.

Evaluating UTCs using standard performance and accountability measures is difficult.

Further information

The NFER report University Technical Colleges: Beneath the Headlines – NFER Contextual Analysis (June 2017) can be found at www.nfer.ac.uk/publications/BM10/