



**Cambridge  
Assessment**

# Progression from Level 3 Cambridge Technicals to Higher Education

*Research Report*

Carmen Vidal Rodeiro

April 2018

## **Author contact details:**

Carmen Vidal Rodeiro

Assessment Research and Development  
Research Division  
Cambridge Assessment  
1 Regent Street  
Cambridge  
CB2 1GG  
UK

vidal.c@cambridgeassessment.org.uk

<http://www.cambridgeassessment.org.uk>

As a department of Cambridge University, Cambridge Assessment is respected and trusted worldwide, managing three world-class examination boards, and maintaining the highest standards in educational assessment and learning. We are a not-for-profit organisation.

## **How to cite this publication:**

Vidal Rodeiro, C.L. (2018). *Progression from Level 3 Cambridge Technicals to Higher Education*. Cambridge Assessment Research Report. Cambridge, UK: Cambridge Assessment.

## Introduction

A cohort of *Level 3 Cambridge Technicals* students (19095 'unique' students<sup>1</sup>) was sent to UCAS to be tracked against the 2017 cycle year<sup>2</sup> for the undergraduate scheme. Information on these students was extracted from OCR Candidate Administration Management System (CAMS). This provided numbers and types of qualifications achieved, performance in the qualifications, student gender, student age and centre attended. The cohort was restricted to candidates who certificated in a Level 3 Cambridge Technical qualification (e.g., those with a grade U were excluded) in the period from September 2016 to August 2017.

Disclosure controls have been applied to the data to reduce the risk of disclosing personal data about identifiable individuals. For counts, the controls include reporting each cell count to the nearest five. In particular cell counts of 1 and 2 are reported as 0. These controls are applied to each cell independently so this may result in instances where totals do not equal the sum of the components.

It should be noted that a Cambridge Technical (particularly the Certificate, Introductory Diploma and Subsidiary Diploma) might not be the sole qualification taken as part of a young person's programme of learning and students might take, for example, A levels or other vocational related qualifications alongside them.

## Overall progression to Higher Education

7450 Cambridge Technicals candidates were tracked by UCAS against the 2017 cycle year for the undergraduate scheme (39% of the cohort). Of the applicants tracked, 95% (7045 applicants) received at least one offer and 86.6% were accepted on a course (6455 applicants). See details in Table 1 below.

The data on Cambridge Technicals students has been compared to two UCAS data sources (this is part of a benchmarking service provided by UCAS<sup>3</sup>):

- A database of potential applicants. This is used to benchmark the application rate of the cohort.
- UCAS' applications database. This is used to benchmark the progress of the cohort through the application process.

At this stage, no information beyond significance of differences has been provided by UCAS and it is not possible to provide any more detailed statistics within this report. For both cases, the data on Cambridge Technicals has been compared to a similar set of young people from the relevant source. In particular, for statistics on application rates UCAS have attempted to make a comparison with students who are similar in terms of age, socio-demographics of the home address, and the proportion of their nearest school being eligible for free school meals. For statistics on the percentage of applicants who are either offered or accept places, UCAS have attempted to compare to other applicants who are similar in terms of age, ethnicity, gender, socio-demographics of home address, proportion of their school being eligible for free school meals, and achievement during key stage 4. More details about the benchmarking are available in Appendix A.

---

<sup>1</sup> There were, however, 21237 certifications in Level 3 Cambridge Technicals, as some candidates achieved two or more qualifications.

<sup>2</sup> The cycle year 2017 includes candidates who applied to start a higher education course in the academic year 2017/18.

<sup>3</sup> The benchmarking service tells us whether the application or acceptance rate of the Cambridge Technicals students is significantly high or low.

**Table 1: Summary of progression from Cambridge Technicals**

<b>Measure</b>	<b>Total</b>	<b>% cohort</b>	<b>% applicants</b>	<b>Significance</b>
Cambridge Technicals cohort	19095	-	-	
Applied	7450	39%	-	Very significantly low
Offered	7045	37%	95%	No significant difference
Accepted	6455	34%	87%	Very significantly high

Table 1 shows that the application rate of candidates with Cambridge Technicals is very significantly low compared to other similar potential applicants. It should be noted at this point that these qualifications have been designed with the workplace in mind and provide a strong base for progression, not only to higher education, but also onto an apprenticeship, employment, or further education<sup>4</sup>. There is no difference between the offer rate between Cambridge Technical students and comparable groups and the acceptance rate is very significantly high.

The overall performance of the cohort (Cambridge Technicals students) in relation to three university tariff groupings is presented in the tables below (Tables 2 to 4). High tariff represents the highest performing and most competitive institutions, and low tariff represents the lowest performing and least competitive institutions.

Table 2 shows that a higher percentage of the students with Cambridge Technicals applied to lower tariff institutions, compared to the percentages applying to medium and high tariff institutions. Also, the application rates of Cambridge Technical students to higher and medium tariff universities were very significantly low when compared to the rates amongst students in comparable groups. It should be noted though that the choice of institution could have been influenced by the type of course/degree that the student wanted to pursue.

**Table 2: Applicants by university tariff group**

<b>Applied</b>	<b>Total</b>	<b>% cohort</b>	<b>Significance</b>
Higher tariff group	2540	13%	Very significantly low
Medium tariff group	5450	29%	Very significantly low
Lower tariff group	6540	34%	No significant difference

Table 3 shows that a higher percentage of the applicants with Cambridge Technicals received offers to lower tariff institutions, compared to the percentages received to medium and, in particular, high tariff institutions. The offer rate of Cambridge Technical students from higher tariff universities was very significantly low compared to other similar applicants. However, there was no difference between the offer rates from medium and lower tariff universities between Cambridge Technical students and the comparable groups.

<sup>4</sup> The apparently lower application rate may also be partially caused by difficulties in matching data from CAMS to UCAS data.

**Table 3: Offers by university tariff group**

<b>Offered</b>	<b>Total</b>	<b>% cohort</b>	<b>% applicants</b>	<b>Significance</b>
Higher tariff group	1380	7%	54%	Very significantly low
Medium tariff group	4450	23%	82%	No significant difference
Lower tariff group	5915	31%	90%	No significant difference

Finally, Table 4 shows that a higher percentage of the applicants with Cambridge Technicals were accepted to lower tariff institutions, compared to the percentages accepted to medium and, in particular, high tariff institutions. The acceptance rate of Cambridge Technicals students to higher tariff universities was very significantly low. However, there was no difference between the acceptance rates from lower tariff universities between Cambridge Technical students and the comparable groups and the acceptance rate of Cambridge Technical students from medium tariff universities was significantly high.

**Table 4: Acceptances by university tariff group**

<b>Accepted</b>	<b>Total</b>	<b>% cohort</b>	<b>% applicants</b>	<b>Significance</b>
Higher tariff group	460	2%	18%	Very significantly low
Medium tariff group	2410	13%	44%	Significantly high
Lower tariff group	3590	19%	55%	No significant difference

Higher education institutions were also classified as being in the Russell Group<sup>5</sup> or not. Table 5 shows the number of applicants to each group of universities and the acceptance rates. In the same way as the figures presented in Tables 2 to 4, higher numbers of the students with Cambridge Technicals applied to institutions not in the Russell Group, compared to the numbers applying to Russell Group universities. The acceptance rate was fairly high amongst students applying to not Russell Group institutions (95%), and much lower amongst those applying to the Russell Group.

**Table 5: Applications and acceptances by Russell Group membership**

<b>Russell Group membership</b>	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Not Russell Group	7225	6880	95%
Russell Group	2495	495	20%

Higher education courses have been classified in 26 subject areas (see Table B1 in Appendix B). Each course was assigned up to three valid JACS3<sup>6</sup> subject codes (e.g., G100 – Mathematics) and a course balance indicator by UCAS. The course was then assigned a subject based on the JACS3 subject codes and the balance indicator. Where there were

<sup>5</sup> The Russell Group is an association of leading UK research-intensive universities committed to maintaining the highest standards of research, education and knowledge transfer. A list of members of the Russell Group can be found here: <http://www.russellgroup.ac.uk>.

<sup>6</sup> <https://www.hesa.ac.uk/support/documentation/jacs>

more than one JACS3 subject code for a given course, and the balance indicator was dual or triple, the subject was 'combined'.

Table 6 shows the number of applicants to each higher education subject group and the acceptance rates. The most popular subject areas amongst students with Cambridge Technicals were: Business and Admin Studies; Creative Arts and Design; Computer Sciences; Social Studies; and Biological Sciences. These higher education subject groups align quite well with the subjects available in the Cambridge Technicals. Acceptance rates varied considerably by the higher education subject group. Table 6 shows that the highest rates were in Computer Science and Business and Admin Studies (over 80%); the lowest rates were in combined subject areas (below 30%).

Table 7, which breaks down the applications and acceptances by higher education subject group and Russell Group membership, shows that the uptake patterns of higher education subjects are very similar in both groups of universities. This possibly indicates that the Cambridge Technical subject is the driver of the subject choice at university.

**Table 6: Applications and acceptances by higher education subject group**

<b>Higher education subject group</b>	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Group A: Medicine and Dentistry	10	0	0%
Group B: Subjects allied to Medicine	970	570	59%
Group C: Biological Sciences	1005	700	70%
Group D: Veterinary Sciences, Agriculture and related	45	30	67%
Group F: Physical Sciences	240	140	58%
Group G: Mathematical Sciences	70	50	71%
Group H: Engineering	325	190	58%
Group I: Computer Sciences	1065	955	90%
Group J: Technologies	40	15	38%
Group K: Architecture, Building and Planning	135	100	74%
Group L: Social Studies	1045	585	56%
Group M: Law	415	315	76%
Group N: Business and Admin studies	1785	1545	87%
Group P: Mass Communication and Documentation	600	385	64%
Group Q: Linguistics, Classics and related	95	60	63%
Group R: European Languages, Literature and related	15	10	67%
Group T: Non-European Languages, Literature and related	15	10	67%
Group V: History and Philosophical studies	110	70	64%
Group W: Creative Arts and Design	1090	715	66%
Group X: Education	570	415	73%
Y: Combined arts	200	55	28%
Y: Combined sciences	280	100	36%
Y: Combined social sciences	255	75	29%
Y: Sciences combined with Social Sciences or Arts	585	180	31%
Y: Social Sciences combined with Arts	240	70	29%
Z: General, other combined and unknown	110	25	23%

**Table 7: Applications and acceptances by higher education subject group and Russell Group membership**

<b>Higher education subject group</b>	<b>Not Russell Group</b>			<b>Russell Group</b>		
	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Group A: Medicine and Dentistry	5	0	0%	10	0	0%
Group B: Subjects allied to Medicine	955	510	53%	470	65	14%
Group C: Biological Sciences	995	675	68%	225	25	11%
Group D: Veterinary Sciences, Agriculture and related	40	30	75%	5	0	0%
Group F: Physical Sciences	225	120	53%	70	20	29%
Group G: Mathematical Sciences	60	30	50%	50	20	40%
Group H: Engineering	305	170	56%	115	20	17%
Group I: Computer Sciences	1055	905	86%	250	50	20%
Group J: Technologies	40	15	38%	5	0	0%
Group K: Architecture, Building and Planning	130	100	77%	30	0	0%
Group L: Social Studies	995	520	52%	240	65	27%
Group M: Law	410	295	72%	120	20	17%
Group N: Business and Admin studies	1760	1455	83%	495	90	18%
Group P: Mass Communication and Documentation	580	370	64%	110	20	18%
Group Q: Linguistics, Classics and related	85	45	53%	40	10	25%
Group R: European Languages, Literature and related	10	5	50%	15	5	33%
Group T: Non-European Languages, Literature and related	10	5	50%	5	0	0%
Group V: History and Philosophical studies	95	55	58%	60	15	25%
Group W: Creative Arts and Design	1055	690	65%	175	25	14%
Group X: Education	565	410	73%	50	5	10%
Y: Combined arts	195	55	28%	20	5	25%
Y: Combined sciences	250	95	38%	35	5	14%
Y: Combined social sciences	240	70	29%	30	5	17%
Y: Sciences combined with Social Sciences or Arts	550	175	32%	50	10	20%
Y: Social Sciences combined with Arts	205	65	32%	55	5	9%
Z: General, other combined and unknown	75	20	27%	35	5	14%

## Progression to Higher Education by Cambridge Technical subject

The following tables show the progression from each of the Cambridge Technicals subject areas for the 2012 Suite (Table 8) and the 2016 Suite (Table 9). If no data is shown (blank in the table), then no students have been matched to data from the 2017 UCAS cycle.

Table 8 shows that similar percentages of students with Cambridge Technicals in Health and Social Care, IT and Performing Arts applied to higher education. The Cambridge Technical subject with the lowest percentage of students applying was Art and Design, followed by Media. Acceptance rates were very similar for all Cambridge Technicals subjects.

Table 9, which shows progression from the 2016 Suite, reflects the low numbers of students who have completed one of these qualifications at the time data was requested from UCAS. However, amongst those who applied, offer and acceptance rates were quite high.

Tables 10 to 16 show the progression from 2012 Suite of Cambridge Technicals subject areas to each of the 26 higher education subject groups – note that only the higher education subject areas with more than ten applicants are shown in the tables. The most popular higher education subject groups is highlighted in light green. As shown previously in Table 6, the higher education subject groups align quite well with the Cambridge Technicals subjects.

*Table 8: Progression from Level 3 Cambridge Technicals, by subject ~ 2012 Suite*

<b>Cambridge Technical subject area</b>	<b>Applied</b>	<b>Offered</b>	<b>% offered (applicants)</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Art & Design	220	205	93%	190	86%
Business	1540	1480	96%	1375	89%
Health and Social Care	1515	1390	92%	1255	83%
IT	3135	2985	95%	2755	88%
Media	670	635	95%	570	85%
Performing Arts	65	55	85%	50	77%
Sport	655	625	95%	575	88%

*Table 9: Progression from Level 3 Cambridge Technicals, by subject ~ 2016 Suite*

<b>Cambridge Technical subject area</b>	<b>Applied</b>	<b>Offered</b>	<b>% offered (applicants)</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Business	55	50	91%	50	91%
Digital Media	10	10	100%	10	100%
Engineering	85	80	94%	70	82%
Health and Social Care	25	25	100%	25	100%
IT	35	35	100%	30	86%
Performing Arts	10	5	50%	5	50%
Sport and Physical Activity	15	15	100%	10	67%

**Table 10: Progression to higher education subject area ~ 2012 Suite, Art & Design**

<b>Higher education subject group</b>	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Group N: Business and Admin studies	20	10	50%
Group P: Mass Communication and Documentation	15	10	67%
Group W: Creative Arts and Design	165	135	82%

**Table 11: Progression to higher education subject area ~ 2012 Suite, Business**

<b>Higher education subject group</b>	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Group B: Subjects allied to Medicine	70	40	57%
Group C: Biological Sciences	125	65	52%
Group F: Physical Sciences	40	15	38%
Group H: Engineering	40	20	50%
Group I: Computer Sciences	145	100	69%
Group K: Architecture, Building and Planning	25	20	80%
Group L: Social Studies	200	100	50%
Group M: Law	140	105	75%
Group N: Business and Admin studies	765	620	81%
Group P: Mass Communication and Documentation	75	40	53%
Group Q: Linguistics, Classics and related	20	10	50%
Group V: History and Philosophical studies	25	20	80%
Group W: Creative Arts and Design	130	85	65%
Group X: Education	65	45	69%
Y: Combined arts	20	10	50%
Y: Combined sciences	45	15	33%
Y: Combined social sciences	75	20	27%
Y: Sciences combined with Social Sciences or Arts	115	30	26%
Y: Social Sciences combined with Arts	65	20	31%
Z: General, other combined and unknown	35	5	14%

**Table 12: Progression to higher education subject area ~ 2012 Suite, Health and Social Care**

<b>Higher education subject group</b>	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Group B: Subjects allied to Medicine	640	405	63%
Group C: Biological Sciences	180	125	69%
Group F: Physical Sciences	25	15	60%
Group H: Engineering	20	5	25%
Group I: Computer Sciences	20	15	75%
Group L: Social Studies	460	250	54%
Group M: Law	85	55	65%
Group N: Business and Admin studies	100	75	75%
Group P: Mass Communication and Documentation	20	15	75%
Group Q: Linguistics, Classics and related	20	10	50%
Group V: History and Philosophical studies	15	10	67%
Group W: Creative Arts and Design	45	30	67%
Group X: Education	285	225	79%
Y: Combined arts	25	0	0%
Y: Combined sciences	35	10	29%
Y: Combined social sciences	30	10	33%
Y: Sciences combined with Social Sciences or Arts	95	35	37%
Y: Social Sciences combined with Arts	40	10	25%
Z: General, other combined and unknown	20	5	25%

**Table 13: Progression to higher education subject area ~ 2012 Suite, IT**

<b>Higher education subject group</b>	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Group B: Subjects allied to Medicine	200	85	43%
Group C: Biological Sciences	290	190	66%
Group D: Veterinary Sciences, Agriculture and related	20	10	50%
Group F: Physical Sciences	145	90	62%
Group G: Mathematical Sciences	45	30	67%
Group H: Engineering	185	100	54%
Group I: Computer Sciences	875	715	82%
Group J: Technologies	20	10	50%
Group K: Architecture, Building and Planning	80	55	69%
Group L: Social Studies	355	185	52%
Group M: Law	170	120	71%
Group N: Business and Admin studies	840	630	75%
Group P: Mass Communication and Documentation	215	115	53%
Group Q: Linguistics, Classics and related	40	25	63%
Group V: History and Philosophical studies	55	35	64%
Group W: Creative Arts and Design	395	240	61%
Group X: Education	150	90	60%
Y: Combined arts	65	20	31%
Y: Combined sciences	125	45	36%
Y: Combined social sciences	125	30	24%
Y: Sciences combined with Social Sciences or Arts	245	80	33%
Y: Social Sciences combined with Arts	85	25	29%
Z: General, other combined and unknown	40	10	25%

**Table 14: Progression to higher education subject area ~ 2012 Suite, Media**

<b>Higher education subject group</b>	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Group C: Biological Sciences	35	25	71%
Group H: Engineering	20	15	75%
Group I: Computer Sciences	100	95	95%
Group L: Social Studies	30	20	67%
Group M: Law	20	10	50%
Group N: Business and Admin studies	95	75	79%
Group P: Mass Communication and Documentation	280	185	66%
Group W: Creative Arts and Design	305	165	54%
Y: Combined arts	65	20	31%
Y: Sciences combined with Social Sciences or Arts	25	5	20%
Y: Social Sciences combined with Arts	40	5	13%

**Table 15: Progression to higher education subject area ~ 2012 Suite, Performing Arts**

<b>Higher education subject group</b>	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Group W: Creative Arts and Design	50	35	70%

**Table 16: Progression to higher education subject area ~ 2012 Suite, Sport**

<b>Higher education subject group</b>	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Group B: Subjects allied to Medicine	80	30	38%
Group C: Biological Sciences	390	275	71%
Group F: Physical Sciences	15	5	33%
Group H: Engineering	15	5	33%
Group I: Computer Sciences	15	5	33%
Group L: Social Studies	55	15	27%
Group M: Law	25	15	60%
Group N: Business and Admin studies	180	100	56%
Group P: Mass Communication and Documentation	20	10	50%
Group W: Creative Arts and Design	25	15	60%
Group X: Education	75	35	47%
Y: Combined sciences	75	20	27%
Y: Combined social sciences	25	5	20%
Y: Sciences combined with Social Sciences or Arts	130	25	19%

The equivalent data for the 2016 Suite of Cambridge Technicals is not shown here due to the very small number of students who have completed qualifications of that suite at this time. However, it should be mentioned that around 73% of the students with a Cambridge Technical in Engineering (Suite 2016, which was offered in 2015 and therefore has been longer in schools) who applied to higher education enrolled in a degree in the subject area Engineering.

Tables 17 and 18 show the progression from each of the Cambridge Technicals subject areas for the 2012 Suite (Table 17) and the 2016 Suite (Table 18) to different types of universities (Russell Group vs. not Russell Group).

**Table 17: Progression to different types of universities ~ 2012 Suite, all subjects**

<b>Cambridge Technical subject area</b>	<b>Not Russell Group</b>			<b>Russell Group</b>		
	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Art & Design	215	185	86%	45	5	11%
Business	1500	1290	86%	530	120	23%
Health and Social Care	1490	1240	83%	560	85	15%
IT	3025	2730	90%	1090	195	18%
Media	645	625	97%	175	35	20%
Performing Arts	65	55	85%	15	5	33%
Sport	635	570	90%	170	25	15%

*Table 18: Progression to different types of universities ~ 2016 Suite, all subjects*

<b>Cambridge Technical subject area</b>	<b>Not Russell Group</b>			<b>Russell Group</b>		
	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>	<b>Applied</b>	<b>Accepted</b>	<b>% accepted (applicants)</b>
Business	50	50	100%	10	0	0%
Digital Media	10	10	100%	5	0	0%
Engineering	80	50	63%	60	20	33%
Health and Social Care	25	20	80%	10	0	0%
IT	35	30	86%	10	0	0%
Performing Arts	10	5	50%			
Sport and Physical Activity	15	10	67%	5	0	0%

## Appendix A

The report has been subject to a benchmarking exercise, upon which assessments of statistical significance have been made.

The data on Cambridge Technicals has been compared to two UCAS data sources:

- *A database of potential applicants*. This is used to benchmark the application rate of the Cambridge Technicals cohort.
- *UCAS' applications database*. This is used to benchmark the progress of the Cambridge Technicals cohort through the application process.

In both cases, the Cambridge Technical data has been compared to a representative set from the relevant source in the following two ways:

1. The potential applicant database cohort is similar in terms of a score that represents the combination of age, socio-demographics of the home address, and the proportion of their nearest school being eligible for free school meals.
2. The UCAS applications database cohort is similar in terms of a score that represents the combination of age, ethnicity, gender, socio-demographics of home address, and proportion of their school being eligible for free school meals, as well as a score that represents the achievement of that student at GCSE level (or Scottish equivalent).

The cohort of Cambridge Technical students has been compared to many cohorts of similar size and make up, and the position of the cohort within the sample is represented in terms of a percentile. This percentile is then assessed for statistical significance, and the result of this test is shown.

More details about the benchmarking service are available contacting UCAS ([strobe@ucas.ac.uk](mailto:strobe@ucas.ac.uk)).

## Appendix B

*Table B1: Higher education subject areas*

Group A: Medicine and Dentistry
Group B: Subjects allied to Medicine
Group C: Biological Sciences
Group D: Veterinary Sciences, Agriculture and related
Group F: Physical Sciences
Group G: Mathematical Sciences
Group H: Engineering
Group I: Computer Sciences
Group J: Technologies
Group K: Architecture, Building and Planning
Group L: Social Studies
Group M: Law
Group N: Business and Admin studies
Group P: Mass Communication and Documentation
Group Q: Linguistics, Classics and related
Group R: European Languages, Literature and related
Group T: Non-European Languages, Literature and related
Group V: History and Philosophical studies
Group W: Creative Arts and Design
Group X: Education
Y: Combined arts
Y: Combined sciences
Y: Combined social sciences
Y: Sciences combined with Social Sciences or Arts
Y: Social Sciences combined with Arts
Z: General, other combined and unknown