# The academic experience and outcomes of students with vocational level 3 qualifications

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## Introduction

1. In January 2007 HEPI produced a report "Vocational A levels and university entry: is there parity of esteem?" that considered whether students with different level 3 qualifications progressed to higher education at different rates. The report concluded that students from vocational backgrounds as a whole were not underrepresented in higher education when their prior educational achievement was taken into account. Specifically, a student with VCE A levels or GNVQs progressed to higher education at about the same rate as a student with GCE A levels who had achieved at a similar level at GCSE. This new report, which was generously sponsored by the City and Guilds of London Institute, examines the issue in further detail and is concerned in particular with the different experiences both within and on leaving higher education of those who enter with academic and with vocational qualifications.

2. The study considers the differences between students in terms of the nature of their HE experience, examining the following factors:

- Mode of study
- Level of study
- Whether or not term time accommodation is at the parental/guardian home
- Institution type

It then investigates outcome related factors:

- Drop-out rates
- Degree outcomes
- Destination (employment and the nature of employment).

3. In contrast to the earlier findings, which looked simply at higher education participation and concluded that vocational level 3 students were no less likely to attend HE than their peers with academic level 3s, this study identifies significant differences in terms of the nature of the HE experience, and also in terms of the outcomes of students with vocational and academic level 3s. These differences are not easily explicable, but raise serious questions about whether a vocational qualification is as good a preparation for higher education as an academic qualification.

## Methodology

4. In order to allow a proper comparison, this report looks not just at the raw differences between the different groups, but also allows for the fact that GCE and VCE A level (and other vocational level 3) students have very different profiles in terms of the grades obtained at level 3 (tariff scores) and the subjects studied at university.

5. The data of the analyses that follow have been weighted to make the GCE A level population more like the VCE A level population. Each of the weighted values takes into account not only the differing patterns of tariff scores, but also the subject distribution of the weighted scores, which should remove any effect due to the differing subjects taken by GCE A level and VCE A level students. A particularly high proportion of VCE A level students is found, for example, in the Business & Administrative Studies subject grouping, while there are many more GCE A level students studying Medicine & Dentistry.

6. The weighting is designed to cancel out these differences. It attempts to isolate differences in experience which are due solely to the nature of a student's level 3 qualifications, and are not to do with the student's general ability or with the subject studied.

7. Throughout this summary report the tables show weighted data where the 'GCE A Level only' figures are weighted to match the 'VCE A Level only' tariff and subject distribution.[1]

## Nature of HE

*Mode of study*

8. Although the raw figures suggest that vocational level 3 students are three times more likely to study part time than students with academic A levels, when allowance is made for their very different tariff scores these differences evaporate: they are in fact reversed. Those with vocational level 3s are more likely to study part time not because they have a vocational background but because of their lower tariff scores. If they had achieved similar scores at level 3 they would be no more likely – indeed, slightly less likely – to study part time, as is indicated in Table 1 below.

[1] In the main report, the unweighted data are also shown as well as other weightings.

Table 1: Proportion of students on part time courses[2]

| | GCE A level only | VCE A level only |
|---|---|---|
| Proportion | 3% | 2% |
| Index[3] | 1.00 | 0.86 |

*Level of study*

9. Looking at whether students pursue a first degree or sub-degree course, a far larger proportion of VCE A level students (seven times as many) go on to do undergraduate courses other than first degrees (for example HNDs or foundation degrees). However, as with mode of study, the differences reduce substantially when weightings are applied. Taking account of the differing profiles of students with different level 3 backgrounds, Table 2 shows that the gap reduces to 25 per cent. This is still a significant difference – a student who took a VCE but is in other respects identical to one who took a GCE A level is 25 per cent more likely to study a sub-degree programme.

Table 2: Proportion of students not taking first degrees

| | GCE A level only | VCE A level only |
|---|---|---|
| Proportion | 16% | 20% |
| Index | 1.00 | 1.25 |

*Accommodation*

10. The third factor investigated is whether a student's term time accommodation is at their parental/guardian home (as recorded on the HESA student record).

11. Previous analysis of this variable has shown some relationship between tariff score and whether a student stays at home while attending university, with higher achieving students tending to move away for their higher education study. However, Table 3 shows that even when account is taken of the higher average tariff score of GCE A level students there remains a clear and substantial difference between their behaviour in this respect and that of their VCE A level peers. Even after making allowance for the differences in tariff score and subject distribution, the proportion of

[2] N.B. part time numbers are dominated by students whose entry qualifications are not recorded by HESA, or are recorded as 'unknown'. This goes some way to explaining the low absolute values for these two groups.

[3] Index values are a ratio of the proportions in the VCE A level group and the proportions in the GCE A level group. Index values for GCE A levels will thus always be 1. The values can be interpreted as the likelihood of a VCE student falling into a category, relative to a GCE A level student. (All figures – here and elsewhere – are rounded.)

VCE A level students living at home is 50 per cent higher than GCE A level students.

Table 3: Proportion of students living at home

| | **GCE A level only** | **VCE A level only** |
|---|---|---|
| Proportion | 36% | 54% |
| Index | 1.00 | 1.51 |

*Institution analysis*

12. The final analysis carried out relating to the nature of the HE experienced by students with vocational A levels on the one hand and academic A levels on the other concerns the type of institution attended. For this purpose, institutions were grouped in two different ways:

- Mission Groups – Russell, 1994, University Alliance, Million+, GuildHE and Others.
- Institutions were allocated into one of five groups dependent on the median tariff score of their A Level entrants, the cut points being 480, 420, 340 and 280 points.

13. On the basis of analysis of the raw data, students with VCEs are as much as 50 times less likely to go to Russell Group institutions than those with GCE A level qualifications. This of course largely reflects the fact that such students on average have much lower tariff scores than those with GCE A levels, and Russell Group universities limit their entrants to those with the highest tariff scores. Moreover, Russell Group universities may not offer the subjects sought by many students with VCEs. However, the weighted analysis in Table 4 shows that even with weightings applied to allow for these facts, although the difference is dramatically reduced, the proportion of VCE A level students in Russell Group universities is still 5 times lower than that of the GCE A level students.

Table 4: Proportion of students at Russell Group institutions

| | **GCE A level only** | **VCE A level only** |
|---|---|---|
| Proportion | 2% | <1% |
| Index | 1.00 | 0.22 |

14. In fact, looking more generally at old universities (defined as those in the Russell and 1994 Groups) only 2 per cent of VCE students go to any of these, which is 25 times less than GCE students. Applying weightings to the GCE A level students still leaves a large difference between the groups (Table 5), with the VCE A level students three times less likely to go on to study at these institutions.

Table 5: Proportion of students at Russell Group and 1994 Group institutions

| | GCE A level only | VCE A level only |
|---|---|---|
| Proportion | 6% | 2% |
| Index | 1.00 | 0.36 |

15. It seems clear that the likelihood of going to an old university is neither a function of ability nor of the subject studied. There does seem to be a difference based on the nature of the level 3 qualification obtained. Students of similar ability studying similar subjects appear to go, depending on the nature of the level 3 qualification obtained, either to old (GCE) or new (VCE) universities. This analysis does not reveal whether that is because their application behaviour is different (that is to say they are less likely to apply to old universities), or if it is because university acceptance behaviour favours one over the other.

16. However, there is some information available that sheds light on this. Table 6 below is derived from information supplied by UCAS that shows the institutional grouping (Russell Group, 1994 Group, etc) of the universities applied for by students with different tariff scores, separately for those with VCE and GCE A levels. Although students with VCE A levels show a greater tendency not to make applications to Russell Group or 1994 Group universities than GCE students with similar tariff scores, that is on nothing like the scale of the difference revealed in the above analysis: students with A levels are likely to apply to around twice as many Russell Group or 1994 Group universities than students with the same number of tariff points who took VCEs – but they are three times more likely to attend one of these universities. It does appear that score for score, admissions tutors may strongly favour GCE over VCE students.

Table 6: GCE and VCE applications by institution type

| Tariff | Institution Types | % of applications from GCE students in tariff band | % of applications from VCE students in tariff band | Total % of applications from students in tariff band |
|---|---|---|---|---|
| 360-479 | 1994 Group | 15.3 | 7.6 | 13.4 |
| | Russell Group | 30.5 | 16.1 | 26.9 |
| 480 and over | 1994 Group | 17.9 | 9.6 | 17.6 |
| | Russell Group | 48.1 | 22.2 | 47.1 |

17. The analysis of attendance at different types of university based on median tariff scores of accepted candidates (not repeated here, but available as part of the full report) shows a similar pattern, but there is no information about applications patterns using these groupings. However,

there is no reason to think that it will be very different from the analysis shown above by mission group.

## Performance once in higher education

18. Having considered the nature of the higher education experience, and the type of higher education institutions attended by students with different prior qualifications, the study goes on to consider their experience once in higher education – their likelihood of completing their studies, the class of degree obtained (for those taking first degrees), and their success in obtaining employment on leaving higher education.

*Dropout and completion*

19. Table 7 suggests that VCE A level students are slightly more likely than GCE A level students to change from their full time first degree course onto either an equivalent part time or sub-degree course. These students also appear more likely to be inactive (most likely dropped out) one year after commencing their studies. Although the index values for these proportions are relatively low, it is worth noting that a VCE A level student is 3 percentage points – or 25 per cent – more likely to drop out of higher education than a GCE A level student in a similar subject with an equivalent level 3 tariff score.

Table 7: Proportion of full time first degree students after first year

| | | **GCE A Level only** | **VCE A Level only** |
|---|---|---|---|
| On full time course | Proportion | 83% | 79% |
| | Index | 1.00 | 0.96 |
| On part time course | Proportion | 3% | 4% |
| | Index | 1.00 | 1.36 |
| Qualified | Proportion | 1% | <1% |
| | Index | 1.00 | 0.62 |
| Transferred to another institution | Proportion | 4% | 4% |
| | Index | 1.00 | 1.07 |
| Inactive | Proportion | 10% | 13% |
| | Index | 1.00 | 1.25 |

20. The degree outcomes of students have also been compared by taking students who started in the 2003-04 academic year on full time first degree courses lasting three years and investigating whether or not they had completed their degree by 2006-07, and if so the degree classification achieved. Table 8 shows the proportion of students with each prior qualification who failed to complete their studies within the period. When the differences in tariff scores and subject between VCE and GCE A level students are discounted, the difference in non-completion

is small, but still significant: VCE A level students are 3 percentage points – or 8 per cent – more likely to fail to complete their course within four years than GCE A level students.

Table 8: Proportion of full time first degree students not completing after four years

| | GCE A Level only | VCE A Level only |
|---|---|---|
| Proportion | 35% | 38% |
| Index | 1.00 | 1.08 |

*Degree classification*

21. Finally, in that section of the study that looked at the student experience while in higher education, the degree classifications were analysed of those students who complete their studies.

22. Table 9 shows that a student with VCE A levels is less likely to achieve a high degree classification than a GCE A level student with the same tariff score, and indeed the differences in first class and unclassified degrees are quite marked.

Table 9: Proportion of graduates from full time first degree courses by degree classification

| | | GCE A Level only | VCE A Level only |
|---|---|---|---|
| First class honours | Proportion | 4% | 3% |
| | Index | 1.00 | 0.81 |
| Upper second class honours | Proportion | 34% | 29% |
| | Index | 1.00 | 0.86 |
| Lower second class honours | Proportion | 58% | 62% |
| | Index | 1.00 | 1.08 |
| Third class honours / Pass | Proportion | 3% | 3% |
| | Index | 1.00 | 1.16 |
| Unclassified | Proportion | 2% | 2% |
| | Index | 1.00 | 1.26 |

## Career prospects

23. The final issues considered in the study concern the experience of students moving from higher education to the employment market. The Destination of Leavers from Higher Education (DLHE) survey, which is sent to students six months after completion of their studies, has been used to establish what becomes of students with different entry qualifications once they leave university.

24. Table 10 below displays – from the 2007 DLHE survey – the employment status of students who completed their studies in the 2005-06 academic year. The status with the largest proportion of students ('Employed full time') shows very little variation between the vocational and academic qualification groups, indicating that there is little effect. Former VCE students appear to be more likely to be working part time, unemployed or looking for employment while the former GCE students are more likely to be travelling or possibly studying for further qualifications (categorised under 'Something else').

Table 10: Proportion of students by employment status 6 months after completion

| | | **GCE A Level only** | **VCE A Level only** |
|---|---|---|---|
| Employed full time in paid work | Proportion | 61% | 57% |
| | Index | 1.00 | 0.94 |
| Employed part time in paid work | Proportion | 13% | 17% |
| | Index | 1.00 | 1.32 |
| Self-employed/freelance | Proportion | 2% | 2% |
| | Index | 1.00 | 1.05 |
| Taking time out in order to travel | Proportion | 4% | 3% |
| | Index | 1.00 | 0.75 |
| Looking for employment or due to start a job in the next month | Proportion | 9% | 11% |
| | Index | 1.00 | 1.11 |
| Unemployed and not looking for employment | Proportion | 3% | 3% |
| | Index | 1.00 | 1.22 |
| Something else | Proportion | 8% | 7% |
| | Index | 1.00 | 0.81 |

25. Finally, the type of job was investigated, with jobs categorised as either "Graduate" or "Non-graduate"[4].

26. Table 11 shows the proportion of the students recorded as being in employment on the census date (i.e. the first three categories in Table 10) who are working in a graduate job. The subject of study is particularly important here because some subject areas will be more likely than others to lead immediately into a graduate job, and this effect is allowed for in the weights employed here. The table shows that a student with VCE A levels is 15 per cent less likely to go into a graduate job after completing higher education when compared with an equivalent student with GCE A levels.

[4] This categorisation has been done using answers to Section B of the DLHE survey and is consistent with that used by HEFCE.

Table 11: Proportion of employed students in a graduate job six months after graduation

| | GCE A level only | VCE A level only |
|---|---|---|
| Proportion | 55% | 47% |
| Index | 1.00 | 0.85 |

27. Causality, of course, is extremely difficult to establish here. This report has already established that students with VCE A levels are likely to attend universities with less demanding entry requirements than students with the same tariff points but who took GCE A levels. It has also established that they are less likely to obtain good degrees than their GCE A level colleagues. These factors are likely to impact the nature of the jobs that they obtain, and so this difference that has been observed in the likelihood of obtaining graduate jobs is unlikely to be attributable directly to the nature of the level 3 qualifications obtained.

## Conclusion

28. The January 2007 HEPI report "Vocational A levels and university entry: is there parity of esteem?" left a number of questions unanswered about the potential differing experiences of GCE A level and VCE A level students in entering and whilst in higher education. This analysis has investigated these differences and also explored what happens to students upon completion of their studies.

29. On the face of it there are large differences in the experience of students with vocational level 3s, into, within and out of higher education. However, when allowance is made for the fact that GCE A-level students tend to have much higher grades and to study different subjects, all the differences reduce – but in general they do not disappear completely, and remain significant.

30. The smallest differences – though still significant – relate to the mode of study (less part time), level (more sub-degree) and location (more living at home).

31. An unexpectedly small proportion of students with vocational level 3s attend selective universities. A student with vocational level 3 qualifications is five times less likely to attend a Russell Group university than a GCE A level student with the same number of tariff points and studying the same subject, and three times less likely to attend any pre-1992 university. Similar patterns apply when universities are grouped by the extent of their selectiveness (i.e. the number of tariff points they demand) rather than their mission groups. The disparity in admissions is much greater than the disparity in applications. The difference is not in

the applications pattern of students but in the selection practices of universities.

32. This does not necessarily mean bias on the part of selective universities – though it might. Other possibilities are:

- Tariff scores for vocational qualifications are not perceived by universities as equivalent. If this were so then that would be a serious matter for UCAS and would suggest that they may have mis-calibrated their tariffs

- Despite subject normalisation, subject differences may remain – in particular under the same name different universities may offer academically orientated and vocationally orientated degrees, which may not be equally suitable for students with GCE and VCE A-levels

- Related to the above, some of the degree programmes at selective universities may not be suitable for students who do not have the academic grounding that academic A levels provide. This is an academic, not a social, judgement, and would not be indicative of bias if it were so. It suggests that good careers and academic advice is essential for students post-GCSE as they are deciding what to do at level 3. Wrong choices at this stage may rule out certain options later.

33. Once in a university, students with VCEs have significantly less good outcomes (in terms of non-completion as well as degree class) than their peers with GCEs who have similar tariff points and study similar subjects. This is sobering. Again, the reasons are not clear-cut. It may be because tariff points for GCEs and VCEs are not equivalent; or it could be because VCEs are not a good preparation for higher education study; or it could be because universities are not providing suitable programmes to make the most of the capabilities of students with a vocational bent.

34. This disparity between the achievements of students with apparently similar abilities may have implications for the new 17+ diplomas. To the extent that many of those diplomas may be vocationally based, it would be a serious matter if the Government were introducing new level 3 qualifications that did not prepare students for university as effectively as the ones they are intended eventually to replace. That is not a conclusion that can be drawn from this report – other explanations are possible, that have been mentioned above. Although that has not been the subject of this report, that is a subject that needs to be studied.

35. The fact that students with VCEs are as likely to get jobs as GCE students with the same grades, but less likely to get "graduate" jobs, is in

fact no surprise given earlier findings about the nature of the universities attended and the degree outcomes of students with vocational level 3 qualifications. It is because they do less well at university – and are less successful at securing places at prestigious universities – that they are less successful in the job market, not because they did vocational level 3s; though it does seem that that in turn may have influenced what universities they attended and how well they did there.