Vocational A levels and university entry

Is there Parity of Esteem?

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A. Introduction

Overview

1. Among the aims of the many reforms of the post-16 education system in recent years has been to provide a vocational Level 3 qualification that provides an alternative to A level that is perceived as equivalent[1]. However, the attraction of this route will be undermined if it is not regarded as such by universities for the purpose of entry.

2. It is in this context that the issue of *parity of esteem* has arisen: whether vocational alternatives to academic qualifications are regarded and treated as equivalent. The fact that a smaller proportion of those taking vocational qualifications at Level 3 progress to higher education in comparison to those taking academic qualifications is sometimes cited as evidence that there is prejudice against vocational qualifications[2]. In the 2004 HEFCE General Meeting, Sir Howard Newby confronted this issue, stressing how the low level of participation in higher education from those taking vocational qualifications "really isn't good enough", and expressed his opinion that somewhere between 60 per cent and 70 per cent would be an appropriate proportion[3]. The Action on Access report on vocational qualifications (in relation to

[1] The notion of 'equivalence' is problematic, but is taken here to mean similar in terms of its rigour and the value that is accorded to it.

[2] The figures of 50 per cent and 89 per cent of those receiving vocational Level 3 qualifications and (at least two) GCE A Levels respectively, having achieved 5 or more passes at GCSE, progressing into higher education by the age of 21 have frequently been cited as evidence of disparity of esteem. These figures were from Cohort 8 of the Youth Cohort Study. The figures from Cohort 11 for those starting higher education before the age of 20 are 51 per cent and 84 per cent of those taking vocational Level 3 qualifications and GCE A Levels respectively (having achieved at least 5 passes at GCSE).

[3] Sir Howard Newby, HEFCE General Meeting, 2004

entry into higher education)[4] states as the basis for the project that "only a small percentage" of the total number of students at HEIs come from a vocational background – even less meaningful than citing the low progression rate of those taking vocational qualifications as the core problem.

3. This report considers the question of the relationship between vocational and academic Level 3 qualifications from a number of different angles. The first two sections take a closer look at the characteristics of the students taking each type of qualification, and whether there is any evidence about the relative rigour of each. The first stage involves comparing the previous academic achievements of students taking each qualification as a proxy for their ability[5], whilst the second stage involves investigating whether the distribution of grades in the academic and vocational Level 3 qualifications are awarded in line with what might be expected, given the ability of the students taking them; and whether there is any evidence that the relative distribution of grades awarded for the two different types of qualification is changing, which might affect perceptions of their worth.

4. The study moves on to consider the attitude of Level 3 students to higher education, and in particular whether or not a different proportion of individuals from vocational or academic backgrounds actually intend to apply for a course in higher education. This is directly linked to the question of parity of esteem – especially the rate of progression – as by looking at attitudes relating to higher education, it may be possible to determine whether or not the lower proportion of vocational students participating in higher education can be explained by the different attitudes of the students taking each qualification.

5. Turning again to the rates of progression, the final section attempts to determine whether one group (academic or vocational) is in fact underrepresented in higher education. More specifically, it examines whether the difference in rates of

[4] *"Progressing to higher education: vocational qualifications and admissions"*, Report by Action on Access: February 2006.

[5] Most of the analyses in this report focus on students' prior academic achievements in terms of number of GCSE passes. In individual cases GCSE achievement may not be a fair reflection of the 'ability' of the pupils concerned, but as an average across the entire pupil population no better measure exists at present, and it is likely to be sufficient for these purposes. Any specific issues arising from the use of these figures are raised where relevant.

progression can be explained by the different abilities of students taking each type of qualification.

6. So the study considers:

a. If differences in participation might be attributable not to differences in the qualifications – or the attitudes of universities to the qualifications – but to the abilities of the students taking them

b. Whether differences in attitude – if they exist – might be justified, because students of a given level of ability taking vocational qualifications are awarded higher grades on average than students of similar ability taking academic Level 3s

c. Whether students with vocational Level 3s do not go to higher education in greater numbers because they have no intention of doing so – the Level 3 route they choose might be determined by whether they want to go to HE, not vice versa

d. Related to point a. above, whether it is in any case true that vocational Level 3 holders participate less in HE than their academic Level 3 colleagues, once ability is controlled for.

7. Of course this does not represent an exhaustive study of the different experiences of students taking either vocational or academic qualifications at Level 3. The attitude of employers and the extent to which the different qualifications prepare those taking them to enter the workforce are equally important, but are not explored here. Where possible, the analysis in this report is restricted to a comparison of just GCE A Levels and their direct vocational equivalents – presently VCE A Levels, and previously Advanced GNVQs. Together, these represent the vast majority of Level 3 qualifications taken by young people in England.

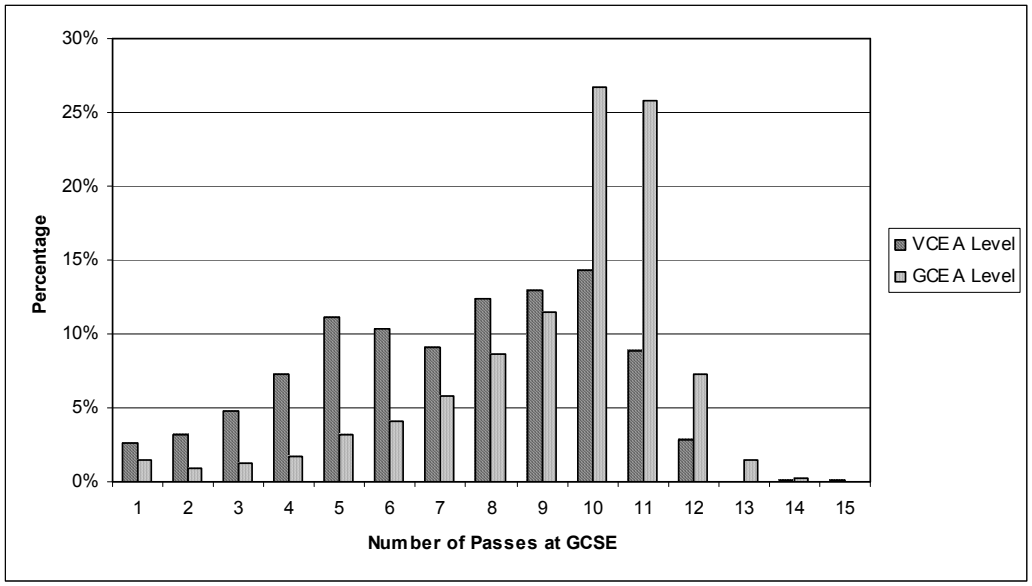
8. Much of the analysis in this report is based on statistics from the Youth Cohort Study, which examines the experiences of young people in education from the end of compulsory education (at age 16) through to the age of 21. Most of this report, therefore, only investigates the experiences of individuals progressing straight from Level 2 into Level 3 study, and then into higher education before the age of 20.

Although these represent the majority of first time entrants into higher education, there are substantial numbers of entrants who are older, and therefore these findings may not be representative of the experiences of all those entering higher education.

B. Comparing the Characteristics of those Taking Vocational and Academic Level 3 Qualifications

9. The difference in rates of progression between those from vocational and academic backgrounds (51 per cent and 84 per cent respectively) is often cited as indicating that there is disparity of esteem between the two types of qualification. Is this really what these numbers indicate, or is there another way of explaining them? To interpret these figures properly it is necessary to consider the different ability of students taking academic and vocational qualifications. Figure 1 below shows the varying range of achievements of students at GCSE, separated according to whether they took GCE A Levels or VCE A Levels – their vocational equivalent.

Figure 1: Distribution of GCSE Passes for those taking GCE and VCE A Levels.



Source: Youth Cohort Study, Cohort 12, Sweep 1: finished compulsory education in 2003 HEQAC

NB: Half GCSEs are rounded down.

10. It is clear that on average those taking GCE A Levels achieved a greater number of GCSE passes than those taking VCE A Levels. For example, 61.4 per cent of those taking GCE A Levels achieved 9 or more passes at GCSE, compared to just 26.2 per cent of those taking VCE A Levels. Conversely, just 8.5 per cent of those taking GCE A Levels were awarded less than five GCSE passes, compared to 28.9 per cent of those taking VCE A Levels.

11. This raises the issue of whether or not there is a genuine disparity of esteem – whether individuals are treated *unfairly* as a result of their choice of qualification taken – or if they are simply less likely to enter into higher education as a result of their lower academic ability. Previous studies indicate that those with lower achievement at GCSE are less likely to continue into higher education (at age 19)[6], which along with these findings suggests that the difference in rates of progression is not necessarily indicative of a disparity of esteem. This is taken up again in the final section.

12. The other thing to mention at the outset is that the scale of the issue – if indeed there is an issue – needs to be understood as part of the context. There are so many more secondary school pupils who take GCE A levels than VCE A levels, that in absolute terms considerably more pupils taking GCE A levels do not go to university than those taking vocational Level 3 qualifications.[7] If widening participation is the concern – and it should be – then it is more important to concentrate on the reasons that GCE A level students choose not to go to university.

[6] Those with 5 or more passes at GCSE, in full time education at 16, are considerably more likely to continue with full time education at 19 than those with fewer than 5 passes at GCSE. Also, GCSE achievement is closely correlated with progression into higher education. *"Youth Cohort Study: The Activities and Experiences of 19 Year Olds: England and Wales 2000"*, Statistical first release from the DfES, October 2001.

[7] DfES unpublished analysis

C. An Analysis of Vocational and Academic Level 3 Qualifications

A Comparison of VCE and GCE A Levels

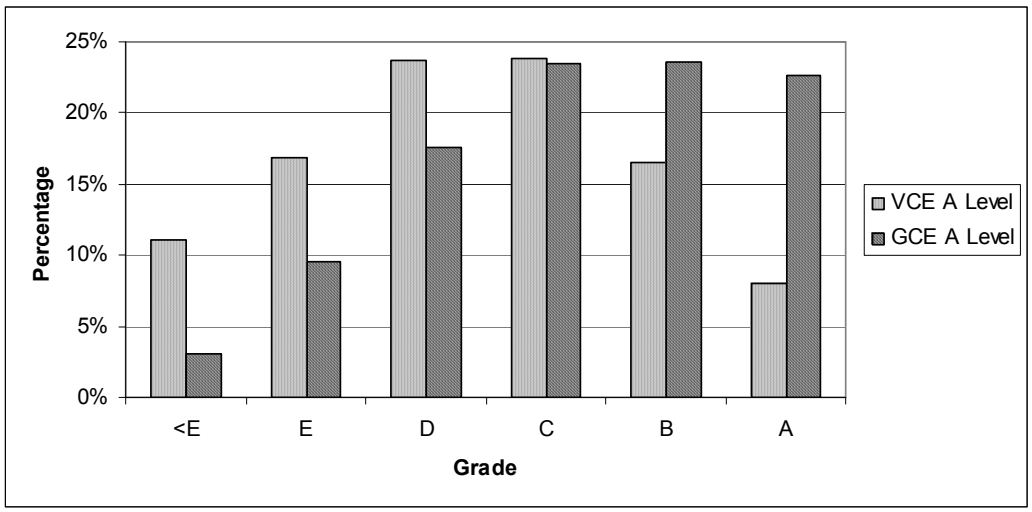
13. Many of the arguments surrounding vocational and academic qualifications cite the general perception that vocational qualifications are viewed by the various stakeholders as being inferior to their academic equivalents. But perhaps such perceptions – if they exist – are justified. If a student of a given level of ability stands a greater chance of receiving the top grades on a VCE A Level course than on a GCE A Level course, despite their supposedly similar difficulty, then this would have implications for how the two groups are – and should be – viewed.

14. The following analysis examines the relative successes of students taking both GCE and VCE A Levels, once academic ability is controlled for. These qualifications are the most widely taken academic and vocational Level 3 qualifications by those in the age group which is being examined. They are also similar in structure, only differing in their content – being academic and vocational respectively. This makes a direct comparison of these two qualifications particularly straightforward. Only VCE Single Awards are considered here, as they are the easiest to compare to GCE A Levels, since they comprise the same number of units. It can be shown, however, that the grade distribution of the VCE Double Award is – broadly speaking – similar to that of the Single Award[8], so this is a reasonable approximation for the purpose of this study.

15. The graph below shows the distribution of the grades awarded in both of these qualifications, aggregated across all subject areas for the year 2005:

[8] Since the creation of the VCE Single and Double Awards, the grade distribution of the VCE Double Award his closely followed that of the VCE Single Award. In terms of the average number of UCAS points awarded for each entry, in this report entries in the VCE Single Award have been awarded approximately half as many UCAS points as entries in the VCE Double Award.

Figure 2: Distribution of Results for GCE and VCE A Levels



Source: *"GCE/VCE A/AS Examination Results for Young People in England, 2004/05"*: DfES Statistical First Release, June 2006

16. Figure 2 shows that in fact fewer of the top grades are awarded to those taking vocational qualifications. This, of course, only tells half the story: if students of a given ability were equally likely to succeed on one course of study as on the other, one would expect there to be a greater number of As and Bs awarded to those taking GCE A Levels (as shown in Figure 2), as they are taken by the more academically able students, as shown previously in Figure 1. In order to determine whether vocational subjects are indeed an 'easier option' (in terms of the likelihood of success for a student of given academic ability), it is necessary to control for the ability of the students taking each qualification when comparing the distribution of grades awarded for the GCE and VCE A Levels.

17. By considering the figures for GCSE achievement alongside the distribution of A Level results for both VCE and GCE A Levels, it is possible to determine the likely success of candidates taking each course, controlling for ability (as measured by number of GCSE passes received).

18. The following analysis examines this from two different angles using the same data sets. First, the number of GCSE passes for those receiving each grade at GCE

and VCE A Level is examined[9], before looking at the success at Level 3 of individuals with different levels of achievement at GCSE. The data used for GCSE achievement are from Sweep 1 of Cohort 12 of the YCS. Individuals surveyed in this cohort finished compulsory education in the summer of 2003, and therefore constitute the majority of those taking A Levels in 2005 (the year used in Figure 2)[10].

19. Of course this is not an infallible way of comparing the two qualifications: GCSEs – at least conventional GCSE - are a measure of *academic* ability, and do not necessarily require the same skills to succeed as the *vocational* VCE A Levels. It is possible, for example, that some students are not particularly able academically (and thus have poor GCSE results), but thrive on vocational courses, unearthing abilities that were underused in their GCSE courses. This would mean that a student of given ability (in terms of number of GCSE passes) would be more likely to succeed on a VCE A Level course than on a GCE A Level course. On the other hand, evidence exists showing that there is a relationship between GCSE achievement and success in both GCE and VCE A Levels[11], indicating that success at GCSE is indicative of more than simply *academic* ability, and may in fact represent the ability of students to complete a course of formal education successfully. Also, students are taking an increasing number of vocational GCSE courses, so GCSEs should not necessarily be considered purely a measure of academic performance.

[9] The method used to do this is as follows: the top 8.0 per cent of grades awarded in VCE A Levels were A grades, compared to 22.7 per cent of those for GCE A Levels. By comparing the mean number of passes at GCSE of the top 8.0 per cent of individuals taking VCE A Levels to that of the top 22.7 per cent of those taking GCE A Levels, it may be possible to get a better picture of whether students awarded A grades in GCE A Levels are of a higher academic ability (measured by GCSE success) than those awarded the same grade in VCE A Levels. By doing this for each grade awarded (from A to fail), we can get a better picture of the relative probability of success in each qualification for a student of given ability.

[10] It must be noted here that the data for A Level results represent the number of each *grade* awarded, whilst the data for the number of GCSE passes shows the success of each *candidate*. It is likely that the top 10 per cent of students at GCSE, for example, achieved more than the top 10 per cent of grades awarded. This is likely to have a similar effect on those taking both qualifications, so it should not significantly affect the analysis. The actual numbers derived, however, are likely to be slightly skewed, and should only be used in these comparisons. It should also be noted that the data for GCSE passes and A Level results do not track the progression of individual students through the various stages of education; rather the analysis assumes that those with the best results at GCSE were the ones to score highest in the Level 3 qualifications. Although this is unlikely to necessarily be true for individual students, averaged out across the sample, this is likely to be a fair assumption.

[11] There is a correlation between GCSE performance and performance in both GCE and VCE A Levels shown in the DfES Statistical Bulletin *"Statistics of Education: GCSE/GNVQ and GCE A/AS Level Performance of Candidates Attempting Two or more GCE/VCEA Levels or AS Levels and Double Award Equivalents in 2001/02: Schools and FE Sector Colleges in England"*, May 2003 (see especially Tables 11, 11A, 12, and 12A) It should be noted, though, that that study considers the relationship between average GCSE grade (not the number of passes) and A level grades.

20. Figure 3a shows the average number of passes at GCSE that it is estimated that those receiving each grade at GCE and VCE A Level receive, whilst Figure 3b shows the success at Level 3 achieved by those with different levels of attainment at GCSE.

Figure 3a: Number of GCSE passes for those with each grade in GCE and VCE A Levels

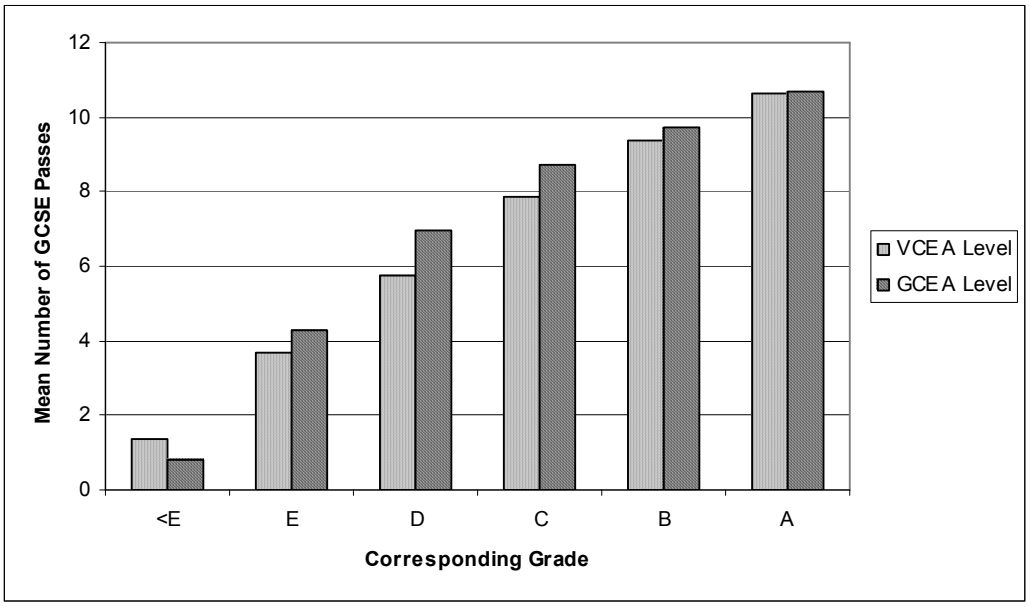
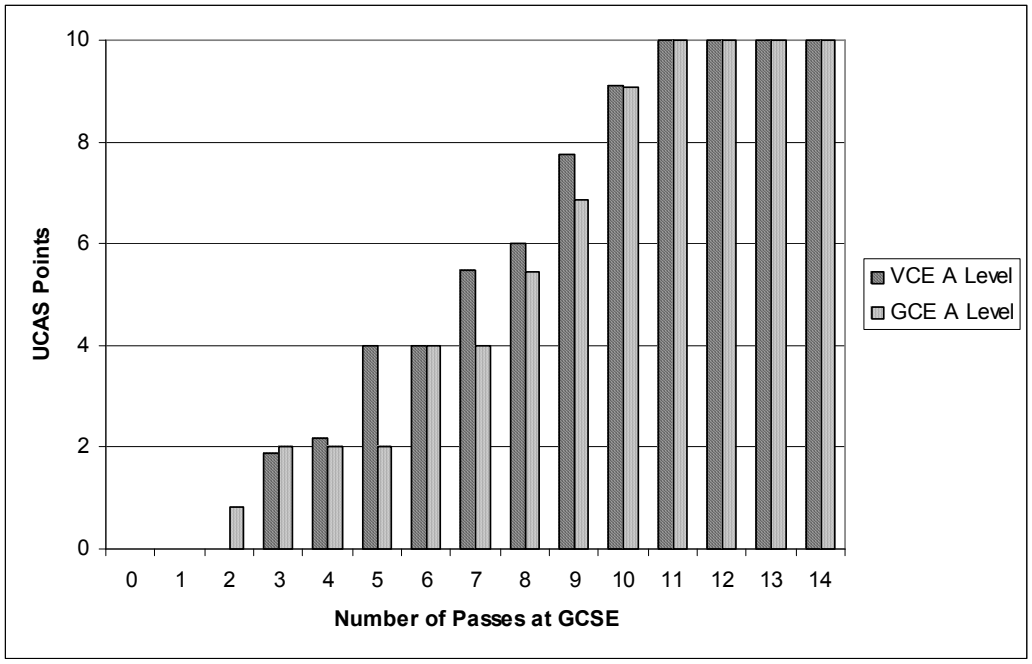


Figure 3b: Expected success in GCE and VCE A Levels by GCSE attainment[12]



21. Figure 3a shows that the ability of individuals obtaining each of the possible grades at A Level was very similar for the GCE and VCE qualifications – only in the case of those receiving D grades in the above graph does the mean number of GCSE passes differ by more than one between those taking GCE and VCE A Levels. Figure 3b shows that the success of a student of a given level of ability at Level 3 is quite similar for those taking either GCE or VCE A Levels – with a small likelihood of students taking VCE A Levels achieving slightly higher grades than those taking GCE A Levels on average[13]. This difference, however, is not great, and could easily be explained by the reality that GCSE attainment is likely to be a slightly better indication of suitability for GCE A Levels than for VCE A Levels[14]. Broadly speaking, controlling for academic achievement at GCSE, it appears that for a student of given ability their choice of Level 3 course has little bearing on the success they

[12] The old UCAS points scores are used here, rather than the new tariff scores, in order to enable comparison with the GNVQ system.
[13] Work by the Curriculum, Evaluation and Management Centre at Durham University has taken this technique and used it to show that with a given number of GCSE passes pupils taking A levels in some subjects obtain more A level points than those in other subjects – cf for example http://www.cemcentre.org/renderpage.asp?linkid=11625001. This point is not considered further here.
[14] There is some evidence, however, to suggest that this small difference in relative difficulty has been increasing: the difference in difficulty between the VCE and GCE A Levels appears to be slightly greater in the above analysis than if the A Level results from 2003 are examined (alongside GCSE results from Cohort 11 of the YCS – the cohort that accounts for the majority of young people taking Level 3 qualifications in 2003).

can expect on that course. This finding, that the performance of both groups are more or less what would be expected, given their GCSE performance, should be noted by those responsible for admissions to university and by employers.

A Comparison of GCE A Levels and Advanced GNVQs

22. Having established that students of a given ability are – generally speaking - equally likely to receive a given grade in GCE and VCE A Levels, it is interesting to see if this has always been the case. If vocational qualifications have not always been as rigorous as their academic equivalents: this would provide at least some explanation for any perception that vocational qualifications are a 'lower standard' qualification.

23. Comparing the grade distributions of the Advanced GNVQ (the vocational equivalent to GCE A Levels immediately pre-dating the VCE A Level) with those of GCE A Levels, taking into account the performance at GCSE of those who studied it, allows some interesting observations.

24. Figures 4a and 4b below show the distribution of grades awarded for the Advanced GNVQ in the year 2001, and the distribution of grades awarded for GCE A Levels in the same year:

Figure 4a: Distribution of Grades for Advanced GNVQ (2001)

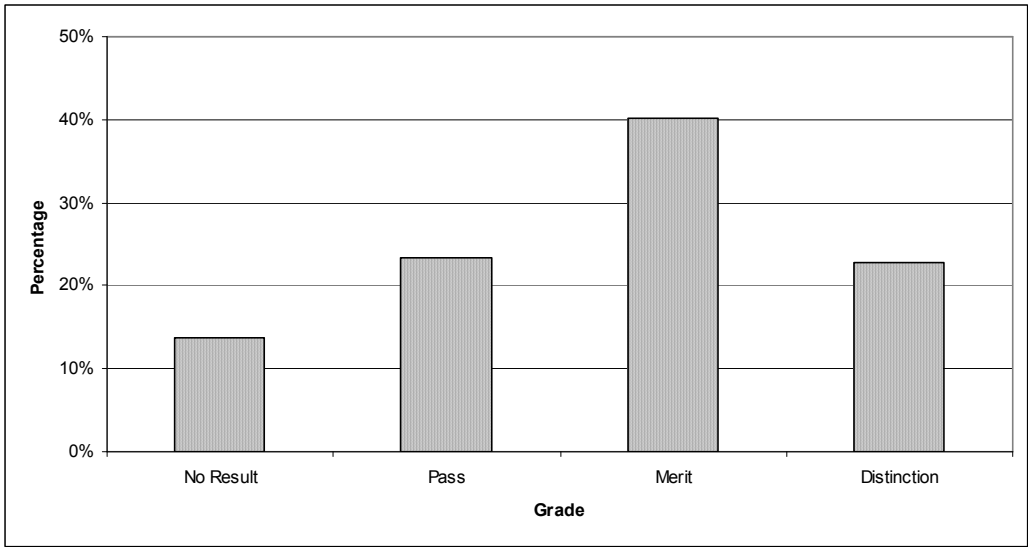
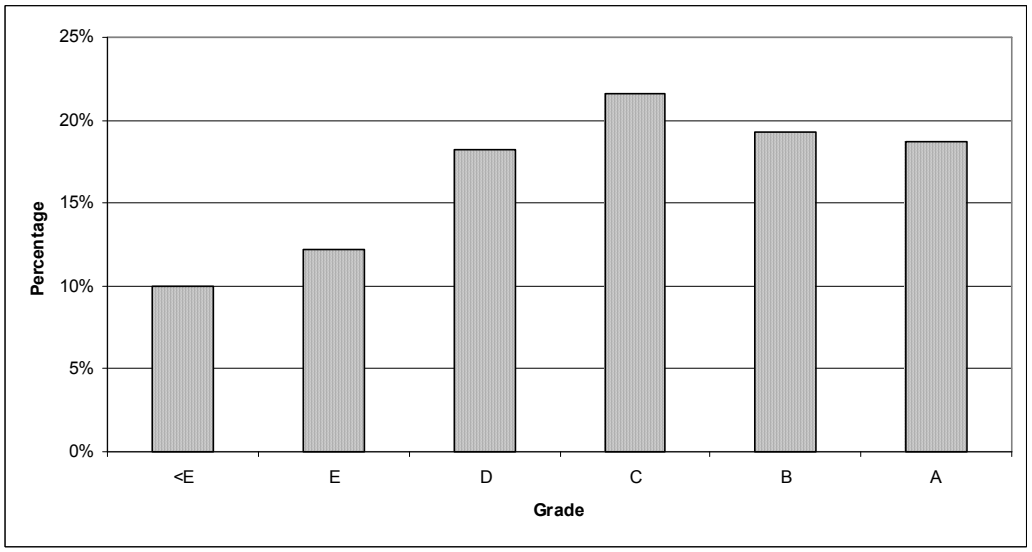


Figure 4b: Distribution of Grades for GCE A Levels (2001)



Source: *"GCSE/GNVQ and GCE A/AS/VCE/AGNVQ Examination Results 2000/01 – England"*: DfES Statistical Bulletin, May 2002

25. Because the range of possible grades in the two qualifications follow different patterns (GNVQs were awarded Passes, Merits and Distinctions, whereas A Levels were awarded grades A-E), it is more difficult directly to compare the distributions than it was in the previous example (comparing VCE to GCE A Levels). It is not impossible, however, as each grade in each qualification was represented by a certain number of UCAS points, as shown by Table 5:

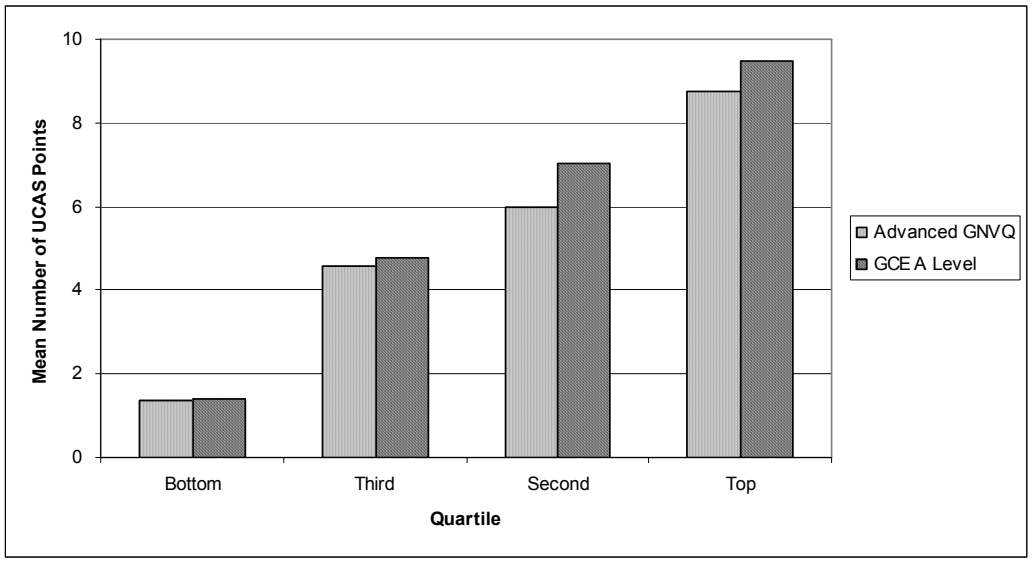
Table 5: UCAS Tariff Points Awarded for Each Level 3 Qualification

A Level		Advanced GNVQ	
A	10	Distinction	18
B	8	Merit	12
C	6	Pass	6
D	4		
E	2		

Source: *"GCSE/GNVQ and GCE A/AS/VCE/AGNVQ Examination Results 2000/01 – England"*: DfES Statistical Bulletin, May 2002

26. Because the Advanced GNVQ was equal in value to two A Levels, the number of points for an Advanced GNVQ has been halved in the following analysis to make GNVQs of a similar value to GCE A Levels, and in order to allow comparison between qualifications of similar value[15]. If the grade distributions are divided into quartiles (the top 25 per cent, the second 25 per cent, etc), and expressed in terms of the mean number of UCAS points awarded for each qualification in each quartile, the distribution shown in Figure 6 is observed:

Figure 6: Mean Points Awarded for Each Qualification (by Quartile)



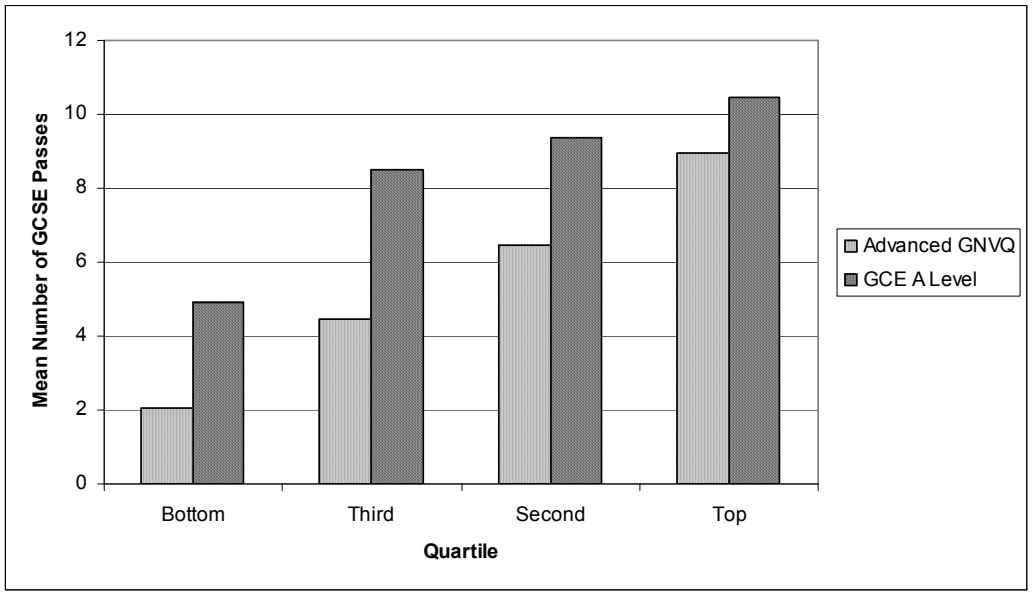
27. Figure 6 above shows how – unlike in the comparison of VCE and GCE A Levels – the distribution of grades awarded for GNVQs and GCE A Levels is

[15] Whilst this would be unlikely to represent the exact distribution of grades if they were actually worth half as much, this analysis assumes that with Advanced GNVQs – as is the case for VCE Single and Double Awards – the value of the qualification has little effect on the distribution of grades awarded.

relatively similar. The top quartile of results received on average 8.8 and 9.5 UCAS points for Advanced GNVQ and GCE A Level respectively; the equivalent figures for the second quartile were 6 and 7 UCAS points; 4.6 and 4.8 for the third quartile, and 1.4 UCAS points for both groups in the bottom quartile, showing marginally better results in GCE A Levels than Advanced GNVQs on average.

28. As before, this information on its own means little if the abilities of students are not accounted for. Since the mean number of UCAS points awarded for the different quartiles in each qualification was almost the same, we would expect the distribution of the number of GCSE passes also to be similar. Figure 7 shows that this is not in fact the case. The GCSE results used are from Sweep 1 of Cohort 10 of the YCS, as this cohort finished compulsory education in the summer of 1999, and therefore represents the majority of students taking the Level 3 qualifications examined in the year 2001 (the year used in the discussion so far).

Figure 7: Mean Number of GCSE Passes for each Quartile



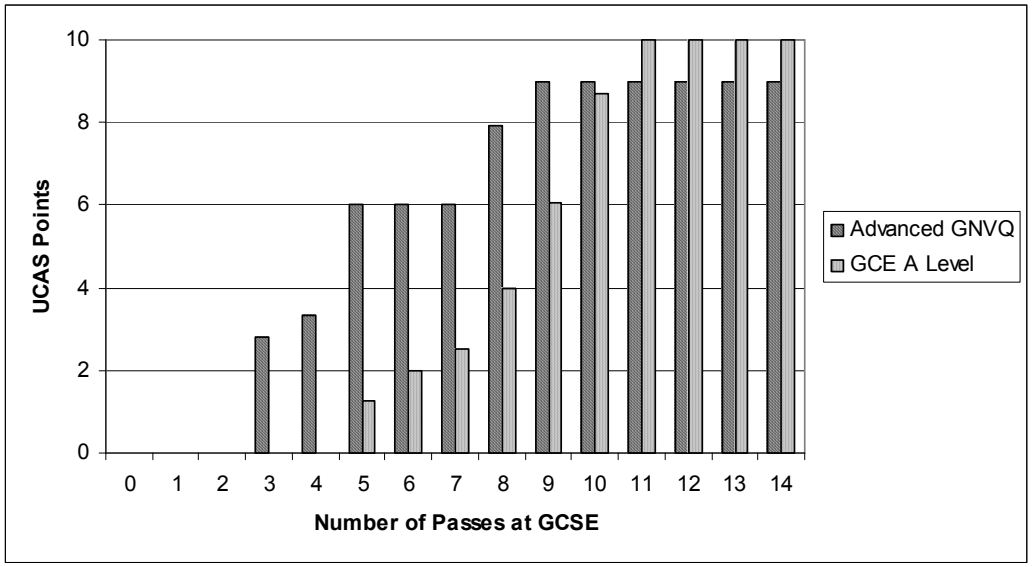
Source: Adapted from the Youth Cohort Study, Cohort 10: finished compulsory education in 1999 HEQAC

29. Figure 7 shows that in fact those taking Advanced GNVQs had, on average, a much lower number of GCSE passes than those taking GCE A Levels. Individuals in

the top quartile of those taking Advanced GNVQs had an average of 9 GCSE passes, compared to the top quartile of GCE A Level students, who had an average of 10.5 GCSE passes. The disparity of GCSE performance increases in the lower quartiles: the equivalent figures for the second quartile are 6.5 and 9.4 passes for Advanced GNVQ students and GCE A Level students respectively, 4.5 compared to 8.5 in the third quartile, and two GCSE passes compared to five in the bottom quartile.

30. As in the comparison of GCE and VCE A Levels, it is possible to examine the qualifications from another perspective: looking at the success of students at Level 3 broken down by their GCSE attainment. Figure 8 shows the success at Level 3 of students with different levels of attainment at GCSE.

Figure 8: Success in Advanced GNVQ and GCE A Level by GCSE attainment



31. Figure 8 shows that students achieving up to nine passes at GCSE were awarded significantly more UCAS points in Advanced GNVQs than in the GCE A Levels. Students with more than nine GCSE passes received fewer UCAS points on Advanced GNVQ courses than those taking GCE A Levels. However, this last finding can be discounted. Despite the Advanced GNVQ being worth half a GCE A Level, the number of points awarded for a Distinction in Advanced GNVQ was 18 points – less than the maximum or 20 for two GCE A Levels - thereby setting an upper bound

of nine UCAS points for Advanced GNVQ students in Figure 8 above, compared with an upper bound of 10 for GCE A Level students.

32. Figures 7 and 8 suggest that unlike in the current system of GCE and VCE A Levels (where students are awarded similar grades on average, once GCSE attainment is controlled for), under the old system, those taking Advanced GNVQs were awarded significantly higher grades in their Level 3 qualifications than those taking GCE A Levels, once GCSE attainment is controlled for.

33. This analysis appears to show that some important steps have been taken towards achieving parity: previously, students of a given ability were likely to receive higher grades in Advanced GNVQs than in GCE A Levels, whereas it appears as though since the introduction of the VCE A Level, a student of a given ability is likely to receive broadly similar grades on average, regardless of whether they take GCE or VCE A Levels. Although GCE A levels changed around this time (with the move to Curriculum 2000) the relationship between A Levels and GCSEs did not change, which suggests strongly that the change from GNVQ to VCE was the cause of the effect seen here.

34. As mentioned before, evidence that there has not always been consistency in the grades awarded in the various Level 3 qualifications may offer some explanation for any perception that vocational qualifications are a 'softer' qualification. Indeed, since it can be shown that only five years ago there was a clear disparity in the pattern of grades awarded, such an attitude would be justified, if now outdated.

<u>What is the impact of the changing distribution of grades awarded on the relative difficulty of vocational and academic qualifications?</u>

35. A paper produced by Action on Access[16], which seeks to examine the problems facing students taking vocational qualifications in entering higher education, reports that continuous improvements in GCE A Level results are having a detrimental effect

[16] *Op cit* Action on Access, 2006

on those applying to higher education with non-academic qualifications. Higher education entry requirements, it is argued, tend to bet set with GCE A Level grades in mind, and the required number of UCAS Tariff points is set accordingly. Since GCE A Level performance improves on a yearly basis, with a greater proportion of students achieving the top grades (thus increasing entrance requirements in terms of UCAS Tariff points) the paper states that:

"It is unlikely that the performance distribution of all qualifications will mirror the A-level trends and so raising their entry points too can result in fewer of these applicants gaining entry."

36. The paper is quite right in one respect: the performance distribution of VCE A Levels has not changed in the same way as that of GCE A Levels, but the effect is the opposite of that suggested, as shown in Tables 8a and 8b and Figures 9a and 9b below:

Table 8a: Changing Distribution of VCE A Level Results over time

VCE A Levels

	A	B	C	D	E	<E	Mean UCAS points per entry:	Annual Change (%)	Index
2002	3.8%	9.9%	18.8%	25.9%	25.4%	16.2%	55.20	-	100
2003	5.6%	12.8%	20.1%	23.5%	20.0%	18.0%	57.70	+4.53%	104.53
2004	6.7%	14.2%	22.3%	23.6%	18.6%	14.6%	61.68	+6.90%	111.74
2005	8.0%	16.5%	23.8%	23.7%	16.9%	11.1%	66.12	+7.20%	119.78
2006†	12.1%	21.4%	26.4%	21.5%	13.1%	5.5%	75.13	+13.63%	136.11

† Provisional

Table 8b: Changing Distribution of GCE A Level Results over time

GCE A Levels

	A	B	C	D	E	<E	Mean UCAS points per entry:	Annual Change (%)	Index
2002	20.5%	21.8%	22.8%	18.5%	11.1%	5.3%	80.18	-	100
2003	21.5%	22.7%	23.2%	18.3%	10.4%	3.9%	82.20	+2.52%	102.52
2004	22.3%	23.2%	23.4%	17.9%	9.8%	3.4%	83.34	+1.39%	103.94
2005	22.7%	23.6%	23.5%	17.6%	9.5%	3.1%	84.00	+0.79%	104.76
2006†	23.9%	23.8%	23.5%	17.0%	9.0%	2.9%	85.02	+1.21%	106.04

† Provisional

Sources: *"GCE/VCE A/AS Examination Results for Young People in England, 2004/05"*: DfES Statistical First Release, June 2006
"GCE/VCE A/AS and Equivalent Examination Results in England, 2005/06 (Provisional)": DfES Statistical First Release, October 2006

Figure 9a: Changing Grade Distribution of VCE A Levels over Time

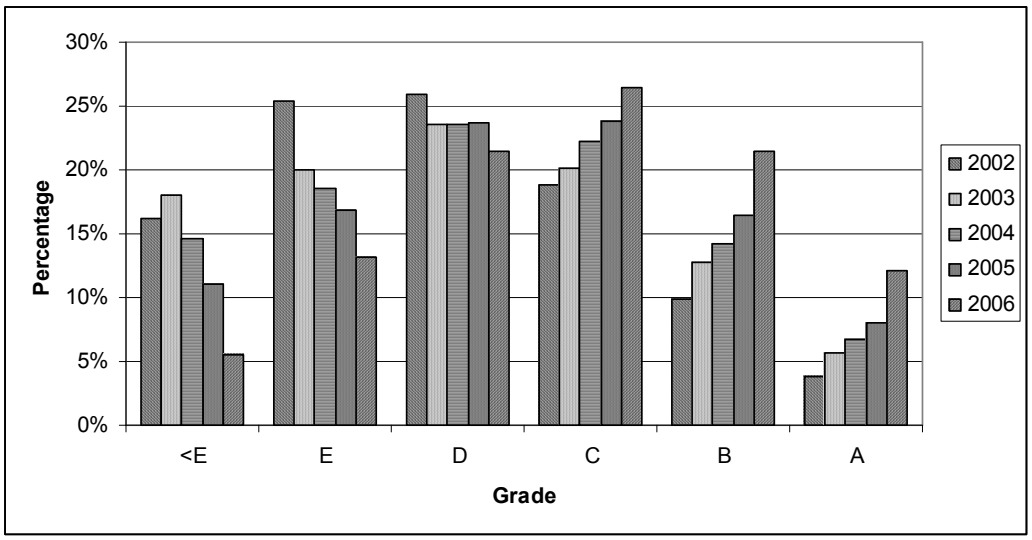
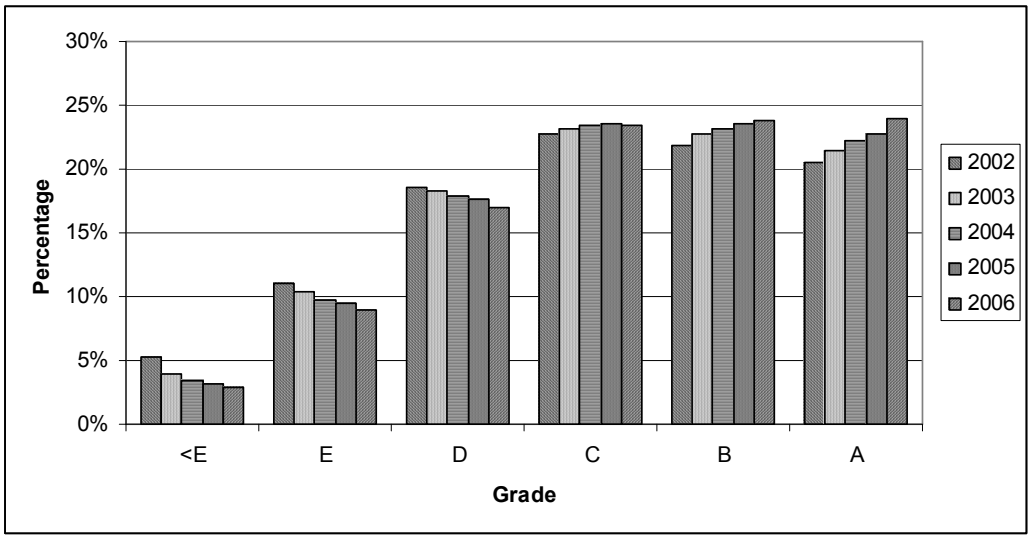


Figure 9b: Changing Grade Distribution of GCE A Levels over Time



37. It is clear from Figures 9a and 9b that grades awarded in VCE A Levels are improving at a far faster rate than in GCE A Levels: over the years shown, the proportion of entries for VCE A Levels that are awarded an A grade has more than tripled from 3.8 per cent in 2002 to 12.1 per cent in 2006, whilst the proportion awarded grade B has more than doubled from 9.9 per cent to 21.4 per cent over the same period. On the other hand, the changing distribution of grades awarded for GCE A Levels has been far more modest: the proportion awarded A grades increased from

20.5 per cent to 23.9 per cent, whilst those awarded B grades increased from 21.8 per cent to 23.8 per cent. Tables 8a and 8b above also show that the average number of UCAS points awarded per entry increased by over 36 per cent for VCE A Levels over the four years examined, compared to just a 6 per cent increase for GCE A Levels

38. If the Action on Access report is correct, and entrance requirements are set with GCE A Level grades in mind, the impact of changing relative grade distributions on students taking vocational Level 3 qualifications would in fact be in their favour, and not to their detriment as the paper suggests. This issue is more important than ever: under the UCAS Tariff system, an A grade in a GCE A Level is by definition equal in value to an A grade in a VCE A Level when applying for courses in higher education. If this trend were to continue – and if an individual of given ability continues to experience an ever-greater probability of achieving higher grades in one qualification than the other – and therefore a greater likelihood of gaining entry to university – then sooner or later that will require a rethink of the UCAS Tariff system.

39. It must also be noted, however, that this finding does not control for the (possibly changing) ability of the students taking each qualification, and would not have a particularly adverse effect if the abilities of students taking each qualification were changing at the same rate. Over the period 2003 to 2005, the average number of UCAS points awarded for each entry at VCE A Levels increased by 14.6 per cent, compared to just 2.2 per cent for GCE A Levels; it is necessary to examine whether or not there was a corresponding increase in the ability of students taking each qualification in order to determine the relative values of each qualification.

40. The majority of students awarded GCE and VCE A Levels in the years 2003 and 2005 completed their GCSEs two years previously – in 2001 and 2003 respectively. Cohorts 11 and 12 of the Youth Cohort Study reported the GCSE results of students taking each of these qualifications in these two years. Between 2001 and 2003, the mean number of GCSE passes awarded to students going on to take VCE A Levels increased only marginally from 6.3 to 6.4, whilst the mean number of passes

for those going on to take GCE A Levels remained constant at 8.4[17]. It therefore seems unlikely that the increasing number of top grades awarded in VCE A Levels compared to GCE A Levels can be explained by a corresponding increase in the average ability of students on VCE A Level courses relative to those taking GCE A Levels.

Conclusions

41. The comparison of GCE and VCE A Level results shows that a student of given ability is not likely to be awarded significantly higher grades on one course of study than the other, suggesting that there is no observable disparity between the qualifications in terms of the distribution of grades awarded, once ability is controlled for.

42. Examination of historical data suggests that in the past this was not the case: the comparison of the old vocational and academic qualifications showed that a student of given ability was more likely to receive high grades in Advanced GNVQs than GCE A Levels, which provides a possible explanation for the perception that vocational qualifications are less rigorous than their academic equivalents.

43. The final part of the analysis in this section demonstrates how looking at the various qualifications from a static perspective is not always the most revealing. It shows that for VCE A Levels, the number of top grades awarded is increasing at a much faster rate than for GCE A Levels. This finding, along with the fact that the GCSE attainment of students taking each qualification has remained roughly constant during this period, means that the equivalence of difficulty is unlikely to remain if current trends continue, and a small difference in relative rigour appears to already be emerging.

[17] It needs to be born in mind that the two cohorts had different samples – and therefore different sampling errors - which could affect comparisons between cohorts.

D. Students' Attitudes toward Higher Education

Students' Attitudes Immediately Post-GCSEs

44. Examination of attitudes to higher education of those on vocational and academic programmes might help explain the differences in rates of progression. One of the reasons for disparities in HE participation between those taking vocational and academic qualifications may be that those taking vocational courses simply do not wish to attend higher education. A report by the DfES examining post-compulsory vocational qualifications examined the future intentions of those taking both vocational and academic qualifications (taken from the Youth Cohort Study, cohort 10)[18]. The study asked participants aged 17/18, with five or more passes at GCSE (at age 15/16) whether they intended to apply for a higher education course. The results are shown in Table 10 below:

Table 10: Attitudes of Students with more than five Passes at GCSE

Whether applying for a higher education course at age 17/18 by main study aim at age 16/17: students with 5 or more A*-C GCSEs in full-time education at age 16/17, YCS 10 'Higher Education' sample.

	Main study aim at 16/17:	
	Academic qualifications %	Level 2 or 3 vocational qualifications %
Yes, current academic year	79	50
Yes, next academic year	11	13
Yes, sometime in the future	3	7
No	7	31
Total	100	100
Base N	*1,653*	*283*

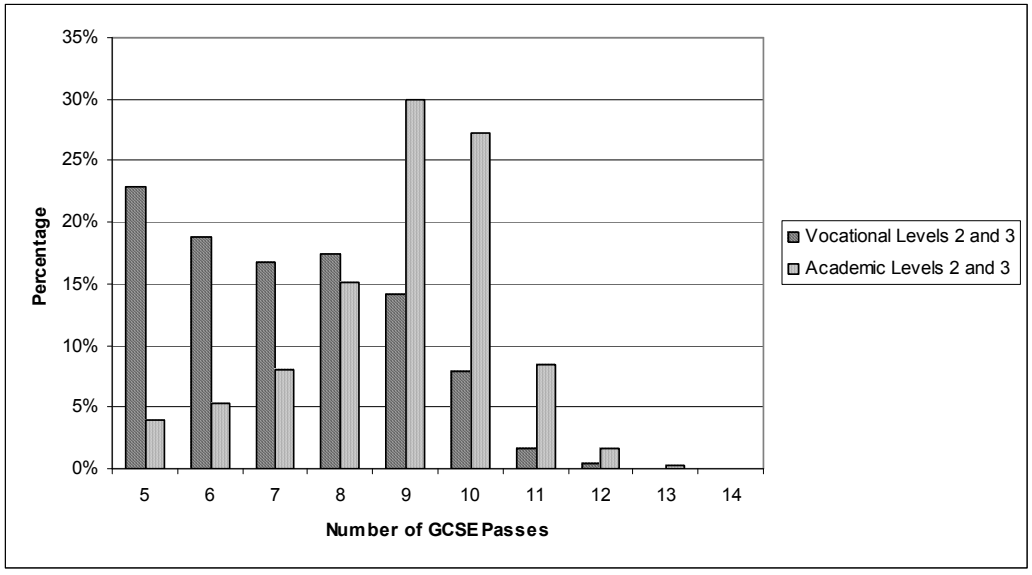
Source: *"Vocational Pathways at Age 16-19"*, DfES Research Report, 2003, pp. 58

45. This shows that students taking academic qualifications are far more likely to aspire to a higher education course than those taking Level 2 or 3 vocational qualifications. 93 per cent of those taking academic qualifications intend to apply for a higher education course at some point in the future, compared to 70 per cent of

[18] *"Vocational Pathways at Age 16-19"*, DfES Research Report, 2003

those taking Level 2 or 3 vocational qualifications. The system used in this evaluation however does not tell the whole story. The 'banding' structure employed is intended to distinguish between high- and low-ability students (those who obtained less than five passes at GCSE were separated into a different category, and asked a different range of questions relating to future aspirations[19]). However, it is possible to compare the prior academic achievement of those who achieved five or more passes at GCSE taking vocational or academic qualifications post-16, and this sheds more light on this question. Figure 11 shows the distribution of GCSE passes for those who achieved five or more passes at GCSE at age 16, and who continued to do either vocational or academic courses at Levels 2 or 3[20].

Figure 11: Distribution of GCSE Passes for Students Taking Vocational and Academic Level 2 and 3 Qualifications, Having Achieved five or More Passes at GCSE



Source: Youth Cohort Study, Cohort 11, Sweep 1 HEQAC

46. All had five or more passes at GCSE, but Figure 11 shows that those taking academic courses post-16 have, on average, considerably more passes than those taking vocational courses. The mean number of passes for those in this group taking vocational qualifications is 7.1, compared to 8.9 for those taking the academic

[19] A far lower proportion of those falling into this lower 'band' (taking *either* vocational *or* academic qualifications) displayed a desire to attend higher education.

[20] The results from Cohort 10 used in the DfES paper examine the aspirations of academic and vocational students taking a variety of qualifications (not just GCE A Levels and Advanced GNVQs). The data used in Figure 11 therefore allows for this by including all academic and vocational Level 2 and 3 qualifications.

equivalents. Past studies have shown that those with better achievements at GSCE level are more inclined to continue into higher education[21]. Taking this, along with the above finding, it appears as though Table 10 may overstate the effect of Level 3 qualification aim on the attitudes of students toward higher education. Since the grade distributions of individuals falling into each of the 'bands' examined above differ greatly between those taking vocational and those taking academic qualifications, it is apparent that the actual attitudes of individuals toward higher education may not be as different as shown in the table above, once the abilities of students is controlled for. In reality, the difference in attitudes to higher education between the students from vocational and academic backgrounds is likely to be considerably less pronounced than the figures of 93 per cent and 70 per cent found by the DfES study suggest – the apparent effect shown here may simply be a realistic reflection of differing abilities.

Conclusions

47. The DfES paper (in which Table 10 was published) concluded that the figures indicate: "A substantial proportion of full time students taking level 2 or 3 vocational qualifications had plans for higher education." For the five+ GCSE pass group however, once the unrepresentative banding system is accounted for, it is likely that this in fact understates the truth: it could even be that, once academic ability is controlled for, there is little (if any) difference between the two groups in terms of attitudes toward higher education. This analysis does not establish this beyond doubt, but the figures strongly suggest that this may be the case.

[21] *"Youth Cohort Study: The Activities and Experiences of 19 Year Olds: England and Wales 2000"*, Statistical first release from the DfES, October 2001.

E. Vocational and Academic Qualifications and Higher Education Entry

Are Students from Vocational Backgrounds Underrepresented in Higher Education?

48. We can now return to one of the key elements of this issue: the difference in rates of progression between those from vocational and academic backgrounds. The different rates of progression of those from vocational and academic backgrounds are frequently cited as evidence that those from vocational backgrounds are underrepresented in higher education.

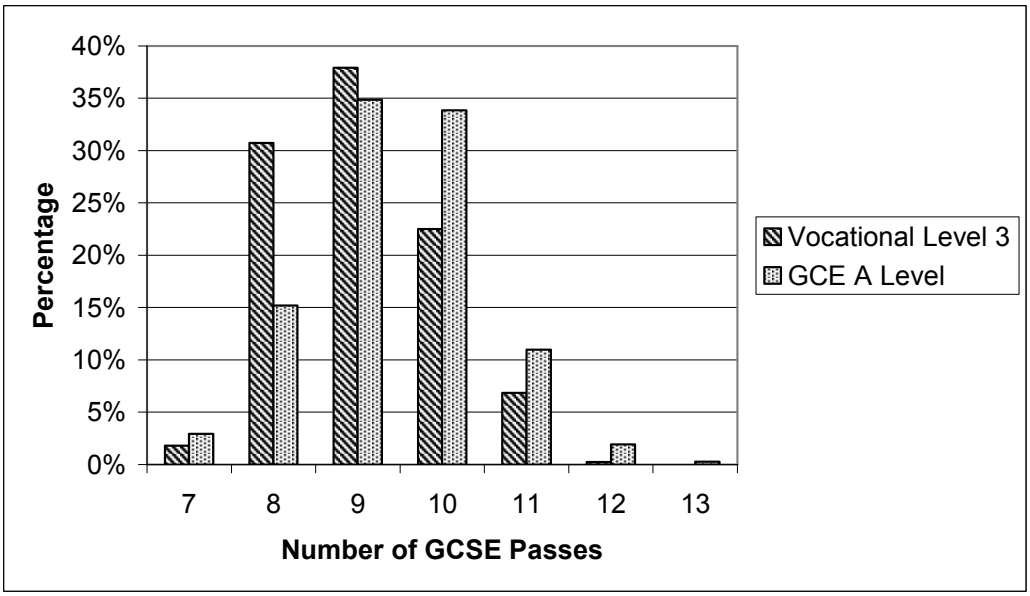
49. As demonstrated earlier there is a disparity in the abilities of students taking each qualification in terms of GCSE achievement: those taking vocational qualifications have, on average, significantly fewer GCSE passes than those taking the equivalent academic qualifications. This section aims to determine whether or not the differences in rates of progression can all be attributed to the difference in the ability of students, or if there is some other contributory explanation.

50. 84 per cent of students with GCE A levels go to higher edcuation, compared to 51 per cent of those with vocational level 3s. By comparing the ability – in terms of GCSE passes – of the top 84 per cent of students taking A Levels (with at least five passes at GCSE) to the top 51 per cent of students taking vocational Level 3 qualifications (also having achieved at least five passes at GCSE), it is possible to get some idea of whether or not one group is underrepresented in higher education.

51. If neither group was underrepresented, it would be expected that the distribution of GCSE passes would be similar for both groups. Of course using this technique again runs the risk of bias from assuming that GCSEs are as good an indicator of ability to succeed in a vocational path as they are for academic paths, but since they are the only qualification widely taken before the post-compulsory qualifications being examined, there is little alternative. Figure 12 shows the distribution of the top 84 per cent of students taking GCE A Levels, having obtained at least five passes at

GCSE, and the distribution of GCSE passes for the top 51 per cent of students taking vocational Level 3 qualifications, also with five or more passes at GCSE:

Figure 12: Distribution of Number of GCSE Passes for Those Taking Vocational and Academic Qualifications



Source: Youth Cohort Study, Cohort 11, Sweep 1 HEQAC

52. Figure 12 shows that on average, achievement at GCSE for the groups described above was a little better for those taking GCE A Levels[22], suggesting that those taking vocational qualifications at Level 3 are if anything overrepresented in higher education with respect to their achievements at GCSE. The mean numbers of GCSE passes for those in each of the groups examined are 9.0 and 9.4 for vocational and academic qualifications respectively.

53. If we assume that it is in fact the top achievers at GCSE who progress into higher education (as the finding that those with better GCSEs are more inclined to enter higher education would suggest), those in higher education having come from a vocational background tend to have a marginally lower number of GCSE passes. Whilst some of this difference is likely to be because of the imperfect suitability of

[22] The graph shows the results for the top 84 per cent of *all* those taking GCE A Levels, whereas the 84 per cent progression rate refers to those passing 2 or more A Levels. Unfortunately data showing the GCSE performance of only those receiving 2 or more A Levels are unavailable, however, if these data were used, they would doubtless show an even greater difference in GCSE performance between the two groups than the above graph shows.

GCSE achievement as a proxy for potential achievement in vocational studies, it does still suggest that the rates of progression of students from vocational and academic backgrounds are not out of line.

54. Students with vocational qualifications progress to HE broadly as might be expected, given their ability, and broadly in line with the progression of students with weak A Levels. And what studies there are of their experiences once in HE suggests that their achievements are not out of line either. The HEFCE research report "Who Does Best at University?"[23] suggests that in terms of degree classifications students who entered with GNVQs performed slightly less well than those who entered with poor A level grades.

Conclusion

55. The comparison of the top 84 per cent of those with academic qualifications to the top 51 per cent of those with vocational qualifications (in terms of GCSE achievements) suggests that the difference in rates of progression may simply be due to the lower ability of those taking vocational qualifications. When account is taken of this, the differences disappear, and indeed appear to favour those with VCE A levels.

[23] Who Does Best at University? HEFCE 2002, available at http://www.hefce.ac.uk/learning/whodoes/

F. Concusions

56. The disparity in rates of progression between vocational and academic students has frequently been used in a variety of policymaking contexts to show the problems faced by students taking vocational qualifications. This analysis does not actually indicate a problem - at least not the one that is often cited; rather the differences can be explained to an extent by the varying achievements of each group. On the other hand there is a different problem that a focus on non-participation of vocationally qualified pupils may obscure, and that is non-participation by pupils with A Levels. As mentioned in paragraph 12 above, in numerical terms pupils with A Levels who do not proceed to higher education are more significant than the number of vocationally qualified pupils who do not participate. If our concern is with widening participation, then that is where our focus should be.

57. It would also be useful to examine the actual experiences of students applying to and within higher education. As far as applications are concerned, the data available are not sufficient for an in-depth analysis. UCAS data from 2001[24] (when Advanced GNVQs were the vocational equivalent of GCE A Levels) show that those applying to courses in higher education with Advanced GNVQs experienced, on average, a slightly lower success rate than those applying with GCE A Levels, with a similar number of UCAS points. The fact that the available data do not take into account the nature of the course or the HEI to which the individuals apply, means that it is impossible to come to any firm conclusions based on this. But this finding should not come as a surprise anyway in view of the earlier finding that for any given number of UCAS points students with Advanced GNVQs had lower GCSE attainment than those with A levels. It would be unfortunate if this state of affairs has continued with the switch to VCE A levels, now that the rigour of that qualification has apparently been addressed.

58. This study does not comprise a comprehensive analysis of the experiences of students from different backgrounds. In particular, looking at the available data on

[24] UCAS Online Statistical Enquiry Service: 2001 year of entry, UK: Total Number of All applicants, All accepts, Degree accepts, HND accepts by Grade and Main Qualification.

overall rates of progression in higher education does not tell us what kind of higher education course those with different qualifications actually pursue – it does not differentiate, for example, between HNDs[25] and degrees, nor does it give us information about the institutions students attend. A deeper study of these and associated questions would shed valuable further light on this important question.

59. The other thing that this study does not shed light on is the nature of the course or the institution attended by pupils with the different Level 3 qualifications. This study looks at macro level, and not at the details of their experiences. Study of the UCAS handbook confirms that many of the courses at many of the most prestigious higher education institutions are explicit that they will only accept UCAS points earned by GCE A level. It is difficult to argue that it is unreasonable that an academic course of study that assumes a great deal of prior knowledge should require a qualification that provides an appropriate preparation: that a subject like medicine for example should require GCE A levels in specific subjects. On the other hand it is essential in this case that secondary school pupils should be adequately advised post-GCSE about the implications of the different routes open to them - and in particular that taking VCE A levels will effectively close off certain options in the future. It is also essential, if they have the aptitude, that they are given the opportunity to take GCE A level, and are not forced to take VCE A levels because of a lack of choice or appropriate guidance.

[25] The UCAS data show that a greater percentage of individuals accepted onto higher education courses with Advanced GNVQs planned to study HNDs (as opposed to Degrees) than those with GCE A Levels. But, without further information it is impossible to assess the implication of this.