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Do Cambridge Nationals support progression to further studies at school or college, to higher education courses and to work-based learning?

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Introduction

The number of students taking vocational qualifications in England has risen dramatically in the last few years (Ofqual, 2012). This can be partly attributed to the growing availability of vocationally orientated/related qualifications aimed at 16 to 19 year-olds. However, whilst in the past the completion of a vocational programme would have been seen as an end in itself, there is now an expectation that all forms of education and training provide progression. In particular, it has been argued that vocational qualifications must be designed to ensure they provide a sufficient platform for progression to higher level of study or to employment (e.g. Bowers-Brown & Berry, 2005; Cowan, 2012; Fuller & Unwin, 2012).

OCR National qualifications, now called Cambridge Nationals, are exam-free, vocationally related qualifications at levels 1 to 3 of the National Qualifications Framework¹ that have an engaging and practical approach to learning and assessment. They are primarily aimed at young people aged 14–19 in full-time or part-time study, although they are also appropriate for adult learners, therefore suiting a wide range of learning styles across the whole ability range. As well as providing practical insight into industry sectors, OCR Nationals help students develop valuable workplace skills, such as team working, communication and problem-solving.

OCR National qualifications have been gaining popularity since their introduction in 2004 (e.g. awards rose from 14,620 in 2006/07 to around 300,000 in 2011/12) and currently around 3,000 education establishments in England are delivering OCR Nationals alongside other qualifications. In fact, more than 1.5 million students of all abilities have been awarded

OCR National qualifications over the past few years and the ICT version of the qualification is currently one of the most popular courses in English schools, delivered by more than half of secondary schools. The growth of these qualifications is expected to continue because teachers enjoy teaching them and pupils find them motivating, very relevant and very clear in explaining what is expected of them and what they are trying to achieve (mc² market research, 2008; EdComs, 2009).

OCR National qualifications are made of units, which are centre-assessed and externally moderated and as a result, there are no timetabled exams. Candidates receive assessment and learning support throughout the course, giving them a clear indication of their progress, which can increase levels of success and motivation as students can see their own progress through the course, rather than waiting until the end to sit an exam. Furthermore, OCR Nationals offer teachers the flexibility to incorporate work experience, to use their own assignments, and to deliver units in any order. However, some of the OCR National qualifications have been described as having little value and being used simply as a way to take low achievers off academic subjects or to boost schools' league table positions (e.g. Civitas, 2010; Sharp, 2010; Williams & Shepherd, 2010). However, OCR Nationals are a distinctive and important contribution to the 14–19 curriculum. In fact, recent research (mc² market research, 2008) provided evidence to support the view that OCR Nationals should have a significant role in 14–19 education. This research consisted of a survey carried out in schools and colleges across the country where the respondents taught or managed the teaching of at least one OCR National qualification. Most respondents said that OCR National qualifications had helped students engage with the subjects in ways that had not been possible before. Furthermore, with the pressure of exams taken off them, the confidence of many students was boosted to allow them to develop themselves. Although it was acknowledged that this did not work for every single student, the overall

1. Each regulated qualification in England has a level between entry level and level 8. Qualifications at the same level are of a similar level of demand or difficulty. To find out more about qualification levels visit <http://www.ofqual.gov.uk/help-and-advice/comparing-qualifications/>.

view was that OCR Nationals provided opportunities for students who would otherwise be underachievers and/or leaving with lower prospects.

Further research on OCR National qualifications (EdComs, 2009) recommended raising awareness of the progression routes and the qualification value in the sense of affecting employability and progression towards higher education, as employers and Higher Education Institutions (HEIs) do not always place the right value on OCR Nationals due to the poor perceptions of level 2 and level 3 vocational study and also due to the limited understanding of the qualification. In fact, research by Connor *et al.* (2006) found that there was a lack of parity of esteem between vocational and academic qualifications, leading to prejudice against and negative valuing of vocational qualifications. This research also highlighted a need for more knowledge of the content and assessment of vocational qualifications among higher education admissions staff. On the same lines, Carter (2009) reported that universities tend to favour applicants with academic qualifications as opposed to those with vocational qualifications. Similarly, Sinclair and Connor (2008) and Hodgson and Spours (2010) suggested that the potential of vocational qualifications to become a major route to higher education was constrained by their low uptake and the low understanding and recognition of the qualifications.

To date, there have been some attempts to quantify the numbers of young people entering higher education with vocational qualifications (e.g. Connor & Little, 2007; Vickers & Bekhradnia, 2007; Ertl *et al.*, 2010). However, those focussed on vocational qualifications as a whole and there is very little information about progression to higher education of learners with specific vocational qualifications, or about progression to further study at school or college, and to work-based learning. Therefore, further evidence regarding the numbers and types of candidates with OCR National qualifications and where they progressed on completion was needed.

The present research set out to investigate if OCR National qualifications enabled successful progression into the labour market (e.g. via work-based learning) and into higher level education. In particular, the research looked at:

- the types of learners who were awarded OCR National qualifications (age, prior attainment, socio-economic background and centre attended);
- the progression of learners with OCR National qualifications in terms of further studies (at school, college or higher education) or work-based learning (e.g. apprenticeships).

Data and methodology

Data

OCR National qualifications are available at levels 1 to 3 of the National Qualifications Framework in a wide range of subjects. The focus of the research presented in this article was on students who were awarded an OCR National qualification in the academic year 2008/09 in subjects listed in Table 1.

At the time this research was carried out, no single dataset existed in England which tracked students over the different stages of their education from completion of compulsory secondary education to completion of an undergraduate degree or a work-based learning programme. Therefore, to investigate the uptake of and the progression from OCR National qualifications, different datasets had to be combined.

Table 1: OCR National subjects included in the research

	Level 1	Level 2	Level 3
Business and ICT	–	–	–
–	–	Business	Business
Health and Social Care	–	Health and Social Care	–
–	–	–	Health, Social Care and Early Years
ICT	–	ICT	ICT
–	–	Media	Media
–	–	Science	–
–	–	Sport	Sport
Leisure and Tourism	–	–	–
–	–	Travel and Tourism	Travel and Tourism

This work used data from four different data sources: data on OCR National qualifications obtained from the OCR awarding body; data on attainment at school and college obtained from the Department for Education; data on work-based learning programmes obtained from the Learning and Skills Council; and data on students enrolled in HEIs obtained from the Higher Education Statistics Agency. An overview of each of the data sources used in this research is presented below.

OCR National qualifications: Data on OCR National qualifications awarded in the academic year 2008/09 was obtained directly from the OCR awarding body. This data comprised personal characteristics (e.g. name, gender, date of birth) and assessment characteristics (e.g. centre, subject, level, grade, award date) for all students who obtained an OCR National qualification.

National Pupil Database: The National Pupil Database (NPD), which is compiled by the Department for Education, is a longitudinal database for all children in schools in England, linking student characteristics (e.g. age, gender, ethnicity, attendance, and exclusions) to school and college learning aims and attainment. Data for the analyses carried out in this research was extracted from the NPD for the academic year 2009/10.

Individualised Learner Record: The Individualised Learner Record (ILR) contains data for post-16 students in all forms of provision with the exception of schools and is sourced by the Learning and Skills Council. Every college course started is recorded in the ILR. This dataset also records programmes such as apprenticeships and courses offered by non-school learning providers (e.g. carried out in a work-based learning environment or delivered by private/independent learning providers). Data for the analyses carried out in this research was extracted from the work-based learning extract of the ILR dataset for the academic year 2009/10.

Higher Education Statistics Agency: The Higher Education Statistics Agency's (HESA) student record dataset contains students' qualifications prior to starting a higher education course, the course studied, and the

institution where the student was enrolled. For the analyses presented in this article, data on first year undergraduate students in the academic year 2009/10 was provided by HESA².

Together, the four datasets mentioned provide information about the gender, age and socio-economic status of learners, as well as the qualifications obtained (or courses enrolled on), and the educational establishments attended at different stages of their education.

Methodology

The analyses presented in this article were carried out in two stages. Stage 1 consisted of an analysis of the entries for OCR National qualifications; and stage 2 looked into the progression from OCR Nationals towards other qualifications in schools, colleges, work-based learning providers, and HEIs.

Stage 1: Entries for OCR National qualifications

The research addressed this issue mainly through a descriptive analysis that looked into candidates' characteristics such as age, prior attainment, socio-economic background, and centre where the qualification was obtained.

Prior attainment: A measure of students' general attainment (proxy for ability) was computed using data from the National Pupil Database.

An average GCSE³ score was used as a measure of general attainment for students with OCR National qualifications at level 3. By assigning scores to the GCSE grades (A*=8, A=7, B=6, C=5, D=4, E=3, F=2, G=1, U=0) it was possible to arrive to a total GCSE score for each student. An average GCSE score was calculated by dividing the total score by the number of subjects attempted. The mean GCSE score ranges from 0 to 8.

For students with OCR National qualifications at levels 1 or 2, Key Stage 3 scores were used instead. At the end of this stage pupils, generally aged 14, are tested and awarded attainment levels depending on what they are able to do. The tests cover English, Mathematics and Science. The average of the total marks in these three subjects was used as a general attainment measure for candidates with OCR Nationals at levels 1 and 2. The Key Stage 3 score ranges from 0 to 100. The distribution of the students' general attainment measure was used to divide the students into three attainment groups: low, medium and high.

Socio-economic background: The students' socio-economic background was determined by the students' level of deprivation using the Income Deprivation Affecting Children Index (IDACI)⁴. The distribution of this index was used to divide the students into three deprivation groups: low, medium and high.

Type of centre: Centres have been categorised into five different groups: schools; sixth form colleges; further education colleges; adult education and training providers; and 'other'.

Stage 2: Progression from OCR Nationals

This stage of the research investigated the types and numbers of qualifications candidates who obtained OCR Nationals progressed to in:

- a. schools and colleges;
- b. a work-based learning environment; and
- c. HEIs. Descriptive analyses, such as frequency tables and simple descriptive statistics, were used as the main analysis technique.

Schools and colleges: Candidates with OCR National qualifications were identified in the NPD extracts and matched to the qualifications obtained two years later. This permitted identifying the qualifications these candidates progressed to in schools and colleges.

Work-based learning environment: In this case, progression after just one year was investigated. This differs from the progression in schools and colleges due to, principally, two reasons. Firstly, the ILR extracts record enrolments (the NPD only records completed qualifications) and therefore it is not necessary to wait until the end of the programme to know if a candidate is studying towards a work-based learning programme. Secondly, work-based learning programmes can last between one and five years, depending on the particular course and level, and therefore many of the candidates considered in this research would not have had the time to complete the programme and would not be included in the analyses if only completed qualifications were looked at. Candidates with OCR National qualifications in the period of study were matched to the work-based learning extract of the ILR datasets one year later. This permitted identifying the qualifications these candidates progressed to in a work-based learning environment.

Higher Education Institutions: Data on candidates with OCR National qualifications in 2008/09 was linked to the HESA student records dataset. This matching allowed the identification of candidates with at least one level 3 OCR National qualification who enrolled on higher education courses in the academic year 2009/10. For these candidates the following information about their higher education courses was available: highest qualification on entry, subject of study, level of study, and institution.

Results

Entries for OCR Nationals

Overall entries for OCR National qualifications by level and subject are presented in Table 2. This table shows that in the academic year 2008/09, the most popular OCR National qualifications were level 2 qualifications in ICT, Science, Business and Health and Social Care, and the least popular were level 1 OCR National qualifications (in all subjects) and level 3 OCR Nationals in ICT and Travel and Tourism.

It should be noted that entries for level 2 qualifications in ICT and Science have been rising considerably in the last few years (Vidal Rodeiro, 2010a; 2010b) making them by far the most popular OCR National qualifications.

Age of candidates

Figure 1, which displays the age profile of candidates taking these qualifications at each level, shows that, although OCR National qualifications at level 1 are aimed at 14-16 year olds, the majority of the candidates who were awarded a level 1 qualification were at least 17 years old. At level 2, Figure 1 shows that the majority of the

2. Source: HESA Student Record 2009/10. Copyright Higher Education Statistics Agency Limited 2011. HESA cannot accept responsibility for any inferences or conclusions derived from the data by third parties.

3. General Certificate of Secondary Education. This is a qualification taken by the majority of 16 year olds in England.

4. This index is based on the percentage of children in a small area who live in families that are income deprived (in receipt of Income Support, Income based Jobseeker's Allowance, Working Families' Tax Credit or Disabled Person's Tax Credit below a given threshold).

Table 2: Overall entries for OCR National qualifications by subject and level, 2008/09

OCR National subject	OCR National level	2008/09	
		Candidates	Percentage
Business and ICT	1	747	0.45
Health and Social Care	1	481	0.29
ICT	1	302	0.18
Leisure and Tourism	1	194	0.12
Level 1		1,724	1.04
Business	2	4,799	2.91
Health and Social Care	2	2,930	1.78
ICT	2	138,453	84.02
Media	2	1,269	0.77
Science	2	8,563	5.20
Sport	2	1,198	0.73
Travel and Tourism	2	1,472	0.89
Level 2		158,684	96.30
Business	3	934	0.57
Health, Social Care and Early Years	3	1,231	0.75
ICT	3	82	0.05
Media	3	817	0.50
Sport	3	774	0.47
Travel and Tourism	3	548	0.33
Level 3		4,386	2.67
All		16,4794	100.00

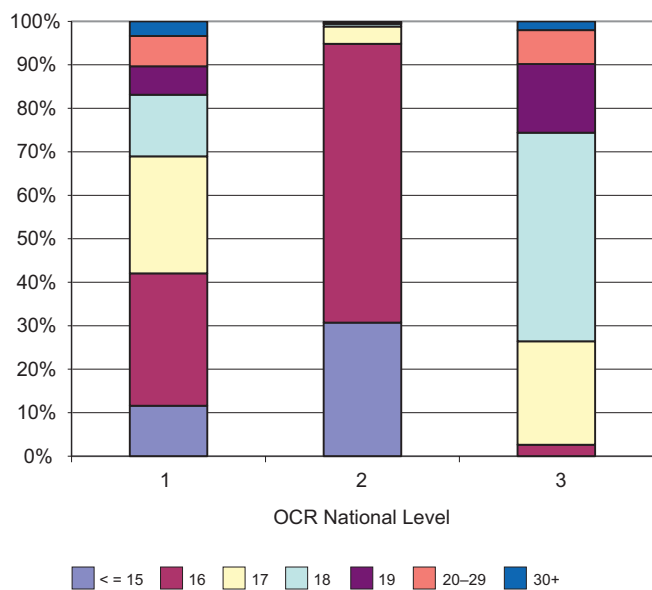


Figure 1: Age profile of candidates by the level of their OCR National qualification

candidates were below 16. In particular, less than 5% of the candidates who obtained a level 2 qualification were 17 or older. At level 3, the majority of the candidates were aged between 18 and 19 years old, and about 10% of the candidates were at least 20 years old. The proportion of candidates at level 1 aged at least 17 years old might suggest that OCR National qualifications provide learners with a second opportunity to find out more about a certain sector, or to introduce themselves to the skills, knowledge and understanding required to prepare for work in a particular area.

Prior attainment of candidates

Figure 2 displays the prior attainment of OCR Nationals candidates. Although OCR National qualifications are designed to suit candidates across the whole ability range, this figure shows that more low ability (prior attainment) candidates than medium or high ability ones obtained OCR National qualifications. However, it should be noted that about a quarter of the candidates who obtained OCR National qualifications had high prior attainment and more than half had medium or high prior attainment. This contrasts with the belief that OCR National qualifications are offered to low ability students instead of other more traditional or academic subjects.

Figure 2, which also shows the prior attainment of candidates by the level of their OCR National qualification, highlights that at levels 1 and 3 the majority of the candidates had low prior attainment. By contrast, at level 2 the percentages of candidates with low or medium prior attainment were not much higher than the percentages of candidates with high prior attainment.

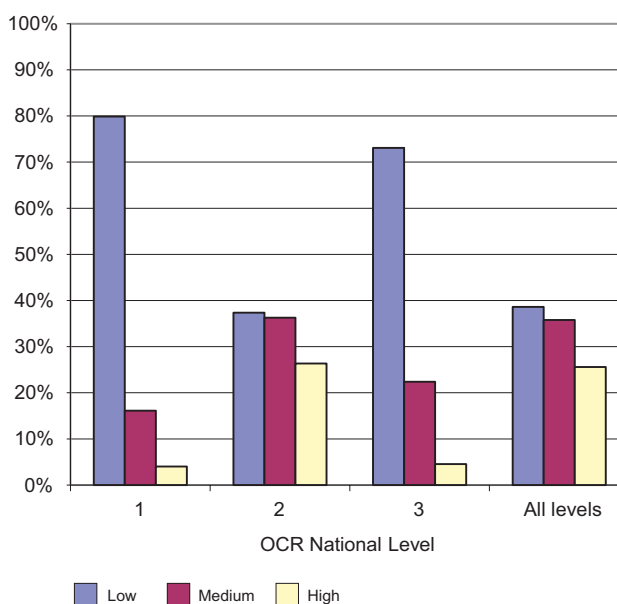


Figure 2: Prior attainment of candidates with OCR National qualifications

Level of deprivation of candidates

It has been claimed that vocational qualifications, such as the OCR Nationals, have been increasingly taken by students from deprived areas. Figure 3, which displays the level of deprivation of OCR National candidates, shows that more highly deprived candidates than medium or low deprived ones obtained OCR National qualifications.

At each level of the qualification, the same patterns of uptake as discussed already are present (that is, more highly deprived candidates than medium or low deprived ones obtained OCR National qualifications). The pattern was slightly more prominent at levels 1 and 3 than at level 2.

Type of centre where the OCR National qualification was obtained

Given the age profile of the candidates with OCR Nationals (see Figure 1), it is not surprising that the overwhelming majority obtained these qualifications in schools (87% of candidates who were awarded an OCR National in the academic year 2008/09 attended schools). Further education and sixth form colleges followed schools as the second and third most popular types of centres where OCR National qualifications

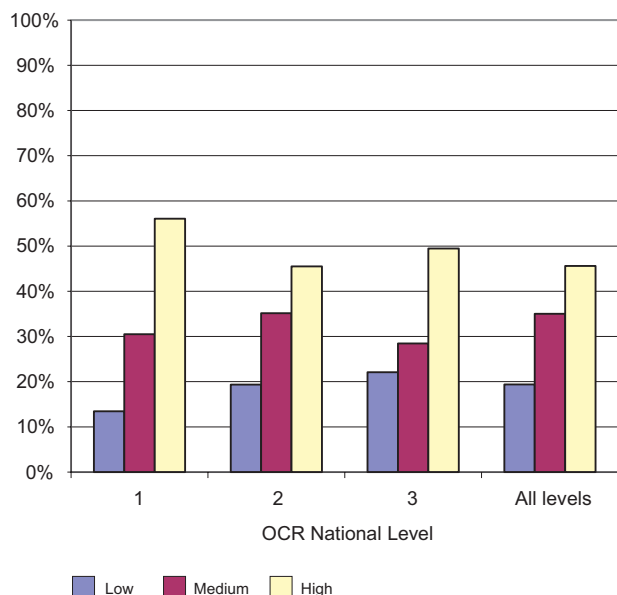


Figure 3: Level of deprivation of candidates with OCR National qualifications

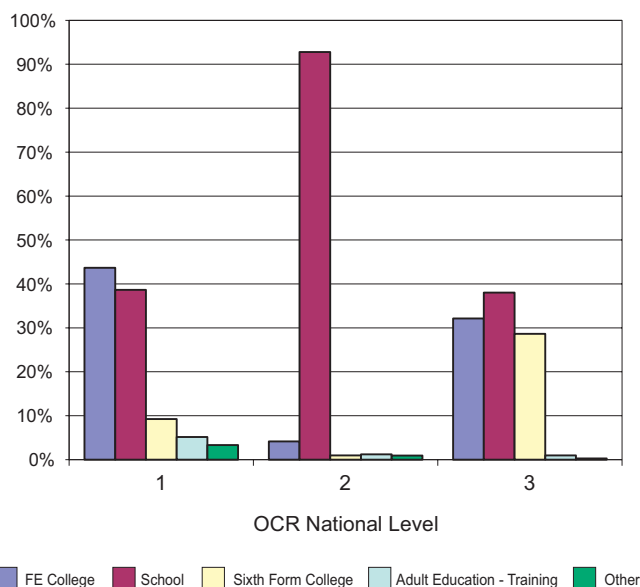


Figure 4: Type of centre where the OCR National qualification was obtained, by the level of the OCR National qualification

Table 3: Progression in schools and colleges from OCR National qualifications at levels 1 and 2 (percentage of students)

OCR National subject	OCR National level	Qualifications in 2009/10										
		A level	AS level	Applied AS/A level	NVQ Level 1&2	NVQ Level 3	VRQ Level 1&2	VRQ Level 3	BTEC	OCR Nationals	DiDA	Key Skills
Business and ICT	1	5.38	11.83	3.23	0.00	0.00	2.15	0.00	3.23	3.23	0.00	0.00
Health and Social Care	1	3.13	5.00	2.50	0.00	0.00	1.25	1.25	5.00	0.00	0.00	0.00
ICT	1	-	-	-	-	-	-	-	-	-	-	-
Leisure and Tourism	1	1.30	3.90	3.90	0.00	0.00	3.90	1.30	6.49	0.00	0.00	0.00
Business	2	27.77	29.69	12.29	0.08	0.08	1.76	0.88	12.37	11.73	0.00	0.24
Health and Social Care	2	13.74	17.82	7.43	1.49	0.62	1.86	2.97	15.10	9.28	0.00	0.00
ICT	2	32.26	36.34	8.91	0.50	0.49	2.25	1.24	14.97	1.98	0.01	0.48
Media	2	20.57	25.96	4.37	0.26	0.51	1.29	1.29	13.37	3.86	0.00	0.00
Science	2	14.60	19.03	8.17	0.52	0.87	2.45	1.74	21.29	1.41	0.02	0.20
Sport	2	17.61	23.06	5.87	1.26	0.84	4.61	0.00	14.68	6.29	0.00	0.00
Travel and Tourism	2	14.13	17.73	9.70	0.28	0.83	1.11	2.77	13.57	3.05	0.00	0.00
Students with no OCR National qualifications		42.13	80.05	11.83	1.55	1.47	15.65	4.93	22.14	4.17	5.11	9.72

were awarded (6% and 2%, respectively). Other types of establishments, such as adult education providers, training organisations, HEIs or prisons, accounted for the remaining 5% of the awards.

Figure 4 shows the type of centre where the OCR National award was obtained by the level of the qualification. It highlights that around 40% of level 1 qualifications were obtained in further education colleges. At level 2, the vast majority of qualifications (over 90%) were obtained in schools. Finally, at level 3 similar percentages of OCR National qualifications were obtained in further education colleges, sixth form colleges and schools.

Progression from OCR Nationals

Schools and colleges

The qualifications to which candidates with OCR Nationals have progressed to in schools and colleges are shown in Table 3. Other qualifications, such as the International Baccalaureate, were taken by very small numbers of candidates and are not presented here.

Very small percentages of candidates with an OCR National qualification at level 1 progressed to further study at school or college, with the most popular qualification being an AS level⁵.

Candidates with OCR National qualifications at level 2 progressed predominantly to AS/A levels, Applied AS/A level qualifications, VRQs (vocational-related qualifications) and BTECs⁶. Higher percentages of candidates progressed towards an AS level than towards a full A level. The highest percentage of candidates progressing towards AS/A level qualifications was among candidates with an OCR National in ICT (32%). The next highest percentages were among candidates with an OCR National in Business (about 28%) and with an OCR National in Media (about 21%).

5. AS and A levels are qualifications taken by students between the age of 16 and 18 in England. A levels are usually spaced out over two years and made up of two components: AS and A2 levels. AS levels can stand as a qualification on its own or can be carried on to A2 to complete a full A level qualification.

6. BTEC stands for Business and Technology Education Council which used to award the qualification. BTECs are now awarded by the Edexcel exam board.

Relatively high percentages of candidates with level 2 OCR National qualifications in Business, Health and Social Care and Sport progressed to a level 3 OCR National qualification.

Very few candidates progressed to NVQs (National Vocational Qualifications), DiDA (Diploma in Digital Applications) or Key Skills qualifications in schools and colleges after obtaining an OCR National qualification at levels 1 or 2.

It is essential that secondary school pupils, and in particular those pursuing vocationally-related qualifications, are adequately advised about the implications of the different routes open to them post-16 and, in particular, that taking some of them will open up or close off certain options in the future. In England, around 73% of students who are accepted on to degree courses at HEIs do so with A levels (e.g. Connor, Banerji & Sinclair, 2006). In this context, it is therefore important to know the percentages of candidates with OCR National qualifications at levels 1 or 2 who obtained, two years later, at least three A levels. Table 4 shows that around 30% of the candidates who did not take an OCR National qualification at level 2, had at least three A levels. This figure was much smaller among candidates with OCR National qualifications, ranging from about 5% among candidates with the qualification in Health and Social Care to about 21% among candidates with the qualification in ICT.

Table 4: Percentages of candidates with three or more A levels by the OCR National qualification

OCR National subject	OCR National level	3+ A levels 2009/10	
		Candidates	Percentage
Business and ICT	1	3	3.23
Health and Social Care	1	3	1.88
ICT	1	-	-
Leisure and Tourism	1	1	1.30
Business	2	162	12.93
Health and Social Care	2	36	4.46
ICT	2	11805	20.65
Media	2	40	10.28
Science	2	287	6.23
Sport	2	47	9.85
Travel and Tourism	2	21	5.82
Candidates with no OCR National qualifications		182886	30.51

Work-based learning environment

The following types of programmes in the work-based learning (WBL) sector were considered here: apprenticeship, advanced apprenticeship, and other.

Only 3.8% of candidates who were awarded an OCR National (at any level) in the academic year 2008/09 progressed to work-based learning programmes after completing such qualifications. Table 5 presents the percentages of candidates enrolled in each of the WBL programmes by the OCR National qualification they progressed from.

Progression rates varied greatly by subject. The highest percentages of candidates with level 1 OCR National qualifications progressing towards work-based learning and towards apprenticeships in particular, obtained the OCR National in Health and Social Care. The highest percentages of candidates with level 2 OCR National qualifications progressing towards work-based learning, and towards apprenticeships in particular, obtained the OCR National in Health and Social Care, Sport or Science. At level 3,

candidates who obtained OCR National qualifications in Business, Health, Social Care and Early Years, or Travel and Tourism were the most likely ones to be enrolled on a WBL programme, in particular on a programme of study leading to an apprenticeship.

Table 5: Progression to work-based learning programmes from OCR National qualifications at levels 1 to 3 (percentage of students)

OCR National subject	OCR National level	WBL programme in 2009/10			Total
		Apprenticeship	Advanced Apprenticeship	Other	
Business and ICT	1	2.68	0.27	1.20	4.15
Health and Social Care	1	7.28	0.00	2.08	9.36
ICT	1	1.66	0.33	0.33	2.32
Leisure and Tourism	1	2.06	0.00	0.52	2.58
Business	2	2.79	0.31	0.88	3.98
Health and Social Care	2	5.49	0.48	2.59	8.56
ICT	2	2.60	0.51	0.43	3.54
Media	2	1.73	0.55	0.24	2.52
Science	2	4.61	0.55	0.60	5.76
Sport	2	3.76	1.17	0.58	5.51
Travel and Tourism	2	2.79	0.34	1.02	4.15
Business	3	3.21	0.21	1.50	4.92
Health, Social Care and Early Years	3	2.92	1.14	1.30	5.36
ICT	3	1.47	0.24	0.49	2.20
Media	3	1.47	0.24	0.49	2.20
Sport	3	2.20	0.65	0.39	3.24
Travel and Tourism	3	2.92	0.36	0.73	4.01
All		2.77	0.51	0.52	3.80

Higher Education

Previous research on progression from vocational courses into higher education (e.g. UKCES, 2010) provided evidence of all types of vocational qualifications being recognised for entry purposes by HEIs⁷, although often when achieved alongside other qualifications. However, recognition of vocational qualifications is more extensive amongst the Post-92 universities and, not surprisingly, vocational qualifications are more likely to lead to vocational degrees (Hoelscher *et al.*, 2008).

Research carried out by the OCR awarding body (EdComs, 2009) showed that students with OCR National qualifications were progressing to higher education and that teachers of these qualifications felt that the students were well-prepared for that level of study. Furthermore, case studies showed that having OCR Nationals opened higher education access to students who had previously not considered it suitable for them. It should be noted that OCR Nationals are unlikely to be the sole qualification taken as part of a young person's programme of learning, and students could take, for example, A levels or other VRQs alongside them.

At the end of the academic year 2008/09, there were 4,386 candidates with at least one level 3 OCR National qualification in the subjects considered in this research. Of those, 1865 (42.5%) were enrolled in a higher education course in the following academic year, 2009/10. This

7. Post-92 universities are former polytechnics or colleges of higher education that were given the name 'university' in 1992.

Table 6: Participation in HE courses by the subject of the level 3 OCR National qualification⁸

OCR National subject (at level 3)	Higher education entries (2009/10)		Same/related subject area at HEI	
	Candidates	Percentage	Percentage (out of those with an OCR National and in HE)	Percentage (out of those with an OCR National)
Business	480	51.28	67.43	34.58
Health, Social Care and Early Years	480	38.99	63.33	24.70
ICT	25	28.05	‘..’	‘..’
Media	375	45.90	33.87	15.54
Sport	325	41.99	59.38	24.94
Travel and Tourism	185	33.39	59.02	19.71
Overall	1865	42.52	56.94	24.21

Table 7: Highest qualification on entry for students registered in an HEI by the subject of level 3 OCR National qualification (percentage of students)

OCR National subject (at level 3)	GCE A level or A level equivalents	OCR National Diploma	OCR National Extended Diploma	OCR National Certificate	Other qualifications
Business	18.58	36.12	7.10	0.00	38.20
Health, Social Care and Early Years	22.50	38.13	14.79	0.00	24.58
ICT	‘..’	‘..’	‘..’	‘..’	‘..’
Media	9.33	38.67	20.00	0.00	32.00
Sport	18.46	44.31	11.69	0.00	25.54
Travel and Tourism	26.23	32.24	7.10	0.00	34.43

Table 8: HEI by the subject of the level 3 OCR National qualification (percentage of students)

OCR National subject (at level 3)	Russell Group	1994 Group	University Alliance	Million+ Group	UKADIA	Other
Business	3.76	3.76	34.24	35.70	0.84	21.71
Health, Social Care and Early Years	6.25	4.58	29.38	34.38	0.00	25.42
ICT	‘..’	‘..’	‘..’	‘..’	‘..’	‘..’
Media	1.07	4.27	37.33	35.73	5.07	16.53
Sport	1.85	3.38	31.38	29.85	0.31	33.23
Travel and Tourism	1.64	3.83	43.17	31.15	1.64	18.58
Overall	3.32	3.97	33.78	34.05	1.55	23.32

Table 9: Level of study at HEIs of candidates with a level 3 OCR National qualification (percentage of students)

OCR National subject (at level 3)	First Degree	Other undergraduate	Higher National Diploma (HND)	Higher National Certificate (HNC)
Business	84.55	10.44	4.80	0.21
Health, Social Care and Early Years	66.46	33.13	0.42	0.00
ICT	‘..’	‘..’	‘..’	‘..’
Media	93.07	5.33	1.60	0.00
Sport	90.15	7.69	2.15	0.00
Travel and Tourism	83.06	15.30	1.64	0.00
Overall	82.25	15.39	2.31	0.05

section of the article focuses on this group of candidates. It should be noted though that in 2009/10 there were 208,170 first year student enrolments on HE courses (HESA, 2011) and therefore the percentage of students in HEIs who had completed OCR National qualifications at level 3 was small (0.9%).

Table 6 shows numbers and percentages of candidates in HE courses by the subject of the OCR National qualification they held. The highest participation rate was among students progressing from an OCR National

qualification in Business. The lowest participation rate was among those progressing from an ICT qualification, closely followed by those progressing from a qualification in Travel and Tourism.

Table 6 presents some encouraging figures for the OCR National qualifications, as in subjects such as Sport, Media or Business, over 40% of the students progressed towards a course in an HEI.

Table 6 also shows the percentages of candidates who progressed to an HE course in the same/related subject of their level 3 OCR National

qualification. In all subjects, with the exception of ICT and Media, more than half of the candidates who enrolled into an HEI did so in a course in the same (or related) subject as their OCR National qualification. Furthermore, around a quarter of the students with OCR National qualifications in Business, Sport or Health, Social Care and Early Years were enrolled in HE courses in the same area.

Candidates with OCR National qualifications registered at HEIs could have obtained other qualifications at level 3 alongside their OCR Nationals (e.g. A levels, NVQs, BTEC). It is therefore important to investigate how many of those candidates had an OCR National qualification as the highest qualification on entry. It should be noted though that a student's highest qualification on entry is not necessarily that which was required for entry to the programme of study. Table 7 shows that higher percentages of candidates with OCR National qualifications and registered for an higher education course had the OCR National as the highest qualification on entry rather than having other qualifications. The OCR National qualification with the highest percentage of students having it as the highest qualification on entry was the qualification in Sport, followed by the qualifications in Business and in Health, Social Care and Early Years. The OCR National qualification with the lowest percentage of students having it as the highest qualification on entry was Travel and Tourism.

There are many different classifications of HEIs. For the purpose of this research, the following groups⁹ were considered: The Russell Group, The 1994 Group, University Alliance, The Million+ Group, UKADIA and Other.

The most popular destination for candidates with OCR National qualifications were HE institutions in the Million+ Group and University Alliance. Institutions in UKADIA Group, followed by institutions in the Russell Group and the 1994 Group were the least common among candidates with OCR National qualifications (Table 8). It should be noted that the choice of institution could have been influenced by the type of course/degree that the candidate wanted to pursue. In fact, many 'selecting' universities in the Russell or 1994 Groups do not offer the range of vocational and work-based courses that are likely to be of interest to the vocational learners.

Table 9 shows the level of study of candidates with level 3 OCR National qualifications. The overwhelming majority of students were registered for a first degree, with percentages being higher among students with OCR National qualifications in Media or Sport. The highest percentages of students registered on other undergraduate courses were among those with OCR National qualifications in Health, Social Care and Early Years and Travel and Tourism. Small percentages of students registered for an HND¹⁰ at an HEI. Those percentages were higher among students with an OCR National qualification in Business and lower among students with a qualification in Health, Social Care and Early Years.

8. Numbers of students have been rounded to the nearest multiple of 5 throughout the article and percentages calculated on groups which contain 52 or fewer individuals were suppressed and represented as '.', following HESA's rounding strategy.

9. Some universities formed groups through which they share ideas and resources regarding issues and procedures in the higher education sector. For this research, HESA provided the following university groups: The Russell Group, The 1994 Group, University Alliance, The Million+ Group and UKADIA. Universities that have not joined any of these groups were included in a separate group, labelled Other. A list of members of each group can be obtained from the websites of each group.

10. HNCs and HNDs are work-related (vocational) higher education qualifications. They are designed to give students the skills to put knowledge to effective use in a particular job.

Conclusions and discussion

This research aimed to gather detailed information about the learners enrolled on OCR National qualifications and where they progressed on completion. In brief summary, it showed that OCR National qualifications enable learners to progress in a variety of ways (to further studies at school or college, to work-based learning and to higher education) and therefore are an important contribution to the 14–19 curriculum.

Uptake of OCR Nationals

In recent years, the popularity of OCR National qualifications has really taken off. In the academic year 2011/12 around 300,000 learners were awarded OCR National qualifications, compared to around 13,000 in 2006/07. Although these qualifications are available in a broad range of subjects, the most popular ones were ICT, Business, Science and Health and Social Care.

Similarly to work carried out by Carter (2009) and UKCES (2010), this research shows that the majority of those learners tend to come from lower socio-economic groups. This has therefore implications for progression. A White Paper by the Panel on Fair Access to the Professions (2009) noted that more than twice as many young people from lower socio-economic groups choose vocational routes as do young people with parents in professional occupations. UKCES (2010) suggests that encouraging vocational progression to higher level learning is fundamental to social mobility and that better support for individuals on vocational pathways, who have the aspirations and ability to achieve higher level skills, should have a positive impact on social mobility.

Although OCR National qualifications are designed to suit candidates of all abilities, more low ability candidates than medium or high ability ones were awarded these qualifications. This contrasts with the belief that OCR National qualifications are being offered to low ability students instead of other more traditional or academic subjects. Nevertheless, it should also be noted that about a quarter of the candidates who obtained OCR National qualifications had high prior attainment and more than a half had medium or high prior attainment.

The number of centres offering OCR National qualifications has also been increasing rapidly over time. In particular, there were 137 educational establishments delivering OCR Nationals in 2006/07 and 1,693 in 2008/09. In the latter academic year, 87% of the centres were schools, 6% were further education colleges and about 2% were sixth form colleges. Other types of establishments accounted for the remaining 5%.

Progression routes from OCR Nationals

The question of what learners go on to do following the completion of their OCR National qualifications was a crucial one in this research. Overall, this research showed that OCR Nationals enabled progression to further study at schools or colleges and at university. There were also many instances when learners progressed towards work-based learning programmes and, in particular, apprenticeships.

In terms of progression at school or college, very few candidates with OCR National qualifications at level 1 progressed to further studies. Candidates with OCR National qualifications at level 2 progressed predominantly to AS/A and Applied AS/A level qualifications, VRQs at different levels and BTECs.

The research showed that there appears to be a reasonably consistent

pattern of students carrying on with the OCR National subject from level 2 to level 3, particularly in Business, Sport, Travel and Tourism and Health and Social Care.

It should be noted that previous research (EdComs, 2009) reported that some teachers felt that students could struggle with the demands of A levels even after succeeding at level 2 OCR Nationals. This could have resulted in students being advised to continue on a vocational route at level 3.

The numbers of candidates with OCR National qualifications who progressed to work-based learning programmes were small in comparison to the numbers progressing to AS/A level or to higher education courses. However, apprenticeships and other work-based learning programmes offer a clear route into employment and OCR National candidates progressed to these programmes. This might have been due to the fact that schools delivering OCR Nationals have connections with the local community and employers and therefore learners can be encouraged to progress to work-related programmes. It should be noted that apprenticeship opportunities for young people have been quite limited in recent years (e.g. Bowers-Brown & Berry, 2005). However, apprenticeship numbers are set to grow considerably in future years as the Apprenticeships, Skills, Children and Learning Act, (2009) provided a statutory entitlement to apprenticeships for suitable qualified 16 to 18 year-olds in England from 2013.

In terms of progression to higher education, whilst the route from academic qualifications to full-time degree programmes is one that is well defined and well respected in England, the route from vocational and applied qualifications is less clear and one that far fewer individuals follow. In particular, previous research (e.g. Hoelscher *et al.*, 2008) has shown that A levels provide the major access route into university, in particular, into the most prestigious ones and that students with vocational backgrounds are more likely to start their higher education studies at Post-92 universities, if at all. However, there is also evidence (e.g. UKCES, 2010) of all types of vocational qualifications being recognised for entry purposes by all types of HEIs, although those are often achieved alongside other qualifications.

The present research showed that relatively high percentages of candidates with OCR National qualifications at level 3 enrolled on courses in HEIs. In subjects such as Sport, Media or Business over 40% of these students progressed to a course in an HEI and, in the majority of cases, the candidates enrolled on a course in the same subject area as their OCR National qualification.

However, OCR Nationals are unlikely to be the sole qualification taken as part of a young person's programme of learning and students will take, for example, A levels or VRQs alongside them. Nevertheless, for the majority of the candidates who progressed to higher education, having taken OCR Nationals, the OCR National qualification was the highest qualification on entry.

With regards to the institution attended, Carter (2009) argued that vocational progression routes are often best developed in the newer parts of the higher education sector. Many Post-92 universities, further education and higher education colleges have rich experience in developing learning programmes and recruitment procedures that are tailored to the needs of vocational learners. This research confirms the above argument as the most popular destinations for candidates with OCR National qualifications were HEIs in the University Alliance, followed by institutions in the Million+ Group, which are constituted by the newest universities and colleges. Institutions in the Russell Group

and the 1994 Group were the least common among candidates with OCR National qualifications. However, about 6% of the candidates still enrolled on courses in institutions in these two groups.

UCAS research into vocational progression to higher education (Papageorgiou, 2007) revealed that whilst 93% of the higher education institutions give information about entry requirements for applicants with academic qualifications such as A levels, much smaller percentages do so for applicants with vocational qualifications such as the OCR Nationals. Carter (2009) suggests that the admissions process should be made less daunting for applicants with vocationally-related qualifications and UKCES (2010) asks for more robust information to be made available about how many and what types of learners progress from vocational education to higher level skills and that this information is used to plan provision.

In the current educational climate it is important to be clear about the value that the OCR National qualifications bring to learners in terms of their future progression. On these lines, there are plans to publish detailed data on the destinations of school leavers in England. In fact, the Department for Education has recently published 'Experimental Statistics' on education destination measures which show the percentage of students progressing to further learning in a school, further education or sixth form college, apprenticeship, work-based learning provider, or higher education institution (DfE, 2012).

This practice has long been in place in Scotland and Northern Ireland (ONS, 2010; DENI, 2011), where each year information is released on the destinations of school leavers (e.g. higher education, further education, employment) and on the highest level of qualifications obtained by school leavers. In the meantime, this research provides evidence that OCR Nationals are valuable qualifications and indeed support progression to further learning at school or college, to work-based learning and to university.

Limitations

There were a number of limitations regarding the data used for this research. Firstly, most of the data interrogated in the analyses presented in this article are routinely collected for administrative rather than for research purposes. Therefore, although the data is a rich source of information, it is limited in different ways (e.g. Davies, Barnes and Dibben, 2010). For example, these data are constantly evolving to meet the needs of the people and organisations who primarily use them and to accommodate the changing policy and aims of the data holding bodies. Furthermore, new variables are added and changes to definitions are made over time.

Secondly, linking between candidates with OCR National qualifications and candidates recorded in the ILR dataset was carried out using candidates' full name and date of birth. Similarly, data on candidates with OCR Nationals was linked to the HESA student records dataset using a process of 'fuzzy' matching on name, date of birth, gender and, where available, location of school. Matching in these ways is not perfect and it would have been impossible to achieve a 100% matching rate. Therefore, some candidates who obtained an OCR National qualification and were pursuing a work-based learning programme or were enrolled on higher education courses might not have been included in the analyses.

Thirdly, analyses using data from HEIs must adhere to the HESA standard rounding methodology in order to ensure that no data where

living individuals can be identified are published. In particular, percentages based on 52 or fewer individuals had to be suppressed and therefore it was not possible to fully report on the progression towards HE courses of candidates with level 3 OCR National qualifications in Media and ICT.

Other limitations/issues in relation to the analysis presented in this article must also be acknowledged. Firstly, it is important to recognise that progression to further studies or employment cannot be attributed solely to the OCR National qualifications as, in most cases, learners will have completed other qualifications alongside their OCR Nationals.

Secondly, it should be noted that following the Wolf Review of Vocational Education (Wolf, 2011), new criteria are to be set from 2014 for vocational courses, including OCR National qualifications, to be included in the performance tables (see e.g. BBC News, 2011; or DfE, 2011). The patterns of uptake of OCR National qualifications reported in this research can therefore change in the near future.

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