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# UK graduates and the impact of work experience

**A report to the HEFCE by the Centre for  
Higher Education Research and Information  
(CHERI)**

**December 2002**

# Contents

<b>Foreword</b>	<b>3</b>
<b>List of figures and tables</b>	<b>4</b>
<b>Executive Summary</b>	<b>5</b>
<b>1 Introduction</b>	<b>6</b>
<b>2 The UK graduate and work experience</b>	<b>8</b>
<b>2.1 Incidence of work experience</b>	<b>8</b>
<b>2.2 Elements of work experience during period of higher education</b>	<b>8</b>
2.2.1 Employment related to study	8
2.2.2 Employment not related to study	9
<b>2.3 Type of work experience by field of study</b>	<b>9</b>
<b>2.4 Type of work experience by gender</b>	<b>10</b>
<b>2.5 Type of work experience by parents' educational background</b>	<b>10</b>
<b>3 The impact of work experience</b>	<b>12</b>
<b>3.1 Employment activities since graduation</b>	<b>13</b>
3.1.1 Current employment situation	13
3.1.2 Activities since graduation	14
3.1.3 Current levels of income	15
3.1.4 Use of knowledge/skills gained in degree	16
3.1.5 Appropriateness of work to level of education	16
3.1.6 Work situation meeting expectations	17
3.1.7 Job/Career satisfaction	18
<b>3.2 Perception of the degree</b>	<b>19</b>
3.2.1 Preparation for tasks at work	19
3.2.2 Finding a satisfying job	20
3.2.3 Improving long-term career prospects	21
3.2.4 Preparation for tasks in other spheres of life than their current job	22
3.2.5 Personal development	23
3.2.6 Same degree again?	24
<b>4 Summary and conclusions</b>	<b>26</b>
<b>5 References</b>	<b>28</b>

## Appendices

# Foreword

This report has been prepared for the Higher Education Funding Council for England (HEFCE) by Zsuzsa Blasko, Brenda Little and Alan Woodley of the Centre for Higher Education Research and Information (CHERI). It uses data collected as part of a comparative study - 'Higher education and graduate employment in Europe' - funded by the European Commission. The study was completed in December 2000 when the international project report was submitted to the Commission. A separate report, comparing UK graduates with Europe and Japan has already been published (HEFCE 01/38). This report draws only on the data collected from the UK graduates as part of the wider European study.

In addition, CHERI has produced a report entitled, 'Nature and extent of undergraduates' work experience' (2002), also published by HEFCE. This examines the current levels and types of work experience activity amongst full-time undergraduates in English higher education institutions.

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## List of figures

- Figure 1: Overall length of work experience related to study  
Figure 2: Overall length of work experience not related to study

## List of tables

- Table 1: Categories of work experience  
Table 2: Combinations of type of work experience by type of institution attended  
Table 3: Type of work experience by mode of study  
Table 4: Type of work experience by field of study  
Table 5: Type of work experience by gender  
Table 6: Type of work experience by parents' educational background  
Table 7: Aspects of recruitment to first job by type of work experience  
Table 8: Current situation by type of work experience  
Table 9: Percentage of graduates in employment by type of work experience and field of study  
Table 10: Employment activities since graduation by type of work experience  
Table 11: Average gross income of graduates in full-time employment by type of work experience and field of study  
Table 12: Extent to which degree knowledge/skills used in current work type of work experience and by field of study  
Table 13: Appropriateness of current work to level of education by type of work experience and field of study  
Table 14: Work situation exceeding prior expectations by type of work experience and field of study  
Table 15: Overall satisfaction with current employment situation by type of work experience and field of study  
Table 16: Usefulness of degree for current work tasks by type of work experience and field of study  
Table 17: How degree has helped to find a satisfying job by type of work experience and field of study  
Table 18: How degree has helped improve long-term career prospects by type of work experience and field of study  
Table 19: Usefulness of degree for tasks in spheres other than work by type of work experience and field of study  
Table 20: How degree has helped in personal development by type of work experience and field of study  
Table 21: Likelihood of choosing same degree course by type of work experience and field of study  
Table 22: Extent to which type of work experience is associated with employment outcomes

## Executive Summary

This report examines the links between work experience during higher education and experiences within the labour market in the UK, post-graduation. It has been based on data on UK graduates, with a sample drawn from the 1994/5 cohort of students graduating in 'first degree' or equivalent programmes. The research conducted (which was part of a larger study) took the form of a mailed questionnaire, sent to graduates from 27 higher education institutions (HEIs) in England, Wales, Scotland and Northern Ireland.

The key findings suggest that:

- Work experience during higher education, and in particular that related to study, has a positive effect on employment outcomes for graduates in the UK.
- Work experience related to study appears to have a positive impact on most aspects of employment activity post-graduation, and this effect is particularly strong for humanities students. In areas such as preparing graduates for work and meeting their expectations there was a positive association. Those students that undertook work experience related to study also felt that their current employment was appropriate to their level of education.
- When students took on large amounts of work experience unrelated to study, it appeared to have a negative effect on employment outcomes some 3 ½ years after graduation. In their current employment for example, graduates in this group found that they did not use the knowledge and skills developed during higher education to a great extent.

# 1 Introduction

This report is based on data that form part of a major international study of graduate employment. The study, Higher Education and Graduate Employment in Europe, was funded by the European Commission as part of its programme of Targeted Socio-Economic Research. It was co-ordinated by the Centre for Research on Higher Education and Work at the University of Kassel in Germany. The UK part of the study was undertaken by the Centre for Higher Education Research and Information at the Open University. (See also CHERI/HEFCE 01/38; Woodley and Brennan, 2000.)

This report looks exclusively at UK graduates and focuses on the impact of work experience gained during higher education on graduate employment, as measured by a range of outcome measures. The sample was drawn from the 1994/5 cohort of graduates on 'first degree' or equivalent programmes. The graduates were contacted by means of a mailed questionnaire in the autumn of 1998. Overall, 4,304 questionnaires were returned from UK graduates, representing a response rate of 34%.

Key sampling variables were field of study and type of institution. The UK sample was drawn from 27 universities and colleges in England, Wales, Scotland and Northern Ireland. Open University graduates were deliberately over-sampled to assist the University in its own monitoring and evaluation. Before the analysis stage, the responses were weighted to reflect the subject spread and type of institution for the UK 1994/5 graduating cohort. The resulting database comprised 3,461 UK (weighted) graduates.

The extensive questionnaire contained ten sections:

- A Educational background before entry to higher education
- B Higher education courses
- C Job search and employment history
- D Current work
- E Skills and their use
- F Relationship between higher education and work
- G Job satisfaction and values
- H Additional education and training
- I Socio-biographic data
- J 'Looking back' on the degree finished in 1995

Within the UK there has already been some research on the short and medium-term effects of sandwich courses on graduates' employment outcomes (Bowes and Harvey, 2000; HEFCE 01/21). Sandwich course graduates appear to have lower unemployment rates than graduates from other courses (at least in the early years after graduation). However, 'sandwich' versus 'full-time' is a rather simplistic dichotomy. We were aware that graduates might have undertaken work placements as part of their degree programmes regardless of mode of study; very many graduates will have gained work experience while doing temporary jobs during vacation periods; large numbers of part-time graduates will have been working full-time throughout their studies. We therefore felt it necessary to consider employment outcomes some three and a half years after graduation from the perspective of different amounts and forms of work experience during the undergraduate's period of higher education.

Previous studies have also tended to concentrate on objective measures of employment outcomes (e.g. unemployment rates; salary levels). However, there are many other important less tangible employment measures (e.g. personal satisfaction with job; appropriateness of work to level of education). In this study we will consider a range of employment outcomes and measures of job satisfaction.

However, in a study of this nature, it should be borne in mind that students' motivations to choose degree courses which include work placements (be they full-time or sandwich courses) might have an impact on later employment outcomes. For example, it could be argued that such courses attract students who are more determined and organised in their search for work. Similarly, students' reasons for seeking out opportunities to gain work experience during vacation periods might be linked to positive motivations towards employment generally and hence might have an independent impact on later outcomes.

Although not the main focus of the wider European study, the questionnaire did include a number of questions which could be used to explore the relationship between undergraduate work experience and later employment outcomes. In particular, the graduates were asked to record the *number of months during their time in higher education that they had spent mainly on:*

- *Employment/work not related to study*
- *Employment/work related to study*
- *Work placement, internship (as part of your degree course)*

Using this information we built a hierarchy of work experience, with employment related to study (including placements/internships)<sup>1</sup> taking precedence over employment not related to study. We also looked at the overall duration of these ‘related’ and ‘not related’ work experiences and grouped each of them into periods of 1 - 8 months and 9 months or more. Thus, we created five categories of work experience during the higher education period:

Table 1: Categories of work experience

<i>Category</i>	<i>Meaning</i>
None	No work experience at all
Low unrelated	1 - 8 months work experience not related to study
High unrelated	9 months or more work experience not related to study
Low related	1 - 8 months work experience related to study (including placement/internship)
High related	9 months or more work experience related to study (including placement/internship)

In some parts of the analysis *mode of study* was also taken into account, i.e. it was investigated whether gaining work experience in the context of *a sandwich course* rather than in any other way had had any *additional* impact on the various employment outcomes of the graduates. It must be noted, however, that those who participated in a sandwich programme also appear in the “low related” or “high related” categories of the above table.

Although our measure of work experience is applicable to part-time students it does make the interpretation of results much more complex. We consider part-time students in the initial descriptive parts of Section 3, but from 3.2. onwards the results are based purely on graduates from full-time and sandwich courses.

The report is structured as follows:

**Section 2 The UK graduate and work experience**, provides a descriptive account of the amount, nature, and distribution of work experience among UK graduates.

**Section 3 The impact of work-experience.** It is well-known that the relationship between higher education and employment is affected by a large number of factors, ranging from (for example) subject studied and class of degree obtained, through to social class and ethnicity. In this section we use multivariate analysis as well as cross-tabulations to investigate the associations between one specific factor, with regard to work experience during higher education, and various outcome measures. The outcome measures are divided into two main groups: employment activity since graduation and retrospective perception of the degree.

**Section 4 Summary and Conclusions.**

<sup>1</sup> From an initial analysis of those indicating some months of employment related to study, and some months of work placement, it seemed that respondents may have been using the employment related to study response box to indicate work placements, and vice versa. Thus, we decided to combine such responses into the variable ‘low’ or ‘high’ related work experience – depending on the length of the placement and/or the study-related work experience they reported.



## 2 The UK graduate and work experience

### 2.1 Incidence of work experience

The majority of the respondents (83%) had followed full-time courses. The other 17% had taken sandwich courses (8%), part-time courses (5%) and other modes of study such as distance (4%). While one would expect most of this 17% to have gained some work experience during their studies, it was also likely, of course, that many of the full-time students would have participated in the labour market in some way.

Overall, we found fewer than one in five graduates with no work experience during higher education (Table 2). Two in five had only undertaken work experience not related to their studies, and a similar number had gained study-related work experience.

The patterns for old and new universities were fairly similar, but graduates from the colleges and the Open University were somewhat less likely to have done work related to their degree during their higher education studies. Despite their maturity and part-time study, OU graduates were the most likely not to work while studying. This was because many were retired, home-makers or otherwise not seeking employment.

Table 2: Combinations of type of work experience by type of institution attended (Case numbers in brackets)

	Old (1,492)	New (1,397)	Colleges (412)	OU (129)	<b>TOTAL (3,430)</b>
	%	%	%	%	%
None	17	16	23	28	<b>18</b>
Only unrelated	43	37	47	50	<b>41</b>
Both	25	26	18	10	<b>24</b>
Only related	16	21	12	12	<b>17</b>

As one might expect, the patterns vary markedly by mode of study. Virtually all of the sandwich students said that they had gained work experience related to their course during their time in higher education, compared with just over a third of full-time students (Table 3). Part-time students formed a diverse group containing many who were taking a degree in conjunction with their job and some who, like many Open University students, were not in full-time work.

Table 3: Type of work experience by mode of study (Case numbers in brackets)

	Full-time (2,796)	Sandwich (251)	Part-time (182)	Distance/Other (134)	<b>TOTAL (3,363)</b>
	%	%	%	%	%
None	18	3	20	21	<b>18</b>
Only unrelated	45	4	34	47	<b>41</b>
Both	23	57	12	18	<b>24</b>
Only related	14	37	34	13	<b>17</b>

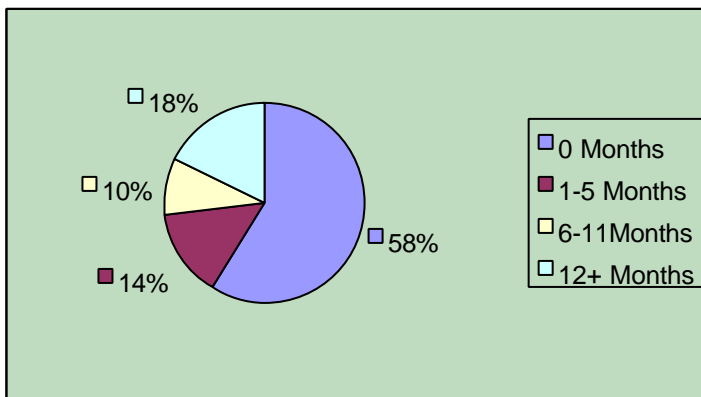
### 2.2 Elements of work experience during period of higher education

#### 2.2.1 Employment related to study

About two in five graduates had done some work related to study either as part of their programme or in other ways. Graduates from new universities were the most likely to have done so (47%), followed by graduates from old universities (40%). Graduates from colleges and the Open University reported less work experience of this kind (30% and 22% respectively).

This type of work experience was much more common among part-time than full-time students and it is clear that the two situations cannot be directly compared. Put in simple terms, the part-time student is likely to have chosen or been directed to take a course related to their present job. Their related work experience is therefore likely to be as long as the course itself. On the other hand, the full-time student is likely to have sought out or been guided towards a period of work that would complement their studies. Therefore, in Figure 1, we show the periods of study-related work for full-time and sandwich students only<sup>2</sup>.

Figure 1: Overall length of work experience related to study (months)

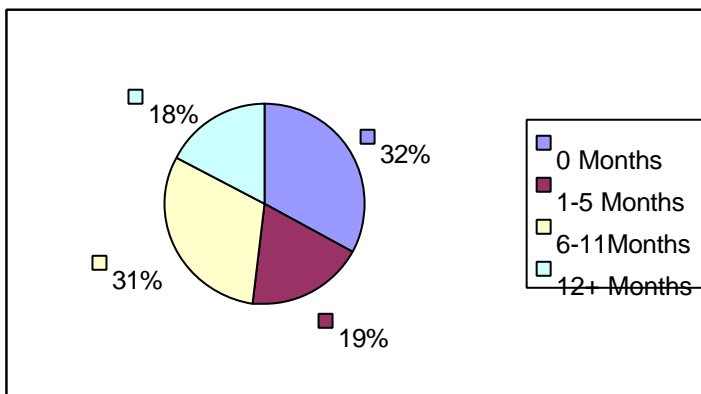


Base=Full-time/sandwich graduates

### 2.2.2 Employment not related to study

The incidence of work experience not related to the studies is substantially more frequent than study-related work experience. Around two thirds of the full-time and sandwich graduates had done some work not related to study during their time in higher education. Figure 2 shows that in most cases this type of work experience had been for a period of less than twelve months, presumably representing vacation jobs.

Figure 2: Overall length of work experience not related to study (months)



Base=Full-time/sandwich graduates

### 2.3 Type of work experience by field of study

In this section, and in much of what follows, we use the composite five-category measure described in the introduction that combines the amount of work experience and its relevance to the degree subject being

<sup>2</sup> Part-time and Open University graduates are now excluded from all subsequent analyses in this report.

studied. As Table 4 shows, the graduates in our sample were spread fairly equally across the five categories of work experience. Humanities, Maths and Computing graduates were more likely than others to have no work experience at all during their period of study. Engineering and Health graduates were the most likely to have work experience related to study.

*Table 4: Type of work experience by field of study (Case numbers shown in brackets; Horizontal %)*

	<i>None</i>	<i>Low unrelated</i>	<i>High unrelated</i>	<i>Low related</i>	<i>High related</i>	<i>All related</i>
Health (144)	12	9	4	33	42	75
Engineering (430)	12	11	10	23	44	67
Education (181)	16	11	19	36	17	53
Medicine/dentistry (79)	19	22	8	24	28	52
Computing (94)	24	16	10	12	39	51
Business (299)	15	18	24	21	23	44
Law (126)	18	17	21	37	8	45
Science (298)	12	30	23	17	19	36
Social sciences (416)	17	24	24	18	17	35
Humanities (889)	21	28	27	16	10	26
Maths (87)	22	31	27	10	9	19
<b>TOTAL (3,043)</b>	<b>17</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>42</b>

Base=Full-time/sandwich graduates

## 2.4 Type of work experience by gender

There was a slight tendency for men to have undertaken more extended periods of study-related work, but there was little overall difference in the amount and type of work experience gained by male and female graduates (Table 5).

*Table 5: Type of work experience by gender (Horizontal %)*

	<i>None</i>	<i>Low unrelated</i>	<i>High unrelated</i>	<i>Low related</i>	<i>High related</i>	<i>All related</i>
Men	18	22	19	18	24	42
Women	16	21	22	23	19	42

Base=Full-time/sandwich graduates

## 2.5 Type of work experience by parents' educational background

A plausible hypothesis might be that any relationship found between work experience and subsequent careers might not be a causal one. It might be that the social background of students influenced whether they were guided towards, or attracted by, certain types of vocational courses that contained work experience elements. Also, social background might influence the extent to which students needed to seek paid work in their vacations. We were able to approach this question using the educational background of the graduates' parents.

Graduates were asked to indicate their fathers' and mothers' highest level of education. From their responses, a new four-category variable was created as follows:

- both parents having only compulsory education or less
- at least one parent having achieved upper secondary education
- only one parent having achieved higher education
- both parents having achieved higher education.

This variable is used in Table 6 and there appears to be little relationship between the educational level of a graduate's parents and the amount and type of work experience.

*Table 6: Type of work experience by parents' educational background (Horizontal %)*

	<i>None</i>	<i>Low unrelated</i>	<i>High unrelated</i>	<i>Low related</i>	<i>High related</i>	<i>All related</i>
Both compulsory or less	17	21	21	21	19	40
At least one upper secondary	18	19	23	19	24	43
Only one with HE	16	20	21	21	25	46
Both with HE	14	27	17	25	18	43

Base=Full-time/sandwich graduates

### 3 The impact of work experience

In this section we look at the impact of work experience during the undergraduate's time in higher education on their employment activities since graduation and on general perceptions of their degree. So what might we expect the impact of work experience during higher education to be on later employment outcomes? Any form of work experience might help students develop certain attributes and skills which might be useful in later employment situations. One might also expect those work experiences which were related in some way to the student's programme of undergraduate study to carry more weight than those that were unrelated, although this could well be affected by the extent to which the subject itself was related to later employment situations. For example, work experiences related to study might sharpen an undergraduate's notion of what types of employment might be available on graduation. Such experiences might also provide an undergraduate with useful contacts in terms of what routes into the labour market to explore - they might help to get that 'first step on the ladder'. Also, we expect that the amount of time spent in work matters, in the sense that the longer the time spent in employment, the more opportunities there might be to experience a range of work activities and possibly develop certain skills to a reasonable level of competence.

In fact, our data show that these expectations are not without foundation. They suggest that there is a strong tendency for graduates to try to utilise their work experience directly as an asset when it comes to finding a job after completing their studies. Around one in three of those who had done a lot of study-related work said that they had used contacts established through employment undertaken during their degree (Table 7). Not surprisingly, this occurred less for those with little or no work experience. It can also be seen that related work experience was more often utilised in this way than unrelated work experience. Moreover, the length of employment also made a difference, with those having lots of related work experience making use of it more often (32%) than those with a smaller amount of related work experience (22%).

Using the experience directly, i.e. utilising the contacts made in previous employment, is clearly not the only way of benefiting from work experience. The proportion of those who indicated that "practical/work experience acquired **during** course of study" was an important factor in getting their first job after graduation was more than twice that for graduates using the contacts made directly. Although this variable is 'contaminated' in that one can gain 'practical' experience in a degree course that does not involve employment, it was certainly the case that those with a lot of work experience related to study were more likely to note the importance of this factor in securing their first job (Table 7). Again, related work experience proved to be more useful than unrelated and a longer period spent working mattered more often than a shorter period.

Table 7: Aspects of recruitment to first job, by type of work experience

	<i>None</i>	<i>Low unrelated</i>	<i>High unrelated</i>	<i>Low related</i>	<i>High related</i>	<b>All graduates</b>
	%	%	%	%	%	%
Used contacts established through employment during course when trying to find the first job after graduation	9	11	12	22	32	<b>18</b>
Practical/work experience acquired during study was an important factor to the employer in recruiting for the first job	34	24	30	51	65	<b>41</b>

Base=Full-time/sandwich graduates who had gained a job

In the following sections, the actual associations between work experience and various outcome measures are looked at. In each case, descriptive statistics will be applied initially. In other words, the different employment situations/views etc. will be presented for the graduate groups with different kinds of work experience separately, in the form of cross tabulations. Where there seems to be some association between a particular variable and work experience, we have then examined that relationship in more detail using regression modelling. In this way, we try and control for the various factors that might be affecting the relationship, by comparing like with like (e.g. subject of study; entry qualifications; type of institution attended) in such a way

that the extent of variation that can be explained by the work experience variable can be ascertained. The regression modelling procedures are explained in Appendix I.

### 3.1 Employment activities since graduation

#### 3.1.1 Current employment situation

Some three years after graduation, 88% of the graduates were in paid work (84% employed and 4% self-employed). A further 8% were pursuing professional training or further academic study and 3% were unemployed and seeking work. The remaining 2% were looking after their family or otherwise not economically active (Table 8).

Table 8 shows that those who had had no work experience during their studies were somewhat less likely to be employed than those with some form of work experience: 82% compared with 88% overall. Those who gained a lot of work experience, be it related to their degree studies or not, were the most likely to be in employment (92%).

Table 8: Current situation by type of work experience

	<i>None</i>	<i>Low unrelated</i>	<i>High unrelated</i>	<i>Low related</i>	<i>High related</i>	<b>All graduates</b>
	%	%	%	%	%	%
Employed	82	85	92	87	92	<b>88</b>
Study /Training	8	8	6	9	6	<b>8</b>
Family care etc	5	2	1	1	1	<b>2</b>
Unemployed, seeking work	5	5	1	3	2	<b>3</b>

Base=Full-time/sandwich graduates

We have already shown in Section 2.3 that work experience is more common in certain fields of study. It has also been shown elsewhere that field of study has a profound effect on graduate careers. Therefore, before simplistically concluding that lack of work experience decreases the likelihood of being in paid employment, we must attempt to control for field of study.

The first column of Table 9 shows that the likelihood of being in employment (three years after graduation) varied across our eleven fields of study from a low of 78% for Science to a high of 96% in the case of Business. In the next four columns we show the employment rates broken down by our five work experience categories. The final column compares the employment rates of the first and last of these four groups. This is a fairly crude indicator – if work experience has an effect, then one would expect it to show up most when comparing those with none at all and those with a large amount of study-related work experience.

Except in the case of Medicine/Dentistry (where one might query how the respondents defined work experience), in each subject graduates with nine months or more study-related work experience were more likely to be in paid work than those with none at all, suggesting that work experience *does* produce higher employment rates. However, many of the differences were quite small and in the case of Law, Maths, Computing, and Health, the number of graduates with no experience was too small to be confident of the results. It was only in the case of Humanities, and possibly Business and the Social Sciences, where the sample sizes and differences were great enough to suggest a real positive effect.

Table 9: Percentage of graduates in employment by type of work experience and field of study

	All graduates	a)None	b)Low unrelated	c)High unrelated	d)Low related	e)High related	e) minus a)
Education	93	91	100*	99	89	92	+1
Humanities	87	76	87	92	90	96	+20
Social sciences	83	76	82	88	84	82	+6
Law	88	87	93*	87	83	100*	+13*
Science	78	78	75	87	70	80	+2
Maths	95	95*	94	96	90*	100*	+5*
Engineering	89	90	82	96	84	93	+3
Health	83	65*	67*	67*	88	88	+23*
Business	96	90	95	97	97	97	+7
Computing	94	91*	83*	100*	98*	98	+7*
Medicine/Dentistry	91	100*	74*	67*	89*	100*	0*
<b>TOTAL (N=2,565)</b>	<b>87</b>	<b>82</b>	<b>85</b>	<b>92</b>	<b>87</b>	<b>92</b>	<b>+10</b>

Base=Full-time/sandwich graduates in employment

\* % based on fewer than 25 cases

### 3.1.2 Activities since graduation

Of course, the current employment situation only provides a snapshot. The graduates were also asked to identify their major activity since graduation. Other studies of graduate employment indicate that the period of transition from graduation into the labour market 'proper' is becoming longer. Our data indicate that three out of four graduates had spent most of their time in a regular job. A further 8% had had various temporary jobs, and 10% embarked on further study/professional training. Only 1% had spent most of their time unemployed.

There was some variation in main activities since graduation by work experience, with those without any work experience during higher education the least likely to have been in regular jobs since graduation, and most likely to have been unemployed. Table 10 below provides the detail.

Table 10: Employment activities since graduation by type of work experience

Activity since graduation	None	Low unrelated	High unrelated	Low related	High related	All graduates
	%	%	%	%	%	%
Regular jobs	66	74	78	74	84	76
Various temporary	11	10	7	10	3	8
Further study/professional training	12	11	10	10	8	10
Unemployed	4	1	1	0	1	1
Other	6	4	5	5	4	5

Base=Full-time/sandwich graduates

### 3.1.3 Current levels of income

We also investigated whether work experience can help in finding a better job. Employers frequently cite a preference for graduates with some previous experience in the labour market (see for example NCIHE, 1997) and this preference can show itself in some kind of financial or other premium (AGR, quoted in DfES, 2002). And if relevant work experience carries some measure of premium with employers, one could expect that some three and a half years after graduation, graduates who had benefited from such premiums initially would still be 'ahead' in terms of salary levels and also in other features of their job.

The average annual gross income for those in full-time employment three and a half years after graduation was just over £18,400. However, there was some variation by work experience. Those with no work experience were earning around £17,300 but those with a lot of study-related work experience were earning £20,700, or 20% more, on average (Table 11).

Table 11: Average gross income of graduates in full-time employment by type of work experience and field of study (£k)

	<b>All graduates</b>	a) None	b) Low unrelated	c) High unrelated	d) Low related	e) High related	<b>e) as % of a)</b>
Education	<b>17.2</b>	17.6*	16.7*	17.0	17.5	16.8	<b>95*</b>
Humanities	<b>16.2</b>	15.5	15.2	17.1	15.3	19.2	<b>124</b>
Social sciences	<b>17.5</b>	16.4	19.0	18.0	17.0	15.9	<b>97</b>
Law	<b>18.4</b>	17.5*	19.5*	19.5*	17.0	20.7*	<b>118*</b>
Science	<b>17.4</b>	16.8	17.5	17.3	16.7	18.4	<b>110</b>
Maths	<b>18.3</b>	17.7*	18.4	18.1*	16.2*	21.9*	<b>124*</b>
Engineering	<b>20.6</b>	19.3	19.4	19.8	20.8	21.3	<b>110</b>
Health	<b>18.0</b>	16.0*	20.5*	15.6*	19.6	17.2	<b>108*</b>
Business	<b>19.9</b>	15.6	19.4	19.1	19.1	23.7	<b>152</b>
Computing	<b>28.7</b>	22.8*	23.0*	32.2*	24.7*	33.9	<b>149*</b>
Medicine/ Dentistry	<b>22.9</b>	27.0*	24.3*	27.0*	22.5*	19.2*	<b>71*</b>
<b>TOTAL (N=2,418)</b>	<b>18.4</b>	<b>17.3</b>	<b>17.6</b>	<b>18.1</b>	<b>17.9</b>	<b>20.7</b>	<b>120</b>

Base=Full-time/sandwich graduates in full-time employment

\* % based on fewer than 25 cases

Again it is important to consider field of study because certain subjects are more likely to involve work experience **and** to command high salaries. In the final column of Table 11 we show the percentage difference in earnings between those with a large amount of study-related work experience and those with no work experience at all. It can be seen that in eight of the subjects those with the work experience were earning more than those without. However, in the case of Law, Maths and Computing we cannot be confident about the difference because of the small numbers involved, and in Science and Engineering the economic advantage is very small.

It did appear that for those with degrees in Humanities and Business Studies, work experience did lead to greater earnings. In particular this advantage seemed to accrue to those who had done a large amount of study-related work experience, whereas it seemed a disadvantage in the Social Sciences. Consequently we added three further 'interaction' variables into the regression equation, namely 'Humanities and High related vis a vis others', 'Business and High related vis a vis others' and 'Social sciences and High related vis a vis others'.

The regression results presented in Appendix III, Table A show that earnings can be modelled fairly well using the general explanatory variables (such as the demographics and the pre-higher education and higher education characteristics). Adding in the work experience variables contributes even more to the overall power of the model. Those who had a lot of work experience – related or unrelated to study - tended to be earning on average 4% more than those who had done none at all, even when their other characteristics were similar. For Humanities graduates, work experience seems to be even more beneficial than for anyone else.



There also seems to be some slight further advantage when the work experience was gained through a sandwich course rather than in any other way, although this difference is not statistically significant.

### 3.1.4 Use of knowledge/skills gained in degree

The graduates were asked to what extent they **used** the knowledge/skills gained in their degree in their current work. We considered only those currently in employment. The percentage giving high ratings (i.e. responding '5' or '4' on a scale where 5 means 'to a great extent' and 1 means 'not at all') suggest that those who had study-related work experience either as part of their degree or independently were using their degree skills more (Table 12). The differences were greatest among Social Sciences and Humanities graduates. However, in the case of Engineering the situation was actually reversed. Once again we need to turn to multivariate analysis to unravel the true relationships.

Table 12: Extent to which degree knowledge/skills used in current work by type of work experience and field of study (%: responses '5' and '4')

	<b>All graduates</b>	a)None	b)Low unrelated	c)High unrelated	d)Low related	e)High related	<b>e) minus a)</b>
Education	<b>80</b>	67	79	82	89	73	<b>+6</b>
Humanities	<b>41</b>	48	35	27	49	67	<b>+19</b>
Social sciences	<b>34</b>	25	33	30	33	51	<b>+26</b>
Law	<b>64</b>	47*	65*	78*	71	36*	<b>-11*</b>
Science	<b>40</b>	37	32	39	38	57*	<b>+20*</b>
Maths	<b>42</b>	56*	39*	18*	50*	75*	<b>+19*</b>
Engineering	<b>43</b>	52	54	28	49	40	<b>-12</b>
Health	<b>83</b>	80*	75*	50*	83	88	<b>+8*</b>
Business	<b>49</b>	54	40	47	46	55	<b>+1</b>
Computing	<b>69</b>	90*	46*	40*	78*	69	<b>-21*</b>
Doctors/dentists	<b>94</b>	79*	92*	100*	100*	100*	<b>+21*</b>
<b>TOTAL</b>	<b>49</b>	<b>51</b>	<b>41</b>	<b>38</b>	<b>56</b>	<b>58</b>	<b>+7</b>

Question: To what extent do you use the knowledge / skills gained in your degree in your work? Scale of answers from 5 'to a great extent' to 1 'not at all'

Base= Full-time/sandwich graduates in employment

\* % based on fewer than 25 cases

The complete regression model (Appendix III, Table B) provides a reasonable explanation of the variability in the use of degree skills, and the work experience variables make a significant contribution to the model. Those with lots of unrelated work experience seem to be markedly less likely to be using their degree knowledge and skills than those with no work experience at all. At the same time those with lots of related experience are clearly in an advantageous position in terms of use of degree knowledge/skills. When compared to a similar period of study-related work experience gained outside the degree, sandwich courses do not seem to contribute further to the probability of currently being in a job where the skills and knowledge acquired during the degree are used to a great extent. As can be seen from the models that include the interaction effects as well, a positive impact of high related work experience appears strongest for Humanities graduates whereas Engineering graduates with lots of related work experience tend to use their skills less than those Engineering graduates without work experience.

### 3.1.5 Appropriateness of work to level of education

Graduates were asked whether their current work was appropriate to their level of education. Some of course might have felt that their current work was inappropriate because they were out of their depth. However, most would be pointing to what has become known as 'graduate underemployment'.

Around six out of ten of those with no or only unrelated work experience felt their current work was appropriate to their educational level. This figure rose to seven out of ten for the 'low related' group and to eight out of ten for those with a great deal of related work experience (Table 13).

There was considerable variation by field of study. Those who had taken Medicine/Dentistry, Computing, Education or subjects related to Health were most likely to be in 'appropriate' jobs. The figure fell to six out of ten in the case of Humanities and Social Sciences.

When we consider field of study and work experience together the situation inevitably becomes complex. In the final column of Table 13 we compare the figures from the two extreme groups – those with no work experience at all and those with a large amount of related work experience. Although nine of the eleven subject areas showed a positive effect for work experience, the general results were inconclusive due to the small numbers in some of the cells. However, there would appear to be a strong demonstrable effect in the case of Science, Humanities and Business Studies.

Table 13: Appropriateness of current work to level of education by type of work experience and field of study (%; responses '5' and '4')

	<b>All graduates</b>	a)None	b)Low unrelated	c)High unrelated	d)Low related	e)High related	<b>e) minus a)</b>
Education	<b>87</b>	78*	84	96	92	84	<b>+6*</b>
Humanities	<b>59</b>	61	50	50	66	86	<b>+25</b>
Social sciences	<b>63</b>	61	67	64	63	55	<b>-6</b>
Law	<b>79</b>	48*	91	83	90	68*	<b>+20*</b>
Science	<b>72</b>	51	69	72	81	82	<b>+31</b>
Maths	<b>72</b>	85*	66	63	69*	89*	<b>+4*</b>
Engineering	<b>71</b>	66	69	54	69	76	<b>+10</b>
Health	<b>86</b>	69*	71*	50*	80	96	<b>+27*</b>
Business	<b>67</b>	55	54	69	65	82	<b>+27</b>
Computing	<b>88</b>	95*	85*	78	78*	90	<b>-5*</b>
Medicine/Dentistry	<b>95</b>	100*	92*	100	97*	90	<b>-10*</b>
<b>TOTAL</b>	<b>69</b>	<b>65</b>	<b>62</b>	<b>62</b>	<b>73</b>	<b>80</b>	<b>+15</b>

Question: To what extent is your current work appropriate to your level of education? Scale of answers from 5 'To a great extent' to 1 'Not at all'.

Base=Full-time/sandwich graduates in employment

\* % based on fewer than 25 cases

Once again, logistic regressions were carried out. Given the results in Table 13, three further apparent interaction effects were added in, namely Humanities and high related work experience, Science and high related work experience, and Business and high related work experience.

The results are shown in Appendix III, Table C and indicate significant positive effects if the graduate had done related work experience. The more related work experience gained, the greater the positive effect. The benefits were particularly large for Humanities graduates who had done a lot of related work experience whilst studying.

### 3.1.6 Work situation meeting expectations

Around eight out of ten of our respondents thought that their current work situation was as good as or better than they had expected when they entered higher education.

As Table 14 shows, whether expectations about work situations had been met appeared to be slightly related to work experience. Those with related work experience were somewhat more likely to feel that their expectations had been met. However, there was much more variation by subject studied, with figures ranging from 95% in Computing down to 70% in Humanities.

The right hand column of Table 14 shows no clear pattern when subject and work experience are considered together. Once again there seemed to be a strong positive effect for Humanities graduates who had done a large amount of related work experience and so this was added into the regression analysis as a possible interaction effect.

Table 14: Work situation matching or exceeding prior expectations by type of work experience and field of study (%; responses '5' and '4')

	<b>All graduates</b>	a)None	b)Low unrelated	c)High unrelated	d)Low related	e)High related	<b>e) minus a)</b>
Education	<b>81</b>	100*	80	76	80	72	<b>-28*</b>
Humanities	<b>70</b>	67	63	68	79	86	<b>+19</b>
Social sciences	<b>76</b>	71	82	73	74	76	<b>+5</b>
Law	<b>82</b>	65*	91	83	87	83*	<b>+18*</b>
Science	<b>77</b>	85	74	79	69	79	<b>-6</b>
Maths	<b>90</b>	90*	100	77	100*	89*	<b>-1*</b>
Engineering	<b>84</b>	82	82	88	75	88	<b>+6</b>
Health	<b>91</b>	89*	87*	53*	94	92	<b>+3*</b>
Business	<b>82</b>	90	79	76	82	87	<b>-3</b>
Computing	<b>95</b>	100*	91*	82	100*	96	<b>-4*</b>
Doctors/dentists	<b>75</b>	77*	86*	34	84*	72	<b>-5*</b>
<b>TOTAL</b>	<b>79</b>	<b>78</b>	<b>75</b>	<b>73</b>	<b>80</b>	<b>85</b>	<b>+7</b>

Question: Does your work situation meet the expectations you had when you entered higher education? Scale of answers from 5 'Much better than expected' to 1 'Much worse than expected'.

Base=Full-time/sandwich graduates in full-time employment

\* Percentage based on fewer than 25 cases

The results of the regression analysis are shown in Appendix III, Table D. Having done a large amount of unrelated work or any amount of related work increases the likelihood of the later job meeting the earlier expectations. The further specifications of the model also show that the advantages deriving from a large amount of work experience are especially notable for Humanities graduates.

### 3.1.7 Job/Career satisfaction

Some six out of ten working graduates were satisfied with their current employment situation (Table 15). Those who had only done a little unrelated work experience were the least satisfied (50%) but again it was those with a large amount of related work experience who came out on top (65%). When we consider the subjects, the figures ranged from 80% of Computing graduates down to 53% in the Humanities. As can be judged from the final column, when subject and work experience were considered together, there was little clear pattern. Those in Humanities who had done some related work experience seemed to fare better, so this was added as an interaction variable.

Table 15: Overall satisfaction with current employment situation by type of work experience and field of study (%; responses '5' and '4')

	<b>All graduates</b>	a)None	b)Low unrelated	c)High unrelated	d)Low related	e)High related	<b>e) minus a)</b>
Education	<b>66</b>	82*	61	70	59	61	<b>-21*</b>
Humanities	<b>53</b>	57	39	53	63	68	<b>+11</b>
Social sciences	<b>55</b>	46	57	62	54	53	<b>+7</b>
Law	<b>61</b>	38*	68	66	66	70*	<b>+32*</b>
Science	<b>63</b>	57	61	64	65	67	<b>+10</b>
Maths	<b>66</b>	77*	51	69	62*	89*	<b>+12*</b>
Engineering	<b>60</b>	63	54	65	44	66	<b>+3</b>
Health	<b>68</b>	67*	71*	42*	71	66	<b>-1*</b>
Business	<b>58</b>	58	52	56	71	54	<b>-4</b>
Computing	<b>80</b>	98*	71*	32	81*	86	<b>-12*</b>
Medicine/ Dentistry	<b>64</b>	77*	40*	33	97*	54	<b>-23*</b>
<b>TOTAL</b>	<b>59</b>	<b>61</b>	<b>50</b>	<b>58</b>	<b>62</b>	<b>65</b>	<b>+4</b>

Question: How satisfied **overall** are you with your current employment situation? Scale of answers from 5 'Very satisfied' to 1 'Very dissatisfied'.

Base=Full-time/sandwich graduates in employment

\* Percentage based on fewer than 25 cases

The regression model did not produce a good explanation of this variable (Appendix III, Table E), but having done a small amount of unrelated work experience appeared to have a negative impact on graduates' satisfaction with their current employment situation.

## 3.2 Perception of the degree

As noted earlier, in deriving our work experience variable our 'related' work experience variables included both employment related to study, and work placements/internships as part of the degree course. We also know that a number gained their related work experience through work placements as part of the degree. Thus, in this section we feel we can justifiably analyse respondents' answers to questions that referred specifically to 'your' degree using our work experience variable. In particular, any positive impacts found in relation to the 'high related' work experience variable are likely to be a measure of work placement (as part of degree). And so in this section we look at how the various kinds of work experiences influence graduates' perceptions of their higher education studies.

Graduates were asked to evaluate their degree and their studies from the point of view of the impact on their later employment experiences, and also from more general perspectives. Investigating these judgements we can get some insight into how the positive associations found between certain types of work experiences during higher education and later employment experiences are reflected in the graduates' views of the usefulness of their studies. We can also consider how work undertaken during the overall study period affects graduates' views of higher education as a general experience.

### 3.2.1 Preparation for tasks at work

The graduates were asked how useful their degree course had been in preparing them for their present tasks at work. We restricted this analysis to those in employment.

Overall, just less than half (49%) of our sample thought their course had been very useful in preparing them for their current tasks at work (Table 16). Graduates who had not had any work experience during their time in higher education were much less likely to consider that their course had been very useful in preparing them for their current work tasks than those who had done a large amount of study-related work (48% compared to 60%).

Given the nature of linkages between higher education and work for different subject areas we would expect there to be some variation by field of study, as is apparent from Table 16. For example, only 37% of Social Sciences graduates considered their degree course had been very useful in preparing them for their current work tasks, compared to almost 80% of Medicine/Dentistry and Health related graduates. When we consider subject and type of work experience, we find that, with the exception of Engineering, in all subjects where the number of cases is sufficiently high, those who had some study-related work experience were more positive about the usefulness of their degree for current work tasks than were their counterparts without any work experience or with unrelated work experience only.

In the two subjects where case numbers allowed a comparison between sandwich course and non-sandwich graduates (Engineering and Business), we found no indication that sandwich courses were considered as more useful for preparation for current work tasks. In fact in Engineering, those who had done sandwich courses appeared to rate the usefulness of their degree less highly than those who had not.

*Table 16: Usefulness of degree for current work tasks by type of work experience and field of study (%; responses '5' and '4')*

	<b>All graduates</b>	a)None	b)Low unrelated	c)High unrelated	d)Low related	e)High related	<b>e) minus a)</b>
Education	<b>71</b>	54*	65*	70	80	74	<b>+20*</b>
Humanities	<b>40</b>	39	39	27	53	66	<b>+27</b>
Social sciences	<b>37</b>	33	38	29	43	46	<b>+13</b>
Law	<b>64</b>	60*	60*	70*	69	50*	<b>-10*</b>
Science	<b>39</b>	48	31	30	35	59	<b>+11</b>
Maths	<b>44</b>	53*	38*	27*	75*	75*	<b>+22*</b>
Engineering	<b>49</b>	52	58	40	55	46	<b>-6</b>
Health	<b>77</b>	70*	75*	67*	69	84	<b>+14*</b>
Business	<b>56</b>	50	42	56	55	70	<b>+20</b>
Computing	<b>64</b>	75*	55*	44*	63*	64	<b>-11*</b>
Medicine/Dentistry	<b>78</b>	67*	77*	50*	93*	84*	<b>+17*</b>
<b>TOTAL</b>	<b>49</b>	<b>48</b>	<b>43</b>	<b>37</b>	<b>58</b>	<b>60</b>	<b>+12</b>

*Question: How useful has your degree course been in preparing you for your present tasks at work? Scale of answers from 5 'To a great extent' to 1 'Not at all'.*

Base=Full-time/sandwich graduates in employment

\*Percentage based on fewer than 25 cases

The figures from the regression models including the work experience variables indicate a clear positive effect for both a small and a large amount of study-related work experience (Appendix III, Table F). Adding interaction effects to the model, we can also show that the perception of the degree's usefulness can most successfully be enhanced by means of relevant work experience in Humanities and Science. However, where work experience appears in the form of a sandwich course, that does not seem to lead to a more positive perception of the degree's usefulness in terms of preparation for present work tasks.

### **3.2.2 Finding a satisfying job**

In this section, we consider all full-time/sandwich graduates, regardless of whether they are currently in employment. Well over half the graduates thought that their degree helped them considerably in finding a satisfying job after finishing their studies. Those who had done some related work experience were much more likely to say this than those with no or only unrelated work experience (Table 17). This general pattern held true across most of the subject areas, as indicated by the figures in the right-hand column, and was particularly noticeable for Engineering, Science, Business and Humanities.

Table 17: How degree has helped to find a satisfying job by type of work experience and field of study (%; responses '5' and '4')

	<b>All graduates</b>	a)None	b)Low unrelated	c)High unrelated	d)Low related	e)High related	<b>e) minus a)</b>
Education	<b>79</b>	72*	71	91	79	76	<b>+4*</b>
Humanities	<b>41</b>	39	37	27	54	72	<b>+33</b>
Social sciences	<b>43</b>	50	41	41	40	46	<b>-4</b>
Law	<b>73</b>	64*	76	72	78	67*	<b>+3*</b>
Science	<b>57</b>	58	45	54	62	75	<b>+17</b>
Maths	<b>53</b>	61*	41	46	78*	70*	<b>+9*</b>
Engineering	<b>66</b>	53	57	46	60	77	<b>+24</b>
Health	<b>85</b>	69*	74*	38*	86	92	<b>+23*</b>
Business	<b>59</b>	54	64	55	52	68	<b>+14</b>
Computing	<b>80</b>	78*	81*	54	78*	88	<b>+10*</b>
Doctors/dentists	<b>90</b>	92*	79*	100	87*	98	<b>+6*</b>
<b>TOTAL</b>	<b>57</b>	<b>54</b>	<b>48</b>	<b>44</b>	<b>61</b>	<b>75</b>	<b>+21</b>

Question: To what extent has your degree helped you find a satisfying job after finishing your studies? Scale of answers from 5 'To a great extent' to 1 'Not at all'.

Base= all full-time/sandwich graduates

\* Percentage based on fewer than 25 cases

The regression results in Appendix III, Table G indicate that even a small amount of related work experience influences the perception of the degree positively. A large amount of related work experience has a considerable effect on whether the graduate feels that the degree helped him/her to find a satisfying job. Again, whether or not the experience formed part of the degree programme in a sandwich course arrangement does not seem to influence this impact. The interaction effects added to the model did not help to highlight specific study areas where work experience is particularly important in this respect.

### 3.2.3 Improving long-term career prospects

Two-thirds of all graduates felt that their degree had helped to improve their long-term career prospects (Table 18). On average, those graduates who had had a large amount of work experience related to their course were more likely to feel this (79%) and those with a lot of unrelated work experience scored lowest (55%). This latter effect is interesting in that it may indicate that students who do a lot of paid work unrelated to their studies may suffer long-term disadvantages. However, an examination by subject shows that only in Humanities, Social Sciences, and Engineering was this effect marked.

Table 18: How degree has helped to improve long-term career prospects by type of work experience and field of study (%; responses '5' and '4')

	<b>All graduates</b>	a)None	b)Low unrelated	c)High unrelated	d)Low related	e)High related	<b>e) minus a)</b>
Education	<b>74</b>	70*	75	81	70	74	<b>+4*</b>
Humanities	<b>54</b>	61	62	35	55	74	<b>+13</b>
Social sciences	<b>64</b>	67	62	56	68	73	<b>+6</b>
Law	<b>74</b>	70*	76	71	83	54*	<b>-16*</b>
Science	<b>67</b>	70	59	67	75	70	<b>0</b>
Maths	<b>67</b>	82*	62	63	39*	89*	<b>+7*</b>
Engineering	<b>75</b>	71	85	61	67	81	<b>+10</b>
Health	<b>85</b>	69*	90*	36*	93	86	<b>+17*</b>
Business	<b>76</b>	73	74	81	71	80	<b>+7</b>
Computing	<b>81</b>	87*	75*	54	78*	87	<b>0*</b>
Medicine/ Dentistry	<b>96</b>	100*	86*	100	100*	95	<b>-5*</b>
<b>TOTAL</b>	<b>68</b>	<b>69</b>	<b>67</b>	<b>55</b>	<b>69</b>	<b>79</b>	<b>+10</b>

Question: To what extent has your degree helped you improve your long-term career prospects? Scale of answers from 5 'To a great extent' to 1 'Not at all'.

Base= all full-time/sandwich graduates

\* Percentage based on fewer than 25 cases

When we look at the regression results, we find that work experience appeared to have small but significant effects on this outcome (Appendix III, Table H). In a general way, a large amount of related work experience appeared to help long-term career prospects.

### 3.2.4 Preparation for tasks in other spheres of life than current job

Around two-fifths of all the graduates considered that their degree had been useful preparation for tasks in other spheres of life than their current job (by implication 'other spheres' covers home, family, leisure, community activities, etc.). Overall, whether or not they had been working during the time of their studies did not appear to greatly influence their answers to this question, with the groups recording a very similar rating (Table 19). However, there did appear to be some positive effect in the case of Humanities. Out of the few fields where it is possible to compare the perceptions of those who had done a sandwich course and those who had not (Engineering, Business and Science), only in Science did a sandwich course seem to be associated with a higher satisfaction of this aspect of the degree course.

Table 19: Usefulness of degree for tasks in spheres other than work by type of work experience and field of study (%; responses '5' and '4')

	<b>All graduates</b>	a)None	b)Low unrelated	c)High unrelated	d)Low related	e)High related	<b>e) minus a)</b>
Education	<b>42</b>	52*	30*	38	42	45	<b>-7*</b>
Humanities	<b>41</b>	42	54	28	32	60	<b>+18</b>
Social sciences	<b>46</b>	41	51	50	39	47	<b>+6</b>
Law	<b>37</b>	45*	33*	24*	41	40*	<b>-5*</b>
Science	<b>39</b>	52	32	26	38	60	<b>+8</b>
Maths	<b>37</b>	26*	37	39*	44*	25*	<b>-1*</b>
Engineering	<b>37</b>	33	35	23	41	40	<b>+7</b>
Health	<b>45</b>	31*	33*	40*	45	49	<b>+18*</b>
Business	<b>47</b>	48	40	47	47	55	<b>+7</b>
Computing	<b>33</b>	33*	42*	30*	44*	28	<b>-5*</b>
Doctors/dentists	<b>21</b>	17*	20*	0*	33*	23*	<b>+6*</b>
<b>TOTAL</b>	<b>41</b>	<b>41</b>	<b>44</b>	<b>34</b>	<b>39</b>	<b>46</b>	<b>+5</b>

Question: How useful has your degree course been in preparing you for tasks in other spheres of life? Scale of answers from 5 'To a great extent' to 1 'Not at all'.

Base=all full-time/sandwich graduates

\* Percentage based on fewer than 25 cases

The regression analyses were performed, and the results are shown in Appendix III, Table I. Those who had done a large amount of unrelated work experience rated the usefulness of their course in other spheres lower than those who had done none at all. However, those who spent a large amount of time on study-related work experience were more likely than others to feel the positive effects of the studies.

### 3.2.5 Personal development

More than three-quarters of the sample believed their degree had really helped them develop as a person. However, Table 20 indicates that variations in the levels of such benefits had more to do with the subject studied than with whether the graduate had gained work experience. However, for Science graduates, doing lots of study-related work seems to reduce the feeling that the degree had helped their personal development.



Table 20: How degree has helped in personal development by type of work experience and field of study (%; responses '5' and '4')

	<b>All graduates</b>	a)None	b)Low unrelated	c)High unrelated	d)Low related	e)High related	<b>e) minus a)</b>
Education	<b>83</b>	70*	89	84	87	84	<b>+14*</b>
Humanities	<b>77</b>	85	87	69	63	83	<b>-2</b>
Social sciences	<b>79</b>	82	81	83	70	79	<b>-3</b>
Law	<b>79</b>	70*	85	63	88	84*	<b>+14*</b>
Science	<b>82</b>	92	80	81	91	75	<b>-17</b>
Maths	<b>74</b>	86*	67	82	67*	50*	<b>-36*</b>
Engineering	<b>70</b>	68	74	60	66	74	<b>+6</b>
Health	<b>80</b>	89*	75*	42*	79	82	<b>-7*</b>
Business	<b>82</b>	76	82	82	83	86	<b>+10</b>
Computing	<b>65</b>	71*	81*	59	62*	60	<b>-11*</b>
Medicine/Dentistry	<b>71</b>	56*	69*	100	97*	54	<b>-2*</b>
<b>TOTAL</b>	<b>77</b>	<b>79</b>	<b>82</b>	<b>75</b>	<b>75</b>	<b>77</b>	<b>-2</b>

Question: To what extent has your degree helped you develop as a person? Scale of answers from 5 'To a great extent' to 1 'Not at all'.

Base=all full-time/sandwich graduates

\* Percentage based on fewer than 25 cases

The regression results in Appendix III, Table J confirm that work experience was not closely related to the perception of personal development through the degree course. The model including an interaction effect justified the earlier suggestion that for Science graduates a large amount of related work leads to less satisfaction with the personal development aspect of higher education studies.

### 3.2.6 Same degree again?

In this report we have examined a great number of job, career and personal outcomes from higher education. Some have been standard objective measures, such as income or whether the graduate is currently in employment. Others have been more subjective, such as whether the graduate feels that he/she is working at an appropriate level. All of these make assumptions about what the graduates were aiming to get out of their degree or what is good for the society that has provided this education. Another approach is to ask the graduate whether they achieved their own goals. We approached this indirectly by asking them, if they were free to choose their degree course again, how likely they would be to choose the same course of study.

Table 21 indicates that it was those graduates with no work experience at all who would be most happy to repeat the same course, with those who had done related work experience close behind. Only one in two of those who had done a large amount of unrelated work experience showed real enthusiasm for doing the course again. There was also considerable variation by field of study, ranging from a low of 53% in the case of Science to 75% for subjects related to Health.

The interactions between these two variables were largely indeterminate but in the case of Social Sciences it seemed that students who had no or only a small amount of unrelated work experience would be more likely to choose the same course.

Table 21: Likelihood of choosing to do same degree course by type of work experience and field of study (%; responses '5' and '4')

	<b>All graduates</b>	a)None	b)Low unrelated	c)High unrelated	d)Low related	e)High related	<b>e) minus a)</b>
Education	<b>73</b>	76*	86	62	79	66	<b>-10*</b>
Humanities	<b>56</b>	71	53	45	61	67	<b>-4</b>
Social sciences	<b>56</b>	67	64	52	47	50	<b>-17</b>
Law	<b>74</b>	54*	60	78	86	84*	<b>+30*</b>
Science	<b>53</b>	60	46	47	58	64	<b>+4</b>
Maths	<b>66</b>	82*	51	65	62*	80*	<b>-2*</b>
Engineering	<b>58</b>	62	49	40	62	60	<b>-2</b>
Health	<b>75</b>	88*	72*	70*	75	74	<b>-14*</b>
Business	<b>64</b>	69	63	49	72	71	<b>+2</b>
Computing	<b>70</b>	70*	66*	67	60*	73	<b>+3*</b>
Doctors/dentists	<b>64</b>	50*	51*	50	82*	73	<b>+23*</b>
<b>TOTAL</b>	<b>60</b>	<b>68</b>	<b>56</b>	<b>50</b>	<b>65</b>	<b>65</b>	<b>-3</b>

Question If you were free to choose your degree course again, how likely is it that you would choose the same course of study? Scale of answers from 5 'To a great extent' to 1 'Not at all'.

Base=all full-time/sandwich graduates

\* Percentage based on fewer than 25 cases

The logistic regression models confirm that the likelihood of choosing the same course again is more related to non-study related work experiences than to study-related work experiences (Appendix III, Table K). While the latter category of experiences does not seem to affect graduates' views, unrelated work experience clearly does and it does so in a negative direction.

## 4 Summary and conclusions

In this report we have looked specifically at the effects of work experience during higher education on graduates' subsequent experiences of the labour market and on the achievement of more general 'life goals'.

From the analyses undertaken, it seems clear that there is a positive association between undertaking work experience (and in particular, work experience related to study) and employment outcomes, measured in a variety of ways, some three and a half years after graduation. There are predictable variations between subject fields and some of the differences are only slight.

There is also some evidence to suggest that those graduates who undertook a large amount of work experience unrelated to study were less likely to be using the knowledge and skills gained in their degree than those with no work experience. They also felt less positive about their higher education generally.

However, some caveats should be borne in mind. First, some of the subject groupings used in the analyses are very broad, especially Social Sciences which covers a range from political science to social work, each with very different relations to the labour market. And in the case of Humanities, it may be the applied disciplines, like design, that offer both more work experience and more vocational qualifications than (say) history.

Second, students have very different motivations for study and other activities, and different life goals and values. For example, although we know something about the amount and type of work experience undertaken by individuals during their time in higher education, we can say nothing about 'why' they were doing this work experience – and the 'why' might help to explain some of the variations. And those for whom work prospects are most important might be attracted to courses with work experience opportunities, or might explicitly seek out complementary work experiences outside of the planned taught curriculum. This positive motivation towards employment and working life is itself likely to have an independent effect upon later employment outcomes.

Nevertheless, through our various analyses we do seem to have found a common pattern regarding the impact of work experience on a range of employment outcomes and measures of job satisfaction.

The table below summarises the findings from the regression analyses undertaken, grouped into aspects relating to current employment situation, and graduates' retrospective view of their degree.

Table 22: Extent to which type of work experience is associated with employment outcomes

	Low unrelated	High unrelated	Low related	High related	Additional impact of sandwich	Subject interaction with high related
<b>Employment activities since graduation</b>						
Income	0	+	0	+	0	Humanities +
Use of knowledge/skills	0	-	0	+	0	Humanities+; Engineering -
Level of education appropriate	0	0	+	++	0	Humanities+
Expectations met	0	+	+	++	0	Humanities+
Job satisfaction	-	0	0	0	0	
<b>Looking back at degree</b>						
Preparation for work	0	0	+	++	-	Humanities+; Science+
Finding a satisfying job	0	0	+	++	0	
Improving career prospects	0	0	0	0	0	
Other spheres of life	0	-	0	+	0	
Personal development	0	0	0	0	0	Science-
Repeat degree ?	-	-	0	0	0	

Key: - Negative effect; 0 No effect; + Positive effect; ++ Large positive effect (Base group = those with no work experience at all)

In terms of transition in to the labour market after graduation, there is some indication that higher rates of regular employment since graduation are associated with work experience during higher education, and for Humanities graduates, those without any work experience are less likely to be in full-time employment some three years after graduation.

As far as current employment situation is concerned, we see that for **all** the measures considered (with the exception of job satisfaction) high levels of related work experience during higher education have a positive impact. And when we take into account 'interaction effects' of subject/work experience we see that the effect is particularly strong for Humanities graduates. By way of contrast the related work experience effect is actually negative for Engineering graduates, in terms of the extent to which they currently use the knowledge and skills developed in their degree programmes.

In our final set of analyses, we were investigating to what extent graduates considered their degree had impacted on more general employment opportunities and aspects of their personal development. Once again, high levels of related work experience have a positive impact on the more tangible measures (preparation for work; finding a satisfying job): the impact of high levels of related work experience on preparation for work was particularly strong for Humanities and Science graduates. But related work experience seemed to have no/little impact on less tangible measures (improving career prospects; preparation for tasks in spheres of life other than work; personal development). On the other hand, unrelated work experience seems to have a negative effect on some of these less tangible measures.

Generally, in all the above analyses, mode of study was also taken into account as a separate variable and we have tried to look at the additional impact of having studied on a sandwich, rather than a full-time course. However, we have found no indication that sandwich courses, with their (typically) year-long work placements would provide any additional advantage over and above that provided by related work experiences (amounting to a similar period of time) but undertaken outside of a sandwich placement arrangement.

## 5 References

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# Appendices

## Appendix I: Procedures for Regression Modelling

Depending on the type of the outcome measure, two different kinds of models were used.

*For the 5-point scales* binary measures were created with the two most positive responses (value 4 and 5) categorised as '1' and the rest as '0'. In these cases *logistic* regressions were estimated. In these models the 'odds' of being in one of the two possible categories are estimated. The odds for the baseline group is given by the 'constant' of the regression. The 'exponential (B)'-s in the tables can be interpreted as multipliers of the baseline odds for getting into the corresponding category (e.g. being very satisfied with the job; reporting that the degree helped to develop as a person...)

*For the graduates' current income*, linear regression models were estimated. In this case it is sensible to ask the question, how much percentage change in the salary will result from one unit of change of an explanatory variable. The 'Unstandardised B Coefficients' presented in the tables can be interpreted as the salary-change in percentages when an explanatory factor is increased by one unit.

The independent variables, which are detailed in Appendix II, were arranged in two blocks:

- **General explanatory variables**

We constructed a group of variables that we felt might impinge on career outcomes. They were graduates' own ratings of their higher education entry qualifications, type of entry qualification, subject studied, type of institution, class of degree, age, gender, ethnicity and social background.

- **Work experience related variables**

These were the five categories in our constructed work experience variable, whether or not the course was a sandwich course

The analysis strategy was to perform two multiple regressions on each of the dependent variables, and in some cases also a third one. First we were using just the 'General explanatory variables' and then we were using the 'General explanatory variables' plus the 'Work experience related variables'. When the cross tabulation-analysis suggested that the impact of work experience varied from field to field, the second model was then amended by interaction-effects constructing a third model. These supplemented models aim to specify those fields of study where work experience has an outstanding impact.

The analysis was done using the 'ENTER' procedure in SPSS to ensure that all of the pre-specified variables were used in the regression equation. However, when using categorical variables, it is necessary to leave out one of the categories. These, the 'baseline' categories, are indicated in Appendix II.

The results of the regressions are reported in Appendix III. We list the model-parameters for each variable and indicate their level of statistical significance according to the following. \*\*: the parameter is significant at the 1% level; \*: the parameter is significant at the 5% level.

## **Appendix II: Explanatory variables used in the regression analyses**

### **A. General variables**

#### **Gender**

Women (baseline)

Man

#### **Ethnicity**

White (baseline)

Not White

No Info on Ethnicity

#### **Type of entry qualification**

Academic qualification (baseline)

Entry Qual. Vocational

Entry Qual. Other

No Entry Qual.

No Info on Entry Qual.

#### **Quality of entry qualification**

Entry Grades High (baseline)

Entry Grades not High

No Info on Entry Grades

#### **Type of higher education institution**

Old University (baseline)

New University

College

No Info on Inst. Type

#### **Class of degree**

First class or upper second (baseline)

Lower Second or Below

No Info on Degree Class.

#### **Age on graduating**

Below 23 year (baseline)

23 - 24 year old

25 - 29 year old

30 - 39 year old

40 year and over

No Info on Age

#### **Field of study**

Education (baseline)

Humanities

Social Sciences

Law

Science

Mathematics

Engineering

Other Health Studies

Business Studies

Computing

Doctors / Dentists

No Info on Field

#### **Parents' level of education**

Parents Compulsory Educ. (baseline)

Parents Min. Secondary Educ.

## **B. Work experience related variables**

### **Mode of study**

Full time (baseline)

Sandwich Course

### **Work experience during the HE period**

None (baseline)

Low Unrelated Work Experience

High Unrelated Work Experience

Low Related Work Experience

High Related Work Experience



### Appendix III: The Regression models

**Table A: Gross annual earnings of those in full-time employment (LOG£k)**

Population: Full-time and Sandwich graduates who were in full-time paid work (n=2,295)

	Unstandardized Coefficients		Unstandardized Coefficients		Unstandardized Coefficients	
	B		B		B	
(Constant)		1.28 **		1.26 **		1.26 **
Man		0.04 **		0.04 **		0.04 **
Not White		-0.02		-0.01		-0.01
No Info on Ethnicity		0.00		-0.01		-0.01
Entry Qual. Vocational		-0.03		-0.03		-0.03
Entry Qual. Other		-0.05 *		-0.05 *		-0.04 *
No Entry Qual.		-0.06		-0.05		-0.06
No Info on Entry Qual.		-0.03		-0.03		-0.03
Entry Grades not High		-0.02		-0.02		-0.02
No Info on Entry Grades		-0.02		-0.02		-0.02
New University		-0.03 **		-0.04 **		-0.04 **
College		-0.04 **		-0.04 **		-0.04 **
No Info on Inst. Type		0.13		0.12		0.12
Lower Second or Below		-0.05 **		-0.05 **		-0.05 **
No Info on Degree Class.		-0.08 **		-0.08 **		-0.08 **
23 - 24 year old		0.03 **		0.02 *		0.02 *
25 - 29 year old		0.05 **		0.05 **		0.05 **
30 - 39 year old		0.00		0.00		0.00
40 year and over		-0.01		-0.01		-0.01
No Info on Age		-0.05		-0.05		-0.05
Humanities		-0.08 **		-0.08 **		-0.08 **
Social Sciences		-0.06 **		-0.06 **		-0.05 *
Law		-0.04		-0.04		-0.04
Science		-0.06 **		-0.06 **		-0.06 **
Mathematics		0.00		0.00		0.00
Engineering		0.02		0.00		0.01
Other Health Studies		0.00		0.00		0.00
Business Studies		0.02		0.01		0.01
Computing		0.15 **		0.14 **		0.14 **
Doctors / Dentists		0.03		0.04		0.04
No Info on Field		0.08		0.08		0.08
Parents Min. Secondary Educ.		0.01		0.01		0.02
Sandwich Course				0.03		0.04 *
Low Unrelated Work Exp.				0.02		0.02
High Unrelated Work Exp.				0.04 **		0.04 **
Low Related Work Exp.				0.01		0.01
High Related Work Exp.				0.04 **		0.03 *
Humanities + High Rel. Wexp.						0.06 *
Business Studies + High Rel. Wexp.						0.02
Social Sciences + High Rel. Wexp.						-0.05
<i>R Square</i>		0.13		0.13		0.14
<i>Adjusted R Square</i>		0.11		0.12		0.12

\*\* : significant at the 1% level; \* : significant at the 5% level

**Table B: To what extent do you use the knowledge/skills gained in your degree in your work?**

Dependent variable: 1=to a large extent (4,5) 0=to a lesser extent / not at all (1,2,3)

Population: Full-time and Sandwich graduates who were in employment (n=2,527)

	<i>Exp(B)</i>	<i>Exp(B)</i>	<i>Exp(B)</i>
Man	1.04	1.05	1.04
Not White	1.06	1.05	1.01
No Info on Ethnicity	0.92	1.06	1.09
Entry Qual. Vocational	1.08	1.06	1.02
Entry Qual. Other	1.38	1.31	1.36
No Entry Qual.	0.15 **	0.14 **	0.14 **
No Info on Entry Qual.	1.31	1.26	1.26
Entry Grades not High	0.80 *	0.83	0.84
No Info on Entry Grades	0.86	0.93	0.91
New University	1.25 *	1.25 *	1.23 *
College	1.58 **	1.65 **	1.67 **
No Info on Inst. Type	8.58 *	8.67 *	7.81 *
Lower Second or Below	0.59 **	0.60 **	0.59 **
No Info on Degree Class.	0.76	0.80	0.78
23 - 24 year old	1.16	1.09	1.08
25 - 29 year old	1.44 *	1.37 *	1.37
30 - 39 year old	1.17	1.16	1.17
40 year and over	1.73 *	1.74 *	1.73 *
No Info on Age	0.22	0.19	0.19
Humanities	0.17 **	0.19 **	0.18 **
Social Sciences	0.14 **	0.15 **	0.14 **
Law	0.50 *	0.54 *	0.54 *
Science	0.21 **	0.23 **	0.23 **
Mathematics	0.23 **	0.26 **	0.25 **
Engineering	0.22 **	0.21 **	0.28 **
Other Health Studies	1.44	1.20	1.25
Business Studies	0.25 **	0.28 **	0.28 **
Computing	0.60	0.59	0.60
Doctors / Dentists	4.39 **	4.40 **	4.50 **
No Info on Field	0.23	0.29	0.27
Parents Min. Secondary Educ.	0.94	0.94	0.95
Sandwich Course		0.69 *	0.83
Low Unrelated Work Exp.		0.84	0.86
High Unrelated Work Exp.		0.69 **	0.70 *
Low Related Work Exp.		1.18	1.15
High Related Work Exp.		1.49 *	1.33
Social Sciences + High Rel. Wexp.			1.68
Humanities + High Rel. Wexp.			2.09 *
Business Studies + High Rel. Wexp.			0.87
Engineering + High Rel. Wexp.			0.55 *
Constant	4.16 **	3.93 **	4.03 **
-2 Log likelihood	3137.492	3106.598	3089.605

\*\*: significant at the 1% level; \*: significant at the 5% level

**Table C: To what extent is your current work appropriate to your level of education?**

Dependent variable: 1=to a large extent (4,5) 0=to a lesser extent / not at all (1,2,3)

Population: Full-time and Sandwich graduates who were in employment (n=2,506)

	<i>Exp(B)</i>	<i>Exp(B)</i>	<i>Exp(B)</i>
Man	0.96	0.99	0.98
Not White	1.21	1.28	1.26
No Info on Ethnicity	0.68	0.71	0.71
Entry Qual. Vocational	0.89	0.89	0.86
Entry Qual. Other	1.01	1.00	1.03
No Entry Qual.	0.33 *	0.35 *	0.34 *
No Info on Entry Qual.	0.80	0.73	0.72
Entry Grades not High	0.84	0.87	0.88
No Info on Entry Grades	0.83	0.91	0.91
New University	0.71 **	0.68 **	0.67 **
College	0.66 **	0.67 **	0.67 **
No Info on Inst. Type	1.25	1.20	1.18
Lower Second or Below	0.54 **	0.55 **	0.55 **
No Info on Degree Class.	0.68 *	0.73	0.73
23 - 24 year old	0.99	0.89	0.88
25 - 29 year old	1.23	1.14	1.15
30 - 39 year old	0.73	0.73	0.74
40 year and over	0.85	0.88	0.87
No Info on Age	1.38	1.28	1.30
Humanities	0.17 **	0.19 **	0.17 **
Social Sciences	0.22 **	0.23 **	0.23 **
Law	0.46 *	0.49 *	0.49 *
Science	0.31 **	0.32 **	0.29 **
Mathematics	0.35 **	0.40 **	0.38 **
Engineering	0.32 **	0.28 **	0.29 **
Other Health Studies	0.96	0.86	0.93
Business Studies	0.29 **	0.29 **	0.31 **
Computing	1.14	1.11	1.16
Doctors / Dentists	1.98	2.15	2.22
No Info on Field	0.11	0.15	0.14
Parents Min. Secondary Educ.	1.08	1.09	1.10
Sandwich Course		1.30	1.42
Low Unrelated Work Exp.		0.96	1.01
High Unrelated Work Exp.		1.07	1.08
Low Related Work Exp.		1.38 *	1.37 *
High Related Work Exp.		1.68 **	1.33
Humanities + High Rel. Wexp.			2.34
Business Studies + High Rel. Wexp.			0.73
Science + High Rel. Wexp.			1.80
Constant	13.91 **	10.95 **	11.12 **
-2 Log likelihood	2890.29	2865.00	2857.12

\*\*: significant at the 1% level; \*: significant at the 5% level

**Table D: Does your work situation meet the expectations you had when you entered higher education?**

Dependent variable: 1=to a large extent (4,5) 0=to a lesser extent / not at all (1,2,3)

Population: Full-time and Sandwich graduates (n=2,677)

	<i>Exp(B)</i>	<i>Exp(B)</i>	<i>Exp(B)</i>
Man	1.00	1.02	1.02
Not White	1.01	1.10	1.09
No Info on Ethnicity	0.61	0.59	0.60
Entry Qual. Vocational	0.92	0.91	0.89
Entry Qual. Other	1.14	1.16	1.19
No Entry Qual.	0.24 *	0.27 *	0.26 *
No Info on Entry Qual.	0.49 *	0.46 *	0.46 *
Entry Grades not High	0.81 *	0.83	0.84
No Info on Entry Grades	1.72 *	1.93 *	1.96 *
New University	0.90	0.85	0.85
College	0.88	0.90	0.90
No Info on Inst. Type	1.46	1.29	1.33
Lower Second or Below	0.69 **	0.69 **	0.69 **
No Info on Degree Class.	0.81	0.84	0.84
23 - 24 year old	0.91	0.82	0.81 *
25 - 29 year old	1.32	1.22	1.21
30 - 39 year old	0.64 *	0.62 *	0.63 *
40 year and over	0.94	0.97	0.96
No Info on Age	1.91	1.85	1.81
Humanities	0.61 **	0.69	0.63 *
Social Sciences	0.54 **	0.56 **	0.56 **
Law	0.53 *	0.57 *	0.57 *
Science	0.65	0.68	0.68
Mathematics	0.68	0.76	0.75
Engineering	0.73	0.64 *	0.66
Other Health Studies	0.86	0.79	0.83
Business Studies	0.80	0.80	0.80
Computing	1.23	1.18	1.22
Doctors / Dentists	0.35 **	0.38 **	0.39 **
No Info on Field	0.02	0.03	0.02
Parents Min. Secondary Educ.	1.16	1.17	1.18
Sandwich Course		1.33	1.45 *
Low Unrelated Work Exp.		0.87	0.88
High Unrelated Work Exp.		1.31	1.32
Low Related Work Exp.		1.42 *	1.41 *
High Related Work Exp.		1.67 **	1.47 *
Humanities + High Rel. Wexp.			1.86 *
Constant	1.07	0.82	0.82
-2 Log likelihood	3159.05	3124.04	3119.45

\*\* : significant at the 1% level; \* : significant at the 5% level

**Table E: How satisfied overall are you with your current employment situation?**

Dependent variable: 1=very satisfied (4,5) 0=not so satisfied / not at all satisfied (1,2,3)

Population: Full-time and Sandwich graduates (n=2,521)

	<i>Exp(B)</i>	<i>Exp(B)</i>	<i>Exp(B)</i>
Man	0.85	0.87	0.86
Not White	0.91	0.92	0.91
No Info on Ethnicity	0.99	0.99	1.00
Entry Qual. Vocational	0.90	0.89	0.88
Entry Qual. Other	0.79	0.80	0.81
No Entry Qual.	0.07 **	0.07 **	0.07 **
No Info on Entry Qual.	0.59	0.59	0.59
Entry Grades not High	0.84	0.85	0.86
No Info on Entry Grades	1.14	1.23	1.24
New University	0.88	0.87	0.87
College	0.63 **	0.63 **	0.63 **
No Info on Inst. Type	1.10	1.11	1.11
Lower Second or Below	0.96	0.96	0.96
No Info on Degree Class.	1.05	1.05	1.05
23 - 24 year old	0.96	0.92	0.91
25 - 29 year old	1.58 **	1.50 **	1.50 **
30 - 39 year old	1.01	0.97	0.98
40 year and over	1.06	1.03	1.03
No Info on Age	1.10	1.02	1.01
Humanities	0.50 **	0.53 **	0.51 **
Social Sciences	0.60 *	0.62 *	0.62 *
Law	0.69	0.70	0.70
Science	0.78	0.82	0.82
Mathematics	0.99	1.06	1.05
Engineering	0.76	0.75	0.76
Other Health Studies	0.95	0.92	0.94
Business Studies	0.73	0.74	0.74
Computing	2.24 *	2.27 *	2.31 **
Doctors / Dentists	0.64	0.67	0.68
No Info on Field	0.47	0.64	0.64
Parents Min. Secondary Educ.	1.20 *	1.20 *	1.21 *
Sandwich Course		0.96	1.01
Low Unrelated Work Exp.		0.76 *	0.76 *
High Unrelated Work Exp.		1.07	1.07
Low Related Work Exp.		1.10	1.09
High Related Work Exp.		1.11	1.05
Humanities + High Rel. Wexp.			1.36
Constant	2.48 **	2.47 **	2.48 **
-2 Log likelihood	3323.09	3311.62	3310.52

\*\*: significant at the 1% level; \*: significant at the 5% level

**Table F: How useful has your degree course been in preparing you for your present tasks at work?**

Population: Full-time and Sandwich graduates who were in employment (n=2,527)

Dependent variable: 1=very useful (4,5) 0=not so useful / not useful at all (1,2,3)

	<i>Exp(B)</i>	<i>Exp(B)</i>	<i>Exp(B)</i>
Man	0.85	0.87	0.87
Not White	0.91	0.91	0.89
No Info on Ethnicity	0.48	0.54	0.55
Entry Qual. Vocational	1.08	1.05	1.02
Entry Qual. Other	0.89	0.84	0.86
No Entry Qual.	0.26 *	0.24 **	0.23 **
No Info on Entry Qual.	1.06	1.00	0.97
Entry Grades not High	0.82 *	0.86	0.87
No Info on Entry Grades	0.73	0.81	0.80
New University	1.17	1.18	1.16
College	1.30	1.39 *	1.38 *
No Info on Inst. Type	0.53	0.46	0.45
Lower Second or Below	0.60 **	0.61 **	0.61 **
No Info on Degree Class.	0.58 **	0.61 **	0.60 **
23 - 24 year old	1.27 *	1.20	1.19
25 - 29 year old	1.73 **	1.66 **	1.68 **
30 - 39 year old	1.53 *	1.57 *	1.58 *
40 year and over	2.28 **	2.41 **	2.43 **
No Info on Age	1.59	1.46	1.52
Humanities	0.27 **	0.31 **	0.28 **
Social Sciences	0.25 **	0.28 **	0.27 **
Law	0.82	0.90	0.88
Science	0.31 **	0.35 **	0.28 **
Mathematics	0.39 **	0.46 **	0.45 **
Engineering	0.44 **	0.45 **	0.48 **
Other Health Studies	1.39	1.14	1.25
Business Studies	0.56 **	0.63 *	0.72
Computing	0.75	0.77	0.82
Doctors / Dentists	1.62	1.64	1.68
No Info on Field	0.34	0.40	0.36
Parents Min. Secondary Educ.	1.06	1.06	1.07
Sandwich Course		0.58 **	0.61 **
Low Unrelated Work Exp.		1.03	1.13
High Unrelated Work Exp.		0.76 *	0.77
Low Related Work Exp.		1.44 **	1.43 *
High Related Work Exp.		1.90 **	1.46 *
Humanities + High Rel. Wexp.			2.14 **
Social Sciences + High Rel. Wexp.			1.29
Science + High Rel. Wexp.			2.60 **
Business Studies + High Rel. Wexp.			0.53
Constant	2.75 **	2.15 **	2.21 **
-2 Log likelihood	3253.82	3207.99	3194.70

\*\*: significant at the 1% level; \*: significant at the 5% level

**Table G: To what extent has your degree helped you find a satisfying job after finishing your studies?**

Dependent variable: 1=to a large extent (4,5) 0=to a lesser extent / not at all (1,2,3)

Population: Full-time and Sandwich graduates (n=2,869)

	<i>Exp(B)</i>	<i>Exp(B)</i>	<i>Exp(B)</i>
Man	0.95	0.97	0.96
Not White	1.08	1.15	1.14
No Info on Ethnicity	0.61	0.62	0.62
Entry Qual. Vocational	0.76	0.75	0.75
Entry Qual. Other	0.54 **	0.54 **	0.55 **
No Entry Qual.	0.18 **	0.19 **	0.19 **
No Info on Entry Qual.	1.09	1.04	1.05
Entry Grades not High	0.61 **	0.63 **	0.63 **
No Info on Entry Grades	1.25	1.31	1.37
New University	0.91	0.89	0.88
College	1.16	1.22	1.24
No Info on Inst. Type	1.89	1.62	1.66
Lower Second or Below	0.49 **	0.50 **	0.50 **
No Info on Degree Class.	0.43 **	0.46 **	0.46 **
23 - 24 year old	1.40 **	1.27 *	1.26 *
25 - 29 year old	1.68 **	1.56 **	1.55 **
30 - 39 year old	1.33	1.34	1.35
40 year and over	1.02	1.05	1.04
No Info on Age	0.76	0.76	0.75
Humanities	0.14 **	0.17 **	0.16 **
Social Sciences	0.18 **	0.20 **	0.22 **
Law	0.77	0.87	0.88
Science	0.32 **	0.35 **	0.34 **
Mathematics	0.31 **	0.37 **	0.37 **
Engineering	0.49 **	0.45 **	0.46 **
Other Health Studies	1.29	1.09	1.11
Business Studies	0.39 **	0.43 **	0.39 **
Computing	1.01	1.01	1.02
Doctors / Dentists	2.20	2.29	2.35
No Info on Field	0.00	0.00	0.00
Parents Min. Secondary Educ.	0.97	0.99	0.99
Sandwich Course		0.78	0.82
Low Unrelated Work Exp.		1.02	0.97
High Unrelated Work Exp.		0.95	0.96
Low Related Work Exp.		1.35 *	1.36 *
High Related Work Exp.		2.31 **	2.22 **
Humanities + High Rel. Wexp.			1.45
Social Sciences + High Rel. Wexp.			0.66
Science + High Rel. Wexp.			1.33
Business Studies + High Rel. Wexp.			1.75
Constant	7.17 **	5.33 **	5.33 **
-2 Log likelihood	3486.93	3438.74	3430.96

\*\*: significant at the 1% level; \*: significant at the 5% level

**Table H: To what extent has your degree helped you improve your long-term career prospects?**

Dependent variable: 1=to a large extent (4,5) 0=to a lesser extent / not at all (1,2,3)

Population: Full-time and Sandwich graduates (n=2,885)

	<i>Exp(B)</i>	<i>Exp(B)</i>	<i>Exp(B)</i>
Man	0.95	0.95	0.94
Not White	0.77	0.78	0.77
No Info on Ethnicity	0.46 *	0.48 *	0.48 *
Entry Qual. Vocational	1.09	1.09	1.07
Entry Qual. Other	1.01	0.98	0.99
No Entry Qual.	0.22 **	0.22 **	0.21 **
No Info on Entry Qual.	0.89	0.86	0.86
Entry Grades not High	0.67 **	0.69 **	0.69 **
No Info on Entry Grades	1.33	1.34	1.35
New University	0.98	0.97	0.97
College	0.90	0.92	0.92
No Info on Inst. Type	1.18	1.08	1.08
Lower Second or Below	0.64 **	0.65 **	0.65 **
No Info on Degree Class.	0.59 **	0.61 **	0.61 **
23 - 24 year old	0.97	0.94	0.94
25 - 29 year old	1.30	1.28	1.29
30 - 39 year old	0.98	1.00	1.00
40 year and over	0.77	0.78	0.78
No Info on Age	1.43	1.49	1.47
Humanities	0.33 **	0.36 **	0.34 **
Social Sciences	0.57 **	0.60 *	0.60 *
Law	0.99	1.05	1.05
Science	0.73	0.76	0.76
Mathematics	0.59	0.63	0.62
Engineering	1.04	1.01	1.02
Other Health Studies	1.51	1.35	1.38
Business Studies	1.02	1.08	1.08
Computing	1.46	1.44	1.45
Doctors / Dentists	4.33 **	4.17 **	4.22 **
No Info on Field	0.24	0.24	0.24
Parents Min. Secondary Educ.	0.87	0.88	0.88
Sandwich Course		0.80	0.84
Low Unrelated Work Exp.		1.11	1.12
High Unrelated Work Exp.		0.79	0.79
Low Related Work Exp.		1.07	1.07
High Related Work Exp.		1.46 *	1.36
Humanities + High Rel. Wexp.			1.35
Constant	5.80 **	5.23 **	5.27 **
-2 Log likelihood	3431.51	3413.01	3412.02

\*\*: significant at the 1% level; \*: significant at the 5% level



**Table I: How useful has your degree course been in preparing you for tasks in other spheres of life?**

Dependent variable: 1=very useful (4,5) 0=not so useful / not useful at all (1,2,3)

Population: Full-time and Sandwich graduates (n=2,786)

	<i>Exp(B)</i>	<i>Exp(B)</i>	<i>Exp(B)</i>
Man	0.95	0.94	0.94
Not White	0.88	0.89	0.88
No Info on Ethnicity	0.44	0.46	0.47
Entry Qual. Vocational	0.91	0.92	0.90
Entry Qual. Other	0.89	0.87	0.88
No Entry Qual.	0.97	0.93	0.92
No Info on Entry Qual.	0.34 **	0.33 **	0.33 **
Entry Grades not High	0.89	0.91	0.92
No Info on Entry Grades	0.95	0.96	0.97
New University	1.05	1.05	1.05
College	1.29	1.33 *	1.34 *
No Info on Inst. Type	2.11	1.95	1.95
Lower Second or Below	0.69 **	0.71 **	0.71 **
No Info on Degree Class.	0.52 **	0.54 **	0.54 **
23 - 24 year old	1.15	1.12	1.11
25 - 29 year old	0.93	0.93	0.92
30 - 39 year old	1.27	1.30	1.31
40 year and over	2.44 **	2.49 **	2.47 **
No Info on Age	0.78	0.79	0.78
Humanities	0.98	1.02	0.96
Social Sciences	1.24	1.28	1.27
Law	0.90	0.94	0.94
Science	0.98	1.00	1.00
Mathematics	0.84	0.87	0.86
Engineering	0.95	0.90	0.92
Other Health Studies	1.16	1.02	1.06
Business Studies	1.33	1.38	1.38
Computing	0.69	0.64	0.66
Doctors / Dentists	0.51 *	0.47 *	0.48 *
No Info on Field	73.66	65.44	64.29
Parents Min. Secondary Educ.	0.91	0.93	0.93
Sandwich Course		0.82	0.87
Low Unrelated Work Exp.		1.20	1.20
High Unrelated Work Exp.		0.75 *	0.76 *
Low Related Work Exp.		0.98	0.97
High Related Work Exp.		1.46 **	1.32
Humanities + High Rel. Wexp.			1.66
Constant	0.88	0.81	0.82
-2 Log likelihood	3659.46	3631.63	3628.35

\*\*: significant at the 1% level; \*: significant at the 5% level

**Table J: To what extent has your degree helped you develop as a person?**

Population: Full-time and Sandwich graduates (n=2,891)

Dependent variable: 1=to a large extent (4,5) 0=to a lesser extent / not at all (1,2,3)

	<i>Exp(B)</i>	<i>Exp(B)</i>	<i>Exp(B)</i>
Man	0.68 **	0.67 **	0.66 **
Not White	1.09	1.07	1.07
No Info on Ethnicity	0.29 **	0.28 **	0.29 **
Entry Qual. Vocational	0.79	0.80	0.79
Entry Qual. Other	1.69 *	1.68 *	1.67 *
No Entry Qual.	1.50	1.46	1.47
No Info on Entry Qual.	2.12	2.09	2.15
Entry Grades not High	0.78 *	0.78 *	0.78 *
No Info on Entry Grades	1.49	1.44	1.45
New University	1.06	1.08	1.09
College	1.24	1.23	1.24
No Info on Inst. Type	0.30	0.29	0.30
Lower Second or Below	0.63 **	0.63 **	0.63 **
No Info on Degree Class.	0.50 **	0.50 **	0.50 **
23 - 24 year old	0.98	1.00	1.00
25 - 29 year old	1.14	1.17	1.17
30 - 39 year old	1.20	1.23	1.25
40 year and over	1.14	1.13	1.14
No Info on Age	3.09	3.27	3.19
Humanities	0.55 **	0.52 **	0.53 **
Social Sciences	0.73	0.70	0.70
Law	0.69	0.69	0.70
Science	1.00	0.96	1.16
Mathematics	0.59	0.55	0.55
Engineering	0.56 *	0.55 *	0.54 *
Other Health Studies	0.64	0.63	0.62
Business Studies	0.82	0.80	0.80
Computing	0.43 **	0.41 **	0.40 **
Doctors / Dentists	0.57	0.53	0.53
No Info on Field	30.45	23.42	24.07
Parents Min. Secondary Educ.	0.73 **	0.73 **	0.73 **
Sandwich Course		0.98	1.02
Low Unrelated Work Exp.		1.20	1.18
High Unrelated Work Exp.		0.84	0.83
Low Related Work Exp.		0.83	0.83
High Related Work Exp.		0.96	1.01
Science + High Rel. Wexp.			0.43 *
Constant	10.48 **	11.39 **	11.14 **
-2 Log likelihood	2980.84	2972.37	2967.92

\*\*: significant at the 1% level; \*: significant at the 5% level

**Table K: If you were free to choose your degree course again, how likely is it that you would choose the same course of study?**

Population: Full-time and Sandwich graduates (n=2,916)

Dependent variable: 1=very likely (4,5) 0=not so likely / not likely at all (1,2,3)

	<i>Exp(B)</i>	<i>Exp(B)</i>	<i>Exp(B)</i>
Man	0.90	0.90	0.89
Not White	0.56 **	0.54 **	0.54 **
No Info on Ethnicity	0.24 **	0.27 **	0.27 **
Entry Qual. Vocational	0.95	0.93	0.94
Entry Qual. Other	1.39	1.34	1.34
No Entry Qual.	1.44	1.39	1.38
No Info on Entry Qual.	0.87	0.85	0.85
Entry Grades not High	0.75 **	0.76 **	0.76 **
No Info on Entry Grades	0.72	0.79	0.81
New University	0.71 **	0.71 **	0.72 **
College	1.13	1.14	1.15
No Info on Inst. Type	0.47	0.51	0.52
Lower Second or Below	0.52 **	0.53 **	0.54 **
No Info on Degree Class.	0.35 **	0.36 **	0.37 **
23 - 24 year old	1.25 *	1.20	1.19
25 - 29 year old	1.48 **	1.44 **	1.45 **
30 - 39 year old	1.29	1.25	1.26
40 year and over	1.70 **	1.55 *	1.53 *
No Info on Age	3.81 *	3.18 *	3.15
Humanities	0.48 **	0.51 **	0.52 **
Social Sciences	0.53 **	0.55 **	0.61 *
Law	1.25	1.30	1.32
Science	0.52 **	0.55 **	0.55 **
Mathematics	0.82	0.88	0.89
Engineering	0.58 **	0.56 **	0.54 **
Other Health Studies	1.01	0.89	0.88
Business Studies	0.81	0.85	0.85
Computing	1.08	1.03	1.01
Doctors / Dentists	0.91	0.86	0.85
No Info on Field	0.00	0.00	0.01
Parents Min. Secondary Educ.	1.14	1.15	1.15
Sandwich Course		0.83	0.83
Low Unrelated Work Exp.		0.66 **	0.66 **
High Unrelated Work Exp.		0.53 **	0.52 **
Low Related Work Exp.		0.78	0.79
High Related Work Exp.		0.96	1.03
Social Sciences + High Rel. Wexp.			0.58
Constant	4.10 **	5.43 **	5.28 **
-2 Log likelihood	3697.03	3665.94	3662.62

\*\* : significant at the 1% level; \* : significant at the 5% level