January 2011/02

**Issues** paper

This report is for information

Over recent years, there has been increasing interest in graduates' employment circumstances in the early months and years after they qualify from higher education courses. In this issues paper, we explore a series of quantitative approaches to characterising the employment circumstances of graduates with the aim of enhancing employment information.

# Approaches to measuring employment circumstances of recent graduates



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# Approaches to measuring employment circumstances of recent graduates

To Heads of publicly funded higher education institutions in the UK

Of interest to those

Planning, Skills, Equalities, Student data

responsible for

Reference 2011/**02** 

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Enquiries to Mark Gittoes

tel 0117 931 7052

e-mail m.gittoes@hefce.ac.uk or employcirc@hefce.ac.uk

# **Executive summary**

#### **Purpose**

1. Over recent years, there has been increasing interest in graduates' employment circumstances in the early months and years after they qualify from higher education courses. In this issues paper, we explore a series of quantitative approaches to characterising the employment circumstances of graduates with the aim of enhancing employment information.

#### **Key points**

#### **Methods**

- 2. This issues paper investigates seven approaches to measuring employment circumstances, to prompt discussion with researchers and the higher education sector. The strengths and weakness of each approach are also discussed<sup>1</sup>.
- 3. Four of the measures are based on the occupations and roles of UK-domiciled, full-time, first degree graduates. The remaining three measures focus on salaries of the employed graduates, to widen the scope of information on employment characteristics.
- 4. The document aims to stimulate further thinking both on technical and on policy issues generating from the use of these types of measures, and should not be viewed as definitive.

#### Employment characteristics of full-time first degree graduates

5. In addition to the development and explanation of the seven measures, the employment characteristics of the 2007-08 UK-domiciled, full-time first degree graduating cohort have been examined. The cohort has been studied by a number of individual, course and institutional attributes and is based on employment six months after graduating.

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<sup>&</sup>lt;sup>1</sup> See paragraph 65.

# **Action required**

6. We are keen to hear from those interested in the technical and policy perspectives raised by this research. So we welcome the views of any individuals or groups who wish to comment on the advantages and disadvantages of the methods outlined in this paper. Feedback may be e-mailed to <a href="maileo-employeirc@hefce.ac.uk">employeirc@hefce.ac.uk</a>.

#### Introduction

#### **Background**

- 7. Over recent years, there has been increasing interest in the employment circumstances of people who have recently qualified from higher education (HE) courses. This interest has come from many quarters including prospective students, Government, policy makers and industry.
- 8. Although employment opportunities are only one of the reasons students go to higher education, for many it is an important part of that decision. Also, in view of the public investment made in higher education, and the potential for increased private contributions, it is important that information is available to students and policymakers about the return on that investment, alongside the broader personal, social and economic benefits of higher education. To inform broader policymaking there is also a need to investigate whether specific groups of students are experiencing comparative disadvantage in the labour market.
- 9. To consider ways of enhancing employment information, this publication explores a series of quantitative methods for characterising the employment circumstances of qualifiers from higher education.

#### **Current information and other work**

- 10. There is substantial detailed subject-level information about employment available for students on the Unistats web-site (www.unistats.com). Data on graduates' destinations after leaving HE are also used to form annual institutional employment performance indicators.
- 11. HEFCE is working alongside others including the Higher Education Statistics Agency (HESA), the other funding councils and stakeholders to ensure that information about employment is accurate, accessible and meets users' needs. This work includes:
  - a review of the six-month Destinations of Leavers from Higher Education (DLHE) survey<sup>2</sup>. This includes: updating the questionnaire to ensure it covers key policy issues; reviewing the survey's timing; considering the link to the Longitudinal

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<sup>&</sup>lt;sup>2</sup> The DLHE survey is a survey of graduates at around six months after they qualify. It provides information about patterns of employment and further study or training (where applicable). The survey is distributed to all home and EU students who successfully complete a HE qualification at a higher education institution and the response rate for qualifiers from full-time courses is nearly 80 per cent (although we note that the survey is not complete because not all qualifiers respond to it). Leavers are contacted by e-mail and post and those who do not complete a paper- or web-based questionnaire are contacted by telephone. In the telephone follow-up, some institutions do not ask some of the questions that interest us in this issues paper. Although the number of responses to some questions is therefore low, we are not as concerned about response bias as we would be if the respondents were asked these questions and chose not to answer. For more information see www.hesa.ac.uk.

- DLHE<sup>3</sup>; assessing the coverage; reviewing methods to maximise response rates; and improving communication of findings
- the Performance Indicators Steering Group considering developing measures which could enhance the currently published employment performance indicators
- the HE Public Information Steering Group considering the recommendations from the Oakleigh/Staffordshire University report 'Understanding the information needs of users of public information about higher education', published in August 2010<sup>4</sup>.
- 12. In addition to the work being carried out by these reviews and groups, there are existing approaches to classifying employment circumstances (such as the approach based on research by Elias and Purcell<sup>5</sup> that is currently used within the Unistats website). It will be necessary to regularly review the use of these approaches to take into account any changes in data definition and/or in the labour market that are not currently captured, and to enhance existing information.

#### Feedback

- 13. This issues paper investigates a number of approaches, and their potential outcomes for different student groups, to stimulate discussion with researchers and the HE sector. It is an early discussion of the issues and should not be viewed as definitive. Final decisions about the use of any new classifications will be made by the relevant decision-making body.
- 14. Therefore we would welcome the views of any individuals or groups who wish to comment on the technical or policy aspects, and advantages and disadvantages generally, of the methods outlined in this paper. Feedback can be e-mailed to <a href="mailto:employcirc@hefce.ac.uk">employcirc@hefce.ac.uk</a>.

#### Structure of this document

15. This issues paper begins by providing contextual information on graduate numbers and the DLHE survey. It then focuses on the employment circumstances of these respondents, while defining and explaining the occupational measures used. A table outlines strengths and weaknesses of the methods to give further insight into them. These variation in these measures are then examined for particular student attributes including gender, ethnicity and disability status.

#### Data sources and definitions

16. Data are drawn from the HESA individualised student records from academic years 2004-05 to 2007-08 inclusive. The HESA student record provides information about the

<sup>&</sup>lt;sup>3</sup> The Longitudinal DLHE survey questions graduates about their employment/study circumstances three-and-a-half years after they leave HE.

<sup>&</sup>lt;sup>4</sup> This report is available in full at <a href="www.hefce.ac.uk">www.hefce.ac.uk</a> under Publications/Research & evaluation.

<sup>&</sup>lt;sup>5</sup> For more details about the method and research around this classification see www2.warwick.ac.uk/fac/soc/ier/research/completed/7yrs2/rp6.pdf

individual attributes of each HE student and in particular about the qualification each obtains.

17. Data for the early careers of qualifiers (i.e. six months after qualifying) are obtained from the DLHE survey<sup>6</sup> for the same years as the HESA student record.

# Trends in graduate characteristics

#### Level of qualification

18. Table 1 shows the total number of qualifiers at each HE qualification level for the years 2004-05 to 2007-08<sup>7</sup>.

Table 1 Number of graduates at each qualification level

Qualification obtained	2004-05	2005-06	2006-07	2007-08	% Change
Postgraduate research	19,195	20,975	21,135	19,470	1%
Postgraduate taught	172,625	177,305	181,095	182,540	6%
First degree	306,365	315,985	319,260	334,890	9%
Other undergraduate	134,855	126,580	129,570	139,560	3%
Total	633,045	640,845	651,060	676,460	7%

- 19. Table 1 shows that the total number of qualifiers from UK higher education institutions (HEIs) steadily increased from 633,045 to 676,460 over the four-year period from 2004-05 to 2007-08, a growth of 7 per cent.
- 20. In each year, the majority of qualifiers graduated with a first degree. In 2007-08 there were 334,890 first degree graduates compared with the next largest group, those qualifying at postgraduate taught level (182,540). First degree graduates accounted for 50 per cent of the qualifier cohort in 2007-08. Due to this high percentage, the following tables focus only on the first degree graduate cohort.

#### Mode of study

21. Table 2 shows the breakdown of first degree graduates by their mode of study and domicile for the years 2004-05 to 2007-08.

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<sup>&</sup>lt;sup>6</sup> See footnote 2 for further information.

<sup>&</sup>lt;sup>7</sup> These cohorts are the qualification obtained populations as published by HESA; full details are available at <a href="https://www.hesa.ac.uk">www.hesa.ac.uk</a> under Statistics.

Table 2 Breakdown of first degree graduates by mode of study and domicile, 2004-05 to 2007-08

Mode of study	Domicile	2004-05	2005-06	2006-07	2007-08	% Change
	UK	230,905	234,070	237,275	249,035	8%
Full-time	Other EU	12,580	13,290	13,760	15,275	21%
	Non-EU	18,920	21,980	21,795	22,930	21%
	UK	39,275	41,810	40,625	42,480	8%
Part-time <sup>8</sup>	Other EU	1,325	1,425	1,505	1,385	5%
	Non-EU	3,355	3,410	4,300	3,785	13%
Total	<u>-</u>	306,365	315,985	319,260	334,890	9%

22. Table 2 shows that in 2007-08, 74 per cent of first degree graduates were UK-domiciled and had studied full-time. The largest percentage change over the four-year period (2003-03 to 2007-08) is seen in the full-time, non-EU and full-time, other EU graduates: both groups increased by 21 per cent.

#### **Trends in DLHE respondents**

23. Not all qualifiers respond to the DLHE survey. Table 3 shows the number of valid respondents to the survey (that is, people who were part of HESA's standard registration population and responded to the DLHE survey) compared to the number of qualifiers from 2004-05 to 2007-08.

Table 3 Number of valid respondents to the DLHE survey, 2004-05 to 2007-08

Respondent type	2004-05	2005-06	2006-07	2007-08
Valid respondents	319,060	327,545	331,830	344,330
Total qualifiers	430,290	445,910	453,880	474,455
% Respondents	74%	73%	73%	73%

24. Table 4 shows the percentage of valid respondents who were UK-domiciled and studied full-time for a first degree.

Table 4 Breakdown of valid respondents to the DLHE survey, 2004-05 to 2007-08

Respondent type	2004-05	2005-06	2006-07	2007-08
Full-time, first degree and UK-domiciled respondents	182,480	181,480	182,820	191,710
Valid respondents	319,060	327,545	331,830	344,330
Proportion	57%	55%	55%	56%

<sup>&</sup>lt;sup>8</sup> Part-time also includes the qualifiers that were reported with a dormant status for the year in question (i.e. undertook no HE activity within the period).

25. Table 4 shows that in 2007-08, 56 per cent (191,710) of the valid respondents to the DLHE survey were UK-domiciled and had studied full-time for a first degree. This represented a 5 per cent increase from 182,480 in 2004-05.

# Employment attributes: full-time, first degree, UK-domiciled DLHE respondents

26. This section breaks down the full-time, first degree, UK-domiciled DLHE survey respondents by their employment status: whether they are employed, unemployed, continuing with further study only or not available for work or study.

#### **Overall employment rates**

27. Table 5 shows the employment status of respondents to the DLHE survey over the four-year period, 2004-05 to 2007-08.

Table 5 Employment status of full-time, first degree, UK-domiciled DLHE respondents, 2004-05 to 2007-08

Employment status	2004-05	2005-06	2006-07	2007-08
Employed	131,680	131,785	134,110	135,410
Further study only	27,675	27,495	27,880	29,665
Employed and/or in further study	159,355	159,285	161,990	165,080
Assumed to be unemployed	12,025	11,625	10,675	16,235
Not available for work or study <sup>10</sup>	11,105	10,575	10,160	10,395
Total	182,480	181,480	182,820	191,710
% Assumed to be unemployed <sup>11</sup>	7%	7%	6%	9%

28. Table 5 shows that the majority of respondents are in either employment or further study. There were 165,080 respondents in these categories in 2007-08 compared to 16,235 who were assumed to be unemployed. The total unemployed figure for 2007-08 was 9 per cent, three percentage points higher than in 2006-07.

#### Classifications and their methods

29. In the paragraphs 35 to 63 we define and explain seven methods to measure the employment circumstances of qualifiers. In developing these measures we have

<sup>&</sup>lt;sup>9</sup> The 'employed' category contains all respondents reported as working full-time (including self-employed), part-time or voluntarily, or who are both working and studying.

<sup>&</sup>lt;sup>10</sup> Includes those permanently unable to work, temporarily sick and taking time out to travel. For further information, see <a href="https://www.hesa.ac.uk">www.hesa.ac.uk</a> under DLHE stream/'Definition of standard categories for publication for DLHE'.

<sup>&</sup>lt;sup>11</sup> The percentage does not include those registered as 'not available for work or study'.

concentrated on the UK-domiciled, full-time, first degree qualifiers because they are significant in number and of high policy interest. But the measures and classifications could be equally applied to all qualifiers including those who studied part-time for foundation degrees, sub-degrees and postgraduate awards (see 'Further cohorts of interest' for more information).

- 30. In this paper we look at the following methods of measuring employment circumstances:
  - Standard Occupational Classification (SOC) (DLHE) codes
  - Elias and Purcell occupation classification
  - SOC (DLHE) code-based occupation classifications
  - individual responses-based occupation classification
  - imputed occupational classification based on individual responses
  - SOC (DLHE) code-based salary ranking
  - imputed salaries based on individual responses.

The first four measures are used to classify respondents' occupations; to provide greater scope, the remaining three measures focus on salary.

#### **Occupation classifications**

#### SOC (DLHE) codes<sup>12</sup>

- 31. SOC (DLHE) codes are an extension of the standard Office for National Statistics (ONS) Standard Occupational Classifications and are used to provide greater detail of occupations likely to have high numbers of graduates.
- 32. Each SOC (DLHE) code is five digits long and is based on the answers that the respondents gave for two questions from the DLHE survey:
  - Q3. What will your job title be?
  - Q4. Briefly describe your duties.
- 33. There are 666 SOC (DLHE) codes<sup>13</sup>, which are divided into 58 groups indicated by the first three digits of each code.
- 34. Table 6 shows a sample of the SOC (DLHE) codes and how they are divided into their groups.

<sup>&</sup>lt;sup>12</sup> Full details about SOC (DLHE) codes are available at <a href="www.hesa.ac.uk">www.hesa.ac.uk</a> under DLHE stream, contained within each year's collection details.

<sup>&</sup>lt;sup>13</sup> This includes two reserved codes: reserved for instances where occupational information is provided but is inadequate for coding purposes or for instances where occupational information is not stated.

Table 6 A sample of the SOC (DLHE) codes and their minor groupings

SOC (DLHE) code	SOC (DLHE) full name	SOC (DLHE) first three characters	Group
11110	Senior Officials in National Government	111	Corporate managers and senior officials
11120	Directors and Chief Executives of Major Organisations	111	Corporate managers and senior officials
11130	Senior Officials in Local Government	111	Corporate managers and senior officials
11140	Senior Officials of Special Interest Organisations	111	Corporate managers and senior officials
11141	Senior Officials of Trade Unions	111	Corporate managers and senior officials
11142	Senior Officials of Employers, Trades and Professional Associations	111	Corporate managers and senior officials
11143	Senior Officials of Charities	111	Corporate managers and senior officials
11144	Senior Officials of Political Parties	111	Corporate managers and senior officials
11210	Production, Works and Maintenance Managers	112	Production managers
11220	Managers in Construction	112	Production managers
11230	Managers in Mining and Energy	112	Production managers
11231	Mining, Quarrying and Drilling Managers	112	Production managers
11232	Gas, Water and Electricity Supply Managers	112	Production managers

#### SOC (HE): A classification of occupations for studying the graduate labour market

- 35. The SOC (HE) classifications are the classifications currently used to represent qualifiers' occupations on the Unistats web-site, and for analysis in HEFCE's issues papers on foundation degrees and graduates' early careers<sup>14</sup>.
- 36. The classifications were created when, while working on 'Researching Graduate Careers Seven Years On'<sup>15</sup>, Peter Elias and Kate Purcell designed the 'SOC (HE): A classification of occupations for studying the graduate labour market'.
- 37. The measure was created using information from:

<sup>14</sup> The most recent of these are 'Foundation degrees: key statistics 2001-02 to 2009-10' (HEFCE 2010/12) and 'Graduates and their early careers' (HEFCE 2008/39). These and all HEFCE publications are available at <a href="https://www.hefce.ac.uk/pubs">www.hefce.ac.uk/pubs</a>.

<sup>&</sup>lt;sup>15</sup> See <u>www2.warwick.ac.uk/fac/soc/ier/research/completed/7yrs2/</u> for further details.

- nine quarterly Labour Force Surveys<sup>16</sup> (from spring 2001 to spring 2003)
- a file prepared by the Office for National Statistics from the winter 1996-97
  quarter of the Labour Force Survey which contained text descriptions of job titles,
  job descriptions and qualifications required for more than 65,000 employed
  people
- an array of materials about occupations which had been accumulated in the course of work conducted by the Institute of Employment Research to create other SOC-related classifications.
- 38. This measure classifies each SOC (DLHE) code into one of five categories:
  - 'traditional' graduate job (solicitors, doctors, scientists, lecturers)
  - 'modern' graduate job (newer professions which graduates have been entering since the expansion of higher education in the 1960s – for example, IT professionals, primary school teachers)
  - 'new' graduate job (posts that require relevant degrees and which provide ample scope for the exercise of degree-level skills and knowledge – for example occupational therapists, quantity surveyors, medical radiographers)
  - 'niche' graduate job (although a majority of employees in this area do not have degrees there are significant groups of occupations within it that require degrees or provide ample scope for the exercise of degree-level skills and knowledge – for example planning and quality control engineers, hotel and accommodation managers, nurses)
  - non-graduate job (all other occupations).
- 39. For ease in this issues paper, the first four categories (traditional, modern, new and niche graduate jobs) have been grouped together as being a graduate occupation.

#### SOC (DLHE) code-based occupation classification

- 40. The SOC (DLHE) code-based occupational classification examines the cohort of young<sup>17</sup>, full-time, first degree respondents to the DLHE survey over the five-year period 2003-2004 to 2007-2008 and who were employed (not freelance or self-employed) at the time of the survey.
- 41. The classification method is described in full in Annex A. It is based on the answers these respondents gave for the following two questions from the DLHE survey<sup>18</sup>:

<sup>&</sup>lt;sup>16</sup> See <a href="https://www.ons.gov.uk/about-statistics/user-guidance/lm-guide/sources/household/lfs/about/index.html">https://www.ons.gov.uk/about-statistics/user-guidance/lm-guide/sources/household/lfs/about/index.html</a> for further details.

<sup>&</sup>lt;sup>17</sup> 'Young' means all respondents who were aged 20 or under when they started their first degree.

<sup>&</sup>lt;sup>18</sup> Those who failed to answer these questions are excluded from the cohort.

Q12. Would you have been able to get the job you will be doing on 12 January xxxx without the qualification you recently obtained (the actual qualification, not the subject of study)?

Yes

No: the qualification was a formal requirement/expected

Possibly: but the qualification did give me an advantage

Don't know.

Q13. As far as you are aware, what was more important to your employer about your qualification, the subject(s) you studied or the level of study?

The subject(s) studied

The level of study

Both were equally important

Don't know.

Depending on the combinations of the answers to the questions (see flow chart in Annex D), a respondent is flagged as being employed in a graduate occupation or a non-graduate occupation, or is excluded from the cohort.

- 42. Then for each SOC (DLHE) code, the proportion of respondents who were flagged as being in a graduate occupation is calculated. Those SOC (DLHE) codes with a percentage below a particular level (35 per cent is used in this method) are considered to be a non-graduate occupation; those with a percentage above a particular level (55 per cent) are considered to be a graduate occupation. For those codes with a percentage between these two limits, quantitative information is considered, in particular salary, to determine the classification.
- 43. The percentages used here (35 and 55 per cent) are predominately used to illustrate the method rather than being a definitive set level. These illustrative percentages were determined through an examination of the SOC (DLHE) distribution of the proportion in a graduation occupation.
- 44. In cases where SOC (DLHE) codes contain only a small number of graduates, aggregate approaches (such as using the hierarchy of the SOC (DLHE) and salary levels) have been used.
- 45. Despite the aggregation techniques applied, a very small number of occupations' classifications are not clearly defined. In these cases, the SOC (DLHE) codes have been flagged as 'not classifiable yet'.
- 46. Annex E shows the occupational classification under this system for each SOC (DLHE) code.

#### Individual responses-based occupation classification

47. The previous two approaches categorised respondents based on their SOC (DLHE) codes, but this measure uses individuals' responses to the DLHE survey instead.

- 48. The approach is similar to that of the SOC (DLHE) code-based occupation classification, in that it also examines the answers the graduates gave to questions 12 and 13 from the DLHE survey (see paragraph 41) and, depending on the combination of the answers (see flow chart in Annex D), a respondent is flagged as being employed in a graduate occupation or a non-graduate occupation, or is excluded from the cohort.
- 49. However, not all respondents answer questions 12 and 13. Table 7 shows the headcount of how respondents answered or did not answer the two questions<sup>19</sup>.

Table 7 Breakdown of full-time, first degree, UK-domiciled employed respondents to the 2007-08 DLHE survey by how they answered questions 12 and 13

DLHE survey questions	Headcount
Q12 and Q13 answered, neither as 'don't know'	97,930
Q12 and Q13 answered, one or both as 'don't know'	35,895
Did not answer one or both questions	1,585
Total	135,410

50. The 97,930 respondents who answered question 12 and question 13, neither as 'don't know', are those we could flag as employed in either a graduate or a non-graduate occupation. The remaining 37,480 (28 per cent of respondents) were excluded from the cohort.

#### Imputed occupational classification based on individual responses

- 51. As described in the previous paragraph, 37,480 respondents were excluded from the cohort. Because we wish to describe the entire population, we used imputation to estimate the probability that these respondents were employed in a graduate occupation.
- 52. The imputation used the following approach:
  - a. For the 97,930 respondents (see paragraph 49) whose occupation could be classified as graduate or non-graduate, the mean percentage in a graduate occupation was calculated split by three characteristics of the respondents: their age on commencement of their first degree (simplified to those aged under 21 and those aged 21 and over), the subject that they studied and the classification of their award.
  - b. This mean percentage value was then assigned to each excluded respondent who matched the imputed combination, giving every respondent a notional probability of whether they were employed in a graduate occupation. For example, if 40 per cent of those aged under 21 who gained third class honours in mathematics were found to be in a graduate occupation, all 37,480 excluded respondents who graduated with third class honours in mathematics would be notionally given a 40 per cent probability of being in a graduate occupation.

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<sup>&</sup>lt;sup>19</sup> See Annex D for more information on response rates.

#### Salary classifications

#### SOC (DLHE) code-based salary ranking

- 53. To provide a greater scope of information about respondents' occupations, salary responses from the DLHE survey in 2007-08 were taken into account.
- 54. The respondents who did not have a salary response, either because they were unemployed, had not been asked about salary<sup>20</sup> or had not given salary information<sup>21</sup>, were excluded from the cohort. Using the remaining responses, the average salary for each SOC (DLHE) code was calculated. Not all SOC (DLHE) codes had an average salary; those without an average salary were removed from the cohort.
- 55. All respondents with an SOC (DLHE) code were then assigned their SOC (DLHE) code's average salary and the median salary of all respondents with an SOC (DLHE) code was calculated.
- 56. The respondents whose SOC (DLHE) code's average salary was above this median (that is, the top 50 per cent) were then flagged as being in an above the median salary occupation.

#### Individual responses-based salary ranking

- 57. There are 135,410 respondents in our full-time, first degree, UK-domiciled, employed cohort; of these respondents, 59,885 have a known salary (44 per cent).
- 58. The respondents with a known salary were ordered by their salary and those who were above the median (that is, the top 50 per cent) were flagged as having a 'top 50 per cent salary'.
- 59. With only 59,885 respondents having a salary, and with many of these being of the same value, the median fell on a figure that was frequent. This meant that slightly more than 50 per cent of these respondents had a salary greater than or equal to the median. This is reflected in Table 8, where '% above the median' is 51 per cent.

Table 8 Breakdown of full-time, first degree, UK-domiciled, employed respondents to the 2007-08 DLHE survey by whether they have a known salary

Have a known salary	Headcount	Number of respondents above the median salary	% Above the median
Yes	59,885	30,525	51%
No	75,525	NA	NA

#### Imputed salaries based on individual responses

60. Because only 59,885 respondents had a known salary and we wish to provide information on the entirety of the cohort, we used imputation to assign a salary to the

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<sup>&</sup>lt;sup>20</sup> See footnote 2.

<sup>&</sup>lt;sup>21</sup> See Annex D for more information on response rates.

remaining 75,525 respondents. The approach is the same as given in paragraphs 51 to 52 using imputation based on three characteristics of the respondents (age; subject and classification of award) but instead of calculating a mean percentage in a graduate occupation, the mean salary is calculated for each combination.

- 61. These mean salary was assigned to any excluded graduates (i.e. non-respondents to the salary question) who matched the imputed combination, giving a salary value for all 135,410 employed respondents.
- 62. All graduates (salary respondents and salary non-respondents) were then ordered by their salary (actual for those who responded to the salary question, and imputed mean for non-respondents), and those who were above the median (top 50 per cent) were then flagged as having an 'imputed top 50 per cent salary'.
- 63. However, due to the imputation method, the median salary fell on a value that was frequent, so slightly more than 50 per cent (51 per cent) of the respondents have a salary greater than or equal to the median.

### Referencing the methods

64. For the remainder of this report, we use the following reference system in tables and descriptions for the four occupation classifications and three salary classifications:

#### **Occupation classifications**

- a. 'Elias and Purcell's occupation classification' (paragraphs 35 to 39) is abbreviated to **E&P**.
- b. 'SOC (DLHE) code-based occupation classification' (paragraphs 40 to 46) is abbreviated to **SOC**.
- c. 'Individual responses-based occupation classification' (paragraphs 47 to 50) is abbreviated to **Ind**.
- d. 'Imputed occupational classification based on individual responses' (paragraphs 51 to 52) is abbreviated to **Imp**.

#### Salary classifications

- e. 'SOC (DLHE) code-based salary ranking' (paragraphs 53 to 56) is abbreviated to **SOC**.
- f. 'Individual responses-based salary ranking' (paragraphs 57 to 59) is abbreviated to **Ind**.
- g. 'Imputed salaries based on individual responses' (paragraphs 60 to 63) is abbreviated to **Imp**.

# Strengths and weaknesses of the methods

65. Table 9 lists the strengths and weaknesses of each of the seven occupation/salary measures mentioned in the previous section.

Table 9 Strengths and weaknesses of employment characteristics/salary measures

Method	Basic description	Strengths	Weaknesses
Elias and Purcell's occupation classification	Five categories classifying occupations based on Labour Force Surveys and Office for National Statistics extracts	Enables occupations to be classified into five categories  All occupations can be classified  Vast majority of graduates can be classified  Captures information on employment beyond six months after graduation	Based on old data  Difficult to update regularly  Represents historical rather than recent patterns of graduate recruitment  Does not reflect an individual's particular occupational situation
SOC (DLHE) code- based occupation classification	Categories classifying occupations based on SOC (DLHE) codes and responses to the DLHE survey questions 12 and 13	Can be readily updated Reflects recent graduate perceptions of occupations' requirements Vast majority of graduates can be classified	Not all SOC (DLHE) codes are easily classified  Assumptions are needed to help classify some occupations  Does not reflect an individual's particular occupational situation  Does not capture information on employment beyond six months after graduation

Method	Basic description	Strengths	Weaknesses
			Not all DLHE survey respondents answer the questions so some cannot be classified
Individual responses-	Two categories classifying individuals	Reflects recent	Can only be used in conjunction with the DLHE survey
based occupational classification	based entirely on the answers to DLHE survey questions 12 and 13	graduate perceptions of occupation circumstances	Possibly too subjective – two or more respondents in the same role may respond differently
			Does not capture information on employment beyond six months after graduation
	Two categories classifying individuals based on imputation from the answers to DLHE survey questions 12 and 13	Reflects recent graduate perceptions of occupations' requirements All graduates can be classified	Cannot be extended beyond HESA data collections
Imputed occupational			Assumptions are needed about non-responding graduates
classification based on the individual responses			Possibly too subjective – two or more respondents in the same role may respond differently
			Does not capture information on employment beyond six months after graduation
SOC (DLHE) code- based salary ranking	Salary classification	Can be readily updated Provides insight into	Not necessarily a measure of qualities or attributes required to do the occupation
	based on SOC(DLHE) codes and responses	occupations' salaries  Vast majority of	Does not reflect an individual's own salary
	to DLHE survey salary question (question 6)	graduates can be classified	Does not capture information on employment beyond six months after graduation

Method	Basic description	Strengths	Weaknesses
Individual responses- based salary ranking	Salary classification based directly on answers to DLHE survey salary question (questions 6)	Provides insight into graduates' early career salaries Reflects early career salary variations within occupations	Not necessarily a measure of qualities or attributes required to do the occupation Low response rates for salaries Does not capture information on employment beyond six months after graduation
Imputed salaries based on individual responses	Salary classification based on imputation from answers to DLHE survey salary question (questions 6)	Provides insight into graduates' early career salaries Reflects early career salary variations within occupations	Not necessarily a measure of qualities or attributes required to do the occupation  Assumptions are needed about non-responding graduates  Does not capture information on employment beyond six months after graduation

# **Occupation classifications summary**

66. Using the four occupational classifications, Table 10 shows the proportion of full-time, first degree, UK-domiciled employed respondents to the DLHE survey who are classified as being in a graduate occupation (or equivalent) over the four-year period 2004-05 to 2007-08.

Table 10 Results of each occupation classification method for full-time, first degree, UK-domiciled DLHE respondents, 2004-05 to 2007-08

		Occupation classifications				
Year of study	Headcount	E&P	SOC	Ind	Imp	
2004-05	131,680	61%	63%	61%	59%	
2005-06	131,785	63%	65%	62%	61%	
2006-07	134,110	66%	67%	64%	63%	
2007-08	135,410	64%	65%	61%	60%	

# **Employment characteristics**

- 67. In paragraphs 72 to 128 and the accompanying tables we consider the employment characteristics of full-time, first degree, UK-domiciled respondents to the 2007-08 DLHE survey, and in particular the following areas:
  - a. Employment circumstances.
  - b. Age on commencement of first degree.
  - c. Gender.
  - d. Ethnic group.
  - e. Disability status.
  - f. Neighbourhood participation rate.
  - g. Highest qualification on entry.
  - h. Subject studied.
  - i. Classification of award.
  - j. Region of institution.
  - k. Institution type.
- 68. For each of theses areas, the employment characteristics have been examined using the seven occupational measures discussed in paragraphs 35 to 63.

#### Percentages in tables

69. For the employment status tables, each table shows the percentage who are either employed, in further study or assumed unemployed. The percentages do not include those registered as 'not available for work or study'.

- 70. For the occupational classifications, each table shows the percentage who are in a graduate occupation (as defined by the particular method reported).
- 71. For the salary classifications, each table shows the percentage who are above the median salary (as defined by the particular method reported).

#### **Employment circumstances**

72. Table 11 shows how the seven classifications break down the employment circumstances of full-time, first degree, UK-domiciled employed 2007-08 DLHE survey respondents.

Table 11 Employment circumstances breakdown according to each occupational/salary classifications

		Occupation classifications			Salary classifications			
Employment circumstances	Headcount	E&P	SOC	Ind	lmp	SOC	Ind	lmp
Full-time	104,735	70%	72%	70%	67%	58%	55%	57%
Self-employed	4,955	85%	79%	54%	53%	36%	45%	34%
Total full-time or self-employed	109,690	71%	72%	69%	66%	57%	55%	56%
Part-time	22,580	32%	30%	26%	32%	20%	19%	31%
Vocational	3,140	70%	64%	47%	49%	27%	0%	28%
Total employed	135,410	64%	65%	61%	60%	50%	51%	51%

- 73. Table 11 shows that the self-employed group has the largest proportion employed in a graduate occupation when based on the Elias and Purcell classification (85 per cent) or the SOC (DLHE) measure (79 per cent). But this drops to only 54 per cent when based on the respondents' individual answers to the DLHE questions. This drop may be largely due to the title of the respondent's SOC (DLHE) code, with self-employed respondents more likely to have a manager/senior title compared to other respondents.
- 74. Table 11 also shows that 36 per cent of self-employed respondents and 58 per cent of full-time respondents have a salary above the median when based on the SOC (DLHE) salary classification. But when looking at the individual salary responses, 45 per cent of the self-employed respondents have a salary above the median, a nine percentage point increase on the SOC (DLHE) measure.

#### Age on commencement of first degree study

75. This section looks at the breakdown of respondents by their age on commencement. Table 12 shows the age group breakdown of the full-time, first degree, UK-domiciled respondents to the 2007-08 DLHE survey by their employment status.

Table 12 Age on commencement breakdown by employment status

Age group	Headcount	% Employed	% In further study only	% Assumed unemployed
19 and under	143,550	74%	18%	9%
20-24	29,520	77%	12%	11%
25-29	6,575	78%	12%	10%
30-39	7,655	77%	13%	9%
40-49	3,610	76%	14%	10%
50-59	665	70%	17%	13%
60 and above	130	59%	29%	12%
Not recorded	5	75%	0%	25%
Total	191,710	75%	16%	9%

- 76. Table 12 shows that 143,550 (75 per cent) of DLHE survey respondents were aged 19 or under when they began their first degrees. Of this age group, 92 per cent of respondents are either employed or in further study at the time of the survey. The respondents aged 50-59 on entry have the highest unemployment figure (13 per cent), with those aged 19 and under and those aged 30-39 having the lowest (9 per cent).
- 77. Table 13 shows the age on commencement breakdown of the full-time, first degree, UK-domiciled respondents to the 2007-08 DLHE survey by the seven classifications.

Table 13 Age on commencement: percentage in each group who were in a graduate occupation, according to the occupational/salary classifications

		Occupation classifications				Salary classifications			
Age group	Headcount	E&P	SOC	Ind	Imp	SOC	Ind	lmp	
19 and under	100,225	62%	63%	60%	59%	48%	47%	48%	
20-24	21,605	64%	65%	60%	60%	50%	53%	54%	
25-29	4,860	77%	77%	72%	71%	66%	71%	73%	
30-39	5,660	82%	82%	76%	74%	72%	76%	78%	
40-49	2,615	81%	81%	71%	71%	71%	71%	75%	
50-59	405	78%	77%	54%	55%	58%	65%	59%	
60 and above	40	83%	80%	30%	34%	29%	33%	26%	
Not recorded	5	0%	33%	0%	21%	33%	0%	33%	
Total	135,410	64%	65%	61%	60%	50%	51%	51%	

78. Table 13 shows that 82 per cent of the respondents aged 30-39 when they started their degrees were classified as being employed in a graduate occupation by both the Elias and Purcell measure and the SOC (DLHE)-based measure; this dropped six

percentage points when looking at the individual responses. The respondents aged 19 and under at commencement had the lowest proportion employed in a graduate occupation when classified by both Elias and Purcell and the SOC (DLHE)-based measure (62 and 63 per cent respectively).

79. The respondents aged 30-39 on commencement had the highest proportion with an above-median salary when based on all classifications (72 per cent for SOC (DLHE) code-based ranking, 76 per cent for individual responses-based ranking and 78 per cent for imputation based on individual responses). In contrast, the respondents aged 60 and above had the lowest proportion in all three salary classifications.

#### Gender<sup>22</sup>

80. Table 14 shows the gender breakdown of the full-time, first degree, UK-domiciled, employed respondents to the 2007-08 DLHE by their employment status.

Table 14 Gender breakdown by employment status

Gender	Headcount	% Employed	% In further study	% Assumed unemployed
Female	110,925	77%	16%	7%
Male	80,780	72%	17%	11%
Total	191,705	75%	16%	9%

- 81. Table 14 shows that the majority of respondents in the cohort are female (58 per cent). Female respondents also have the highest percentage employed or in further study (93 per cent compared to 89 per cent of males); this coincides with males having the highest proportion unemployed (11 per cent).
- 82. Table 15 shows the gender breakdown of the full-time, first degree, UK-domiciled, employed respondents to the 2007-08 DLHE survey by the seven classifications.

Table 15 Gender: percentage in each group who were in a graduate occupation, according to each occupation/salary classification

		Occupation classifications				Salary classifications			
Gender	Headcount	E&P	SOC	Ind	lmp	SOC	Ind	lmp	
Female	80,695	63%	64%	62%	61%	49%	49%	50%	
Male	54,715	66%	66%	60%	59%	53%	54%	54%	
Total	135,410	64%	65%	61%	60%	50%	51%	51%	

83. Table 15 shows that male respondents have the highest proportion employed in a graduate occupation when classified by both Elias and Purcell and the SOC (DLHE)-based measure (both 66 per cent). However when looking at the individual responses,

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<sup>&</sup>lt;sup>22</sup> Respondents registered as 'indeterminate' gender are excluded from this section.

females have the higher proportion employed in a graduate occupation (62 per cent). It is interesting to note that when looking at the SOC (DLHE) codes, male respondents have the highest proportion employed in a graduate occupation, but the lowest when based on the individual question responses.

84. Table 15 also shows that male respondents have the highest proportion whose salary is above the median in all three classification measures (53 per cent for SOC (DLHE) code-based ranking, and 54 per cent both for individual responses-based ranking and for imputation based on individual responses).

#### **Ethnic group**

- 85. Table 16 shows the ethnicity of full-time, first degree, UK-domiciled respondents to the 2007-08 DLHE survey by their employment status. The respondents have been grouped into five categories:
  - a. White ethnic all respondents registered as of White ethnicity.
  - b. Black/Black British all respondents registered as of African, Caribbean or Other Black ethnicity.
  - c. Asian/Asian British all respondents registered as of Bangladeshi, Chinese, Indian, Pakistani or Other Asian ethnicity.
  - d. Other/Mixed background all respondents registered as of Other or Mixed ethnicity.
  - e. Not known/Not recorded all respondents registered as of Unknown ethnicity.

Table 16 Ethnic breakdown by employment status

Ethnic group	Headcount	% Employed	% In further study	% Assumed unemployed
White	158,720	76%	16%	8%
Black/Black British	6,320	68%	16%	15%
Asian/Asian British	16,850	66%	20%	13%
Other/Mixed background	5,825	69%	19%	11%
Not known/Not recorded	3,990	71%	17%	12%
Total	191,710	75%	16%	9%

- 86. White respondents account for 83 per cent of the total cohort and have the highest proportion of students employed or in further study (92 per cent). Black/Black British respondents have the highest unemployment figures (15 per cent) of the ethnic groups.
- 87. Table 17 shows the ethnic breakdown of the full-time, first degree, UK-domiciled respondents to the 2007-08 DLHE survey by the seven classifications.

Table 17 Ethnicity: percentage in each group who were in a graduate occupation, according to each occupation/salary classification

		Occupation classifications			Salary classifications			
Ethnic group	Headcount	E&P	SOC	Ind	Imp	SOC	Ind	lmp
White	114,180	64%	65%	62%	60%	50%	50%	50%
Black/Black British	4,105	59%	61%	53%	54%	47%	54%	58%
Asian/Asian British	10,630	66%	68%	62%	62%	54%	54%	60%
Other/Mixed background	3,805	64%	65%	58%	58%	48%	54%	52%
Unknown/Not recorded	2,695	63%	64%	57%	57%	50%	51%	52%
Total	135,410	64%	65%	61%	60%	50%	51%	51%

- 88. Table 17 shows that Asian/Asian British respondents have the highest proportion classified as employed in a graduate occupation in all four measures (66 per cent for Elias and Purcell's classification, 68 per cent for SOC (DLHE) code-based occupation classification, and 62 per cent for both individual responses-based classification and imputation). In contrast, Black/Black British respondents have the lowest proportion in each category, with only 53 per cent employed in a graduate occupation when classification is based on the individual responses.
- 89. Table 17 also shows that, when looking at the SOC (DLHE)-based salary classification, Asian/Asian British respondents have the highest proportion whose salary is above the median (54 per cent) and Black/Black British respondents have the lowest (47 per cent). Asian/Asian British, Black/Black British and respondents from an Other/Mixed background have the highest proportion of salaries above the median when based on their individual responses (54 per cent for all three groups).

#### **Disability**

- 90. Table 18 shows the disability status breakdown of the full-time, first degree, UK-domiciled, employed respondents to the 2007-08 DLHE by their employment status. The respondents have been grouped into three disability categories:
  - those in receipt of Disabled Students' Allowance (DSA) while studying
  - those who declared disability, but not in receipt of DSA while studying
  - those with no known disability.

Table 18 Disability status breakdown by employment status

Disability status	Headcount	% Employed	% In further study	% Assumed unemployed
In receipt of DSA	9,920	72%	16%	12%
Declared disability, but not in receipt of DSA	7,835	72%	18%	11%
No known disability	173,950	75%	16%	9%
Total	191,710	75%	16%	9%

- 91. Respondents with no known disability account for 91 per cent of the cohort, with 75 per cent of these respondents being employed. The respondents with no known disability also have the lowest proportion unemployed at 9 per cent; the respondents in receipt of DSA have the highest unemployment figure (12 per cent).
- 92. Table 19 shows the disability status breakdown of the full-time, first degree UK-domiciled respondents to the 2007-08 DLHE survey by the seven classifications.

Table 19 Disability status: percentage in each group who were in a graduate occupation, according to each occupation/salary classification

		Occupation classifications c				Salary classifications		
Disability status	Headcount	E&P	SOC	Ind	Imp	SOC	Ind	Imp
In receipt of DSA	6,635	64%	63%	59%	58%	46%	48%	46%
Declared disability, but not in receipt of DSA	5,265	65%	66%	59%	58%	48%	50%	48%
No known disability	123,510	64%	65%	61%	60%	51%	51%	52%
Total	135,410	64%	65%	61%	60%	50%	51%	51%

- 93. Table 19 shows that 65 per cent of the respondents who declared disability during their studies, but were not in receipt of DSA, are employed in a graduate occupation when based on the Elias and Purcell classification, compared to 64 per cent of those in receipt of DSA. When looking at the SOC (DLHE)-based measure, 66 per cent of the respondents who declared disability during their studies, but were not in receipt of DSA, are employed in a graduate occupation compared to 63 per cent of respondents in receipt of DSA.
- 94. Table 19 also shows that the respondents with no known disability have the highest proportion whose salary is above the median in all three classifications. In contrast the respondents in receipt of DSA have the lowest proportion in all three classifications.

#### **Neighbourhood participation rate**

95. This section examines the characteristics of the neighbourhood in which the graduate lived before they started their first degree. For this we use the POLAR2 classification, which is formed by ranking 2001 Census Area Statistics wards by their

young participation rates for the combined 2000-2004 cohorts. This gives five young participation quintile groups of areas ordered from '1' (lowest participation) to '5' (highest participation), each representing 20 per cent of the UK young cohort. Graduates have been allocated to the neighbourhoods on the basis of their postcode prior to entry.

- 96. More information on the POLAR2 classification and the files used in the mapping can be found at www.hefce.ac.uk/widen/polar/polar2.
- 97. Table 20 shows the POLAR2 groupings of the full-time, first degree, UK-domiciled, employed respondents to the 2007-08 DLHE by their employment status.

Table 20 POLAR2 grouping breakdown by employment status

POLAR2 grouping	Headcount	% Employed	% In further study	% Assumed unemployed
1st quintile	16,380	76%	15%	10%
2nd quintile	26,710	75%	15%	10%
3rd quintile	35,700	75%	15%	10%
4th quintile	46,860	75%	16%	9%
5th quintile	64,420	74%	18%	8%
Not known/unrecorded	1,640	72%	21%	7%
Total	191,710	75%	16%	9%

- 98. Table 20 shows that respondents whose POLAR2 grouping was the first quintile had the highest proportion employed (76 per cent), but also the highest proportion assumed unemployed (10 per cent). Of those with known POLAR2 grouping, the fifth quintile had the lowest proportion employed (74 per cent), but the highest proportion registered in further study (18 per cent).
- 99. Table 21 shows the POLAR2 grouping breakdown of the full-time, first degree, UK-domiciled respondents to the 2007-08 DLHE survey by the seven classifications.

Table 21 POLAR2 grouping: percentage in each group who were in a graduate occupation, according to each occupation/salary measure

		Occupation classifications			Salary classifications			
POLAR2 grouping	Headcount	E&P	SOC	Ind	lmp	soc	Ind	lmp
1st quintile	11,915	61%	62%	58%	58%	47%	46%	48%
2nd quintile	19,080	62%	63%	59%	58%	48%	48%	50%
3rd quintile	25,440	63%	63%	60%	59%	49%	49%	51%
4th quintile	33,200	65%	65%	62%	60%	51%	51%	51%
5th quintile	44,670	67%	67%	63%	62%	53%	54%	53%
Not known/Unrecorded	1,110	70%	70%	65%	62%	57%	66%	61%
Total	135,410	64%	65%	61%	60%	50%	51%	51%

- 100. Table 21 shows that respondents whose POLAR2 grouping was the first quintile have the lowest proportion employed in a graduate occupation when measured by all four occupation classifications. In contrast, the respondents from the fifth quintile have the highest proportion employed in a graduate occupation in all four measures.
- 101. Table 21 also shows that the respondents in the first quintile had the lowest proportion whose salary was above the median value in all three salary classifications (47 per cent when based on SOC (DLHE) codes, 46 per cent when based on individual responses and 48 per cent for imputation). In contrast the respondents from the fifth quintile had the highest proportions in all three salary classifications.

#### **Highest qualification on entry**

102. Table 22 shows the highest qualification on entry of the full-time, first degree UK-domiciled, employed respondents to the 2007-08 DLHE by their employment status. The group who had A-levels, AS levels or Scottish Highers as their highest qualification were further divided by their tariff scores.

Table 22 Highest qualification on entry breakdown by employment status

Highest qualification on entry	Headcount	% Employed	% in further study only	% Assumed unemployed
First degree or above	4,000	87%	9%	4%
Other undergraduate qualification	11,460	78%	12%	11%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 480+ tariff points	14,470	66%	27%	6%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 421-480 tariff points	16,305	71%	22%	6%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 381-420 tariff points	16,915	71%	21%	7%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 351-380 tariff points	13,135	73%	19%	7%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 321-350 tariff points	11,930	73%	18%	9%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 291-320 tariff points	13,245	75%	17%	8%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 261-290 tariff points	9,770	76%	15%	9%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 231-260 tariff points	10,730	77%	14%	10%

A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 0-230 tariff points	21,585	76%	14%	11%
VCE with or without A-levels/ AS levels/Scottish Highers	14,450	80%	10%	11%
A-levels/Scottish Highers, with no VCE or GNVQ, unknown tariff score	9,530	76%	15%	9%
BTEC, ONC, SCOTVEC or equivalent	5,180	79%	8%	13%
Foundation or Access course	8,920	76%	12%	13%
Baccalaureate	865	62%	29%	9%
No previous /other not given elsewhere/unknown qualifications	9,210	76%	15%	9%
Total	191,710	75%	16%	9%

103. Table 22 shows that respondents who held a first degree or above on entry had the highest proportion employed (87 per cent); this group also had the lowest proportion assumed unemployed (4 per cent). The respondents who held a 'BTEC, ONC, SCOTVEC or equivalent' or a 'Foundation or Access course' had the highest proportions assumed unemployed (13 per cent). The respondents who held a baccalaureate had the lowest proportion employed (62 per cent), but the highest proportion going into further study (29 per cent).

104. Table 23 shows the highest qualification on entry of full-time, first degree UK-domiciled respondents to the 2007-08 DLHE survey, broken down by the percentage in graduate occupations according to the seven occupation/salary measures.

Table 23 Highest qualification on entry: percentage in each group who were in a graduate occupation, according to each occupation/salary measure

		Occupation classifications				Salary classifications			
Highest qualification on entry	Headcount	E&P	soc	Ind	Imp	soc	Ind	Imp	
First degree or above	3,345	92%	91%	88%	87%	85%	86%	87%	
Other undergraduate qualification	8,445	64%	65%	60%	60%	51%	55%	57%	
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 480+ tariff points	9,135	76%	76%	74%	72%	63%	66%	65%	
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 421-480 tariff points	10,880	71%	71%	68%	66%	56%	56%	57%	

A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 381-420 tariff points	11,360	67%	68%	65%	64%	53%	53%	53%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 351-380 tariff points	9,115	64%	65%	61%	60%	49%	48%	49%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 321-350 tariff points	8,250	62%	63%	59%	58%	47%	45%	47%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 291-320 tariff points	9,340	61%	62%	58%	57%	46%	46%	46%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 261-290 tariff points	7,065	59%	61%	56%	55%	45%	44%	45%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 231-260 tariff points	7,745	58%	58%	55%	54%	43%	43%	44%
A-levels/AS levels/Scottish Highers, with no VCE or GNVQ, 0-230 tariff points	15,605	56%	57%	52%	52%	43%	42%	43%
VCE with or without A- levels/AS levels/Scottish Highers	10,835	58%	59%	55%	55%	45%	40%	48%
A-levels/Scottish Highers, with no VCE or GNVQ, unknown tariff score	6,915	65%	65%	61%	60%	50%	52%	54%
BTEC, ONC, SCOTVEC or equivalent	3,880	59%	59%	52%	52%	38%	39%	36%
Foundation or Access course	6,365	67%	67%	62%	61%	49%	54%	50%
Baccalaureate	505	71%	74%	66%	63%	55%	61%	55%
No previous/other not given elsewhere/unknown qualifications	6,620	71%	72%	67%	65%	59%	63%	63%
Total	135,410	64%	65%	61%	60%	50%	51%	51%

105. Table 23 shows that the respondents who held a first degree or above as their highest qualification on entry have the highest proportion employed in a graduate occupation when based on all four occupational measures (92 per cent for Elias and

Purcell's classification, 91 per cent when based on SOC (DLHE) codes, 88 per cent when based on individual responses and 87 per cent for imputation). The respondents who held A-levels/AS levels/Scottish Highers with a tariff score of 0-230 had the lowest proportion employed in a graduate occupation when based on both the Elias and Purcell method (56 per cent) and the SOC (DLHE)-based method (57 per cent).

106. Respondents who held a first degree or above as their highest qualification on entry have the highest proportion whose salary is above the median when based on all three salary measures (85 per cent when based on SOC (DLHE) codes, 86 per cent for individual responses-based classification and 87 per cent for imputation). The respondents who held a BTEC, ONC, SCOTVEC or equivalent had the lowest in all three measures.

#### Subject studied

107. Table 24 shows the subject breakdown of full-time, first degree, UK-domiciled, employed respondents to the 2007-08 DLHE by their employment status. The subjects have been grouped into 'medical or veterinary' and 'non-medical or veterinary' subjects to help illustrate the distinction between certain subjects.

Table 24 Subject studied breakdown by employment status

Subject studied	Headcount	% Employed	% in further study only	% Assumed unemployed
Agriculture & related subjects	1,540	80%	11%	9%
Architecture, building & planning	4,015	76%	13%	11%
Biological sciences	20,550	70%	22%	8%
Business & administrative studies	20,620	81%	9%	10%
Combined: other	625	69%	22%	9%
Computer science	7,975	73%	11%	15%
Creative arts & design	22,395	77%	11%	12%
Education	8,955	87%	10%	3%
Engineering & technology	9,525	77%	12%	11%
Humanities	11,110	64%	25%	11%
Languages	13,980	67%	24%	9%
Law	9,125	48%	46%	6%
Librarianship & information science	6,100	80%	7%	13%
Mathematical sciences	3,580	66%	25%	9%
Physical sciences	9,215	60%	30%	10%
Social, economic & political studies	18,940	75%	16%	9%
Subjects allied to medicine	16,525	87%	8%	5%
Non-medical or veterinary	184,780	74%	17%	9%
Medicine & dentistry	6,440	95%	5%	0%
Veterinary science	490	91%	4%	5%
Medical or veterinary	6,930	95%	5%	1%
Total	191,710	75%	16%	9%

108. Table 24 shows that respondents who studied medicine and dentistry have the highest proportion employed (95 per cent); veterinary science (91 per cent), subjects allied to medicine (87 per cent), and education (87 per cent) also have high proportions that are employed. The respondents who studied law had the lowest proportion employed; however this corresponds to a large proportion continuing with further study (48 and 46 per cent respectively). The respondents who studied computer science had the highest proportion unemployed with 15 per cent.

109. Table 25 shows the subject studied breakdown of the full-time, first degree UK-domiciled respondents to the 2007-08 DLHE survey by the seven occupation/salary measures.

Table 25 Subject studied: percentage in each group who were in a graduate occupation, according to each occupation/salary classification

		Occupa	tion cla	ssifica	tions	Salary classifications		
Subject studied	Headcount	E&P	SOC	Ind	Imp	SOC	Ind	Imp
Agriculture & related subjects	1,145	46%	55%	53%	52%	37%	35%	27%
Architecture, building & planning	2,890	82%	84%	78%	78%	79%	60%	84%
Biological sciences	13,560	50%	49%	45%	45%	31%	28%	17%
Business & administrative studies	15,575	60%	65%	60%	59%	50%	46%	59%
Combined: other	395	49%	47%	40%	40%	31%	29%	24%
Computer science	5,585	70%	75%	66%	66%	69%	58%	79%
Creative arts & design	16,330	53%	52%	44%	44%	21%	23%	10%
Education	7,510	79%	77%	81%	81%	71%	72%	85%
Engineering & technology	6,915	79%	81%	75%	75%	74%	76%	86%
Humanities	6,685	46%	46%	40%	40%	30%	31%	21%
Languages	8,845	52%	53%	49%	49%	32%	32%	18%
Law	4,155	49%	48%	37%	37%	28%	28%	20%
Librarianship & information science	4,580	52%	53%	43%	43%	28%	24%	13%
Mathematical sciences	2,200	71%	73%	69%	68%	65%	67%	80%
Physical sciences	5,175	60%	60%	56%	56%	46%	46%	56%
Social, economic & political studies	13,330	61%	60%	56%	55%	48%	52%	65%
Subjects allied to medicine	14,035	90%	90%	88%	87%	83%	79%	91%
Non-medical or veterinary	128,905	63%	63%	59%	58%	48%	49%	49%
Medicine & dentistry	6,080	100%	100%	99%	99%	100%	100%	100%
Veterinary science	425	94%	96%	97%	96%	94%	92%	96%
Medical or veterinary	6,505	99%	99%	99%	99%	99%	99%	100%
Total	135,410	64%	65%	61%	60%	50%	51%	51%

<sup>110.</sup> Table 25 shows a clear divide between respondents who studied medical or veterinary subjects and those who did not: 99 per cent of those who studied medical or veterinary subjects are employed in a graduate occupation (all four measures), compared to, for those who studied other subjects, only 63 per cent under the Elias and Purcell and SOC (DLHE) measures and even lower for the other two classification methods.

<sup>111.</sup> Looking at the individual subjects using the Elias and Purcell classification, Table 21 shows that respondents who studied agriculture and related subjects (46 per cent),

humanities (46 per cent), law (49 per cent) and other combined subjects (49 per cent) all have fewer than half of the respondents employed in a graduate occupation. But when using the SOC (DLHE)-based classifications, agriculture and related subjects is nine percentage points higher (55 per cent).

112. When looking at the individual subjects using the SOC (DLHE)-based salary classification, 100 per cent of medicine and dentistry and 94 per cent of veterinary science respondents' salaries are above the median. Subjects allied to medicine (83 per cent), architecture, building and planning (79 per cent) and engineering and technology (74 per cent) also have high proportions. In contrast the lowest proportions were among respondents who studied creative arts and design (21 per cent); librarianship and information science, and law (both 28 per cent); and humanities (30 per cent).

#### Classification of award

113. Table 26 shows the award classification breakdown of the full-time, first degree UK-domiciled, employed respondents to the 2007-08 DLHE by their employment status. Respondents whose award classification was 'classification not applicable' are excluded from this cohort.

Table 26 Award classification breakdown by employment status

Classification awarded	Headcount	% Employed	% In further study	% Assumed unemployed
First class honours	26,235	70%	24%	6%
Upper second class honours	94,620	74%	18%	8%
Lower second class honours	50,980	76%	12%	12%
Third class honours	8,525	76%	9%	15%
Unclassified award*	11,280	90%	6%	4%
Total	191,640	75%	16%	9%

<sup>\*</sup> For more details about 'Unclassified' awards see Annex B.

- 114. Table 26 shows that 94 per cent of respondents who qualified with first class honours are either employed or continuing with further study, with only 6 per cent unemployed. The group who qualified with third class honours had the highest proportion unemployed with 15 per cent.
- 115. Table 27 shows the award classification breakdown of the full-time, first degree UK-domiciled respondents to the 2007-08 DLHE survey by the seven occupation/salary measures.

Table 27 Award classification: percentage in each group who were in a graduate occupation, according to each occupation/salary classification

		Occupation classifications			Salary classifications			
Classification awarded	Headcount	E&P	SOC	Ind	lmp	SOC	Ind	lmp
First class honours	17,405	77%	78%	75%	74%	61%	63%	67%
Upper second class honours	65,545	63%	64%	60%	60%	48%	48%	52%
Lower second class honours	36,440	55%	56%	50%	49%	42%	41%	38%
Third class honours	6,095	55%	56%	48%	47%	44%	43%	32%
Unclassified award	9,865	88%	88%	88%	86%	84%	85%	84%
Total	135,355	64%	65%	61%	60%	50%	51%	51%

- 116. Table 27 shows that in all four occupation classifications, respondents who qualified with first class honours had the highest proportions in a 'graduate occupation', and those with third class honours had the lowest.
- 117. The respondents who qualified with lower second class honours had the lowest proportion whose salary was above the median for both the SOC (DLHE)-based measures (42 per cent) and using the individual responses (41 per cent). Of those with first class honours, 61 per cent had a salary above the median when based on the SOC (DLHE) classification; this rose two percentage points to 63 per cent when based on the individual responses.

#### **Region of institution**

118. The following table shows the breakdown by region of institution of the full-time, first degree UK-domiciled, employed respondents to the 2007-08 DLHE by their employment status.

Table 28 Region of institution breakdown by employment status

Region of institution	Headcount	% Employed	% In further study	% Assumed unemployed
East Midlands	15,540	76%	16%	8%
East	10,340	72%	18%	10%
Greater London	23,530	73%	16%	11%
North East	10,295	72%	18%	9%
North West	23,680	76%	14%	10%
South East	22,870	75%	16%	9%
South West	16,710	75%	16%	8%
West Midlands	14,450	75%	16%	9%
Yorkshire and the Humber	19,695	74%	17%	9%
Other*	34,600	75%	17%	8%
Total	191,710	75%	16%	9%

<sup>\* &#</sup>x27;Other' includes respondents who studied in Northern Irish, Scottish and Welsh institutions.

120. Table 29 shows the institutional region breakdown of the full-time, first degree UK-domiciled respondents to the 2007-08 DLHE survey by the seven classifications.

Table 29 Region of institution: percentage in each group who were in a graduate occupation, according to each occupation/salary classification

		Occupation classifications			Salary classifications			
Region of institution	Headcount	E&P	SOC	Ind	Imp	SOC	Ind	lmp
East Midlands	11,115	67%	68%	61%	60%	51%	48%	49%
East	7,045	64%	65%	64%	61%	51%	57%	51%
Greater London	16,340	65%	66%	59%	59%	48%	59%	58%
North East	6,985	68%	67%	63%	62%	54%	49%	53%
North West	17,075	62%	61%	58%	57%	47%	45%	48%
South East	16,415	63%	64%	62%	60%	49%	52%	50%
South West	11,780	63%	64%	62%	61%	50%	51%	51%
West Midlands	10,375	67%	68%	64%	62%	52%	53%	53%
Yorkshire and the Humber	13,700	65%	66%	59%	59%	50%	45%	48%
Other	24,585	64%	64%	63%	62%	52%	52%	53%
Total	135,410	64%	65%	61%	60%	50%	51%	51%

<sup>119.</sup> Table 28 shows that respondents who studied in the East and North East regions have the lowest proportion of those employed with 72 per cent. The Greater London region had 11 per cent of their respondents registered as unemployed.

- 121. In Table 29 there is only a small range of results for both the Elias and Purcell and the SOC (DLHE)-based measures. There is a 6 per cent range using the Elias and Purcell classification, with the North West having the lowest proportion employed in a graduate occupation, and the North East the highest.
- 122. Based on the SOC (DLHE) salary classification, the North West has the lowest proportion whose salary is above the median with 47 per cent; this drops two percentage points to 45 per cent when looking at the individual responses. Greater London has the second lowest proportion when based on the SOC (DLHE) salary measure (48 per cent), but the highest when based on the individual responses (59 per cent).

#### Institution type

- 123. The following table shows the institution type breakdown of the full-time, first degree UK-domiciled, employed respondents to the 2007-08 DLHE by their employment status. Institutions have been grouped into four categories:
  - pre-1992 universities containing all HEIs that were universities before 1992
  - post-1992 universities containing all HEIs that became universities after 1992
  - general colleges and specialist HEIs containing the remaining English HEIs that have not already been specified
  - non-English HEIs containing all institutions from Northern Ireland, Scotland and Wales

Table 30 Institution type breakdown by employment status

Institution type	Headcount	% Employed	% In further study	% Assumed unemployed
Pre-1992 universities	67,390	70%	22%	8%
Post-1992 universities	64,295	77%	12%	11%
General colleges and specialist HEIs	25,390	80%	11%	9%
Non-English HEIs	34,630	75%	17%	8%
Total	191,710	75%	16%	9%

- 124. Table 30 shows that the respondents who studied at general colleges and specialist HEIs had the highest proportion employed (80 per cent). Twenty-two per cent of respondents from pre-1992 universities went into further study, compared to only 12 per cent of those from post-1992 universities.
- 125. Table 31 shows the institutional type breakdown of the full-time, first degree, UK-domiciled respondents to the 2007-08 DLHE survey by the seven occupation/salary measures.

Table 31 Institution type: percentage in each group who were in a graduate occupation, according to each occupation/salary classification

		Occupation classifications		Salary classifications		ons		
Institution type	Headcount	E&P	SOC	Ind	lmp	SOC	Ind	lmp
Pre-1992 universities	44,555	70%	70%	66%	64%	56%	58%	57%
Post-1992 universities	46,990	61%	62%	57%	56%	47%	46%	49%
General colleges and specialist HEIs	19,260	61%	61%	59%	57%	43%	45%	42%
Non-English HEIs	24,605	64%	64%	63%	62%	52%	52%	53%
Total	135,410	64%	65%	61%	60%	50%	51%	51%

- 126. Table 31 shows that respondents who studied at pre-1992 universities had the highest proportion employed in a graduate occupation in all four occupation measures.
- 127. Respondents who studied at pre-1992 universities also had the highest proportions whose salary was above the median in all three salary classifications. In contrast, the group who studied at general colleges and specialist HEIs had the lowest proportion in each classification.
- 128. The high figures for pre-1992 universities may be because the majority of respondents who studied medical and veterinary subjects did so at pre-1992 universities, and the strong characteristics of these respondents (see Table 21) may skew the results.

#### **Further cohorts of interest**

- 129. Paragraphs 72 to 128 concentrated on the full-time, first degree, UK-domiciled respondents to the 2007-08 DLHE survey and their characteristics. We now look the qualifications obtained by the UK-domiciled respondents and whether they studied full- or part-time.
- 130. In particular this section shows how the occupational classification measures used in the previous sections can be applied across all cohorts of respondents. We do not report on the salary-based classifications here because the salary methods used in the report are designed to focus on full-time, first degree qualifiers. However it is possible to modify and implement these salary-based methods to other non-first degree cohorts.

#### **Full-time respondents**

131. Table 32 shows the qualifications obtained breakdown of the full-time UK-domiciled, employed respondents to the 2007-08 DLHE by their employment status.

Table 32 Qualification obtained breakdown by employment status

Qualification obtained	Headcount	% Employed	% In further study	% Assumed unemployed
Doctorate	3,665	93%	3%	4%
PGCE	18,485	97%	1%	2%
Other postgraduate qualification	3,690	87%	8%	5%
Other higher degree	16,565	80%	14%	6%
First degree	191,710	75%	16%	9%
Foundation degree	6,465	51%	45%	4%
HND/DipHE	14,045	80%	16%	4%
Other undergraduate qualification	5,270	59%	34%	8%
Total	259,895	76%	16%	8%

- 132. Table 32 shows that 97 per cent of respondents who qualified with a Professional Graduate/Postgraduate Certificate of Education (PGCE) were registered as employed, with only 2 per cent assumed unemployed. Only 51 per cent of respondents who qualified with foundation degrees were registered as employed, but this coincides with 45 per cent going into further study, with 4 per cent assumed unemployed.
- 133. Table 33 shows the qualifications obtained breakdown of the full-time UK-domiciled respondents to the 2007-08 DLHE survey by the occupation measures.

Table 33 Qualification obtained: percentage in each group who were in a graduate occupation, according to each occupation measure

		Occupation classifications			
Qualification obtained	Headcount	E&P	SOC	Ind	lmp
Doctorate	3,290	97%	97%	86%	84%
PGCE	17,595	98%	98%	96%	95%
Other postgraduate qualification	3,090	89%	88%	77%	75%
Other higher degree	12,615	83%	83%	63%	64%
First degree	135,410	64%	65%	61%	60%
Foundation degree	3,215	46%	40%	42%	47%
HND/DipHE	10,905	85%	86%	85%	83%
Other undergraduate qualification	2,910	53%	53%	43%	47%
Total	189,035	70%	71%	67%	65%

134. Ninety-eight per cent of respondents who qualified with a PGCE and 97 per cent of respondents who qualified with a doctorate were classified as being employed in a graduate occupation by both Elias and Purcell's classification and the SOC (DLHE) measure. In contrast, only 46 per cent of respondents who qualified with a foundation

degree were classified as employed in a graduate occupation by the Elias and Purcell classification; this dropped six percentage points to 40 per cent when based on the SOC (DLHE) measure.

#### **Part-time respondents**

135. Table 34 shows the qualifications obtained breakdown the part-time, UK-domiciled, employed respondents to the 2007-08 DLHE by their employment status.

Table 34 Qualifications obtained by and employment status of part-time, UK-domiciled DLHE respondents, 2007-08

Qualification obtained	Headcount	% Employed	% In further study	% Assumed unemployed
Doctorate	1,240	97%	1%	2%
PGCE	2,670	97%	1%	2%
Other postgraduate qualifications	8,975	95%	4%	1%
Other higher degrees	14,520	95%	3%	2%
First degree	21,525	88%	6%	6%
Foundation degrees	3,520	88%	11%	1%
HND/DipHE	3,010	88%	9%	3%
Other undergraduate qualifications	10,910	89%	9%	2%
Total	66,365	91%	6%	3%

- 136. From Table 34 we see that the part-time respondents who qualified with a PGCE had the highest proportion employed (97 per cent); respondents who qualified with a first degree had the lowest proportion (88 per cent). The respondents who qualified with a foundation degree had the highest proportion continuing in further study (11 per cent).
- 137. Table 35 shows the qualifications obtained breakdown of the part-time, UK-domiciled respondents to the 2007-08 DLHE survey by the occupation measures.

Table 35 Qualification obtained: percentage in each group who were in a graduate occupation, according to each occupation measure

		Occupation classifications			
Qualification obtained	Headcount	E&P	SOC	Ind	lmp
Doctorate	1,135	98%	97%	50%	47%
PGCE	2,515	96%	96%	66%	62%
Other postgraduate qualifications	8,305	95%	96%	34%	36%
Other higher degrees	13,165	93%	93%	36%	37%
First degree	17,590	77%	78%	42%	43%
Foundation degrees	3,010	60%	57%	36%	38%
HND/DipHE	2,570	87%	70%	57%	52%
Other undergraduate qualifications	9,360	81%	82%	43%	42%
Total	57,645	85%	84%	41%	41%

- 138. Table 35 shows that the part-time respondents who qualified with either a doctorate, a PGCE, other postgraduate qualification or other higher degrees had the highest proportions (all above 90 per cent) classified as employed in a graduate occupation by both the Elias and Purcell classification and the SOC (DLHE) measure. Foundation degrees had the lowest proportions employed in a graduate occupation with 60 per cent (Elias and Purcell's classification) and 57 per cent (SOC (DLHE) measure).
- 139. It is important to note that when looking at the individual responses there is large drop in the proportion of respondents who are employed in a graduate occupation, with other postgraduate qualifications dropping 61 percentage points from 95 per cent (Elias and Purcell classification) to 34 per cent. These large drops in percentages may be due to the respondents already being employed in an occupation before studying part-time for a qualification and so, could answer question 12 or question 13 from the DLHE survey (see paragraph 41) unfavourably.

### Annex A: SOC (DLHE) code-based occupation classification

#### **Full method**

- 1. The SOC (DLHE) code-based occupational classification examines the cohort of young<sup>23</sup>, full-time, first degree respondents to HESA's DLHE for the years 2003-2004 until 2007-2008 and who were employed<sup>24</sup> at the time of the survey.
- 2. The answers the respondents gave for the following two questions from the DLHE survey are used<sup>25</sup>:
- 'Q12. Would you have been able to get the job you will be doing on 12 January xxxx without the qualification you recently obtained (the actual qualification, not the subject of study)?'

'Yes'

'No: the qualification was a formal requirement/expected'

'Possibly: but the qualification did give me an advantage'

'Don't know'

and

'Q13. As far as you are aware, what was more important to your employer about your qualification, the subject(s) you studied or the level of study?'

'The subject(s) studied'

'The level of study'

'Both were equally important'

'Don't know'.

- 3. Depending on the answers to the questions<sup>26</sup>, a respondent is flagged as being employed in either a graduate occupation or a non-graduate occupation, or is excluded from the cohort.
- 4. Then for each SOC (DLHE) code, the proportion of respondents who were flagged as being in a graduate occupation is calculated and:
  - a. Codes with a percentage below a particular level (35 per cent) are considered to be in a non-graduate occupation.
  - b. Codes with a percentage above a particular level (55 per cent) are considered to be in a graduate occupation.

<sup>&</sup>lt;sup>23</sup> Young respondents contain all the respondents that are age 20 or under on the commencement of their first degree.

<sup>&</sup>lt;sup>24</sup> Those classified as freelance or self-employed are also excluded from the cohort.

<sup>&</sup>lt;sup>25</sup> Those who failed to answer these questions are excluded from the cohort.

<sup>&</sup>lt;sup>26</sup> See Annex D for the flow chart regarding combination of outcomes.

- c. Codes with a percentage between these two limits are considered to be in an intermediate occupation.
- d. The percentages used here (35 and 55 per cent) are predominately used to illustrate the method rather than being a definitive set level. These illustrative percentages were determined through an examination of the SOC (DLHE) distribution of the proportion in a graduation occupation.
- 5. Any SOC (DLHE) code that contains fewer than 10 respondents is classified as 'not classifiable yet', regardless of the classification given in paragraph 4.

#### Classifying the intermediate occupations

- 6. In order to classify the intermediate occupations (that is, as a graduate occupation 'or a non-graduate occupation), the salary information of the cohort is considered:
- 7. Any respondents who have a missing salary, an annual salary equal to £0, or an annual salary greater than £60,000, are excluded from this cohort.
- 8. Using the classifications from paragraph 4, the average and lower quartile of the graduate occupations salaries are calculated. The average and upper quartile of the non-graduate occupations salaries are also calculated.
- 9. The mean figure of the lower quartile (graduate occupations) and the upper quartile (non-graduate occupations) is calculated.
- 10. The mean salary for each intermediate occupation SOC (DLHE) code is calculated.
- 11. If the mean salary for an intermediate occupation SOC (DLHE) code is less than the mean figure calculated in paragraph 9, then the SOC (DLHE) code is flagged as being a non-graduate occupation
- 12. If the mean salary for an intermediate occupation SOC (DLHE) code is greater than or equal to the mean figure calculated in paragraph 9, then the SOC (DLHE) code is flagged as being a graduate occupation.

#### Classifying the 'not classifiable yet' occupations

- 13. This following section is based on the cohort from paragraph 1 and only includes the classifications up until paragraph 5 (before the intermediate occupations have been re-classified).
- 14. Each SOC (DLHE) code is placed into their minor grouping which is based on the first three characters of the SOC (DLHE) code (see paragraphs 31 to 34 of the main report).
- 15. The number of SOC (DLHE) codes that are classified as either a graduate occupation or a non-graduate occupation in each minor grouping is calculated. The proportion of graduate occupations and non-graduate occupations is also calculated for each minor grouping.
- 16. If the number of classified SOC (DLHE) codes in a minor group is greater or equal to 10 and the percentage of graduate occupations is greater or equal to 70 per cent, then the minor group is classified as a graduate occupation.

- 17. Similarly, if the number of classified SOC (DLHE) codes in a minor group is greater or equal to 10 and the percentage of 'non-graduate occupations' is greater or equal to 70 per cent, then the minor group is classified as a non-graduate occupation.
- 18. If the number of classified SOC (DLHE) codes in a minor group is greater or equal to five (and fewer than 10) and the percentage of graduate occupations is greater or equal to 80 per cent, then the minor group is classified as a graduate occupation.
- 19. Similarly, if the number of classified SOC (DLHE) codes in a minor group is greater or equal to five (and fewer than 10) and the percentage of non-graduate occupations is greater or equal to 80 per cent, then the minor group is classified as a non-graduate occupation.
- 20. As with the 35 and 55 per cent limits described in paragraph 4, 70 and 80 per cent limits are set to illustrate the method rather than being a definitive level for the methodology.
- 21. If a minor grouping has not been classified yet, then the salary of the respondents is taken into account. Any respondents who have a missing salary, an annual salary equal to £0, or an annual salary greater than £60,000 is excluded from this cohort.
- 22. The average salary for each minor group is then calculated.
- 23. If the average salary of a minor group is greater than or equal to the average salary of the graduate occupations then the minor group is classified as being a graduate occupation.
- 24. Similarly, if the average salary of a minor group is less than or equal to the average salary of the non-graduate occupations then the minor group is classified as being a non-graduate occupation.
- 25. Any minor group that has failed to be classified using the above approaches is unclassified.
- 26. Any SOC (DLHE) code that had been classified as 'not classifiable yet' then inherits the classification of their minor group.
- 27. This leaves all SOC (DLHE) codes classified with as either a graduate occupation, a non-graduate occupation or unclassified.

## **Annex B: Unclassified awards**

- 1. This section focuses at the classification awarded to the respondents and in particular looks at the breakdown of the 'unclassified' awards.
- 2. Table B1 shows the breakdown of the 'unclassified' awards.

# Table B1 Unclassified award breakdown of the full-time, first degree, UK-domiciled respondents to the DLHE in 2007-08

Classification awarded	Headcount	% Employed	% In further study	% Assumed unemployed
General degree – degree awarded after following a non-honours course/degree that was not available to be classified	3,380	97%	2%	1%
Ordinary (to include divisions of ordinary, if any) – degree awarded after following a non-honours course	4,175	80%	14%	6%
Aegrotat (whether to honours or pass)	10	67%	0%	33%
Unclassified honours	3,720	94%	2%	4%
Unclassified honours total	11,280	90%	6%	4%

### **Annex C: Response rates**

1. Most of the measures in this issue paper encounter a problem when looking at the questions from the DLHE survey: the response rates for these questions. Table C1 shows the breakdown of whether a respondent has an SOC (DLHE) code, whether or not the respondent answered question 12 and question 13 from the DLHE survey and whether or not they gave a salary.

Table C1 Number of full-time, first degree, UK-domiciled respondents to the 2007-08 DLHE

Does the respondent have an SOC (DLHE) code?	Did the respondent answer Q12 and Q13?	Does the respondent have a salary?	Headcount
	Yes	Yes	50,960
Yes <sup>27</sup>	163	No	46,860
163	No	Yes	8,875
	INO	No	28,470
	Yes	Yes	40
No <sup>28</sup>	165	No	75
140	No	Yes	10
	INO	No	125
Headcount	,	•	135,410

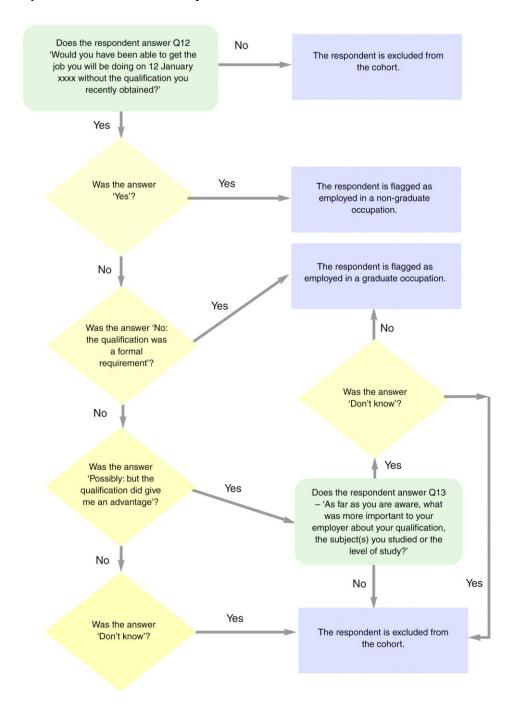
2. Table C1 shows that 97,930 respondents (72 per cent) answered question 12 and question 13 of the DLHE survey; of these, only 51,000 respondents (52 per cent) gave a salary. Of the respondents who didn't answer question 12 and question 13 (37,480 respondents), 23 per cent gave a salary.

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<sup>&</sup>lt;sup>27</sup> Includes all SOC (DLHE) codes except for the two reserved codes.

<sup>&</sup>lt;sup>28</sup> Only includes the two reserved codes.

# Annex D: Flow chart showing the method used for the SOC (DLHE) code-based occupation classification



# Annex E: Occupational classification for SOC (DLHE) codes

This annex is available to download as an Excel file alongside this document at www.hefce.ac.uk/pubs.