Indicators of employment

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Indicators of employment and other post-qualification activities

1. This is the first set of performance indicators (PIs) about the employment outcomes of higher education. In future, these indicators will be included with the other PIs which are published by the funding bodies each year.

Background

2. Following the Dearing report into higher education, the higher education (HE) funding councils in the UK set up a steering group (the Performance Indicators Steering Group, PISG) to look at what PIs should be produced for higher education institutions. Membership of this group is shown at Annex D. The first set of indicators, covering access, retention and progression and research, was published in December 1999 for the 1996-97 and 1997-98 academic years, and the second set, for the 1997-1998 and 1998-99 academic years, was published in October 2000 (HEFCE publication 00/40, 'Performance indicators in higher education in the UK').

3. In the meantime, the Chancellor of the Exchequer had requested that indicators showing employment outcomes be developed. The only data available for such an indicator were found to be unsuitable, and it was agreed that the survey used, the First Destination Return, should be amended. This was done for the survey of students graduating in the 1999-2000 academic year, and it is this information that has been used to provide the indicators in this document.

Data sources

4. The First Destination Return collects information about the activities of all students graduating from full-time HE courses, with the exception of some postgraduate diploma courses. The response rate is highest for home-domiciled graduates who obtain first degrees. Full details of the return are in Annex A.

5. The information from this return is collated by the Higher Education Statistics Agency (HESA), and held in the First Destination Supplement (FDS). It can be linked to the data on individual students held by HESA. These include information about the characteristics of the students, their courses, and their results. Where necessary we have also obtained information about student characteristics from UCAS files.

6. Background information about institutions' locations has been obtained from the annual Labour Force Survey (LFS), supplied by the Office of National Statistics (ONS). The most recent annual data set, for 1999, has been used.

Coverage of indicators

7. As with the other performance indicators, only home-domiciled students are included in the indicator. In addition this initial publication only covers graduates qualifying with first degrees who have studied full-time.

8. It is hoped to extend this coverage soon to graduates with other undergraduate qualifications, and eventually to include postgraduate qualifiers as well. The indicators will be extended to graduates from part-time courses as soon as we can obtain robust information for this group.

9. Graduates who say they are unavailable for work, for example because they are travelling or because they are ill, are excluded from the indicators. Also excluded are those who give their main activity as 'seeking employment' (unemployed) but provide a secondary activity of in employment or in further study or involved in professional preparation. The proportions of graduates in each of these categories are given in Table E1 as context.

10. This year, a pilot study was set up to investigate the feasibility of central data collection for the FDS. About 3,000 students were selected at random for inclusion in this study, spread across all HEFCE-funded institutions. Because of potential differences in the response rates for this study, it was agreed to leave the selected students out of the population to be included in the indicators.

Definitions of indicators

11. Two indicators of employment outcomes have been produced. For each indicator we provide:

- the actual value
- a benchmark value

- context statistics.

Some of the context statistics are common to both indicators. The definitions used are given below, with extra details in the annexes.

12. The need for two indicators arises because of questions over how to treat graduates going on to further study. While further study is a successful outcome of a first degree course, not everyone agrees that an employment indicator should include those going on to further study. The recognised International Labour Organisation (ILO) definition of people in the workforce excludes those who are studying. We have therefore produced one indicator including those in further study, and one excluding them.

Indicator of employment and further study

13. The first indicator expresses the number of graduates who say they are in employment or in further study or training as a percentage of all those who are employed, studying or unemployed. That is:

$$\text{indicator } 1 = \frac{100 \times (\text{employed} + \text{studying})}{\text{employed} + \text{unemployed} + \text{studying}}$$

Indicator of employment

14. The second indicator only includes graduates who say they are employed or seeking employment. The indicator is the percentage of this group who are in employment. That is:

$$\text{indicator } 2 = \frac{100 \times (\text{employed})}{\text{employed} + \text{unemployed}}$$

Adjusted sector benchmarks

15. The performance indicators already published (HEFCE publication 00/40) include adjusted sector benchmarks for comparison purposes. These are sector average values that take account of the entry qualifications and subject of study of students at an institution, and their age on entry.

16. Benchmarks are included with the employment indicators, again to allow each institution to be compared to a sector value that takes some institutional differences into account. However, more factors need to be included in these benchmarks than was necessary for the others. The factors used in constructing the benchmarks include age on entry, entry qualifications and subject of study, but also gender, ethnic group, social background, degree classification, and whether or not the student was on a sandwich course. A statistical model has been developed to allow the benchmarks and their standard deviations to be calculated. The definitions used are given in Annex B, together with an explanation of the modelling procedure.

17. Because of concern that local factors such as unemployment rates could affect an institution’s figures, the benchmarks here also include two institutional factors based on employment in the locality. In addition, the average A-level or Scottish Highers score on entry of its students is included as an institutional factor. Full details of these factors are provided in Annex B.

18. The aim of the benchmarks is to allow comparison of an institution’s indicator with a sector value that takes into account factors outside the institution’s immediate control. The decision about which factors are within the institution’s control is a matter of judgement. For example, it could be argued that the subject mix of an institution is within its control, but for these benchmarks we have taken it as being given.

Sandwich course

19. It is known that graduates from sandwich courses do much better in the job market than graduates with similar characteristics who have not done a sandwich course. During the consultation and in the PISG, there was discussion about whether sandwich course should be included as a factor in the benchmark, and, as with subject of study, it was eventually agreed that it should be included. As it is of such interest, we have also provided the percentage of students at an institution who graduate from such courses as a context statistic.

20. Full details of the construction of the benchmarks are included at Annex B. The annex also includes sector employment rates for the different sub-groups comprising the factors used in the benchmark.

Context statistics

21. As well as the indicators and their benchmarks, Table E1 includes a number of context statistics. It is important that the population numbers on which the

percentages are based should be known, so these are included in the table. In addition, as the FDS is a survey, the response rate for each institution is included. Indicators for institutions with relatively small populations or relatively low response rates should be treated with caution.

22. Other context statistics show: the proportion of the population who are excluded from the indicators (see paragraph 9); the proportion of graduates from medical, dental and veterinary courses; and the proportion who graduated from sandwich courses.

23. All statistics calculated come from the FDS and the HESA individualised student record. Full definitions are provided in the annexes.

Interpretation of Table E1

24. These indicators and their benchmarks are designed to show how successful graduates from an institution are at obtaining employment or further study within six months of graduation, compared with similar graduates across the sector. Each indicator is therefore provided with a benchmark which is a sector average value based on students from across the sector with similar characteristics to those of students at the institution.

25. If an indicator is very different from its benchmark, then this suggests that other factors, including the performance of the institution but not necessarily only this, have had an effect in determining its value. Small differences from a benchmark are normally to be expected, and in order to determine whether a difference is small or large we have calculated the standard deviation of the difference. The difference has been defined as significant if it is at least three times the size of the standard deviation. A significant difference has been denoted by a plus sign (+) for employment rates above the benchmark, or a minus sign (-) for rates below the benchmark. Differences that are not marked in this way may be assumed to be small enough to be ignored.

26. A significant difference between an indicator and the benchmark suggests that there is some aspect of the institution's performance that should be examined. However, it may be that students at the institution differ from other students in ways that have not been quantified, or that there are local effects which have not been taken into account. It does not necessarily mean that the institution itself is performing 'well' or 'badly', although institutional performance may play a part.

27. The benchmark may also be used to determine the usefulness of inter-institution comparisons. If two institutions have very different benchmarks, they are so different that it would not be helpful to compare them. If the benchmarks are similar for the two institutions, and if other information suggests that the institutions are comparable, then it may be reasonable to make a direct comparison between the two sets of indicators.

Survey at six months after graduation

28. The fact that the survey is carried out just six months after most students have graduated means that the figures produced do not give the final picture of graduate employment. Studies have shown that there is a gradual increase over the three years after graduation in the percentage of graduates who are employed (excluding those in further study), so the figure of 93 per cent of those in the job market employed after six months would be expected to increase to 97 or 98 per cent after three years.[1] However, the relative rates after six months for different institutions, once subject differences and differences due to other student characteristics are taken into account, are likely to provide a good indication of long term performance for comparative purposes.[2]

29. One of the perceived difficulties with a survey carried out six months after graduation is that different groups of students take different lengths of time to settle into jobs. For example, it is known that women are more likely than men to find a job within the first six

[1] See, for example, the discussion at page 35 of 'Moving on – graduate careers three years after graduation' a report of work done by the Institute for Employment Research (IER), Warwick University, published in November 1999.

[2] See 'Moving on', page 38, where it states 'Institution unemployment rates among economically active graduates at 6, 12 or 18 months are highly correlated with the average duration of unemployment over 42 months'.

months, and that this pattern does not last.[3] In addition, graduates from different subject areas show significant differences in the times they take to find jobs. This was one of the reasons for including both gender and subject of study in the benchmark.

Nature of employment

30. Both indicators are measures of employment outcomes that take no account of the type of employment obtained. At present, we do not feel that the information available about the nature of graduate jobs is sufficiently robust to provide a performance indicator. It is hoped that the current review of the FDS will improve the data available in this respect, so that we can look further at how to classify 'job quality', and whether this would be suitable as a performance indicator.

31. It should also be noted that the 'Moving on' study reported that employment six months after graduation is related not only to employment prospects over three years, but also to the quality of job obtained at the later period.[4]

Response rates

32. The overall response rate to the FDS this year was 81 per cent. Most institutions had response rates of at least 70 per cent. A few had very low response rates, and it should be noted that the indicators for such institutions may be biased. For two institutions the response was so poor that the indicators have been omitted. Those affected are Wimbledon School of Art and Kent Institute of Art and Design.

Missing values

33. If the response rate is low, there is always some concern that the characteristics of non-responders may be different from those who have responded. As the benchmarks have only used the characteristics of graduates for which the destination information is available, the characteristics of graduates who did not respond will not have affected them. An institution which has mainly received responses from graduates with a relatively high probability of being unemployed will (implicitly) have this taken into account.

34. We have looked at the individual characteristics of the non-respondents, and there is evidence that those from groups with the highest employment rates are slightly more likely to have responded to the survey. For example, while 55 per cent of home-domiciled graduates with first degrees are women, just 52 per cent of the non-respondents are women. The table below shows the benchmark we would get for all non-respondents, compared with that for respondents, for the indicator excluding those going on to further study. The small reduction suggests that the non-respondents are only slightly more likely than the respondents to be looking for employment.

Employment rate

	Actual	Benchmark
Respondents	93%	93%
Non-respondents	–	91%

Art and design graduates

35. Graduates from art and design courses tend to have different employment patterns from graduates of other disciplines. Self-employment is more important for this group, for example. They may take longer to obtain employment after graduation, as they spend time preparing a portfolio or setting up a business.[5] One effect of these different patterns is to produce relatively low employment rates among such graduates at the FDS, although even here about 90 per cent of these graduates are in employment.

36. In addition many of the specialist art and design colleges are relatively small. Their employment rates are therefore susceptible to changes in the employment

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3 See 'Working out', also by the IER, published in January 1999 (page 3).

4 See 'Moving on', page 36.

5 'Destinations and Reflections – Careers of British art, craft and design graduates' by Lee Harvey and Alison Blackwell, published in 1999 by the Centre for Research into Quality, University of Central England in Birmingham.

status of one or two graduates. Where art and design courses take place in a large institution, such low rates will usually be subsumed in the wider picture.

Summary of results

37. In 1999-2000, there were 209,881 full-time home students who obtained first degrees. Of these, 2,647 were excluded from the FDS population for a possible trial of central data collection procedures, leaving 207,234 potential respondents. The final number of 168,756 respondents gave a response rate of 81 per cent.

38. The following tables show the numbers of respondents, and the percentages of respondents who are employed, unemployed, in further study, not available for work, or are excluded from the calculations because the main activity was seeking employment and there was also a secondary activity of in employment or in further study.

Summary of sector responses

	Number of graduates
Total graduates	209,881
Excluded for central collection pilot study	2,647
Total eligible population	207,234
Respondents	168,756
As % of eligible population	81.4%

Destinations of graduates

	Number of graduates	Percent of respondents
Employed	115,347	68.4
Unemployed	9,244	5.5
Studying	32,336	19.2
Not available for work	10,063	6.0
Excluded	1,610	1.0
All respondents	168,756	

39. The sector values of the two employment rates used as performance indicators are shown below, together with the numbers of graduates included. The first indicator is the percentage of graduates who are employed or in further study among all who are employed, in further study or unemployed; the second is the percentage who are employed among all who are employed or unemployed.

40. The numbers in this table are slightly different from the totals in Table E1, as they include the figures for the two institutions with poor response rates.

Sector indicators 1999-2000

	Number	Percentage employed or studying
Employed, studying or unemployed	156,927	94.1%
Employed or unemployed	124,591	92.6%

Omissions

41. The following institutions have been omitted from the table because the numbers of graduates eligible for inclusion are too small: RCN Institute, School of Pharmacy, Birkbeck College, Institute of Education. All the above figures exclude information from these institutions. As there are no graduates from full-time courses from the Open University, it does not appear in the table. The following institutions with no undergraduate courses are also excluded: Institute of Cancer Research, London Business School, London School of Hygiene and Tropical Medicine, Royal College of Art.

Table E1: Indicators of employment and further study

Table explanation

1. The table contains five sections, for the two indicators, their benchmarks and the context statistics. The following paragraphs explain what each column of the table contains. Definitions can be found elsewhere in this document.

Total population

2. The first section contains the total number of graduates from each institution who were eligible for inclusion in the indicators, and the proportion who responded to the First Destination Return. Note that all graduates selected for inclusion in the pilot survey of central data collection have been excluded from this number. (See Annex A, paragraph 10.)

Employment indicator 1

3. The first indicator is the proportion of respondents who are in employment or in further study or training from among those who are employed, studying or seeking employment.

4. This section gives the base population (the number of respondents who said they were employed, studying or unemployed); the indicator; and the benchmark.

5. The final column in this section contains a symbol to show if the indicator is significantly different from its benchmark. If the column is blank, then the indicator and its benchmark are similar. If it contains a plus sign then the institution's employment rate is significantly higher than its benchmark, and if it contains a minus sign the institution's employment rate is significantly lower than its benchmark.

Employment indicator 2

6. This section gives the second employment indicator, the proportion of economically active graduates who are employed. The base population is the number of respondents who say they are employed or unemployed, and again the fourth column in the section shows whether the difference between the indicator and its benchmark is significant.

Context statistics of respondents

7. The three statistics in this section show the percentage of respondents in each of the three categories 'studying', 'not available for work', or 'excluded because they gave a main activity of seeking employment and a secondary activity of in work or further study'. They are included to provide a complete picture of the post-qualification activities of the graduates from each institution.

Context statistics of eligible population

8. This last section contains context statistics based on the whole of the population from the institution who are eligible for inclusion in the indicators, whether or not they completed a First Destination Return. The first column shows the percentage of those who graduated who were studying medicine, dentistry or veterinary science. Institutions with large proportions of such graduates will tend to have higher employment rates than other similar institutions.

9. The second column gives the percentage of graduates who had been on sandwich courses. The work experience obtained on such courses is known to improve students' prospects of obtaining employment on graduation, and again institutions with large proportions of such graduates will tend to have higher employment rates.

10. Both subject group and sandwich course have been included as factors in the benchmark. The benchmarks for institutions with high proportions of medical, dental or veterinary graduates, or with high proportions from sandwich courses, will therefore also have more demanding benchmarks than other institutions.

Locality definition

11. The unemployment rate and the percentage of graduate jobs for each institution's locality have been included in the benchmark (see Annex B). The locality could not be defined for a few institutions, and these are marked ‡ in the table. The national rates have been used in the benchmarks for these institutions.