# Appendices

## Appendix I: The graduate survey: dataset and indicators used

The analyses presented in Sections 2 and 4 are based on data from the UK sub-sample of a major international survey of graduate employment, funded by the EC in 1999. 16,104 graduates from the 1995 leaving cohort were randomly selected from 27 UK HE institutions stratified by size and type. 4,340 completed questionnaires were returned from the UK graduates (representing a response rate of 34%).. Members of the sample were contacted by a mailed questionnaire. Before the analysis stage, the responses were weighted to reflect the subject spread and type of institution for the UK 1994/5 graduating cohort. The resulting database comprised 3461 UK graduates.

For the purposes of the present project, 2,997 full-time or sandwich course students were selected from the sample.

### Operationalisation of the key concepts

#### Socio-biographical background

*Socio-economic background*

There are difficulties in identifying the social class of parents from the survey data. Firstly, respondents were asked to categorise their mothers'/fathers' occupation in a slightly revised way from the major groups used in the Standard Occupational Classification (SOC90). This coding system however was developed for categorising jobs by the analyst, with the help of a long list of occupations (SOC Manuals) on the basis of job title and job description provided by the respondents and not as a tool of self-categorisation by the respondents themselves. Consequently, reliability of data may be low. Secondly, the question inquired about parents' *current or most recent* job, rather than about the one at a standardised stage of the respondents' life.[1] Thirdly (and not irrespective of the other two problems) the proportion of missing cases was as high as 20% for fathers and 30% for mothers.

However, given the major importance of this measure, at some stages of the analysis it was still applied in the form of the following broad grouping[2] This categorisation is based on the occupation of the parent with the higher level job, or – when information on one of the parents was missing – on the only information available.

*Table 1: Parents' occupation*

| | Nos in sample | | |
|---|---|---|---|
| Parents' occupation | Male | Female | Total |
| Clerical or manual | 349 | 469 | 818 |
| Professional or managerial | 745 | 1101 | 1846 |
| Missing or other | 123 | 210 | 333 |
| Total | 1217 | 1780 | 2997 |

To supplement and in many cases to substitute parents' occupation, the measure of parents' highest level of education was used. Although schooling of parents is not a good proxy of material circumstances in the family, it is a useful indicator of cultural background. However, it must be recognised that the enormous expansion of educational qualifications over the last 50 years poses problems in interpreting this measure as an indicator of broader social and cultural factors. It is of course an excellent measure of whether parents had first hand experience of higher education.

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[1] In social mobility studies information collected on parents' characteristics often refer to the time when the respondent was 14 (sometimes 16) years old. In this way not only parents of similar age can be compared but also a crucial period of schooling decisions in the children's life can be captured.

[2] Originally we hoped to be able to test the distribution found against the HESA data, but in the end that proved to be even more imperfect.

*Parents' highest levels of education[3]*

**Table 2: Parents' education**

| Parents' education | Nos in sample | | |
|---|---|---|---|
| | **Male** | **Female** | **Total** |
| Both compulsory or less | 397 | 523 | 920 |
| At least one completed (upper) secondary | 271 | 414 | 685 |
| One higher education diploma/degree | 292 | 468 | 760 |
| Both HE | 232 | 343 | 575 |
| No answer | 25 | 32 | 57 |
| Total | 1217 | 1780 | 2997 |

*Ethnicity*

In the graduate survey, the number of cases in most of the important ethnic minority groups was low. For this reason a broad categorisation was applied, and ethnic minority differences were more thoroughly analysed from the HESA dataset.

**Table 3: Ethnicity of the graduate survey sample**

| Ethnicity | Nos in sample | | |
|---|---|---|---|
| | **Male** | **Female** | **Total** |
| Asian | 62 | 63 | 125 |
| White British | 1014 | 1511 | 2525 |
| White other | 110 | 160 | 270 |
| Black | 9 | 8 | 17 |
| Other ethnic group | 5 | 8 | 13 |
| Not known | 17 | 30 | 47 |
| Total | 1217 | 1780 | 2997 |

*Age at entry into higher education*

Three age groups were identified in order to differentiate not only between "traditional" and older entry age groups but also between those who postponed their studies by only a couple of years (entry age 21-24) and those who went back to studying after a longer break.[4]

**Table 4: Age at entry into higher education**

| Age at entry into higher education | Nos in sample | | |
|---|---|---|---|
| | **Male** | **Female** | **Total** |
| Under 21 | 816 | 1276 | 2092 |
| 21-24 | 189 | 212 | 401 |
| 25- | 172 | 243 | 415 |
| No response | 40 | 49 | 89 |
| Total | 1217 | 1780 | 2997 |

## Measuring employment success

Although participation in higher education can provide a wide range of benefits not only for the individual but also for the society as a whole, equality of outcomes can of course only be studied on the individual level. The study identifies the individual outcomes (benefits) of higher education studies with *opportunities and achievements* in the graduate labour market. Opportunities and achievements are understood in a broad sense and in every case are defined by measures of "success and failure", i.e. measures which include a clear hierarchical dimension from "worse labour market situation" to the "better labour market situation". Our analyses distinguished between objective and subjective measures of employment success. Inevitably these dimensions reflect values that might not be shared by the graduates themselves.

*Objective measures of success*
(question number from the survey questionnaire given in brackets)

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[3] In cases where only one parent's education was available, that was applied.

[4] This categorisation is the one applied in HEFCE's report on employment indicators (2001).

*Employment status and unemployment experiences:*
- having no unemployment experience during the whole period investigated (c10, c11)
- not being unemployed for more than 5 months (c10, c11)
- being unemployed 6 months after graduation (from HESA data)

Income
- total gross annual income earned in the main job three and half years after graduation among those being employed (d11)

Quality of job – objective measure
- being in a graduate job 6 months after graduation, as it is defined in the "Moving On" study (DfEE 1999)[5] (from HESA data)
- being in a graduate job three and a half years after graduation, as it is defined in the Warwick study (c10)
- being in a graduate job three and a half years after graduation, - graduate job defined as a professional or a managerial job. (c10)

## Subjective measures of employment success
The following opinion variables were used

(1)     Do you anticipate that you will be promoted within the next three years? (c12)
(2)     Do you anticipate that you will get a higher income within the next three years? (c12)
(3)     What is the most appropriate level of education for your work? (f3)
(4)     How satisfied overall are you with your current employment status? (g1)
(5)     To what extent does "opportunities to use your knowledge and skills" apply to your work at the moment? (g3)
(6)     To what extent does "challenging tasks" apply to your work at the moment? (g3)
(7)     To what extent does "good career prospects" apply to your work at the moment? (g3)

It was certainly necessary and also sensible to reduce the number of dimensions here. After conducting the technical and statistical preparatory work[6], the method of principal component analysis (with varimax rotation) was applied.

The first of the two factors explored is referred to as "*qualified job – subjective measure*", while the second one is called "*middle-term career prospects*". From the analysis it became apparent that general job satisfaction does not contribute to the separation of the factors, so it was decided to leave this out but to investigate it as a separate indicator. In addition, the question about the most appropriate level of education for the job is used separately as a binary outcome measure.

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[5] In the study by the Institute for Employment Research, jobs were categorised as "graduate", "graduate track" and "non-graduate ". The categorisation is based on the Standard Occupational Categorisation (SOC). We are grateful to Abigail McKnight and John Thompson for providing us with the precise description of this grouping.

[6] i.e. Replacing missing values in the case of those who didn't have more than 6 missing answers; excluding from the analysis those not working as their main activity and standardising the measures by calculating their z-scores.

| | | Current Job | | | | | | | | | | | | | |
| | | At least once unemployed (%) | | Unemp. for more than 5 Months (%) | | Manager / Administrator / Professional (%) | | In graduate job (IES) (%) | | Does not feel overqualified (%) | | Challenging job (points 1-5) | | Opportunities to use skills (points 1-5) | |
| | | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Parents' Education* | | | | | | | | | | | | | | | |
| **Both compulsory or less** | Mean or % | 11% | 7% | 7% | 3% | 79% | 73% | 74% | 71% | 74% | 73% | 3.72 | 3.95 | 3.64 | 3.92 |
| | N | 422 | 532 | 422 | 532 | 392 | 486 | 392 | 486 | 385 | 465 | 386 | 475 | 383 | 475 |
| **At least one secondary** | Mean or % | 13% | 7% | 5% | 3% | 81% | 68% | 76% | 60% | 80% | 73% | 3.75 | 3.89 | 3.69 | 3.78 |
| | N | 279 | 387 | 279 | 387 | 267 | 358 | 267 | 358 | 261 | 359 | 261 | 361 | 261 | 358 |
| **One Higher Education Degree** | Mean or % | 10% | 7% | 5% | 3% | 79% | 70% | 75% | 69% | 81% | 80% | 3.70 | 3.82 | 3.81 | 3.89 |
| | N | 263 | 409 | 263 | 409 | 241 | 367 | 241 | 367 | 237 | 366 | 238 | 358 | 238 | 357 |
| **Both Higher Education Degree** | Mean or % | 11% | 9% | 6% | 5% | 75% | 69% | 80% | 69% | 82% | 84% | 3.90 | 3.81 | 4.06 | 3.94 |
| | N | 185 | 307 | 185 | 307 | 180 | 265 | 180 | 265 | 168 | 258 | 175 | 262 | 176 | 259 |
| **Missing** | Mean or % | 18% | 19% | 16% | 7% | 74% | 48% | 95% | 54% | 68% | 64% | 4.64 | 3.43 | 4.07 | 3.66 |
| | N | 18 | 33 | 18 | 33 | 12 | 23 | 12 | 23 | 9 | 21 | 10 | 21 | 10 | 20 |
| *Parents' Occupation* | | | | | | | | | | | | | | | |
| **Clerical or manual job** | Mean or % | 15% | 8% | 9% | 2% | 77% | 69% | 74% | 65% | 76% | 73% | 3.86 | 3.87 | 3.66 | 3.81 |
| | N | 338 | 452 | 338 | 452 | 317 | 426 | 317 | 426 | 306 | 411 | 313 | 415 | 315 | 416 |
| **Professional or managerial job** | Mean or % | 10% | 7% | 5% | 3% | 78% | 70% | 76% | 69% | 79% | 79% | 3.75 | 3.89 | 3.81 | 3.89 |
| | N | 704 | 1036 | 704 | 1036 | 640 | 913 | 640 | 913 | 631 | 901 | 627 | 900 | 625 | 892 |
| **Missing** | Mean or % | 8% | 10% | 5% | 8% | 85% | 69% | 81% | 67% | 82% | 76% | 3.57 | 3.80 | 3.79 | 4.00 |
| | N | 126 | 180 | 126 | 180 | 135 | 161 | 135 | 161 | 122 | 157 | 130 | 161 | 128 | 160 |
| **All** | Mean or % | 11% | 8% | 6% | 4% | 79% | 70% | 76% | 68% | 78% | 77% | 3.76 | 3.87 | 3.76 | 3.88 |
| | N | 1167 | 1667 | 1167 | 1667 | 1092 | 1499 | 1092 | 1499 | 1059 | 1469 | 1070 | 1476 | 1067 | 1468 |

| Ethnicity | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Asian** | Mean or % | 13% | 8% | 9% | 3% | 88% | 85% | 84% | 80% | 81% | 89% | 3.82 | 4.06 | 3.58 | 4.24 |
| | N | 61 | 63 | 61 | 63 | 63 | 55 | 63 | 55 | 61 | 56 | 56 | 55 | 54 | 56 |
| **White British** | Mean or % | 10% | 8% | 6% | 3% | 78% | 70% | 75% | 67% | 78% | 77% | 3.74 | 3.89 | 3.73 | 3.88 |
| | N | 995 | 1417 | 995 | 1417 | 918 | 1284 | 918 | 1284 | 899 | 1257 | 905 | 1266 | 904 | 1259 |
| **White others** | Mean or % | 26% | 8% | 5% | 7% | 76% | 63% | 83% | 62% | 72% | 73% | 3.8 | 3.57 | 4.03 | 3.68 |
| | N | 89 | 127 | 89 | 127 | 91 | 111 | 91 | 111 | 81 | 109 | 90 | 108 | 90 | 108 |
| **Any other ethnicity** | Mean or % | 0% | 6% | 0% | 0% | 100% | 77% | 85% | 68% | 93% | 74% | 3.97 | 3.17 | 4.45 | 4.17 |
| | N | 8 | 21 | 8 | 21 | 9 | 16 | 9 | 16 | 9 | 17 | 9 | 16 | 9 | 16 |
| **Missing** | Mean or % | 21% | 6% | 17% | 0 | 85% | 52% | 1 | 74% | 100% | 56% | 4.43 | 4.18 | 4.45 | 3.77 |
| | N | 14 | 39 | 14 | 39 | 12 | 32 | 12 | 32 | 9 | 31 | 9 | 30 | 10 | 29 |
| Age of entry into HE | | | | | | | | | | | | | | | |
| **Below 21** | Mean or % | 11% | 8% | 4% | 3% | 77% | 69% | 75% | 68% | 78% | 76% | 3.80 | 3.90 | 3.72 | 3.83 |
| | N | 774 | 1200 | 774 | 1200 | 723 | 1069 | 723 | 1069 | 703 | 1054 | 709 | 1058 | 709 | 1050 |
| **21 - 24 years** | Mean or % | 10% | 6% | 9% | 3% | 80% | 71% | 86% | 68% | 84% | 83% | 3.89 | 3.97 | 3.87 | 4.01 |
| | N | 206 | 201 | 206 | 201 | 189 | 186 | 189 | 186 | 189 | 180 | 186 | 179 | 185 | 179 |
| **25 - years** | Mean or % | 18% | 9% | 11% | 6% | 83% | 77% | 67% | 65% | 73% | 73% | 3.39 | 3.74 | 3.74 | 4.10 |
| | N | 163 | 219 | 163 | 219 | 146 | 192 | 146 | 192 | 143 | 184 | 144 | 189 | 141 | 188 |
| **Missing** | Mean or % | 13% | 11% | 13% | 6% | 85% | 54% | 89% | 62% | 93% | 75% | 3.82 | 3.55 | 4.33 | 3.62 |
| | N | 24 | 47 | 24 | 47 | 35 | 53 | 35 | 53 | 24 | 50 | 32 | 51 | 32 | 51 |
| **All** | Mean or % | 11% | 8% | 6% | 4% | 79% | 70% | 76% | 68% | 78% | 77% | 3.76 | 3.87 | 3.76 | 3.88 |
| | N | 1167 | 1667 | 1167 | 1667 | 1092 | 1499 | 1092 | 1499 | 1059 | 1469 | 1070 | 1476 | 1067 | 1468 |

| | | Current Job | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Graduate job, subjective (princ. comp) | | Good career prospects (points 1-5) | | Promotion expected (%) | | A Higher Income expected (%) | | Middle-term career prospects (princ. comp.) | | Annual Income from major job (thousand £) | | General sat. with emp. situation (points1-5) | |
| | | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| *Parents' Education* | | | | | | | | | | | | | | | |
| **Both compulsory or less** | Mean or % | -0.14 | 0.05 | 3.46 | 3.47 | 61% | 52% | 81% | 71% | 0.08 | -0.16 | 20.66 | 17.51 | 3.40 | 3.50 |
| | N | 385 | 474 | 380 | 472 | 391 | 478 | 391 | 478 | 385 | 474 | 366 | 425 | 391 | 481 |
| **At least one secondary** | Mean or % | -0.09 | 0.02 | 3.47 | 3.57 | 68% | 65% | 83% | 69% | 0.18 | -0.03 | 22.46 | 18.52 | 3.54 | 3.63 |
| | N | 266 | 361 | 261 | 358 | 267 | 368 | 267 | 368 | 266 | 361 | 248 | 323 | 270 | 361 |
| **One Higher Education Degree** | Mean or % | -0.03 | 0.08 | 3.58 | 3.60 | 69% | 57% | 85% | 73% | 0.19 | -0.08 | 20.95 | 18.38 | 3.56 | 3.70 |
| | N | 240 | 359 | 239 | 356 | 244 | 356 | 244 | 356 | 240 | 359 | 227 | 320 | 239 | 365 |
| **Both Higher Education Degree** | Mean or % | 0.12 | 0.09 | 3.60 | 3.47 | 72% | 54% | 88% | 76% | 0.24 | -0.13 | 24.08 | 18.52 | 3.60 | 3.56 |
| | N | 176 | 263 | 173 | 262 | 181 | 267 | 181 | 267 | 176 | 263 | 158 | 238 | 179 | 265 |
| **Missing** | Mean or % | 0.30 | -0.30 | 3.52 | 3.31 | 49% | 45% | 76% | 66% | -0.27 | -0.39 | 18.20 | 13.65 | 3.44 | 3.34 |
| | N | 10 | 21 | 9 | 21 | 12 | 23 | 12 | 23 | 10 | 21 | 12 | 22 | 8 | 22 |
| *Parents' Occupation* | | | | | | | | | | | | | | | |
| **Clerical or manual job** | Mean or % | -0.11 | -0.03 | 3.35 | 3.42 | 62% | 58% | 80% | 72% | 0.04 | -0.08 | 21.11 | 17.47 | 3.35 | 3.51 |
| | N | 314 | 416 | 310 | 413 | 314 | 414 | 314 | 414 | 314 | 416 | 288 | 370 | 317 | 418 |
| **Professional or managerial job** | Mean or % | -0.04 | 0.09 | 3.58 | 3.60 | 69% | 57% | 86% | 73% | 0.23 | -0.10 | 22.10 | 18.55 | 3.56 | 3.65 |
| | N | 631 | 900 | 625 | 894 | 645 | 920 | 645 | 920 | 631 | 900 | 602 | 831 | 637 | 914 |
| **Missing** | Mean or % | -0.04 | 0.03 | 3.61 | 3.34 | 64% | 53% | 78% | 70% | 0.05 | -0.22 | 20.87 | 16.87 | 3.63 | 3.48 |
| | N | 131 | 161 | 129 | 161 | 135 | 157 | 135 | 157 | 131 | 161 | 121 | 128 | 133 | 162 |
| **All** | Mean or % | -0.06 | 0.05 | 3.52 | 3.52 | 66% | 57% | 83% | 72% | 0.15 | -0.11 | 21.67 | 18.08 | 3.50 | 3.59 |
| | N | 1076 | 1477 | 1063 | 1468 | 1094 | 1491 | 1094 | 1491 | 1076 | 1477 | 1011 | 1328 | 1087 | 1494 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ethnicity** | | | | | | | | | | | | | | | |
| **Asian** | Mean or % | -0.11 | 0.41 | 3.56 | 3.87 | 56% | 66% | 84% | 75% | 0.09 | -0.06 | 21.69 | 16.82 | 3.56 | 3.64 |
| | N | 58 | 55 | 56 | 54 | 64 | 58 | 64 | 58 | 58 | 55 | 56 | 44 | 64 | 56 |
| **White British** | Mean or % | -0.09 | 0.06 | 3.48 | 3.54 | 67% | 58% | 84% | 73% | 0.17 | -0.08 | 21.57 | 18.21 | 3.50 | 3.62 |
| | N | 910 | 1267 | 900 | 1260 | 921 | 1279 | 921 | 1279 | 910 | 1267 | 864 | 1155 | 916 | 1280 |
| **White others** | Mean or % | 0.1 | -0.17 | 3.71 | 3.21 | 66% | 43% | 75% | 63% | 0.03 | -0.38 | 22.99 | 17.72 | 3.53 | 3.39 |
| | N | 90 | 109 | 89 | 109 | 90 | 106 | 90 | 106 | 90 | 109 | 74 | 87 | 90 | 110 |
| **Any other ethnicity** | Mean or % | 0.64 | 0.04 | 4.46 | 3.93 | 62% | 34% | 69% | 62% | -0.11 | -0.29 | 22.1 | 19.8 | 3.04 | 3.24 |
| | N | 9 | 16 | 9 | 16 | 9 | 17 | 9 | 17 | 9 | 16 | 7 | 14 | 9 | 18 |
| **Missing** | Mean or % | 0.63 | -0.16 | 3.82 | 3.19 | 86% | 40% | 83% | 81% | 0.21 | -0.17 | 20.28 | 15.22 | 3.80 | 3.23 |
| | N | 9 | 30 | 9 | 29 | 11 | 31 | 11 | 31 | 9 | 30 | 11 | 28 | 8 | 29 |
| **Age of entry into HE** | | | | | | | | | | | | | | | |
| **Below 21** | Mean or % | -0.09 | 0.05 | 3.51 | 3.61 | 70% | 61% | 88% | 75% | 0.26 | 0.00 | 21.86 | 18.20 | 3.42 | 3.63 |
| | N | 714 | 1059 | 706 | 1052 | 728 | 1073 | 728 | 1073 | 714 | 1059 | 683 | 999 | 725 | 1067 |
| **21 - 24 years** | Mean or % | 0.09 | 0.18 | 3.67 | 3.46 | 66% | 53% | 86% | 70% | 0.19 | -0.21 | 22.00 | 18.05 | 3.87 | 3.55 |
| | N | 187 | 178 | 183 | 179 | 191 | 183 | 191 | 183 | 187 | 178 | 171 | 158 | 190 | 184 |
| **25 - years** | Mean or % | -0.22 | 0.03 | 3.19 | 3.22 | 46% | 36% | 59% | 57% | -0.42 | -0.59 | 18.89 | 17.41 | 3.35 | 3.50 |
| | N | 144 | 189 | 143 | 186 | 142 | 190 | 142 | 190 | 144 | 189 | 128 | 133 | 142 | 192 |
| **Missing** | Mean or % | 0.46 | -0.22 | 4.16 | 3.08 | 73% | 56% | 77% | 61% | 0.10 | -0.23 | 27.48 | 17.99 | 3.99 | 3.21 |
| | N | 32 | 51 | 32 | 51 | 33 | 46 | 33 | 46 | 32 | 51 | 29 | 42 | 31 | 51 |
| **All** | Mean or % | -0.06 | 0.05 | 3.52 | 3.52 | 66% | 57% | 83% | 72% | 0.15 | -0.11 | 21.67 | 18.08 | 3.50 | 3.59 |
| | N | 1076 | 1477 | 1063 | 1468 | 1094 | 1491 | 1094 | 1491 | 1076 | 1477 | 1011 | 1328 | 1087 | 1494 |

# Appendix III: Higher education and employment success

| | | At least once unemployed (%) | Unemp. for more than 5 Months (%) | Manager / Administrator / Professional (%) | In graduate job (IES) (%) | Does not feel overqualified (%) | Challenging job (points 1-5) | Opportunities to use skills (points 1-5) |
|---|---|---|---|---|---|---|---|---|
| *By type of institution* | | | | | | | | |
| **Old universities** | Mean or % | 9% | 4% | 77% | 73% | 82% | 3.88 | 3.90 |
| | N | 1356 | 1356 | 1193 | 1193 | 1170 | 1180 | 1176 |
| **New universities** | Mean or % | 9% | 4% | 71% | 71% | 76% | 3.81 | 3.77 |
| | N | 1121 | 1121 | 1060 | 1060 | 1025 | 1033 | 1027 |
| **Colleges** | Mean or % | 11% | 6% | 70% | 68% | 67% | 3.66 | 3.77 |
| | N | 356 | 356 | 338 | 338 | 333 | 333 | 333 |
| *By type of field* | | | | | | | | |
| **Vocational art** | Mean or % | 7% | 3% | 84% | 79% | 83% | 3.86 | 4.00 |
| | N | 637 | 637 | 625 | 625 | 601 | 607 | 606 |
| **Vocational science** | Mean or % | 6% | 3% | 77% | 75% | 87% | 3.92 | 4.02 |
| | N | 678 | 678 | 631 | 631 | 623 | 625 | 619 |
| **Non-vocational art** | Mean or % | 12% | 6% | 67% | 62% | 67% | 3.72 | 3.58 |
| | N | 1095 | 1095 | 989 | 989 | 968 | 972 | 969 |
| **Non-vocational science** | Mean or % | 11% | 5% | 69% | 77% | 80% | 3.91 | 3.88 |
| | N | 424 | 424 | 346 | 346 | 336 | 342 | 341 |
| **All** | Mean or % | 9% | 5% | 74% | 71% | 77% | 3.83 | 3.83 |
| | N | 2834 | 2834 | 2591 | 2591 | 2528 | 2546 | 2536 |

| | | Graduate job, subjective (princ. comp) | Good career prospects (points 1-5) | Promotion expected (%) | A Higher Income expected (%) | Middle-term career prospects (princ. comp.) | Annual Income from major job (thousand £) | General sat. with emp. situation (points1-5) |
|---|---|---|---|---|---|---|---|---|
| *By type of institution* | | | | | | | | |
| **Old universities** | Mean or % | 0.11 | 3.64 | 62% | 78% | 0.01 | 20.77 | 3.63 |
| | N | 1186 | 1171 | 1215 | 1215 | 1186 | 1100 | 1200 |
| **New universities** | Mean or % | -0.05 | 3.44 | 61% | 76% | 0.00 | 19.23 | 3.53 |
| | N | 1034 | 1028 | 1048 | 1048 | 1034 | 941 | 1047 |
| **Colleges** | Mean or % | -0.18 | 3.33 | 55% | 76% | -0.03 | 16.72 | 3.38 |
| | N | 333 | 333 | 322 | 322 | 333 | 299 | 334 |
| *By type of field* | | | | | | | | |
| **Vocational art** | Mean or % | 0.13 | 3.59 | 62% | 77% | 0.00 | 19.43 | 3.62 |
| | N | 612 | 604 | 619 | 619 | 612 | 556 | 613 |
| **Vocational science** | Mean or % | 0.19 | 3.64 | 66% | 80% | 0.06 | 23.21 | 3.66 |
| | N | 625 | 619 | 628 | 628 | 625 | 573 | 629 |
| **Non-vocational art** | Mean or % | -0.22 | 3.38 | 57% | 76% | -0.01 | 17.67 | 3.41 |
| | N | 977 | 970 | 986 | 986 | 977 | 891 | 994 |
| **Non-vocational science** | Mean or % | 0.08 | 3.56 | 61% | 75% | -0.05 | 19.05 | 3.65 |
| | N | 340 | 339 | 352 | 352 | 340 | 320 | 345 |
| **All** | Mean or % | 0.00 | 3.52 | 61% | 77% | 0.00 | 19.63 | 3.55 |
| | N | 2554 | 2532 | 2585 | 2585 | 2554 | 2339 | 2581 |

**Appendix IV: Regression Models**

## IV. /1. Males: Logit models for various binary employment outcomes. Exp(B)

| | Being unemployed for more than 6 months | Graduate job (IER) | Manager / professional job | Most appropriate level of education is HE |
|---|---|---|---|---|
| Constant | 0.014*** | 13.244*** | 5.22*** | 30.479*** |
| Parents' education: both HE (baseline) | | | | |
| Parents' education: compulsory | 1.348 | 0.925 | 1.418 | 0.715 |
| Parents' education: secondary | 1.258 | 0.999 | 1.409 | 1.005 |
| Parents' education: one of them HE | 0.837 | 0.959 | 1.35 | 1.074 |
| Parents' education unknown | 1.587 | 9.246 | 0.882 | 0.193* |
| White British (baseline) | | | | |
| Asian | 2.566* | 1.466 | 1.939 | 0.857 |
| White non-British | 1.175 | 1.577 | 1.014 | 0.59* |
| Black | 0.004 | 2.243 | 103.935 | 3.278 |
| Other ethnic group | 0.004 | 1.859 | 258.119 | 67.505 |
| Ethnicity unknown | 2.173 | 235.594 | 1.286 | 146.224 |
| Entry age: -20 (baseline) | | | | |
| Entry age 21-24 | 2.292** | 1.952*** | 1.188 | 1.616* |
| Entry age 25- | 5.613*** | 0.438*** | 1.254 | 0.864 |
| Entry age unknown | 3.335 | 1.903 | 2.4 | 3.389 |
| School-type entry qualification (baseline) | | | | |
| Vocational / professional qualification | 0.826 | 3.261*** | 1.461 | 0.888 |
| Other entry qualification | 0.526 | 1.184 | 0.529* | 0.826 |
| No qualification at entry | 5.516 | 0.414 | 0.058*** | 0.141*** |
| Type of entry qualification unknown | 0.002 | 2.267 | 5.855 | 0.597 |
| "High" entry grades | | | | |
| "Medium" or "low" entry grades | 0.927 | 0.781 | 0.638** | 0.378*** |
| Unknown entry grades | 0.1 | 3.038* | 8.764** | 0.573 |
| Old universities (baseline) | | | | |
| New university | 1.413 | 0.908 | 0.733 | 0.959 |
| College | 2.407* | 0.566* | 0.69 | 0.567* |
| Law (baseline) | | | | |
| Medicine, dentistry, veterinary science | 0.005 | 151.228 | 294.81 | 3.547 |
| Subjects allied to medicine | 0.002 | 0.257 | 0.299* | 0.307 |
| Biological sciences | 1.84 | 0.256** | 0.353** | 0.937 |
| Physical sciences | 2.315 | 0.249** | 0.369** | 0.333* |
| Mathematical sciences | 1.215 | 0.7 | 1.812 | 0.6 |
| Computing | 0.179 | 2.07 | 7.29** | 1.455 |
| Engineering, technology, agriculture | 0.726 | 0.358** | 1.201 | 0.565 |
| Architecture, building, planning | 1.19 | 0.23** | 0.957 | 0.534 |
| Education | 0.626 | 0.77 | 1.846 | 1.719 |
| Social sciences | 1.819 | 0.17*** | 0.519 | 0.29** |
| Business and administration | 0.692 | 0.26** | 1.151 | 0.458 |
| Librarianship and information | 0.101 | 0.041*** | 1.243 | 5.387 |
| Languages, humanities | 3.846* | 0.171*** | 0.701 | 0.387 |
| Arts | 10.767*** | 0.396 | 0.377** | 0.182*** |
| Combined studies | 0.68 | 0.22*** | 0.456* | 0.162*** |
| Upper second class degree (baseline) | | | | |
| First class honours degree | 0.153 | 0.927 | 1.407 | 0.91 |
| Lower degree | 1.766* | 0.767 | 0.955 | 0.552*** |
| Class of degree unknown | 1.059 | 0.523** | 0.558* | 0.457** |
| -2 log likelihood | 421.455 | 1060.688 | 1006.387 | 955.916 |
| Cox & Snell R square | 0.091 | 0.12 | 0.106 | 0.131 |
| Nagelkerte R square | 0.249 | 0.18 | 0.165 | 0.202 |

### IV./2 Males: Linear regression models for various employment outcomes

| | Level of job – subjective | Middle-term carrier prospects | Yearly income (logarithm) | Satisfaction with employment situation |
|---|---|---|---|---|
| Constant | 0.63*** | 0.61*** | 3.18*** | 3.68*** |
| Parents' education: both HE (baseline) | | | | |
| Parents' education: compulsory | -0.14* | -0.10 | -0.08* | -0.17* |
| Parents' education: secondary | -0.09 | -0.05 | -0.08 | -0.05 |
| Parents' education: one of them HE | -0.06 | -0.02 | -0.06 | -0.02 |
| Parents' education unknown | -0.02 | -0.45 | -0.28* | -0.30 |
| White British (baseline) | | | | |
| Asian | -0.15 | -0.06 | -0.02 | -0.03 |
| White non-British | 0.03 | -0.07 | -0.01 | -0.13 |
| Black | 0.73** | -0.03 | -0.21 | -0.54 |
| Other ethnic group | 0.35 | -0.09 | 0.03 | -0.55 |
| Ethnicity unknown | 0.46 | 0.18 | -0.05 | 0.14 |
| Entry age: -20 (baseline) | | | | |
| Entry age 21-24 | 0.20** | -0.13 | 0.07* | 0.52*** |
| Entry age 25- | -0.11 | -0.69*** | -0.04 | 0.09 |
| Entry age unknown | 0.52*** | -0.13 | 0.36*** | 0.63*** |
| School-type entry qualification (baseline) | | | | |
| Vocational / professional qualification | -0.03 | 0.12 | -0.05 | -0.03 |
| Other entry qualification | 0.16 | -0.07 | -0.09 | -0.11 |
| No qualification at entry | -0.89*** | 0.66** | 0.13 | -1.25*** |
| Type of entry qualification unknown | -0.58*** | 0.00 | -0.02 | -0.26 |
| "High" entry grades | | | | |
| "Medium" or "low" entry grades | -0.25*** | 0.08 | -0.06* | -0.08 |
| Unknown entry grades | -0.36** | -0.09 | -0.21** | -0.09 |
| Old universities (baseline) | | | | |
| New university | -0.11 | 0.10 | -0.02 | -0.14* |
| College | -0.35*** | 0.12 | -0.04 | -0.41*** |
| Law (baseline) | | | | |
| Medicine, dentistry, veterinary science | 0.04 | -0.21 | 0.20* | 0.06 |
| Subjects allied to medicine | -0.66** | -0.42 | 0.11 | -0.17 |
| Biological sciences | -0.22 | -0.53*** | -0.06 | 0.06 |
| Physical sciences | -0.29* | -0.52*** | -0.05 | 0.09 |
| Mathematical sciences | 0.01 | -0.23 | 0.10 | 0.50** |
| Computing | 0.17 | -0.17 | 0.46*** | 0.43** |
| Engineering, technology, agriculture | -0.22 | -0.21 | 0.15** | 0.11 |
| Architecture, building, planning | -0.28 | -0.43*** | 0.04 | 0.20 |
| Education | 0.06 | -0.61*** | -0.13 | 0.15 |
| Social sciences | -0.64*** | -0.41*** | -0.01 | -0.08 |
| Business and administration | -0.23 | -0.15 | 0.06 | 0.31* |
| Librarianship and information | 0.47 | -0.75*** | -0.50*** | 0.45 |
| Languages, humanities | -0.48*** | -0.37** | -0.19** | -0.22 |
| Arts | -0.67*** | -0.65*** | -0.18* | -0.13 |
| Combined studies | -0.58*** | -0.40** | -0.04 | -0.05 |
| Upper second class degree (baseline) | | | | |
| First class honours degree | 0.21* | 0.06 | -0.06 | -0.06 |
| Lower degree | -0.20*** | -0.15** | -0.22*** | -0.26*** |
| Class of degree unknown | -0.08 | -0.10 | -0.26*** | 0.01 |
| R Square | 0.181 | 0.124 | 0.2 | 0.109 |
| Adjusted R Square | 0.151 | 0.092 | 0.168 | 0.077 |

### IV. /3. Females: Logit models for various binary employment outcomes. Exp(B)

| | Being unemployed for more than 6 months | Graduate job (IER) | Manager / professional job | Most appropriate level of education is HE |
|---|---|---|---|---|
| Constant | 0.079*** | 9.499*** | 3.843*** | 8.034*** |
| Parents' education: both HE (baseline) | | | | |
| Parents' education: compulsory | 0.637 | 1.28 | 1.295 | 0.494*** |
| Parents' education: secondary | 0.472* | 0.679** | 0.936 | 0.462*** |
| Parents' education: one of them HE | 0.644 | 1.048 | 1.084 | 0.749 |
| Parents' education unknown | 3.39 | 0.295** | 0.711 | 0.389 |
| White British (baseline) | | | | |
| Asian | 0.946 | 1.693 | 2.377** | 3.106** |
| White non-British | 1.358 | 0.959 | 0.858 | 0.734 |
| Black | 0.001 | 451.431 | 1.317 | 0.288 |
| Other ethnic group | 0.003 | 0.373 | 0.828 | 0.966 |
| Ethnicity unknown | 0 | 4.428*** | 1.029 | 0.441* |
| Entry age: -20 (baseline) | | | | |
| Entry age 21-24 | 0.829 | 0.755 | 0.915 | 1.522* |
| Entry age 25- | 1.822 | 0.692* | 1.244 | 0.817 |
| Entry age unknown | 4.345** | 0.718 | 0.516** | 1.672 |
| School-type entry qualification (baseline) | | | | |
| Vocational / professional qualification | 2.831** | 0.841 | 1.111 | 0.674 |
| Other entry qualification | 1.793 | 0.938 | 0.856 | 0.497** |
| No qualification at entry | 0.002 | 31.975 | 21.101 | 0.717 |
| Type of entry qualification unknown | 2.817 | 0.21*** | 0.818 | 0.642 |
| "High" entry grades | | | | |
| "Medium" or "low" entry grades | 1.014 | 1.065 | 1.015 | 1.195 |
| Unknown entry grades | 0.262 | 2.018 | 1.659 | 2.364 |
| Old universities (baseline) | | | | |
| New university | 0.385*** | 0.793 | 0.72** | 0.683** |
| College | 0.04*** | 0.843 | 0.931 | 0.555*** |
| Law (baseline) | | | | |
| Medicine, dentistry, veterinary science | 0.001 | 7.461* | 17.141*** | 13.227** |
| Subjects allied to medicine | 1.053 | 0.044*** | 0.106*** | 10.142*** |
| Biological sciences | 1.002 | 0.332** | 0.569 | 1.1 |
| Physical sciences | 0.38 | 0.295** | 0.348** | 1.008 |
| Mathematical sciences | 0.001 | 0.909 | 1.682 | 2.269 |
| Computing | 4.714* | 0.781 | 5.596 | 3.773 |
| Engineering, technology, agriculture | 0.29 | 0.472 | 0.937 | 1.333 |
| Architecture, building, planning | 3.949 | 0.252** | 1.202 | 4.497 |
| Education | 0.228 | 1.534 | 8.528*** | 11.281*** |
| Social sciences | 0.678 | 0.125*** | 0.858 | 0.923 |
| Business and administration | 0.757 | 0.378** | 1.095 | 0.988 |
| Librarianship and information | 0.651 | 0.142*** | 1.904 | 5.491* |
| Languages, humanities | 1.101 | 0.158*** | 0.782 | 0.629 |
| Arts | 3.08 | 0.239*** | 0.316*** | 0.746 |
| Combined studies | 0.724 | 0.138*** | 0.375*** | 0.372** |
| Upper second class degree (baseline) | | | | |
| First class honours degree | 0.285 | 1.885** | 2.173** | 2.809*** |
| Lower degree | 0.902 | 1.199 | 0.801 | 0.572*** |
| Class of degree unknown | 1.199 | 0.783 | 0.609* | 0.485** |
| -2 log likelihood *** | 429.268 | 1616.694 | 1554.635 | 1356.455 |
| Cox & Snell R square | 0.046 | 0.167 | 0.17 | 0.15 |
| Nagelkerte R square | 0.174 | 0.233 | 0.24 | 0.226 |

**IV./4 Females: Linear regression models for various employment outcomes**

| | Level of job – subjective | Middle-term carrier prospects | Yearly income (logarithm) | Satisfaction with employment situation |
|---|---|---|---|---|
| Constant | 0.33** | 0.05 | 2.88*** | 3.71*** |
| Parents' education: both HE (baseline) | | | | |
| Parents' education: compulsory | 0.01 | 0.02 | -0.02 | -0.01 |
| Parents' education: secondary | -0.01 | 0.14* | 0.04 | 0.09 |
| Parents' education: one of them HE | 0.01 | 0.07 | 0.01 | 0.16* |
| Parents' education unknown | -0.21 | -0.33 | -0.22* | -0.02 |
| White British (baseline) | | | | |
| Asian | 0.44*** | 0.02 | -0.10 | 0.08 |
| White non-British | -0.26** | -0.38*** | -0.13*** | -0.27** |
| Black | -0.54 | -0.01 | 0.05 | -0.95** |
| Other ethnic group | 0.15 | -0.30 | 0.11 | -0.07 |
| Ethnicity unknown | -0.05 | 0.13 | -0.02 | -0.26 |
| Entry age: -20 (baseline) | | | | |
| Entry age 21-24 | 0.13 | -0.16* | 0.02 | -0.11 |
| Entry age 25- | -0.06 | -0.54*** | -0.03 | -0.18* |
| Entry age unknown | -0.12 | -0.14 | 0.02 | -0.32** |
| School-type entry qualification (baseline) | | | | |
| Vocational / professional qualification | -0.17 | 0.16 | -0.14** | 0.13 |
| Other entry qualification | -0.13 | -0.03 | -0.11* | 0.02 |
| No qualification at entry | 0.17 | -0.06 | -0.17 | -0.42 |
| Type of entry qualification unknown | -0.08 | 0.25 | -0.04 | -0.20 |
| "High" entry grades | | | | |
| "Medium" or "low" entry grades | -0.22*** | -0.25*** | -0.05* | -0.12* |
| Unknown entry grades | -0.18 | -0.62*** | 0.06 | 0.07 |
| Old universities (baseline) | | | | |
| New university | -0.03 | -0.04 | -0.06** | -0.11 |
| College | -0.15* | 0.21** | -0.06 | -0.19** |
| Law (baseline) | | | | |
| Medicine, dentistry, veterinary science | 0.36* | -0.46** | 0.27*** | -0.10 |
| Subjects allied to medicine | 0.31* | -0.39** | 0.07 | 0.27 |
| Biological sciences | -0.02 | -0.10 | -0.04 | -0.05 |
| Physical sciences | 0.11 | 0.29 | -0.02 | 0.11 |
| Mathematical sciences | -0.07 | -0.14 | 0.05 | 0.11 |
| Computing | 0.26 | 0.58** | 0.38*** | 0.66** |
| Engineering, technology, agriculture | -0.01 | 0.13 | 0.17** | -0.07 |
| Architecture, building, planning | 0.31 | 0.12 | 0.24** | 0.28 |
| Education | 0.48*** | -0.56*** | 0.12 | 0.28 |
| Social sciences | -0.20 | 0.09 | 0.00 | -0.14 |
| Business and administration | -0.09 | 0.28* | 0.12* | -0.04 |
| Librarianship and information | 0.16 | 0.25 | 0.22* | -0.05 |
| Languages, humanities | -0.25 | 0.12 | -0.08 | -0.19 |
| Arts | -0.31* | -0.03 | -0.11 | -0.18 |
| Combined studies | -0.22 | -0.03 | -0.02 | 0.03 |
| Upper second class degree (baseline) | | | | |
| First class honours degree | 0.31*** | 0.13 | 0.19*** | 0.37*** |
| Lower degree | -0.06 | 0.13** | -0.03 | 0.10 |
| Class of degree unknown | -0.27*** | 0.17 | -0.09* | -0.11 |
| R Square | 0.095 | 0.122 | 0.108 | 0.057 |
| Adjusted R Square | 0.071 | 0.099 | 0.082 | 0.032 |

**Appendix V: Employment Success Models with Interaction Effects**

## V/1 Graduate Job / By type of subject studied

| | Males | | Females | |
|---|---|---|---|---|
| | Main effects only | Interaction effects added | Main effects only | Interaction effects added |
| Constant | 4.92*** | 7.00*** | 5.01*** | 6.29*** |
| Parents' education: compulsory | 0.81 | 0.39 | 1.20 | 0.75 |
| Parents' education: secondary | 0.87 | 0.57 | 0.69** | 0.43* |
| Parents' education: one of them HE | 0.85 | 0.84 | 1.02 | 0.73 |
| Parents' education unknown | 5.78 | 0.10 | 0.29** | 0.19* |
| Asian | 1.61 | 1.61 | 1.92* | 1.95* |
| White non-British | 1.42 | 1.42 | 0.74 | 0.78 |
| Black | 1.37 | 0.97 | 95.24 | 93.87 |
| Other ethnic group | 1.25 | 0.75 | 0.53 | 0.52 |
| Ethnicity unknown | 109.65 | 425.25 | 3.24** | 2.88** |
| Entry age 21-24 | 1.80** | 3.10** | 0.83 | 1.13 |
| Entry age 25- | 0.55** | 0.66 | 0.75 | 1.37 |
| Entry age unknown | 1.93 | 3.92 | 0.85 | 1.15 |
| Vocational / professional qualification | 2.94*** | 2.99*** | 0.83 | 0.86 |
| Other entry qualification | 1.32 | 1.40 | 0.90 | 0.97 |
| No qualification at entry | 0.58 | 0.22* | 22.32 | 30.24 |
| No information about entry qualification | 2.70 | 1.74 | 0.24*** | 0.22*** |
| "Medium" or "low" entry grades | 0.67** | 0.65** | 0.95 | 0.95 |
| Unknown entry grades | 1.76 | 2.29 | 1.62 | 1.59 |
| New university | 0.94 | 0.90 | 0.74 | 0.74** |
| College | 0.70 | 0.68 | 0.89 | 0.89 |
| Vocational Science | 1.33 | 0.69 | 0.38*** | 0.39* |
| Non-vocational Art | 0.67* | 0.53 | 0.31*** | 0.26*** |
| Non-vocational Science | 0.96 | 0.69 | 0.77 | 0.25** |
| First class honours degree | 0.90 | 0.88 | 2.45*** | 2.45*** |
| Lower degree | 0.82 | 0.83 | 1.39** | 1.37** |
| Class of degree unknown | 0.76 | 0.72 | 1.45 | 1.33 |
| Vocational science - Parents' education: compulsory | | 3.84* | | 0.58 |
| Vocational science - Parents' education: secondary | | 1.74 | | 1.72 |
| Vocational science - Parents' education: one HE | | 1.70 | | 0.94 |
| Vocational science - Parents' education: unknown | | 1211.29 | | 0.60 |
| Non-vocational art – Parents' education: compulsory | | 2.00 | | 2.09 |
| Non-vocational art – Parents' education: secondary | | 1.93 | | 1.43 |
| Non-vocational art – Parents' education: one HE | | 0.65 | | 1.34 |
| Non-vocational art – Parents' education: unknown | | 124.53 | | 2.38 |
| Non-vocational science – Parents' education: compulsory | | 2.58 | | 3.91* |
| Non-vocational science – Parents' education: secondary | | 1.56 | | 4.37** |
| Non-vocational science – Parents' education: one HE | | 1.18 | | 5.15** |
| Non-vocational science – Parents' education: unknown | | 772.62 | | 6.23 |
| Vocational science – Entry age 21-24 | | 0.32* | | 1.61 |
| Vocational science – Entry age 25- | | 2.95 | | 0.71 |
| Vocational science – Entry age unknown | | 0.09 | | 1.63 |
| Non-vocational Art – Entry age 21-24 | | 1.03 | | 0.42* |
| Non-vocational Art – Entry age 25- | | 0.49 | | 0.41* |
| Non-vocational Art – Entry age unknown | | 94.95 | | 0.53 |
| Non-vocational Science – Entry age 21-24 | | 0.43 | | 0.82 |
| Non-vocational Science – Entry age 25- | | 0.48 | | 0.49 |
| Non-vocational Science – Entry age unknown | | 0.45 | | 0.84 |
| -2 log likelihood | 1118.805 | 1084.529 | 1751.910 | 1722.045 |
| Cox & Snell R Square | .072 | .101 | .089 | .107 |
| Nagelkerte R Square | .108 | .151 | .124 | .149 |

***V/2 Most appropriate level of education for your job = HE / By type of subject studied***

| | Males | | Females | |
|---|---|---|---|---|
| | Main effects only | Interaction effects added | Main effects only | Interaction effects added |
| Constant | 22.71*** | 0.32 | 12.65*** | 12.26*** |
| Parents' education: compulsory | 0.70 | 0.43 | 0.53*** | 0.52 |
| Parents' education: secondary | 0.95 | 0.55 | 0.51*** | 0.64 |
| Parents' education: one of them HE | 1.03 | 3.30 | 0.79 | 0.93 |
| Parents' education unknown | 0.20* | 1.10 | 0.40 | 0.15* |
| Asian | 0.95 | 0.62 | 2.75** | 2.42* |
| White non-British | 0.58* | 3.77 | 0.66* | 0.70 |
| Black | 2.87 | 118.72 | 0.40 | 0.38 |
| Other ethnic group | 51.78 | 891.81 | 2.00 | 2.19 |
| Ethnicity unknown | 125.38 | 1.05 | 0.40** | 0.26*** |
| Entry age 21-24 | 1.63** | 1.12 | 1.65** | 1.53 |
| Entry age 25- | 1.02 | 7.12 | 0.97 | 1.11 |
| Entry age unknown | 3.42 | 0.72 | 1.60 | 1.26 |
| Vocational / professional entry qualification | 0.77 | 0.87 | 0.51** | 0.51** |
| Other entry qualification | 0.80 | 0.16** | 0.56** | 0.58** |
| No qualification at entry | 0.18** | 0.47 | 0.67 | 0.63 |
| No information on entry qualification | 0.56 | 0.34*** | 0.55 | 0.67 |
| "Medium" or "low" entry grades | 0.34*** | 0.48 | 1.11 | 1.13 |
| Unknown entry grades | 0.43* | 0.89 | 2.29 | 2.21 |
| New university | 0.92 | 0.56* | 0.70** | 0.67** |
| College | 0.60* | 0.52 | 0.63** | 0.58*** |
| Vocational Science | 0.97 | 0.11*** | 2.15*** | 2.31 |
| Non-vocational Art | 0.35*** | 0.36 | 0.35*** | 0.41* |
| Non-vocational Science | 0.69 | 0.89 | 0.72 | 0.37 |
| First class honours degree | 0.84 | 0.58*** | 2.60** | 2.72** |
| Lower degree | 0.56*** | 0.66 | 0.63*** | 0.62*** |
| Class of degree unknown | 0.63 | 2.08 | 0.65 | 0.66 |
| Vocational science - Parents' education: compulsory | | 1.60 | | 0.86 |
| Vocational science - Parents' education: secondary | | 1.78 | | 0.55 |
| Vocational science - Parents' education: one HE | | 0.01 | | 1.70 |
| Vocational science - Parents' education: unknown | | 3.71 | | 542.19 |
| Non-vocational art – Parents' education: compulsory | | 3.45 | | 1.02 |
| Non-vocational art – Parents' education: secondary | | 2.28 | | 0.68 |
| Non-vocational art – Parents' education: one HE | | 0.18 | | 0.66 |
| Non-vocational art – Parents' education: unknown | | 1.32 | | 0.55 |
| Non-vocational science – Parents' education: compulsory | | 2.40 | | 1.79 |
| Non-vocational science – Parents' education: secondary | | 2.21 | | 2.32 |
| Non-vocational science – Parents' education: one HE | | 10.29 | | 2.51 |
| Non-vocational science – Parents' education: unknown | | 1.35 | | 523.43 |
| Vocational science – Entry age 21-24 | | 1.00 | | 0.52 |
| Vocational science – Entry age 25- | | 0.26 | | 1.15 |
| Vocational science – Entry age unknown | | 3.03 | | 20.39 |
| Non-vocational Art – Entry age 21-24 | | 0.62 | | 1.54 |
| Non-vocational Art – Entry age 25- | | 109.33 | | 0.84 |
| Non-vocational Art – Entry age unknown | | 1.98 | | 0.98 |
| Non-vocational Science – Entry age 21-24 | | 1.84 | | 0.39 |
| Non-vocational Science – Entry age 25- | | 0.30 | | 0.58 |
| Non-vocational Science – Entry age unknown | | 47.49*** | | 189.20 |
| -2 log likelihood | 982.922 | 968.817 | 1424.963 | 1397.338 |
| Cox & Snell R Square | .109 | .120 | .109 | .126 |
| Nagelkerte R Square | .168 | .186 | .165 | .190 |

### V/3 Income / By type subject studied

| | Males | | Females | |
|---|---|---|---|---|
| | Main effects only | Interaction effects added | Main effects only | Interaction effects added |
| Constant | 3.18*** | 3.36*** | 2.97*** | 2.90*** |
| Parents' education: compulsory | -0.09* | -0.31*** | -0.02 | 0.08 |
| Parents' education: secondary | -0.08 | -0.31*** | 0.05 | 0.06 |
| Parents' education: one of them HE | -0.08 | -0.13 | 0.02 | 0.10 |
| Parents' education unknown | -0.32** | -0.31 | -0.25** | -0.36* |
| Asian | -0.02 | 0.00 | -0.10 | -0.08 |
| White non-British | -0.03 | -0.06 | -0.14*** | -0.13*** |
| Black | -0.17 | -0.18 | 0.08 | 0.03 |
| Other ethnic group | 0.12 | 0.06 | 0.16 | 0.18 |
| Ethnicity unknown | 0.00 | 0.11 | 0.01 | 0.01 |
| Entry age 21-24 | 0.07 | 0.04 | 0.03 | 0.08 |
| Entry age 25- | -0.03 | 0.04 | -0.02 | -0.03 |
| Entry age unknown | 0.38*** | 0.22 | 0.04 | 0.03 |
| Vocational / professional entry qualification | -0.07 | -0.07 | -0.14** | -0.13** |
| Other entry qualification | -0.06 | -0.05 | -0.13** | -0.11* |
| No qualification at entry | 0.17 | 0.06 | -0.19 | -0.24 |
| No information on entry qualification | 0.00 | -0.08 | -0.03 | -0.06 |
| "Medium" or "low" entry grades | -0.07* | -0.08** | -0.05* | -0.05* |
| Unknown entry grades | -0.24*** | -0.20** | 0.03 | 0.08 |
| New university | -0.02 | -0.02 | -0.07** | -0.05 |
| College | -0.11** | -0.12** | -0.07* | -0.05 |
| Vocational Science | 0.19*** | 0.05 | 0.07* | 0.16* |
| Non-vocational Art | -0.08** | -0.38*** | -0.15*** | -0.07 |
| Non-vocational Science | -0.02 | -0.26** | -0.12*** | -0.01 |
| First class honours degree | -0.08 | -0.08 | 0.20*** | 0.20*** |
| Lower degree | -0.20*** | -0.21*** | -0.02 | -0.03 |
| Class of degree unknown | -0.28*** | -0.29*** | -0.07 | -0.09* |
| Vocational science - Parents' education: compulsory | | 0.25** | | -0.04 |
| Vocational science - Parents' education: secondary | | 0.15 | | -0.03 |
| Vocational science - Parents' education: one HE | | -0.01 | | -0.15 |
| Vocational science - Parents' education: unknown | | -0.24 | | 0.04 |
| Non-vocational art – Parents' education: compulsory | | 0.35*** | | -0.16* |
| Non-vocational art – Parents' education: secondary | | 0.40*** | | -0.03 |
| Non-vocational art – Parents' education: one HE | | 0.24 | | -0.06 |
| Non-vocational art – Parents' education: unknown | | 0.36 | | 0.22 |
| Non-vocational science – Parents' education: compulsory | | 0.32** | | -0.19 |
| Non-vocational science – Parents' education: secondary | | 0.55*** | | -0.02 |
| Non-vocational science – Parents' education: one HE | | 0.10 | | -0.18 |
| Non-vocational science – Parents' education: unknown | | -0.21 | | 0.25 |
| Vocational science – Entry age 21-24 | | 0.06 | | -0.13 |
| Vocational science – Entry age 25- | | 0.03 | | -0.01 |
| Vocational science – Entry age unknown | | -0.02 | | -0.24 |
| Non-vocational Art – Entry age 21-24 | | 0.10 | | -0.13 |
| Non-vocational Art – Entry age 25- | | -0.19 | | 0.03 |
| Non-vocational Art – Entry age unknown | | 0.46* | | 0.03 |
| Non-vocational Science – Entry age 21-24 | | -0.13 | | 0.24 |
| Non-vocational Science – Entry age 25- | | -0.24 | | -0.05 |
| Non-vocational Science – Entry age unknown | | 0.20 | | 0.04 |
| R Square | .149 | .182 | .092 | .108 |
| Adjusted R Square | .127 | .142 | .074 | .075 |

### V/4 Graduate Job / By type of HE institution

| | Males | | Females | |
|---|---|---|---|---|
| | Main effects only | Interaction effects added | Main effects only | Interaction effects added |
| Constant | 4.92*** | 6.05*** | 5.01*** | 6.20*** |
| Parents' education: compulsory | 0.81 | 0.89 | 1.20 | 0.62* |
| Parents' education: secondary | 0.87 | 0.83 | 0.69** | 0.81 |
| Parents' education: one of them HE | 0.85 | 0.63 | 1.02 | 0.93 |
| Parents' education unknown | 5.78 | 3.07 | 0.29** | 0.27 |
| Asian | 1.61 | 1.61 | 1.92* | 1.87* |
| White non-British | 1.42 | 1.35 | 0.74 | 0.77 |
| Black | 1.37 | 1.56 | 95.24 | 63.36 |
| Other ethnic group | 1.25 | 1.22 | 0.53 | 0.54 |
| Ethnicity unknown | 109.65 | 246.75 | 3.24** | 3.40** |
| Entry age 21-24 | 1.80** | 0.51* | 0.83 | 1.46 |
| Entry age 25- | 0.55** | 0.40*** | 0.75 | 0.41*** |
| Entry age unknown | 1.93 | 3.77 | 0.85 | 0.99 |
| Vocational / professional qualification | 2.94*** | 2.97*** | 0.83 | 0.87 |
| Other entry qualification | 1.32 | 1.16 | 0.90 | 1.00 |
| No qualification at entry | 0.58 | 0.46 | 22.32 | 17.93 |
| No information about entry qualification | 2.70 | 2.41 | 0.24*** | 0.21*** |
| "Medium" or "low" entry grades | 0.67** | 0.66** | 0.95 | 0.95 |
| Unknown entry grades | 1.76 | 1.98 | 1.62 | 1.54 |
| New university | 0.94 | 0.36** | 0.74 | 0.58 |
| College | 0.70 | 1.53 | 0.89 | 0.43** |
| Vocational Science | 1.33 | 1.33 | 0.38*** | 0.35*** |
| Non-vocational Art | 0.67* | 0.65** | 0.31*** | 0.30*** |
| Non-vocational Science | 0.96 | 0.90 | 0.77 | 0.72 |
| First class honours degree | 0.90 | 0.85 | 2.45*** | 2.40*** |
| Lower degree | 0.82 | 0.87 | 1.39** | 1.44*** |
| Class of degree unknown | 0.76 | 0.84 | 1.45 | 1.43 |
| New university - Parents' education: compulsory | | 1.79 | | 2.45** |
| New university - Parents' education: secondary | | 2.11 | | 0.69 |
| New university - Parents' education: one HE | | 3.01** | | 0.93 |
| New university - Parents' education: unknown | | 208.70 | | 1.05 |
| College – Parents' education: compulsory | | 0.22* | | 6.40*** |
| College – Parents' education: secondary | | 0.14* | | 1.36 |
| College – Parents' education: one HE | | 0.53 | | 2.70* |
| College – Parents' education: unknown | | 0.01 | | 1.96 |
| New university – Entry age 21-24 | | 5.91*** | | 0.52 |
| New university – Entry age 25- | | 2.25* | | 3.96*** |
| New university – Entry age unknown | | 0.11* | | 0.70 |
| College – Entry age 21-24 | | 10.45*** | | 0.26** |
| College – Entry age 25- | | 1.39 | | 1.15 |
| College – Entry age unknown | | 96.46 | | 0.68 |
| -2 log likelihood | 1118.805 | 1083.698 | 1751.910 | 1706.763 |
| Cox & Snell R Square | .072 | .101 | .089 | .116 |
| Nagelkerte R Square | .108 | .152 | .124 | .161 |

***V/5 Most appropriate level of education for your job = HE / By type of HE institution***

| | Males | | Females | |
|---|---|---|---|---|
| | Main effects only | Interaction effects added | Main effects only | Interaction effects added |
| Constant | 22.71*** | 22.89*** | 12.65*** | 15.78*** |
| Parents' education: compulsory | 0.70 | 0.94 | 0.53*** | 0.41*** |
| Parents' education: secondary | 0.95 | 1.26 | 0.51*** | 0.42*** |
| Parents' education: one of them HE | 1.03 | 0.73 | 0.79 | 0.75 |
| Parents' education unknown | 0.20* | 0.27 | 0.40 | 0.21 |
| Asian | 0.95 | 0.97 | 2.75** | 1.93 |
| White non-British | 0.58* | 0.65 | 0.66* | 0.72 |
| Black | 2.87 | 3.41 | 0.40 | 0.30 |
| Other ethnic group | 51.78 | 201.07 | 2.00 | 1.97 |
| Ethnicity unknown | 125.38 | 7679.19 | 0.40** | 0.47* |
| Entry age 21-24 | 1.63** | 0.34*** | 1.65** | 0.49* |
| Entry age 25- | 1.02 | 0.48** | 0.97 | 0.47** |
| Entry age unknown | 3.42 | 2.69 | 1.60 | 1.17 |
| Vocational / professional entry qualification | 0.77 | 0.81 | 0.51** | 0.52** |
| Other entry qualification | 0.80 | 0.85 | 0.56** | 0.53** |
| No qualification at entry | 0.18** | 0.14** | 0.67 | 0.95 |
| No information on entry qualification | 0.56 | 0.61 | 0.55 | 0.61 |
| "Medium" or "low" entry grades | 0.34*** | 0.39*** | 1.11 | 1.26 |
| Unknown entry grades | 0.43* | 0.54 | 2.29 | 2.23 |
| New university | 0.92 | 1.05 | 0.70** | 0.48 |
| College | 0.60* | 0.19*** | 0.63** | 0.18*** |
| Vocational Science | 0.97 | 1.03 | 2.15*** | 2.16*** |
| Non-vocational Art | 0.35*** | 0.40*** | 0.35*** | 0.35*** |
| Non-vocational Science | 0.69 | 0.71 | 0.72 | 0.69 |
| First class honours degree | 0.84 | 1.02 | 2.60** | 2.47** |
| Lower degree | 0.56*** | 0.59*** | 0.63*** | 0.73** |
| Class of degree unknown | 0.63 | 0.51** | 0.65 | 0.70 |
| New university - Parents' education: compulsory | | 0.47 | | 0.98 |
| New university - Parents' education: secondary | | 0.34 | | 1.67 |
| New university - Parents' education: one HE | | 0.95 | | 0.72 |
| New university - Parents' education: unknown | | 0.01 | | 1.37 |
| College – Parents' education: compulsory | | 0.70 | | 3.98** |
| College – Parents' education: secondary | | 1.24 | | 0.66 |
| College – Parents' education: one HE | | 10.60** | | 2.83 |
| College – Parents' education: unknown | | 626.60 | | 8.49 |
| New university – Entry age 21-24 | | 8.44*** | | 4.99*** |
| New university – Entry age 25- | | 3.35** | | 3.03** |
| New university – Entry age unknown | | 1.17 | | 2.04 |
| College – Entry age 21-24 | | 13.95*** | | 8.08*** |
| College – Entry age 25- | | 14.69*** | | 10.60*** |
| College – Entry age unknown | | 0.85 | | 0.93 |
| -2 log likelihood | 982.922 | 936.153 | 1424.963 | 1371.725 |
| Cox & Snell R Square | .109 | .147 | .109 | .141 |
| Nagelkerte R Square | .168 | .227 | .165 | .213 |

### V/6 Income / By type of HE institution

| | Males | | Females | |
|---|---|---|---|---|
| | Main effects only | Interaction effects added | Main effects only | Interaction effects added |
| Constant | 3.18*** | 3.17*** | 2.97*** | 2.99*** |
| Parents' education: compulsory | -0.09* | -0.08 | -0.02 | -0.07 |
| Parents' education: secondary | -0.08 | -0.05 | 0.05 | 0.07 |
| Parents' education: one of them HE | -0.08 | -0.03 | 0.02 | 0.02 |
| Parents' education unknown | -0.32** | -0.37** | -0.25** | -0.25 |
| Asian | -0.02 | -0.03 | -0.10 | -0.11 |
| White non-British | -0.03 | -0.04 | -0.14*** | -0.14*** |
| Black | -0.17 | -0.16 | 0.08 | 0.04 |
| Other ethnic group | 0.12 | 0.13 | 0.16 | 0.15 |
| Ethnicity unknown | 0.00 | 0.01 | 0.01 | -0.01 |
| Entry age 21-24 | 0.07 | 0.10 | 0.03 | -0.05 |
| Entry age 25- | -0.03 | -0.09 | -0.02 | -0.06 |
| Entry age unknown | 0.38*** | 0.48*** | 0.04 | -0.09 |
| Vocational / professional entry qualification | -0.07 | -0.06 | -0.14** | -0.14** |
| Other entry qualification | -0.06 | -0.06 | -0.13** | -0.11* |
| No qualification at entry | 0.17 | 0.14 | -0.19 | -0.14 |
| No information on entry qualification | 0.00 | -0.03 | -0.03 | -0.03 |
| "Medium" or "low" entry grades | -0.07* | -0.07* | -0.05* | -0.06** |
| Unknown entry grades | -0.24*** | -0.21** | 0.03 | 0.04 |
| New university | -0.02 | 0.02 | -0.07** | -0.12* |
| College | -0.11** | -0.04 | -0.07* | -0.11 |
| Vocational Science | 0.19*** | 0.18*** | 0.07* | 0.06 |
| Non-vocational Art | -0.08** | -0.10** | -0.15*** | -0.16*** |
| Non-vocational Science | -0.02 | -0.04 | -0.12*** | -0.13*** |
| First class honours degree | -0.08 | -0.08 | 0.20*** | 0.19*** |
| Lower degree | -0.20*** | -0.19*** | -0.02 | -0.01 |
| Class of degree unknown | -0.28*** | -0.26*** | -0.07 | -0.06 |
| New university - Parents' education: compulsory | | -0.01 | | 0.10 |
| New university - Parents' education: secondary | | -0.04 | | 0.01 |
| New university - Parents' education: one HE | | -0.13 | | 0.03 |
| New university - Parents' education: unknown | | 0.13 | | -0.03 |
| College – Parents' education: compulsory | | -0.08 | | 0.11 |
| College – Parents' education: secondary | | -0.21 | | -0.17 |
| College – Parents' education: one HE | | 0.07 | | 0.01 |
| College – Parents' education: unknown | | 0.28 | | 0.21 |
| New university – Entry age 21-24 | | -0.05 | | 0.16* |
| New university – Entry age 25- | | 0.12 | | -0.01 |
| New university – Entry age unknown | | -0.38* | | 0.19 |
| College – Entry age 21-24 | | -0.11 | | 0.02 |
| College – Entry age 25- | | -0.03 | | 0.22** |
| College – Entry age unknown | | -0.30 | | 0.10 |
| R Square | .149 | .161 | .092 | .107 |
| Adjusted R Square | .127 | .126 | .074 | .079 |

## Appendix VI: The HESA First Destination Survey

For testing some of the findings from CHERI but mainly to gain information on the different ethnic groups additional analysis on the HESA Student and First Destination Survey in 1995 was conducted. Out of this population the 211.581 full-time or sandwich course students were selected for the purposes of the ethnicity-analyses.

*Distribution of 1995 Graduates by Ethnicity from HESA*

|                     | Males  | Females | Total  |
|---------------------|--------|---------|--------|
| White               | 55866  | 61513   | 117379 |
| Black Caribbean     | 495    | 911     | 1406   |
| Black African       | 860    | 733     | 1593   |
| Black other         | 209    | 303     | 512    |
| Indian              | 2150   | 2062    | 4212   |
| Pakistani           | 958    | 708     | 1666   |
| Bangladeshi         | 231    | 115     | 346    |
| Chinese             | 1837   | 1443    | 3280   |
| Other Asian         | 947    | 785     | 1732   |
| Other               | 1266   | 1250    | 2516   |
| Information refused  | 5825   | 5421    | 11246  |
| Not known           | 34191  | 31502   | 65693  |
| Total               | 104835 | 106746  | 211581 |

As indicators of employment success two measures from the First Destination Survey could be used.
(1) Labour market positions of the graduate 6 months after graduation (Working / Study or training / Seeking employment or training / Seeking employment or training + some other activity / Not available for employment)
(2) being in a graduate job 6 months after graduation, as it is defined in the Warwick study

# Appendix VII: Educational and Employment Differences by Ethnicity

(based on HESA data)

## VII./1. Educational differences between ethnic minority and white graduates. Summary table.

(+): significantly higher proportion than among whites          (-): significantly lower proportion than among whites

| | Non-traditional entry qualification | A Lower levels | New university or college | Lower than upper second degree | Non-vocational subjects | Late-entry graduates |
|---|---|---|---|---|---|---|
| **Black Caribbean** | Men (+) Women (+) | Men (+) Women (+) | Men (+) Women (+) | | Men (+) Women (+) | Men (+) Women (+) |
| **Black African** | Men (+) Women (+) | Men (+) Women (+) | Men (+) Women (+) | Men (+) Women (+) | | Men (+) Women (+) |
| **Black other** | Men (+) Women (+) | Men (+) Women (+) | Men (+) Women (+) | | Men (+) Women (+) | Men (+) Women (+) |
| **Indian** | Women (+) | Men (+) Women (+) | Men (+) Women (+) | | | Men (-) Women (-) |
| **Pakistani** | Men (+) Women (+) | Men (+) Women (+) | Men (+) Women (+) | | | Men (-) Women (-) |
| **Bangladeshi** | | | Men (+) Women (+) | | | Men (-) Women (-) |
| **Chinese** | Men (+) Women (+) | | Men (-) Women (-) | | | Men (+) |
| **Other Asian** | Men (+) Women (+) | Men (-) Women (-) | Men (-) Women (-) | | | Men (+) |
| **Other** | Men (+) Women (+) | | Men (+) Women (+) | Men (+) Women (+) | | Men (+) |

## VII/2. Employment differences between ethnic minority and white graduates – when educational factors are controlled for. Summary table.

(+): significantly higher proportion than among whites          (-): significantly lower proportion than among white s

| | Seeking employment | In a non-graduate or graduate track job | In a non-graduate job |
|---|---|---|---|
| **Black Caribbean** | Women (+) | | Women (-) |
| **Black African** | Men (+) Women (+) | | Women (+) |
| **Black other** | Men (+) Women (+) | Women (-) | Women (-) |
| **Indian** | Men (+) Women (+) | | |
| **Pakistani** | Men (+) Women (+) | | |
| **Bangladeshi** | Men (+) Women (+)* | Men (+) | |
| **Chinese** | Men (+)* Women (+) | Men (-) Women (-) | Men (-) |
| **Other Asian** | Women (+)* | | |
| **Other** | Men (+) Women (+) | | |

*: Disadvantage not significant if we assume everybody studying or participating in training rather than working is happy with this situation, and therefore further study is a positive outcome of higher education studies in every case.

# Appendix VIII: Characteristics of the Interviewees

(The names listed are pseudonyms.)

**Annett** was born in 1963. She is White British. His father had A levels, her mother had O levels. They were running a pub together. Annett studied International hospitality management in a post-1992 university.

**Anthony** was born in 1973. His mother is English, his father was Asian. His father had a medical degree and worked as a doctor. His mother did A levels and was working as a nurse. Anthony studied Computing in a pre-1992 university.

**Bob** was born in 1944. He is White British. His parents had compulsory education. Bob studied computing in a post-1992 university.

**Catherine** was born in 1972. She is White British. Her father was an undertaker, her mother a florist. Both her parents had compulsory schooling and a vocational diploma. Catherine went to a pre-1992 university and studied Geography.

**Clara** was born in 1974. She is White British. Her father worked as a contractor in the building industry and had vocational trade qualification. Her mother had O levels and was a housewife. Clara studied Business information technology in a post-1992 university.

**David** was born in 1973. He is White British Both of his parents had compulsory schooling. David went to a pre-1992 university and studied Transport management.

**Fizar** was born in 1971. She is Asian. Her father had a HE degree and had a professional job. Her mother had secondary schooling. Fizar studied Management in a pre-1992 university.

**George** was born in 1970 to Indian parents. His father worked as an engineer (although had teacher qualification from India). His mother had compulsory schooling only and worked as a supervisor of catering and cleaning for a group of schools. George studied Business and technology in a new university.

**Joan** was born in 1958. She is White British. Her father was a bank manager, her mother was a housewife. Joan went to a pre-1992 university and studied Art history.

**Joseph** was born in 1970. He is White British. His father held an HE degree, his mother did A levels. Joseph studied Product design in a college.

**Joshua** was born in 1970. He defines himself as White British – Welsh. His father: worked in the finance sector (held an HE degree). His mother was a teacher. Joshua studied History and philosophy in a new university then did a legal practice course.

**Kate** was born in 1972. She is White British. Her parents had completed compulsory education. Kate studied Psychology in an old university.

**Linda** was born in 1973. She defined herself as "white other". Her father had compulsory schooling, her mother went to secondary school. She went to an old university and studied Classics.

**Paul** was born in 1964. His father was Chinese, his mother was Dutch. His father was a university lecturer, his mother had upper secondary education and stayed at home with the children. Paul finished his PGCE in 1995 in a new university.

**Sally** was born in 1953. She is White British. Her father was a self-employed builder. Her mother did clerical work. They both had compulsory schooling. Sally studied Tourism management in a college.

**Shelly** was born in 1961. She is White British. Her parents completed compulsory education. Her father was a member of the armed forces, her mother did clerical work. Shelly studied Computer science in an old university.

**Sunil** was born in 1971. He is Indian. Both his parents had compulsory schooling only. His father worked in textiles factory labouring, his mother was a homeworker, sewing. He studied Geography and Environmental Studies in a new university then did a PGCE.

**Susanne** was born in 1955. She is White British. Her father was an accountant. Her mother had compulsory education and worked as a social worker. Susanne studied Environmental science in an old university.

**Tanya** was born in 1950. She is White British. Her father was a bank manager with compulsory schooling and several banking qualifications. Her mother completed compulsory schooling and held a Higher National Certificate. She had secretarial jobs. Tanya studied Business studies and finance in a post-1992 university.

**Terry** was born in 1959. She is White British. Her father had a diploma and worked as a civil servant. Her mother had a HE degree. Terry studied Economic and social history in a pre-1992 university.