

**SUPPLEMENTARY PAPER TO REPORT**  
***'Holding children in mind over time'***

**Quantitative data**

## QUANTITATIVE DATA

This supplementary paper sets out:

- 1 The way in which the data were collected, processed and analysed.
- 2 A summary from the data of the characteristics of the 296 young people who left Bristol mainstream schools in July 2004 without any GCSE qualifications.
- 3 A summary of the characteristics of the 116 young people from this overall group of 296 who left without GCSE qualifications at secondary school but who achieved average or above average performance in English, Mathematics or Science at the end of their primary schooling.
- 4 A summary of the characteristics of the sample of the five young people from the group of 116 who were involved in narrative interviews.
- 5 Tables used to identify the group of 116 young people.

### 1 Collection, processing and analysis of the data

This involved the following steps:

- a) Core data on all the 296 students who left Bristol's mainstream schools in July 2004 without achieving any GCSE qualifications were provided by Bristol LEA statistics office. The data covered the following fields for each student:
  - LEA Client number
  - Unique Pin number
  - Connexions Core number
  - Secondary school attended
  - Gender
  - Date of birth
  - Ethnicity
  - Eligibility for free school meals
  - Key Stage 2 subject levels for English, Mathematics and Science
  - Key Stage 2 Centre
  - Key Stage 3 subject levels for English, Mathematics and Science
  - Key Stage 4 (GCSE) grades X and U where these were attempted
  - Key Stage 3 and 4 Centre
  - GCSE DfES number
  - GCSE grades X and U if GCSE attempted
  - Special education needs status
  - Student exclusion details
  - Ward
- b) Connexions West of England consolidated the data and added the following:
  - Destination post 16
  - Level of Connexions involvement
  - English as an additional language
  - Teenage mother
  - Looked after children
  - Supervised by Youth Offending team
  - Health issues

- c) Bristol University Graduate School of Education statisticians analysed the academic data at KS2, KS3 and KS4 to arrive at the young people who whilst not achieving GCSE qualifications at the end of their secondary schooling did achieve average or above average results in English, Mathematics or Science at the end of their primary schooling. This analysis is set out in Tables 1 and 2 that follow. Also included are the notes defining categories of test outcome from DfES which help to explain each table. The key finding in both tables is that 116 pupils who gained no GCSE qualifications at the end of their schooling did achieve at least one Key Stage 2 final test level at 4, 5, or 6.

## 2 Characteristics of all 296 students

The key characteristics of all the 296 students who left Bristol mainstream schools without GCSE qualifications in July 2004 regardless of performance at KS2 were as follows:

### Gender

- 60.0% Male
- 40.0% Female

### Significant categories for ethnicity

- 85.0% White British
- 2.3% Black British African
- 2.6% Black British Caribbean
- 2.3% Mixed White and Black African
- 2.3% Mixed White and Black Caribbean

### Eligibility for free school meals

- 30%

### Schools with significant percentages of pupils who gained no GCSEs

- 5.0% School A (15 pupils = 9.4% of school year group)
- 5.0% School B (16 pupils = 9.8% of school year group)
- 6.0% School C (19 pupils = 10% of school year group)
- 7.0% School D (22 pupils = 10% of school year group)
- 8.0% School E (24 pupils = 12% of school year group)
- 9.5% School F (29 pupils = 9.3 of school year group)
- 10.0% School G (32 pupils = 16% of school year group)
- 11.0% School H (34 pupils = 17% of school year group)
- 11.5% School I (35 pupils = 19% of school year group)

### Wards with most significant percentages of students with no GCSEs

- 4.0% Ward 1
- 4.2% Ward 2
- 5.0% Ward 3
- 5.0% Ward 4
- 5.1% Ward 5
- 6.8% Ward 6
- 7.0% Ward 7
- 11.0% Ward 8

### **3 Characteristics of the 116 students who gained average or above average levels at KS2 in English, Mathematics or Science**

The key characteristics of the 116 students who left Bristol mainstream secondary schools in the summer of 2004 at the age of 16 with no GCSE qualifications, but who did gain Level 4 or above at Key Stage 2 in at least one of English, Mathematics or Science:

Students numbers attributed to schools (those with 5%+ of 116 students). School references A–J correspond to data commentary on the overall group of 296.

- School B: 5.2%
- School J: 6.9%
- School H: 7.8%
- School F: 7.8%
- School C: 8.6%
- School E: 9.5%
- School D: 9.5%
- School I: 10.3%
- School G: 17.2%

Student numbers attributed to wards in the city (those with 5%+ of 116 students). Ward references 1–7 correspond to data commentary on overall group of 296.

- 5.2% Ward 2
- 6.0% Ward 5
- 6.9% Ward 4
- 6.9% Ward 6
- 6.9% Ward 3
- 7.8% Ward 7
- 9.5% Ward 8

#### Free school meals

- 19.8% eligible
- 80.2% not eligible

#### Gender

- 57.0% male
- 43.0% female

#### Significant categories for ethnicity

- 85.0% White British
- 4.3% Mixed White and Black African
- 2.6% Mixed White and Black Caribbean
- 1.7% White Other

## 4 Characteristics of the five students involved in narrative interviews

Detailed below is the description of the five students who were involved in the in-depth narrative inquiry research. They were drawn from the 116 students who had gained a Level 4 or above at Key Stage 2 in one or more of English, Mathematics and Science. The students selected were profiled against the characteristics of the 116 students. The details of this research sample of five students are given below.

The students involved in the narrative inquiry:

Were drawn from the following schools

- School A (1 student)
- School I (2 students)
- School H (1 student)
- School G (1 student)

Were drawn from the following Wards

- Ward 6 (2 students)
- Ward 5
- Ward 8
- Ward 3

Had assessment histories showing academic progress at Key Stages 3 and 4

- Attempted KS4 (1), Did not attempt KS4 (4)
- Attempted KS3 (2), Did not attempt KS3 (3)

With academic results at KS2 and 3 for each pupil

- KS2 (En/Ma/Sc): 444 KS3: not attempted KS4: not attempted
- KS2 (En/Ma/Sc): 443 KS3: Science only 3 KS4: not attempted
- KS2 (En/Ma/Sc): 345 KS3: (En/Ma/Sc) 365 KS4: not attempted
- KS2 (En/Ma/Sc): 444 KS3: not attempted KS4: not attempted
- KS2 (En/Ma/Sc): 334 KS3: not attempted KS4: not attempted

With eligibility for free school meals

- 1 eligible
- 4 not eligible

Gender

- 2 male
- 3 female

Ethnicity

- 3 White British
- 2 Mixed Other

5. Tables showing how the group of 116 young people who left Bristol's mainstream schools without GCSE qualifications aged 16 in July 2004 but who gained average (Level 4) or above average results in English, Mathematics or Science at Key Stage 2 at the end of their primary schooling, was arrived at using the data made available by Bristol LEA

**Table A**

Definition of Missing = blank, A, D, L. (see DfES guidance sheet attached for codes used)

KS2 Final Test Level = N, B, 2, 3 at below average 4

KS2 Final Test Level = 4, 5, 6 at average and above 4

KS2 Final Test Level = blank in the academic results file + A, D, L

and

KS3 Final Test Level = N, B, 2, 3, 4 at below average 5

KS3 Final Test Level = 5, 6, 7 at average or above 5

KS3 Final Test Level = blank in academic results file + A, D, L

| KS2 Final Test Level a                      | GCSE attempt                                    | KS3 Final Test Level a                      |                          |                               | Total |
|---|---|---|--------------------------|-------------------------------|-------|
|   |   | All three KS3 missing<br>(= blank, A, D, L) | None of KS3 = or above 5 | At least one KS3 = or above 5 |       |
| All three KS2 missing<br>(= blank, A, D, L) | Not attempting any GCSE<br>(Grade = blank)      | 31  | 7                        | 1                             | 39    |
|   | Attempting at least one GCSE<br>(Grade ≠ blank) | 3   | 6 <sup>#</sup>           | 0 <sup>#</sup>                | 9     |
| None of KS2 = or above 4                    | Not attempting any GCSE<br>(Grade = blank)      | 25  | 39                       | 0                             | 64    |
|   | Attempting at least one GCSE<br>(Grade ≠ blank) | 5   | 50 <sup>#</sup>          | 0 <sup>#</sup>                | 55    |
| At least one KS2 = or above 4               | Not attempting any GCSE<br>(Grade = blank)      | 20 <sup>*</sup>                             | 23                       | 29                            | 72    |
|   | Attempting at least one GCSE<br>(Grade ≠ blank) | 4 <sup>*</sup>                              | 19 <sup>#</sup>          | 21 <sup>#</sup>               | 44    |
| Total                                       | Not attempting any GCSE<br>(Grade = blank)      | 76  | 69                       | 30                            | 175   |
|   | Attempting at least one GCSE<br>(Grade ≠ blank) | 12  | 75                       | 21                            | 108   |

1. The number of pupils with at least one KS2 Final Test Level at 4, 5, 6 at average and above 4 regardless of GCSE attempting =  $72 + 44 = 116$ .
2. The number of pupils with at least one KS3 Final Test Level at 5, 6, 7 at average and above 5 regardless of GCSE attempting =  $30 + 21 = 51$ .
3. The number of pupils with at least one KS2 Final Test Level at 4, 5, 6 at average and above 4 as well as at least one KS3 Final Test Level at 5, 6, 7 at average and above 5 regardless of GCSE attempting =  $29 + 21 = 50$ .
4. The number of pupils who took KS2 did not take KS3 =  $25 + 5 + 20^* + 4^* = 54$ .
5. The number of pupils who took KS3 also attempted GCSE =  $6^{\#} + 0^{\#} + 50^{\#} + 0^{\#} + 19^{\#} + 21^{\#} = 96$ .
6. The number of pupils who took KS2 tests and gained a Level 4 in at least one subject did not take KS3 =  $20^* + 4^* = 24$ .

**Table B**

Definition of Missing = blank, A, D, L, N (see DfES guidance sheet attached for codes used)

KS2 Final Test Level = 2, 3 at below average 4

KS2 Final Test Level = 4, 5, 6 at average and above 4

KS2 Final Test Level = blank in the academic results file + A, B, D, L, N  
and

KS3 Final Test Level = 2, 3, 4 at below average 5

KS3 Final Test Level = 5, 6, 7 at average or above 5

KS3 Final Test Level = blank in academic results file + A, B, D, L, N

| KS2 Final Test Level b                         | GCSE attempt                                 | KS3 Final Test Level b                         |                          |                               | Total |
|--|--|--|--------------------------|-------------------------------|-------|
|  |  | All three KS3 missing (= blank, A, B, D, L, N) | None of KS3 = or above 5 | At least one KS3 = or above 5 |       |
| All three KS2 missing (= blank, A, B, D, L, N) | Not attempting any GCSE (Grade = blank)      | 45   | 9                        | 1                             | 55    |
|  | Attempting at least one GCSE (Grade ≠ blank) | 10   | 10 <sup>#</sup>          | 0 <sup>#</sup>                | 20    |
| None of KS2 = or above 4                       | Not attempting any GCSE (Grade = blank)      | 28   | 20                       | 0                             | 48    |
|  | Attempting at least one GCSE (Grade ≠ blank) | 7  | 37 <sup>#</sup>          | 0 <sup>#</sup>                | 44    |
| At least one KS2 = or above 4                  | Not attempting any GCSE (Grade = blank)      | 25 <sup>*</sup>                                | 18                       | 29                            | 72    |
|  | Attempting at least one GCSE (Grade ≠ blank) | 5 <sup>*</sup>                                 | 18 <sup>#</sup>          | 21 <sup>#</sup>               | 44    |
| Total  | Not attempting any GCSE (Grade = blank)      | 98   | 47                       | 30                            | 175   |
|  | Attempting at least one GCSE (Grade ≠ blank) | 22   | 65                       | 21                            | 108   |

1. The number of pupils with at least one KS2 Final Test Level at 4, 5, 6 at average and above 4 regardless of GCSE attempting =  $72 + 44 = 116$ .
2. The number of pupils with at least one KS3 Final Test Level at 5, 6, 7 at average and above 5 regardless of GCSE attempting =  $30 + 21 = 51$ .
3. The number of pupils with at least one KS2 Final Test Level at 4, 5, 6 at average and above 4 as well as at least one KS3 Final Test Level at 5, 6, 7 at average and above 5 regardless of GCSE attempting =  $29 + 21 = 50$ .
4. The number of pupils who took KS2 did not take KS3 =  $28 + 7 + 25^* + 5^* = 65$ .
5. The number of pupils who took KS3 also attempted GCSE =  $10^{\#} + 0^{\#} + 37^{\#} + 0^{\#} + 18^{\#} + 21^{\#} = 86$ .
6. The number of pupils who took KS2 tests and gained a Level 4 in at least one subject did not take KS3 =  $25^* + 5^* = 30$ .

## DfES guidance on establishing test level outcomes at Key Stage 2 and 3

| KS2 test outcome (Level)                | Points: all subjects |
|---|----------------------|
| 6                                       | 39                   |
| 5                                       | 33                   |
| 4                                       | 27                   |
| 3                                       | 21                   |
| C (Compensatory 2)                      | 15                   |
| N (not awarded a test level)            | 15                   |
| B (working below the level of the test) | 15                   |
| D (Disapplied)                          | Disregarded          |
| A (Absent)                              | Disregarded          |
| L (Lost script)                         | Disregarded          |

| Key Stage 3 test outcome                      | Points:<br>English | Mathematics | Science     |
|---|--------------------|-------------|-------------|
| E (exceptional performance)*                  | 57                 | 57          | 57          |
| 8   | 51                 | 51          | 51          |
| 7   | 45                 | 45          | 45          |
| 6   | 39                 | 39          | 39          |
| 5   | 33                 | 33          | 33          |
| 4   | 27                 | 27          | 27          |
| 3   | 21                 | 21          | 21          |
| C (Compensatory 2)                            | –                  | 15          | 15          |
| N (not awarded a test level)                  | 21                 | 15          | 15          |
| B (working below the level of the test)       | 21                 | 15          | 15          |
| D (Disapplied)                                | Disregarded        | Disregarded | Disregarded |
| A (Absent)                                    | Disregarded        | Disregarded | Disregarded |
| M (Mixed Tier – mathematics and science only) | Disregarded        | Disregarded | Disregarded |
| L (Lost script)                               | Disregarded        | Disregarded | Disregarded |