

Uptake of GCSE subjects 2012

Statistics Report Series No.57

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June 2013

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Introduction

This report looks at the uptake of GCSE subjects in England in 2012. The data for these analyses were taken from the National Pupil Database (NPD). This is a database held by the Department for Education, consisting of results for all students in all subjects in schools and colleges in England, as well as pupil and school background characteristics such as age, gender, ethnicity and level of deprivation.

For the analysis of uptake at GCSE the Key Stage 4 (KS4) extract of the NPD was used, consisting of all students who were at the end of KS4 in 2012 (i.e. in year 11). Uptake in this report is defined as the percentage of these students taking a GCSE in the subject, and includes exams taken by these students in previous years.

Table 1 presents a breakdown of the number of GCSEs taken by students.

Table 1: Number of GCSEs taken (% of GCSE students)

Number of GCSEs	Percentage
1	1.6
2	3.2
3	5.5
4	7.1
5	8.5
6	9.7
7	11.6
8	13.4
9	16.4
10	13.8
11	6.6
12+	2.7
No of students	598,024

Uptake of GCSEs in this report is presented by different student classifications: gender, school type, prior attainment, school gender and deprivation level. In the following tables the numbers of students in each of the classifications are presented.

School type

There are several different types of school where students study for GCSEs. For this report these were classified into five groups. Table 2 presents the number and percentage of GCSE students attending each school type.

Table 2: GCSE students by school type

School type	Number of students	Percentage
Academy	183,476	30.7
Comprehensive	335,031	56.0
Grammar	11,505	1.9
Independent	49,464	8.3
Secondary Modern	16,846	2.8

Pupil attainment

Students were classified by their attainment at GCSE. GCSE grades were converted into scores (A* = 8, A= 7, B= 6 etc) and a mean GCSE was calculated for each student, which was then used to divide students up into three approximately equally sized attainment groups: low, medium and high. Table 3 presents the number in each group as well as the mean, minimum and maximum value of mean GCSE for each group.

Table 3: GCSE students by attainment

Pupils' attainment group	Number of students	Minimum	Maximum	Mean
Low	199,521	1.0	4.4	3.3
Medium	198,331	4.5	5.7	5.1
High	197,769	5.7	8.0	6.6

Deprivation level

The level of deprivation that a student experiences was measured by the Income Deprivation Affecting Children Index (IDACI). This is a measure of the proportion of children in a very small geographical area (Lower Layer Super Output Area or LSOA) who live in families that are income deprived. It varies between 0 and 1, with 0 representing minimum deprivation and 1 maximum deprivation.

It should be noted that there was some missing data for this measure (9% of students had no record). Students who did have a measure of deprivation were divided up into three equally sized groups. Table 4 presents the number of students and the mean, minimum and maximum IDACI values in each group.

Table 4: GCSE students by deprivation level

Pupils' deprivation group	Number of students	Minimum	Maximum	Mean
Low	181,080	0.00	0.10	0.06
Medium	181,081	0.10	0.26	0.17
High	181,072	0.26	0.99	0.42

School gender

The school gender variable was determined by the female ratio (number of females over the total number of students) in the school. If this ratio was greater than 0.95, the school was considered to be a "Girls" school. If the female ratio was less than 0.05, then the school was designated a "Boys" school. The rest of the schools were considered "Mixed" schools. Table 5 shows the numbers and percentages of students attending the different types of schools.

Table 5: GCSE students by school gender

School gender	Number of students	Percentage
Boys school	31,800	5.3
Girls school	47,472	7.9
Mixed school	518,752	86.7

Number of GCSEs taken

The number of GCSEs taken by students in each of the classifications is presented in Tables 6-9. For example, Table 6 shows that 14.9% of students in Academies took 10 GCSEs, compared with 36.5% of students in grammar schools. Table 7 shows that 6.3% of students with low attainment took 9 GCSEs, compared with 22.5% of students with high attainment.

Table 6: Number of GCSEs taken, by school type (% of students)

Number of GCSEs	Acad	Comp	Grammar	Ind	Sec Mod
1	1.2	1.2	0.3	4.7	1.7
2	3.4	2.8	0.2	4.3	4.8
3	5.7	5.3	0.2	6.3	7.3
4	7.1	7.2	0.2	7.0	9.6
5	8.2	9.0	0.6	7.2	12.4
6	9.2	10.2	1.0	9.6	12.9
7	10.6	12.2	2.2	12.6	13.9
8	12.7	14.2	4.8	12.8	13.9
9	15.8	16.9	16.6	16.6	12.3
10	14.9	12.8	36.5	13.2	8.0
11	7.9	5.8	26.4	4.4	2.2
12+	3.3	2.3	11.2	1.3	1.0
Number of students	183,476	335,031	11,505	49,464	16,846

Table 7: Number of GCSEs taken, by attainment (% of students)

Number of GCSEs	Low	Medium	High
1	2.3	0.5	1.1
2	6.9	1.4	1.0
3	12.4	2.5	1.4
4	14.8	4.7	1.7
5	16.5	7.0	2.1
6	14.8	11.0	3.4
7	13.6	14.3	6.9
8	9.5	19.1	11.9
9	6.3	20.5	22.5
10	2.2	13.4	26.0
11	0.5	4.2	15.3
12+	0.1	1.5	6.4
Number of students	199,521	198,331	197,769

Table 8: Number of GCSEs taken, by deprivation level (%of students)

Number of GCSEs	Low	Medium	High
1	0.3	0.6	1.2
2	1.1	2.5	4.7
3	2.4	4.9	8.5
4	3.7	6.9	10.6
5	5.5	8.8	11.9
6	7.5	10.3	11.8
7	10.3	12.3	12.3
8	14.4	14.2	12.4
9	20.6	16.7	12.4
10	19.9	13.4	8.6
11	10.2	6.7	3.9
12+	4.1	2.8	1.7
Number of students	181,080	181,081	181,072

Table 9: Number of GCSEs taken, by school gender (%)

Number of GCSEs	Boys school	Girls school	Mixed school
1	2.5	1.4	1.5
2	4.1	1.4	3.3
3	5.6	2.5	5.7
4	5.7	4.2	7.4
5	6.3	5.0	9.0
6	7.8	6.7	10.1
7	9.4	9.0	11.9
8	9.8	11.9	13.8
9	15.4	20.2	16.1
10	18.5	21.8	12.7
11	11.2	11.3	5.9
12+	3.7	4.5	2.4
Number of students	31,800	47,472	518,752

Uptake of individual GCSE subjects

In the following tables the uptake of individual subjects is presented, broken down into the classifications outlined above. Subjects with an overall uptake level of less than 1% are not included. In each table the subjects are ordered by overall uptake (highest first). Thus, mathematics had the highest level of uptake, being taken by 93.7% of all GCSE students, 93.4% of males and 94% of females.

It is worth noting that the expectation is that virtually all pupils take some core subjects, such as English, mathematics and science. However, there are alternatives to GCSEs in these subjects which are increasingly popular, such as IGCSEs (particularly in English and maths) and BTECs and OCR Nationals (particularly in science). This means that the percentages for these subjects are reduced somewhat in these tables. For a detailed analysis of uptake of alternative qualifications in English schools see Gill (2013).

Table 11: Uptake of individual subjects by gender (% of students)

Subject	Boys	Girls	All
Mathematics	93.4	94.0	93.7
English Language	71.3	79.7	75.5
English Literature	66.5	76.0	71.2
Science (Core)	51.1	54.2	52.6
Additional Science	39.7	42.5	41.1
Religious Studies	31.9	38.7	35.3
History	32.8	33.1	32.9
Geography	30.0	24.9	27.5
Biology	26.1	24.0	25.1
Chemistry	25.8	23.4	24.6
Physics	25.6	23.2	24.4
French	18.8	26.6	22.6
English Language & Literature	25.1	17.6	21.4
Physical Education/Sports Studies	19.1	10.4	14.8
Art & Design	8.7	18.0	13.3
Drama & Theatre Studies	9.0	14.4	11.7
Spanish	8.7	12.5	10.6
German	8.5	9.8	9.1
Business Studies: Single	10.7	7.5	9.1
D&T Resistant Materials	15.0	2.7	8.9
Statistics	9.0	8.3	8.7
Media/Film/TV Studies	8.2	8.7	8.5
D&T Food Technology	6.1	10.4	8.2
Art & Design (Fine Art)	5.5	10.6	8.0
Music	6.9	6.7	6.8
D&T Graphic Products	7.9	5.5	6.7
Information & Communications Technology	6.6	5.9	6.2
D&T Product Design	7.2	3.7	5.5
D&T Textiles Technology	0.3	10.4	5.3
Sociology	1.9	4.6	3.2
Home Economics: Child Development	0.1	5.4	2.7
Humanities: Single	2.4	2.6	2.5
Methods in Mathematics	2.5	2.4	2.4
Applications of Mathematics	2.4	2.3	2.4
Office Technology	2.2	2.2	2.2
Dance	0.3	3.7	2.0
Art & Design (Photography)	1.4	2.4	1.9
Psychology	1.1	2.4	1.8
Social Science: Citizenship	1.6	1.9	1.7
Home Economics: Food	1.2	2.3	1.7
D&T Electronic Products	2.8	0.2	1.5
Latin	1.4	1.4	1.4
Art & Design (Textiles)	0.1	2.5	1.3
Art & Design (Graphics)	1.2	0.9	1.0

Table 12: Uptake of individual subjects by school type (% of students)

Subject	Academy	Comprehensive	Grammar	Independent	Secondary Modern
Mathematics	96.9	97.5	94.3	54.5	97.8
English Language	77.4	77.7	92.9	52.8	68.4
English Literature	72.0	73.2	92.2	54.8	61.0
Science (Core)	52.8	55.2	36.6	35.6	62.2
Additional Science	40.9	43.1	31.8	29.3	45.6
Religious Studies	31.8	37.2	44.1	34.4	32.5
History	33.3	31.2	49.9	42.2	26.4
Geography	27.4	25.5	47.5	39.7	19.3
Biology	26.1	22.0	66.5	37.1	12.7
Chemistry	25.8	21.6	66.1	35.8	12.1
Physics	25.7	21.6	66.1	34.1	12.0
French	22.7	20.2	43.6	37.8	12.3
English Language & Literature	23.1	22.6	3.5	6.6	34.8
Physical Education/Sports Studies	15.2	14.8	18.4	14.2	11.1
Art & Design	12.8	13.5	11.9	14.5	13.1
Drama & Theatre Studies	11.9	11.2	11.5	15.8	7.2
Spanish	10.0	9.1	26.2	20.7	7.3
German	10.3	7.8	29.7	11.5	2.2
Business Studies: Single	10.3	8.6	17.3	7.3	5.7
D&T Resistant Materials	8.6	8.8	10.1	10.7	9.2
Statistics	9.2	8.7	15.8	4.4	9.7
Media/Film/TV Studies	8.7	9.5	5.1	1.4	8.3
D&T Food Technology	8.8	8.9	8.5	2.1	7.8
Art & Design (Fine Art)	7.6	7.6	12.9	12.6	5.3
Music	6.6	6.3	12.0	10.4	3.6
D&T Graphic Products	6.8	7.4	8.2	2.0	5.6
Information & Communications Technology	6.0	5.6	15.8	9.8	5.6
D&T Product Design	5.8	5.6	7.9	3.4	4.0
D&T Textiles Technology	5.8	5.6	5.8	1.9	3.9
Sociology	3.3	3.6	1.5	0.5	2.4
Home Economics: Child Development	2.8	3.1	0.6	0.6	2.8
Humanities: Single	3.0	2.5	.	0.6	3.9
Methods in Mathematics	3.1	2.1	5.7	1.7	2.0
Applications of Mathematics	2.8	2.1	5.7	1.6	2.1
Office Technology	2.3	2.0	4.1	2.0	3.3
Dance	2.2	2.0	1.1	0.8	1.8
Art & Design (Photography)	1.9	2.0	0.7	1.4	3.8
Psychology	1.9	1.8	2.3	0.4	1.8
Social Science: Citizenship	1.6	2.0	0.6	0.6	1.7
Home Economics: Food	1.6	1.7	1.4	2.9	1.2
D&T Electronic Products	1.6	1.5	3.5	0.7	1.1
Latin	0.5	0.2	5.4	12.0	.
Art & Design (Textiles)	1.3	1.3	1.0	1.3	1.0
Art & Design (Graphics)	1.2	1.1	0.0	0.6	0.6

Table 13: Uptake of individual subjects by attainment (% of students)

Subject	Low attainment	Medium attainment	High attainment
Mathematics	97.1	97.1	87.2
English Language	57.9	82.5	86.8
English Literature	48.8	78.8	86.9
Science (Core)	52.3	64.7	41.3
Additional Science	30.6	55.4	37.7
Religious Studies	23.1	37.3	45.9
History	18.3	32.8	48.2
Geography	15.8	27.6	39.5
Biology	3.2	18.9	53.6
Chemistry	2.7	18.4	53.2
Physics	2.7	18.3	52.8
French	7.6	20.8	39.9
English Language & Literature	43.3	17.1	3.6
Physical Education/Sports Studies	10.5	18.1	16.1
Art & Design	11.4	14.4	14.3
Drama & Theatre Studies	8.7	12.7	13.9
Spanish	3.5	9.8	18.7
German	2.7	8.2	16.6
Business Studies: Single	5.6	10.8	11.1
D&T Resistant Materials	10.6	9.2	7.0
Statistics	3.2	9.2	13.8
Media/Film/TV Studies	8.4	10.2	6.8
D&T Food Technology	9.0	8.9	6.8
Art & Design (Fine Art)	6.0	8.1	10.2
Music	3.1	6.1	11.3
D&T Graphic Products	6.0	7.4	6.9
Information & Communications Technology	3.5	6.3	9.0
D&T Product Design	5.6	6.0	4.9
D&T Textiles Technology	4.1	5.9	6.0
Sociology	2.5	3.9	3.2
Home Economics: Child Development	3.9	3.1	1.2
Humanities: Single	2.7	2.8	1.9
Methods in Mathematics	1.9	2.4	3.1
Applications of Mathematics	1.7	2.3	3.1
Office Technology	1.8	2.5	2.3
Dance	1.5	2.3	2.1
Art & Design (Photography)	1.8	2.3	1.6
Psychology	1.0	2.0	2.3
Social Science: Citizenship	1.5	2.1	1.7
Home Economics: Food	1.8	1.9	1.5
D&T Electronic Products	1.2	1.5	1.8
Latin	0.0	0.1	4.1
Art & Design (Textiles)	1.1	1.5	1.2
Art & Design (Graphics)	1.0	1.2	0.9

Table 14: Uptake of individual subjects by deprivation group (% of students)

Subject	Low deprivation	Medium deprivation	High deprivation
Mathematics	97.3	97.5	97.9
English Language	85.9	78.1	70.2
English Literature	83.7	74.2	62.8
Science (Core)	55.7	55.8	52.0
Additional Science	46.1	43.7	38.0
Religious Studies	37.3	34.2	35.7
History	39.5	32.9	25.3
Geography	33.7	26.8	19.7
Biology	33.0	23.7	16.2
Chemistry	32.7	23.4	15.7
Physics	32.7	23.3	15.6
French	28.3	21.0	15.2
English Language & Literature	14.2	22.5	31.9
Physical Education/Sports Studies	19.9	15.2	10.1
Art & Design	13.8	13.7	12.5
Drama & Theatre Studies	13.0	11.6	9.7
Spanish	12.3	9.5	7.7
German	13.5	8.8	4.9
Business Studies: Single	12.1	9.2	6.9
D&T Resistant Materials	9.5	9.4	7.8
Statistics	10.3	9.4	7.8
Media/Film/TV Studies	8.8	9.6	9.1
D&T Food Technology	10.0	9.2	7.4
Art & Design (Fine Art)	9.0	7.9	6.2
Music	8.7	6.5	4.4
D&T Graphic Products	8.1	7.4	6.2
Information & Communications Technology	7.1	5.7	5.1
D&T Product Design	5.9	5.8	5.6
D&T Textiles Technology	6.3	5.7	4.9
Sociology	3.0	3.3	4.2
Home Economics: Child Development	2.6	3.2	3.1
Humanities: Single	2.4	2.8	2.8
Methods in Mathematics	2.9	2.7	2.1
Applications of Mathematics	2.9	2.6	1.9
Office Technology	2.4	2.3	2.0
Dance	2.5	2.2	1.5
Art & Design (Photography)	2.0	2.2	1.7
Psychology	1.9	2.0	1.7
Social Science: Citizenship	1.2	1.7	2.8
Home Economics: Food	1.8	1.7	1.3
D&T Electronic Products	2.0	1.7	1.1
Latin	0.7	0.4	0.2
Art & Design (Textiles)	1.3	1.2	1.3
Art & Design (Graphics)	1.1	1.0	1.1

Table 15: Uptake of individual subjects by school gender (% of students)

Subject	Boys School	Girls School	Mixed School
Mathematics	79.7	85.6	95.3
English Language	68.8	83.9	75.1
English Literature	68.2	83.4	70.3
Science (Core)	40.3	49.3	53.7
Additional Science	33.5	41.1	41.5
Religious Studies	43.1	49.9	33.4
History	39.7	41.3	31.8
Geography	38.0	32.8	26.3
Biology	38.0	35.5	23.3
Chemistry	38.1	35.1	22.8
Physics	38.0	35.0	22.6
French	30.6	36.8	20.8
English Language & Literature	14.0	6.7	23.2
Physical Education/Sports Studies	15.2	9.3	15.3
Art & Design	8.6	15.7	13.4
Drama & Theatre Studies	8.9	16.7	11.4
Spanish	15.0	20.4	9.4
German	13.1	12.8	8.6
Business Studies: Single	12.0	8.7	9.0
D&T Resistant Materials	14.2	3.1	9.1
Statistics	9.7	7.9	8.7
Media/Film/TV Studies	5.1	5.7	8.9
D&T Food Technology	2.8	8.1	8.6
Art & Design (Fine Art)	10.6	11.6	7.6
Music	8.7	9.3	6.4
D&T Graphic Products	6.4	5.1	6.9
Information & Communications Technology	9.4	11.5	5.6
D&T Product Design	6.2	4.5	5.5
D&T Textiles Technology	0.0	9.6	5.2
Sociology	0.6	5.1	3.2
Home Economics: Child Development	.	2.9	2.9
Humanities: Single	0.9	0.8	2.7
Methods in Mathematics	3.4	2.6	2.4
Applications of Mathematics	3.5	2.6	2.3
Office Technology	1.2	3.1	2.2
Dance	0.1	2.9	2.0
Art & Design (Photography)	1.4	1.5	2.0
Psychology	0.9	2.1	1.8
Social Science: Citizenship	2.1	2.0	1.7
Home Economics: Food	0.4	2.7	1.7
D&T Electronic Products	3.4	0.2	1.5
Latin	7.1	5.3	0.7
Art & Design (Textiles)	0.1	2.2	1.3
Art & Design (Graphics)	1.2	0.6	1.1

Reference

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