

Uptake of GCSE subjects 2019

Statistics Report Series No. 126



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How to cite this publication:

Gawedzka, G. & Gill, T (2022). *Uptake of GCSE Subjects 2019. Statistics Report Series No.126.* Cambridge University Press & Assessment.

Introduction

This Statistics Report is the second in a new series produced by the Research Division at Cambridge University Press and Assessment, using publicly available school performance data from the Department for Education (DfE). The aim of the new series is to provide a continuation of the Statistics Reports that were previously produced using National Pupil Database (NPD) data (e.g., Carroll & Gill, 2018), which has become more difficult and time-consuming to access.

This report is focused on the uptake of GCSE subjects in England in 2019. The data were downloaded from the DfE's 'Find and compare schools in England' service (https://www.compare-school-performance.service.gov.uk), and consisted of Key Stage 4 (KS4) results at a school level in all subjects in schools and colleges in England, as well as school characteristics such as school gender, admissions policy, and the number of disadvantaged pupils at the end of KS4. The main difference between the DfE dataset and the NPD dataset is that the DfE data is at school level and the NPD data is at student level. For example, the DfE dataset has no records for a student's personal information, such as grades or home postcode. This means that some of the variables used to split the student population into different categories in previous reports (e.g., by attainment or deprivation) were not available, and so similar measures available at school level (e.g., percentage of disadvantaged students in a school) were used to split the data into categories instead.

GCSE uptake is defined as the percentage of students at the end of KS4 taking a GCSE subject. The following qualifications were counted for this report¹: GCSE Full Course, GCSE (9-1) Full Course, GCSE (9-1) Full Course (Science Double Award).

Results

GCSE uptake was analysed by different school classifications: school type, attainment group, school gender and deprivation level. In the following tables the numbers of students in each of the classifications are presented.

School type

GCSE qualifications are taught at several different types of school. In line with previous uptake reports (e.g., Gawedzka & Gill, 2022) schools were assigned a school type based on their admissions policy and institution type as recorded in the KS4 dataset. The KS4 dataset for 2019, however, uses a new classification of school admissions policies (selective, non-selective schools in highly selective areas (HSA), other non-selective schools), and for this reason the school type classification in this uptake report differs from the classification used in previous reports². Table 1 presents the number and percentage of GCSE students

¹ International GCSEs by AQA, Cambridge International and Edexcel (previously accredited by Ofqual as 'level 1/2 certificates', and included in previous uptake reports) were discontinued from 2015 to 2017 onwards, as reformed GCSEs in each subject were introduced (Rushton & Ireland, 2022, p. 9). For this reason, they do not appear in the 2019 DfE dataset.

² Previous GCSE uptake reports (e.g., Gawedzka & Gill, 2022) grouped schools into seven categories: Academy (Comprehensive); Academy (Modern); Academy (Selective); Comprehensive; Selective; Independent; and Secondary Modern. Note that the new admissions policy categories

attending each of the seven different school types: Academy (non-selective in HSA); Academy (other non-selective); Academy (selective); Other non-selective; Selective; Independent; and Non-selective in HSA.

Table 1: GCSE students and schools, by school type.

School type	Number of students	Percent of students	Number of schools	Percent of schools
Academy (non-selective in HSA)	28,005	4.9	175	4.4
Academy (other non-selective)	339,233	58.9	2,033	50.7
Academy (selective)	21,052	3.7	142	3.5
Independent	47,671	8.3	819	20.4
Non-selective in HSA	5,194	0.9	36	0.9
Other non-selective	131,248	22.8	781	19.5
Selective	2,944	0.5	21	0.5

School attainment

Schools were ranked by their attainment at GCSE, based on the centre mean score per entry in the DfE³ dataset. This score was used to divide schools into three groups, representing low, medium and high attainment. Table 2 presents the number of schools and GCSE students in each group, and the minimum, maximum and mean points score for each group. Note that for 81 schools it was not possible to calculate the centre mean score per entry because of the missing data.

Table 2: GCSE students by school attainment group.

Attainment group	Schools	Students	Minimum	Maximum	Mean
Low	1,309	179,929	1.5	4.5	4.0
Medium	1,310	222,134	4.5	5.2	4.8
High	1,309	172,800	5.2	8.9	6.2

recorded in the KS4 dataset have overlap with the previous admissions policy categories, but are not simply a re-labelling of the categories. For example, the "non-selective schools in highly selective areas" category includes many schools previously listed as "secondary modern" schools, but also other schools, such as comprehensive schools in highly selective areas that were previously listed as "Comprehensive" schools (see Appendix, Table A1). For more information on school categories, see the Department of Education's register of educational establishments in England and Wales at https://get-information-schools.service.gov.uk/.

³ Average points per entry is derived by converting each qualification awarded at KS4 into points and dividing the total by the number of qualifications for which a school was entered. For GCSEs graded 9-1, points were equal to the grade (grade 9 = 9 points, etc.). For double award GCSEs graded 99 – 11, points were as follows: 99 = 9, 98 = 8.5, 88 = 8, 87 = 7.5, 77 = 7, 76 = 6.5, 66 = 6, 65 = 5.5, 55 = 5, 54 = 4.5, 44 = 4, 43 = 3.5, 33 = 3, 32 = 2.5, 22 = 2, 21 = 1.5, 11 = 1. For subjects graded with letters, points were as follows: A* = 8.5, A = 7, B = 5.5, C = 4, D = 3, E = 2, F = 1.5, G = 1. Note that the maximum points score available was 10.75, which corresponded to Grade A at AS level.

School deprivation level

Schools were classified by their deprivation level according to the percentage of students at the end of KS4 who were disadvantaged⁴. This measure was used to divide schools up into three groups, as shown in Table 3. Note that 819 schools had no record for the percentage of disadvantaged students in the DfE data.

Table 3: GCSE students by deprivation group.

Deprivation group	Schools	Students	Min (%)	Max (%)	Mean (%)
Low	1,063	195,780	0.0	18.2	12.0
Medium	1,064	175,770	18.3	32.1	24.6
High	1,063	156,703	32.1	85.1	45.2

School gender

School gender was recorded for each school in the DfE dataset. Table 4 shows the numbers and percentages of students attending each school type.

Table 4: GCSE students by school gender.

School gender	Number of students	Percent
Boys' School	26,888	4.7
Girls' School	41,425	7.2
Mixed School	507,612	88.1

Mean Number of GCSEs taken

Tables 5-8 show the mean number of GCSEs taken by students, according to the different school classifications described above. For example, Table 5 shows that students in selective academies took on average 9.8 GCSEs, compared with the students in independent schools who took on average only 4.5 GCSEs. This observation likely reflects that independent schools have a higher uptake of non-accredited qualifications (e.g., some IGCSEs/International GCSEs).⁵ Table 6 shows that students took on average 7.6 GCSEs in the high attainment group, compared with the low attainment group in which students took on average 7.0 GCSEs. Table 7 shows that students from the low deprivation group took on average 8.3 GCSEs, compared with the high deprivation group in which students took on average 7.1 GCSEs. Table 8 shows that at girls' schools, students took on average 7.8 GCSEs, compared with 7.7 GCSEs at boys' schools and 7.4 GCSEs at mixed schools.

⁴ Defined as those who attract pupil premium funding, meaning pupils claiming free school meals at any point in the last six years and pupils in care, or who left care through adoption or another formal route. Previous statistics reports (until those on the 2017 NPD data) inferred students' deprivation level from the Income Deprivation Affecting Children Index (IDACI), based on each student's home address.

⁵ However, we can't know this for certain, because these non-accredited qualifications are not included in the DfE data.

Table 5: Mean Number of GCSEs taken, by school type.

School type	Mean no. taken
Academy (non-selective in highly selective areas)	7.3
Academy (other non-selective)	7.6
Academy (selective)	9.8
Independent	4.5
Non-selective in highly selective areas	7.1
Other non-selective	7.7
Selective	9.8

Table 6: Mean Number of GCSEs taken, by school attainment group.

Attainment group	Mean no. taken
Low	7.0
Medium	7.7
High	7.6

Table 7: Mean Number of GCSEs taken, by deprivation group.

Deprivation group	Mean no. taken
Low	8.3
Medium	7.5
High	7.1

Table 8: Mean Number of GCSEs taken, by school gender.

School gender	Mean no. taken
Boys' School	7.7
Girls' School	7.8
Mixed School	7.4

Uptake of individual GCSE subjects

In the following tables, uptake of individual subjects is presented, according to the different school classifications described above. Subjects with overall uptake of less than 1% are not included. In each table, subjects are ordered by overall uptake (highest first). Thus, English Language had the highest level of uptake, being taken by 95.7% of GCSE students in mixed schools, 86.4% of students in boys' schools, and 89.6% of students in girls' schools.

It is expected that most students take core subjects, such as English, Mathematics and science. However, there are alternatives to GCSEs in these subjects, such as (non-accredited) IGCSE/International GCSEs, BTECs and Cambridge Nationals, that are not included in these tables, so the percentages for these subjects are reduced. For a detailed analysis of uptake of alternative qualifications in English schools see Gill (2016). Compared to 2018 (Gawedzka & Gill 2022), overall uptake is steady for all of Mathematics, English Language and English Literature (Table 9). Table 10 shows that the uptake of English Language in independent schools is 13.6 percentage points higher than the uptake of Mathematics; at most other school types, uptake for Mathematics is similar to that for English Language. These patterns reflect the fact that many candidates at independent schools take non-accredited qualifications, which do not appear in these tables. Any comparisons to previous years' results should take into account the different data source (DfE school-level data for this report on uptake in 2019, NPD data source for the Statistics Reports before 2018), new classification of school types, and the various changes to qualifications and school performance data (see Rushton & Ireland, 2022).

Table 9: Uptake of individual subjects, by school gender (% of GCSE students).

	Boys'	Girls'	Mixed	Overall
Subject	School	School	School	Uptake
English Language	86.4	89.6	95.7	94.8
Mathematics	85.1	84.4	94.9	93.7
English Literature	85.4	89.0	94.5	93.6
Science: Double Award	41.3	49.5	69.0	66.3
History	41.2	44.9	45.5	45.3
Geography	45.8	42.3	43.3	43.4
Religious Studies	45.6	57.9	36.9	38.8
Biology	44.1	38.3	25.8	27.6
Chemistry	44.5	37.7	25.6	27.3
Physics	43.6	37.7	25.4	27.2
French	23.9	28.8	20.6	21.4
Spanish	18.3	26.2	16.2	17.0
Design & Technology	22.3	10.6	15.3	15.3
Business Studies: Single	17.4	12.0	15.2	15.1
Physical Education/Sports Studies	14.4	10.2	14.0	13.7
Computer Studies/Computing	20.2	10.7	13.2	13.4
Art & Design (Fine Art)	10.1	14.6	11.1	11.3
Drama & Theatre Studies	6.5	15.1	9.7	10.0
Art & Design	5.4	8.8	10.3	10.0
D&T Food Technology	2.5	8.2	8.0	7.7
German	12.8	10.2	6.7	7.2
Music	7.0	8.2	5.7	6.0
Art & Design (Photography)	2.0	2.9	5.7	5.3
Media/Film/Tv Studies	3.8	2.6	5.6	5.3
Sociology	1.0	4.6	3.6	3.5
Social Science: Citizenship	1.8	4.6	3.0	3.1
Psychology	1.1	3.3	2.4	2.4
Statistics	4.8	0.4	2.3	2.3
Art & Design (Textiles)	0.1	3.4	1.6	1.6
Latin	6.5	6.0	1.0	1.6
Dance	0.2	2.5	1.6	1.6
Art & Design (Graphics)	1.3	1.0	1.6	1.5
Economics	4.9	1.4	8.0	1.0

Table 10: Uptake of individual subjects, by school type (% of GCSE students).

	Academy	Academy	Academy		Other	Non-selective	
Subject	(other non-sel)	(selective)	(non-sel, HSA)	Independent	non-selective	(HSA)	Selective
English Language	99.2	99.9	99.2	46.0	99.1	99.1	99.8
Mathematics	99.3	99.9	99.2	32.4	99.2	99.0	99.9
English Literature	98.5	99.7	98.4	40.1	98.2	98.3	99.5
Science: Double Award	72.0	17.8	78.7	21.5	73.8	77.5	16.8
History	47.5	52.7	46.8	18.2	47.8	43.4	47.6
Geography	44.5	55.7	42.8	32.3	42.5	40.4	59.6
Religious Studies	36.0	52.2	32.2	28.3	49.0	40.5	51.5
Biology	26.3	81.8	19.2	24.3	24.3	20.7	82.9
Chemistry	26.0	81.6	19.1	23.6	24.1	20.6	82.9
Physics	26.0	81.6	18.8	22.3	24.1	20.5	82.8
French	21.5	35.7	20.0	15.1	20.9	16.1	42.8
Spanish	16.8	32.5	13.1	14.0	17.1	11.6	24.6
Design & Technology	15.1	19.0	11.6	13.9	16.0	14.0	25.9
Business Studies: Single	15.9	19.9	15.1	7.8	14.9	10.2	19.3
Physical Education/Sports	13.7	17.2	12.1	12.1	14.4	9.3	15.7
Computer Studies/Computing	13.7	22.9	10.4	7.7	13.5	15.9	17.9
Art & Design (Fine Art)	11.5	13.5	9.8	13.3	10.3	9.0	14.6
Drama & Theatre Studies	9.8	13.7	8.1	12.7	9.2	7.4	10.7
Art & Design	9.8	6.5	11.0	8.0	11.4	10.7	10.2
D&T Food Technology	8.1	6.8	8.1	4.2	8.2	6.4	8.5
German	6.9	25.8	3.6	5.2	6.2	1.9	26.4
Music	5.6	11.0	4.3	8.0	5.8	3.2	11.7
Art & Design (Photography)	5.6	1.2	8.0	2.0	5.8	5.0	0.1
Media/Film/Tv Studies	5.8	1.0	7.2	1.0	5.7	5.3	5.5

	Academy	Academy	Academy		Other	Non-selective	
Subject	(other non-sel)	(selective)	(non-sel, HSA)	Independent	non-selective	(HSA)	Selective
Sociology	3.8	1.0	3.4	0.1	4.4	1.5	1.0
Social Science: Citizenship	3.1	0.3	5.9	2.2	3.4	3.4	0.0
Psychology	2.6	2.8	2.4	0.8	2.5	4.6	1.1
Statistics	2.4	2.0	4.3	0.9	1.9	6.6	0.1
Art & Design (Textiles)	1.6	1.5	2.2	1.7	1.6	1.2	0.7
Latin	0.5	6.0	0.1	11.7	0.3	0.0	10.0
Dance	1.6	1.4	2.8	0.8	1.7	0.7	0.0
Art & Design (Graphics)	1.7	1.2	2.1	0.5	1.4	1.4	0.1
Economics	0.9	6.6	0.7	0.6	0.6	0.9	2.4

Table 11: Uptake of individual subjects, by school attainment (% of GCSE students).

Subject	Low	Medium	High
English Language	98.7	99.0	85.9
Mathematics	98.8	99.1	82.1
English Literature	97.5	98.1	84.4
Science: Double Award	77.4	71.9	47.9
History	45.2	48.0	42.0
Geography	40.6	44.1	45.6
Religious Studies	28.6	41.1	46.8
Biology	19.5	26.3	37.7
Chemistry	19.2	26.1	37.5
Physics	19.2	26.0	37.2
French	16.9	21.3	26.2
Spanish	13.3	16.8	21.3
Design & Technology	13.1	15.8	16.9
Business Studies: Single	10.8	17.2	16.9
Physical Education/Sports Studies	9.3	15.8	15.9
Computer Studies/Computing	12.7	13.8	13.6
Art & Design (Fine Art)	10.7	11.4	12.0
Drama & Theatre Studies	7.1	10.2	12.8
Art & Design	11.4	9.7	8.9
D&T Food Technology	7.1	8.5	7.4
German	3.3	7.1	11.5
Music	3.8	5.9	8.4
Art & Design (Photography)	6.8	5.7	3.3
Media/Film/Tv Studies	5.0	6.3	4.2
Sociology	3.2	4.4	2.6
Social Science: Citizenship	3.8	3.3	2.1
Psychology	2.4	2.9	1.9
Statistics	2.8	2.4	1.6
Art & Design (Textiles)	1.5	1.7	1.7
Latin	0.1	0.3	4.9
Dance	1.5	1.7	1.5
Art & Design (Graphics)	1.4	1.7	1.4
Economics	0.3	0.7	2.1

Table 12: Uptake of individual subjects, by deprivation group (% of GCSE students).

Subject	Low	Medium	High
English Language	99.4	99.3	98.9
Mathematics	99.5	99.3	99.0
English Literature	98.7	98.5	98.2
Science: Double Award	61.2	73.4	78.5
History	49.3	47.5	46.0
Geography	48.3	44.3	39.5
Religious Studies	43.8	39.2	35.5
Biology	37.5	24.9	19.1
Chemistry	37.5	24.7	18.8
Physics	37.4	24.6	18.7
French	25.9	20.9	18.1
Spanish	19.1	15.5	17.0
Design & Technology	19.5	14.9	10.7
Business Studies: Single	21.0	14.4	10.7
Physical Education/Sports Studies	19.2	13.5	7.8
Computer Studies/Computing	15.2	13.2	13.0
Art & Design (Fine Art)	11.8	11.9	9.5
Drama & Theatre Studies	12.4	9.2	6.9
Art & Design	9.5	9.3	11.9
D&T Food Technology	10.2	8.1	5.4
German	12.5	5.8	2.9
Music	7.7	5.3	4.0
Art & Design (Photography)	4.6	5.9	6.4
Media/Film/Tv Studies	6.1	6.2	4.4
Sociology	3.2	3.9	4.5
Social Science: Citizenship	1.8	4.1	3.9
Psychology	2.3	2.6	2.9
Statistics	2.0	2.5	2.7
Art & Design (Textiles)	1.6	1.6	1.7
Latin	1.3	0.4	0.2
Dance	2.0	1.8	1.2
Art & Design (Graphics)	1.8	1.4	1.6
Economics	1.7	0.6	0.7

References

Carroll, M. & Gill, T. (2017). *Uptake of GCSE subjects 2016. Statistics Report Series No. 114.* Cambridge University Press & Assessment. Available at:

https://www.cambridgeassessment.org.uk/our-research/all-published-resources/statistical-reports/

Gawedzka, G. & Gill, T (2022). *Uptake of GCSE Subjects 2018. Statistics Report Series No.125.* Cambridge University Press & Assessment. Available at:

https://www.cambridgeassessment.org.uk/our-research/all-published-resources/statistical-reports/

Gill, T (2016). Uptake of level 2 qualifications in English schools 2015. Statistics Report Series No. 103. Cambridge University Press & Assessment. Available at:

https://www.cambridgeassessment.org.uk/our-research/all-published-resources/statistical-reports/

Gill, T. (2017). *Uptake of GCSE subjects in 2015 using new school classifications. Statistics Report Series No. 113.* Cambridge University Press & Assessment. Available at:

https://www.cambridgeassessment.org.uk/our-research/all-published-resources/statistical-reports/

Rushton, N. & Ireland, J. 2022. *Register of change part 2 2010- 2021*. Cambridge University Press & Assessment. Available at:

https://www.cambridgeassessment.org.uk/Images/650635-register-of-change-part-2-2010-2021.pdf

Appendix A

Table A1 shows a cross-tabulation of schools (those that appeared in both the 2018 and 2019 DfE KS4 data) according to the previous and new school type classifications. The first row, for example, shows that of the schools that were classified as "Academy (comprehensive)" based on the 2018 KS4 data, 120 were classified as "Academy (non-selective in HSA) based on the 2019 KS4 data, while 1935 were classified as "Academy (other non-selective)".

Table A1: Cross-tabulation of schools according to the previous school type classification (in use until reports on 2018 data) and new school type classification (from 2019 data onwards).

Previous school type	Academy (non-sel, HSA) (ot	Academy	Academy (selective)	Non-selective (HSA)	Other non-selective	Independent	Selective
	(11011-361, 110A) (01		(Sciective)	(110A)	11011-3cicctive	macpenaem	Selective
Academy (comprehensive)	120	1935					
Academy (secondary modern)	53	18				•	
Academy (selective)			138			•	
Comprehensive	•	53		10	762	•	
Independent						788	
Secondary modern	2			26	6		
Selective							21