

RESEARCH AND ANALYSIS

Summer 2020 results analysis – GCSE, AS and A level

Update to the interim report

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Overview

On AS and A level results day (13 August 2020), Ofqual published analyses of results based on the calculated grades awarded to students, following the standardisation of centre assessment grades (CAGs). This was part of our [interim report](#),¹ that provided details of the approach to awarding grades in summer 2020. The analyses in the interim report focused on students' results based on the calculated grades and provided comparisons of results to previous years and by different institution types, for example. The publication of the interim report preceded the [decision to award students the higher of their CAG or calculated grade](#), announced on 17 August 2020.

The following report updates the analyses in the interim report for AS and A level, focusing on the final grades that were awarded to students – their CAG, or calculated grade, whichever was higher. The report also includes analyses for GCSE, that have not previously been published. We are publishing these analyses in the interests of transparency and so that stakeholders interested in the outcomes of the standardisation model and/or CAGs/final grades have a more complete picture. As in the interim report, we focus on results for students in England as Ofqual does not regulate reformed qualifications in Wales and Northern Ireland.

Following the decision to award students the higher of their CAG or calculated grade, the final grades awarded to the vast majority of students were the same as their CAG. As such, this report focuses on the calculated and final grades, since any analyses of CAGs are similar to those based on final grades. However, if relevant, analyses relating to the CAGs are also referred to. For clarity, the analyses therefore refer to:

- CAGs – the centre assessment grades submitted by centres
- calculated grades – the grades resulting from the standardisation process
- final grades – the higher of the CAG or calculated grade

The analyses are all based on data submitted to Ofqual by exam boards around a week before results were issued. This is to ensure that the analyses include the same candidates, regardless of whether the calculated grades, final grades or CAGs are being considered (the final grades are therefore defined as the higher of the CAG or calculated grade). Given that the data is from around a week before results were issued, there is a small amount of missing data for results that were not processed at that time. This is unlikely, however, to impact on the conclusions that can be drawn from any of the analyses.

¹ Referred to as our 'interim report' throughout this document.

A detailed explanation of the approach to standardising CAGs, prior to the decision to award the higher of the CAG or calculated grade, is provided in our interim report and our [Requirements for exam boards](#), both published on 13 August 2020. Further information on the standardisation model is therefore not included here.

We have also published [a separate report examining whether the process of awarding grades to candidates in summer 2020 introduced bias in outcomes](#) that can be attributed to their known protected characteristics or socio-economic status. Our analyses showed that there is no evidence that either the calculated grades or the final grades awarded this year were systematically biased against candidates with protected characteristics or from disadvantaged backgrounds.

Updated analyses of AS and A level summer 2020 results

This section provides an update to the analyses published in our interim report for AS and A level, focusing on the final grades awarded to students (our interim report focused on calculated grades). We also include further analyses based on the calculated or final grades, given requests for data that we have received since results day. Where appropriate, the analyses that we published on results day are referred to throughout this report. However, the actual figures from those analyses are only replicated where they are likely to provide useful context for the discussion.

Final outcomes compared to 2019

In our interim report, we published overall outcomes and outcomes by subject for AS and A level, based on results as of 13 August (AS and A level results day). These results were based on the calculated grades resulting from the standardisation process, and reproduced the figures published by JCQ.² As discussed in our interim report, these figures showed that overall outcomes were slightly higher than 2019 across the grade range. Further, outcomes had increased by a greater extent at some grades – and in some subjects – than others.

Following the decision to award students the higher of their CAG or calculated grade, [JCQ published updated results based on the final grades awarded to students](#).³

² Outcomes are grouped according to the subject categories used by JCQ.

³ Note that JCQ results, and any outcomes published in this report, are cumulative percentages unless otherwise noted – for example, grade A outcomes refer to grade A and above).

We have not replicated those figures here since they are available on the JCQ website, but consider them briefly to provide context for the other analyses in this report.

The final results data published by JCQ show that, for learners in England, outcomes have increased significantly for both AS and A level across the grade range compared to 2019 (note that any comparisons to 2019 are considered as percentage point [pp] changes throughout this report). The greatest increase for A level was at grade B (+14.3pp), followed by grades A (+12.9pp) and C (+12.0pp). The smallest increase was at grade E (+2.2pp), though this is not surprising given that, in a typical year, the majority of candidates achieve a grade E or above (in 2019, only around 2.5% of candidates did not achieve a grade E or above at A level). For AS, the greatest increase was at grade C (+16.1pp), followed by grades D (14.4pp) and B (+12.0pp). Note that the entry for AS has dropped by over a third compared to 2019 though, so it is difficult to make any comparisons over time.

The JCQ figures also show that, although outcomes increased in all subjects, the extent of these increases is not consistent. For example, at A level, the increase in outcomes at grade A is greatest in ‘other’ modern foreign languages⁴ and music (+22.3pp and +22.1pp, respectively) and smallest in maths (9.0pp). We have published [analyses relating to inter-subject comparability](#)

Final outcomes by centre type

On A level results day, we published outcomes by centre type at grades A and C (and above) for A level, for centres with entries in 2018, 2019 and 2020 (see section 9.5 of our interim report). This was based on the calculated grades awarded to students, and showed that the change in outcomes compared to 2019 was greater in some centre types than others, primarily due to variations in the proportion of centres with small cohorts (students in small cohorts received their CAG, since the statistical evidence was not sufficiently reliable, due to low numbers, to standardise the CAGs in those centres – see section 8.4 of our interim report).

The outcomes by centre type based on the calculated and final grades awarded to students at grades A*, A and C (and above) are shown below compared to 2019 in Table 2 (again only including those centres with entries in both years).⁵

⁴ ‘Other’ modern foreign languages include all languages except French, German and Spanish.

⁵ As in the interim report we have focused on A level because the entries for AS are small and declining, meaning that it is difficult to make comparisons over time. Further, when breaking down the outcomes by centre type, the number of centres in some groups is relatively low.

Here, the outcomes are broken down by 10 centre types.⁶ It is clear that the differences in final grades compared to 2019 vary depending on the type of centre and by grade, and that many of these differences are considerably larger than those based on the calculated grades.

At the higher grades (A* and A), the increase in outcomes based on final grades (as a percentage point change) is greatest for 'other'⁷ and independent centres. When considering outcomes at grade C though, the increase is greatest for 'other' centres, secondary modern centres and FE establishments. To some extent, the differences between centre types are likely to reflect the nature of the cohorts within these centres. Outcomes for independent centres at grades A* and A in a typical year are considerably higher than for the majority of other centre types (with the exception of selective centres at A*). As such, there are more candidates around the top of the grade range – and any change in outcomes is therefore likely to be greatest at the top of the grade range. Conversely, for FE establishments, the percentage of students achieving the top grades in a typical year is much lower, and it is likely that candidates are clustered around the middle of the grade range.

⁶ Some centre types were grouped in the interim report.

⁷ 'Other' centres include: colleges of higher education, university departments, tutorial colleges, language schools, special schools, pupil referral units (PRU), HM Young Offender Institutions, HM Prisons and training centres.

Table 1. A level entries by centre type compared to 2019

Centre Type	N centres	Entries 2019	Entries 2020	Change in entries
Academy	1,187	302,107	296,964	-5,143
FE Establishment	88	21,959	22,917	958
Free Schools	43	7,704	8,821	1,117
Independent	554	102,600	98,735	-3,865
Other (inc priv cand)	113	8,030	7,582	-448
Sec Comp or Middle	517	109,200	106,436	-2,764
Secondary Modern	33	4,387	4,458	71
Secondary Selective	72	31,252	31,239	-13
Sixth Form College	108	119,139	119,048	-91
Tertiary College	30	19,510	19,606	96

Table 2. A level outcomes by centre type for calculated grades and final grades compared to 2019⁸

Centre Type	2019 A*	2019 A	2019 C	Calc 2020 A*	Calc 2020 A	Calc 2020 C	Final 2020 A*	Final 2020 A	Final 2020 C	Calc- 2019 A*	Calc- 2019 A	Calc- 2019 C	Final- 2019 A*	Final- 2019 A	Final- 2019 C
Academy	6.8	23.1	74.6	7.7	25.4	77.2	13.0	35.9	87.0	1.0	2.3	2.6	6.2	12.8	12.4
FE Establishment	2.8	12.3	63.9	3.2	13.7	66.4	6.8	23.9	80.2	0.4	1.5	2.5	4.0	11.6	16.3
Free Schools	7.6	26.2	72.6	9.4	29.0	76.2	15.3	39.8	87.0	1.9	2.8	3.6	7.7	13.6	14.5
Independent	15.7	43.3	87.1	19.1	48.7	90.0	27.1	60.4	95.7	3.4	5.4	2.9	11.3	17.1	8.6
Other (inc priv cand)	6.5	21.2	64.2	9.4	29.4	74.2	15.3	41.1	86.6	3.0	8.2	10.0	8.8	19.9	22.4
Sec Comp or Middle	5.3	19.5	71.5	6.4	22.1	74.9	11.3	32.7	85.7	1.1	2.7	3.4	6.0	13.2	14.2
Secondary Modern	4.6	16.4	65.2	5.3	19.5	72.9	9.7	27.9	82.4	0.7	3.1	7.7	5.1	11.5	17.2
Secondary Selective	11.6	36.0	83.4	12.9	37.3	83.8	19.8	48.7	91.7	1.3	1.3	0.4	8.2	12.8	8.3
Sixth Form College	6.1	21.9	74.4	6.4	22.0	74.5	10.4	31.5	84.6	0.3	0.2	0.1	4.3	9.7	10.2
Tertiary College	5.0	20.4	75.2	5.9	21.5	76.9	9.3	30.1	86.0	0.9	1.1	1.7	4.2	9.7	10.8

⁸ Note that any differences are based on unrounded figures throughout this report.

Final grades

As outlined above, the final grade awarded to students was the higher of their CAG or calculated grade. Data in our interim report showed that, for the majority of students, the calculated grade was the same as the CAG (58.7% for A level and 59.8% for AS). This data also showed that only a small proportion of students had a higher calculated grade than their CAG (2.2% for A level and 3.2% for AS).

For the vast majority of entries (97.8% at A level and 96.8% at AS), the final grade received by students was therefore the same as their CAG. This includes instances where the calculated grade was the same as the CAG (just under 60% of these entries), and where the calculated grade was lower than the CAG (the remaining 40%).

Table 3. Final grades awarded to students – AS and A level

	Total	Final grade = CAG	Final grade = calculated grade
A level	718,276	702,337	15,939
AS	70,505	68,259	2,246

Adjustments to CAGs: student level analyses

In our interim report, we provided details of the adjustments made to CAGs based on the standardisation process. This analysis was conducted for individual entries, for example if a student entered multiple A levels then these were considered separately, and showed that for just under 59% of entries, the calculated grade was the same as the CAG (as explained above).

Further details about adjustments to CAGs at the student level are provided below.⁹ This includes all students who sat at least 1 A level and considers any differences between the CAGs and calculated grades.¹⁰

Table 4 shows that, of all the students taking at least 1 A level, the majority (around 55%) had an adjustment (either upwards or downwards) to at least one (but not all) of their CAGs based on the standardisation process. A minority (around 15%) of students had no adjustment to any of their CAGs, while the remainder had adjustments to all of their CAGs (around 30%). Those receiving no adjustments to CAGs include students in small cohorts or centres with no historic data, as well as students where the CAG was the same as the calculated grade.

⁹ Note that we have not provided figures for AS because the majority of students do not enter multiple AS qualifications.

¹⁰ Note that students taking 1 A level could only have had an adjustment to all or none of their CAGs.

Of those students that had an adjustment to at least one (but not all) of their CAGs, the vast majority (92.1%) had only downwards adjustments (Table 5). This is not surprising given the generosity in CAGs compared to previous years' results, and that [one of the aims of the standardisation process was for national outcomes to be broadly aligned to previous years](#). A small minority of students (4.1%) had only upwards adjustments, or a mix of upwards and downwards adjustments (3.7%).

Table 4. Adjustments to A level CAGs by student

Grades different from CAG	Number of students	Percent
All	41,436	15.1
None	82,190	29.9
Some	150,940	55.0
Total	274,566	100.0

Table 5. Direction of adjustments to A level CAGs by student

Grades different from CAG	Number of students	Percent
All downwards	177,196	92.1
All upwards	7,970	4.1
Mixed	7,210	3.7
Total	192,376	100.00

Adjustments to CAGs by centre type

This section provides information about the percentage of CAGs that were adjusted by centre type. In interpreting these figures, it is important to bear in mind that they are influenced by the extent to which the CAGs submitted by different schools and colleges were generous, as well as the proportion of small cohorts within particular centres (students in small cohorts received their CAG, since the statistical evidence was not sufficiently reliable to allow standardisation – see section 8.4 of our interim report). As above, we have only provided these figures for A level, given the low entries within some centre types for AS.

Table 6 shows that secondary modern schools, secondary comprehensive schools and FE establishments had the greatest percentage of upwards adjustments to CAGs, while independent schools, secondary modern schools and tertiary colleges had the lowest percentage of downwards adjustments to CAGs. As discussed previously, this is likely to reflect the extent of the generosity in the CAGs, as well as the proportion of small cohorts within each centre type.

Table 6. Adjustments to A level CAGs by centre type

Centre type	Number of candidates	% adjusted down	% unadjusted	% adjusted up
Academy	297,547	39.7	57.5	2.7
FE Establishment	23,352	45.6	51.5	2.9
Free Schools	9,389	38.9	59.9	1.2
Independent	98,966	33.8	64.6	1.6
Other (inc priv cand)	8,046	38.1	60.5	1.4
Sec Comp or Middle	106,614	41.2	55.9	2.9
Secondary Modern	4,469	34.5	62.5	3.0
Secondary Selective	31,239	39.1	59.4	1.5
Sixth Form College	119,048	39.8	59.1	1.1
Tertiary College	19,606	34.7	63.1	2.2
All Centres	718,276	39.1	58.7	2.2

Outcomes for all centres and centres with small cohorts – calculated grades

As we have set out above, CAGs for students in small cohorts were not standardised, since the statistical evidence was not sufficiently reliable due to the low numbers. Given the generosity in CAGs, it is therefore not surprising that, for calculated grades, outcomes for candidates within small cohorts are generally higher than outcomes for candidates in all centres. This is true for candidates in all the different types of centre. This is shown below in Table 7, which shows the outcomes for all centres compared to the outcomes for candidates in a small cohort, for grades A*, A and C at A level, by centre type.

Note that the majority of centres are likely to have a small cohort in at least 1 subject, but some centres will have small cohorts in multiple subjects (and possibly all subjects). This is also likely to differ by centre type. The number of candidates in small cohorts is also small relative to the overall cohort – and it is possible that the ability of the candidature differs between the candidates in all centres and those within small cohorts. This might also explain some of the differences in outcomes.

Table 7. Outcomes for all candidates and candidates in a small cohort – by centre type

Centre Type	Total candidates – all centres	All centres A*	All centres A	All centres C	Total candidates – small cohorts	Small cohorts A*	Small cohorts A	Small cohorts C
Academy	297,547	7.7	25.4	77.2	13,028	12.0	35.2	87.9
FE Establishment	23,352	3.2	13.8	66.3	1,370	6.3	25.5	76.4
Free Schools	9,389	9.3	28.8	76.2	1,627	13.0	36.9	84.9
Independent	98,966	19.1	48.7	90.0	8,242	26.0	59.7	94.8
Other (inc priv cand)	8,046	9.6	29.8	75.0	1,858	12.7	40.4	86.8
Sec Comp or Middle	106,614	6.4	22.2	74.9	5,715	12.4	36.3	87.6
Secondary Modern	4,469	5.3	19.5	72.9	340	7.3	24.1	80.0
Secondary Selective	31,239	12.9	37.3	83.8	598	21.6	50.7	94.0
Sixth Form College	119,048	6.4	22.0	74.5	720	16.1	45.4	91.8
Tertiary College	19,606	5.9	21.5	76.9	183	8.2	29.5	88.0

Grade combinations

As part of our interim report, we included analyses of the combination of grades received by students taking 3 A levels (the most prevalent number of A levels). Based on the calculated grades, the profile of grade combinations at the student level was broadly similar to previous years. This is illustrated in Figure 1 that is replicated from our interim report (see section 9.6 of our interim report for the underlying data).

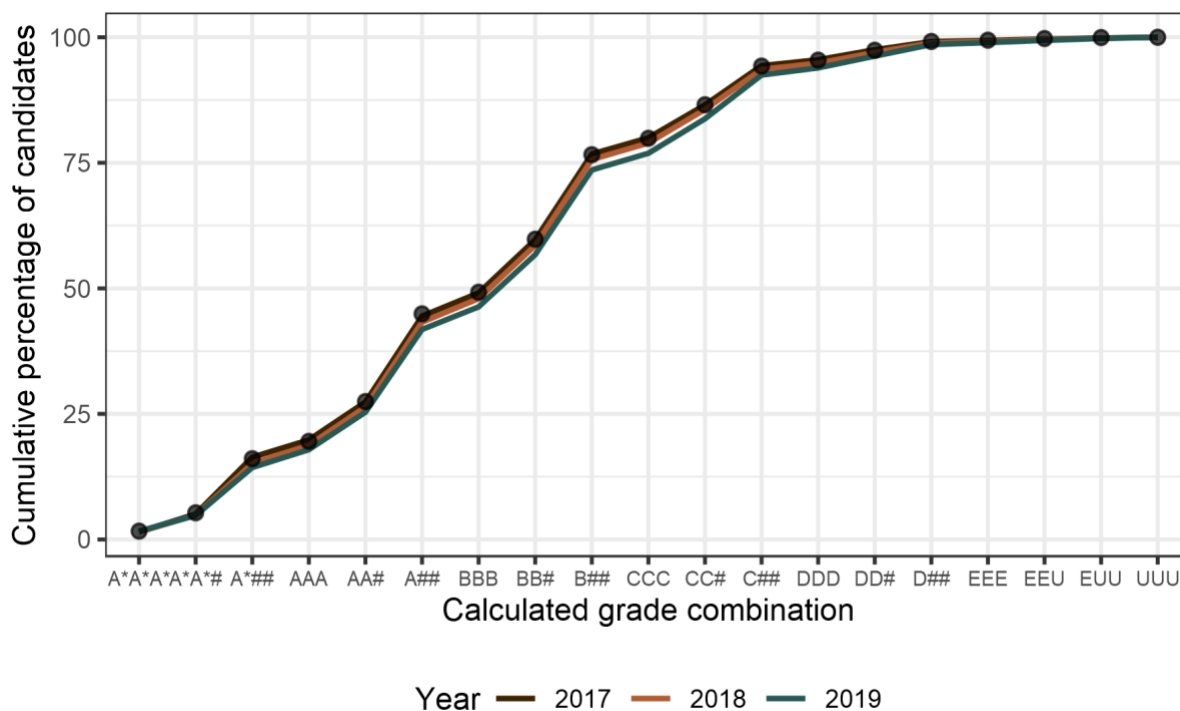


Figure 1. Cumulative percentage of students by A level grade combinations – calculated grades

Figure 2 provides an update to these analyses, based on students’ final grades (the underlying percentages and cumulative percentages are available in Table 8). As in the interim report, the figure shows the grade profiles for students taking 3 A levels (the grades they achieved across the 3 qualifications), with attainment decreasing from left to right (3 A* grades on the left of the plot and 3 U grades on the right). Because there are a large number of different grade combinations possible when a student has sat 3 A levels, we have combined some groups by using the # symbol to represent any grade that is lower than the first grade in each combination. For example, CC# represents students awarded 2 C grades and a grade D, E, or U. The solid lines on the graph show the trajectories for 2017 to 2019, and the points show the results based on the summer 2020 final grades. The percentages are cumulative, such that they include the percentage of students achieving each grade combination or a higher combination. For example, the cumulative percentage for AAA will also include students achieving A*AA, A*A*A, and A*A*A*.

Figure 2 shows that, based on the final grades, the grade combinations for individual students are typically higher than in previous years. This can be seen clearly when the cumulative percentage of students awarded each grade combination based on final grades is visualised. This is not surprising given the generosity in the CAGs compared to results in previous years, and because students were awarded the higher of their CAG or calculated grade as their final grade (with the vast majority receiving their CAG).

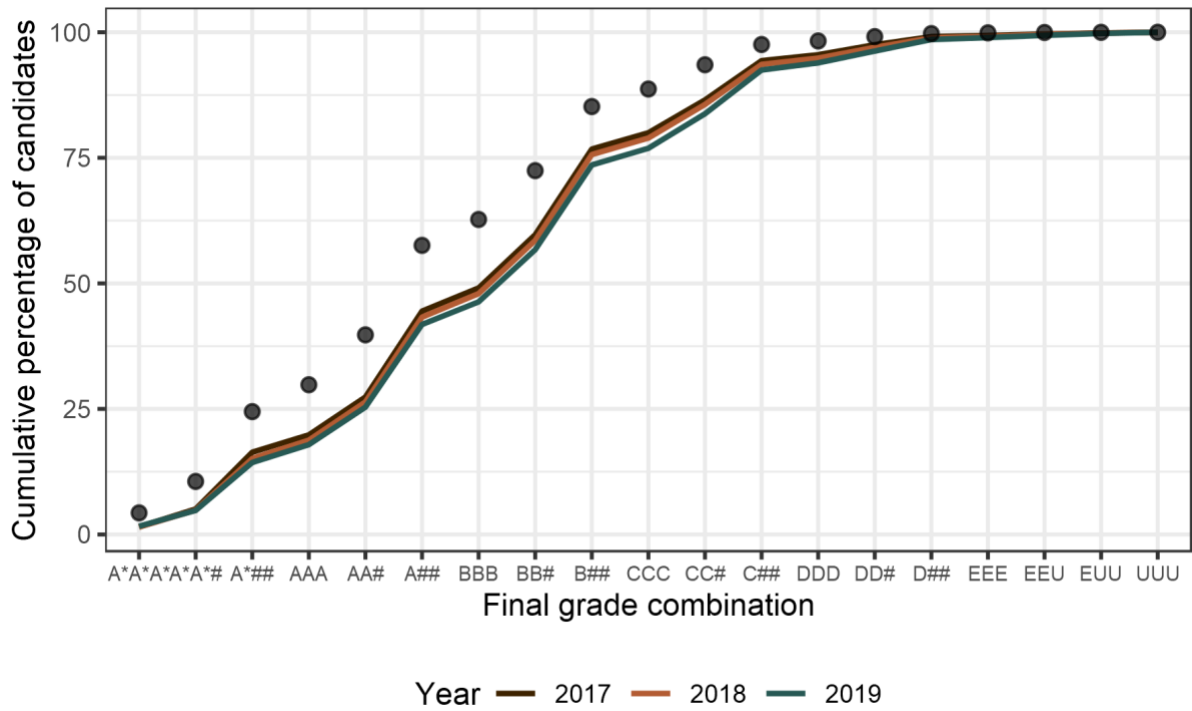


Figure 2. Cumulative percentage of students by A level grade combinations – final grades

Table 8. Percentage and cumulative percentage of students awarded A level grade combinations between 2017 and 2020 – final grades

Grade combination	%2017	%2018	%2019	%2020	Cum% 2017	Cum% 2018	Cum% 2019	Cum% 2020
A*A*A*	1.5	1.5	1.6	4.3	1.5	1.5	1.6	4.3
A*A*#	3.6	3.4	3.1	6.3	5.1	4.8	4.8	10.6
A*##	11.3	10.3	9.6	13.9	16.4	15.1	14.3	24.5
AAA	3.5	3.7	3.6	5.4	19.8	18.8	17.9	29.8
AA#	7.5	7.6	7.5	9.9	27.4	26.4	25.4	39.8
A##	17.1	16.9	16.5	17.8	44.5	43.3	41.8	57.6
BBB	4.6	4.7	4.5	5.2	49.1	48.0	46.3	62.7
BB#	10.6	10.6	10.4	9.7	59.7	58.6	56.7	72.5
B##	17.0	17.1	16.9	12.8	76.7	75.6	73.6	85.2
CCC	3.2	3.3	3.3	3.5	80.0	78.9	76.9	88.7
CC#	6.5	6.7	6.9	4.8	86.5	85.6	83.8	93.5
C##	7.8	8.0	8.7	4.0	94.3	93.6	92.5	97.6
DDD	1.2	1.2	1.4	0.7	95.5	94.8	93.9	98.3
DD#	2.0	2.1	2.3	0.9	97.5	97.0	96.2	99.1
D##	1.6	1.9	2.3	0.6	99.1	98.9	98.6	99.7
EEE	0.2	0.3	0.4	0.2	99.4	99.2	98.9	99.9
EEU	0.3	0.4	0.4	0.1	99.6	99.5	99.4	100.0
EUU	0.2	0.3	0.4	0.0	99.9	99.8	99.8	100.0
UUU	0.1	0.2	0.2	0.0	100.0	100.0	100.0	100.0

Grade A* in all subjects

Our analyses of grade combinations focus on those students who entered 3 A levels. We have also received enquiries about the number of students who received an A* in all their A levels, regardless of the number of subjects that they entered. This is shown in Table 9 for both calculated and final grades, compared to 2018 and 2019. Note that because this analysis focuses on the number of students (rather than a percentage), any changes in the total entry to A levels may impact on these figures. For example, the total number of A level students is lower in 2020 than in 2018 or 2019.

Based on calculated grades, the number of students receiving an A* in all their subjects is similar to 2019 – particularly for those taking 3 A levels, the most common number of A levels. When considering the final grades awarded to students, the number of students receiving an A* in all their subjects is close to double the number of students in 2019, and is over double the number of students in 2018.

Table 9. Number of students receiving an A* in all their A level subjects

Number of A levels	2018	2019	Calculated grades	Final grades
1	2,570	2,970	2,091	2,965
2	507	492	551	1,056
3	2,664	3,007	2,996	7,754
4	1,310	1,191	1,401	2,729
5+	60	28	33	64
Total	7,111	7,688	7,072	14,568

GCSE summer 2020 results

This section provides an overview of analyses for GCSE, focusing on the final grades awarded to students. Given that we have not previously published results based on calculated grades, we also include those analyses here where relevant. The analyses are broadly similar to those undertaken for A level. However, given that students typically take a larger number of subjects at GCSE, some of the A level analyses are not replicated here – in particular, those relating to grade combinations or adjustments to CAGs by student. This is also because those analyses are more relevant to A level results, since they are directly relevant to HE admissions.

Final outcomes compared to 2019

As with AS and A level, JCQ has published final results for GCSE based on students being awarded the higher of their CAG or calculated grade.¹¹ Again, we have not replicated those figures here since [they are available via the JCQ website](#), but we provide a summary below for context to the subsequent analyses.

The final results data for GCSE show that, for students in England, overall outcomes across the grade range increased significantly compared to 2019. The largest increase for GCSE was at grade 4 (+8.9pp), followed by grades 5 (+7.5pp) and 6 (+6.7pp).¹² As for A level, the increase at the lowest grade (grade 1 for GCSE) was relatively small (+1.3pp). This is not surprising given that outcomes at grade 1 are high in a typical year (in 2019, only 1.7% of GCSE results were ungraded).

Similar to A level, the extent to which outcomes have increased relative to 2019 differs by subject and grade. Focusing on grade 4 initially (where there is the largest increase overall), the subjects with the largest increases are engineering (+26.2pp),¹³ computing (+17.5pp) and performing/expressive arts (+15.9pp). This compares to smaller increases for the separate sciences (+5.0 to +5.7pp) and ‘other’ modern foreign languages¹⁴ (+5.0pp). To some extent, these differences are likely to reflect the cohorts entering particular subjects – i.e., those entering the separate sciences and ‘other’ modern foreign languages tend to be high performing, and the outcomes at grade 4 are already high in a typical year (around 90% or higher).

¹¹ Note that JCQ did not publish outcomes based on calculated grades, given that the policy change to award the higher of the students’ CAG or calculated grade was made prior to GCSE results day.

¹² Note this is when comparing figures for 9 to 1 GCSE to results in 2019. There were only 5 subjects where a reformed 9 to 1 GCSE was not available in 2019 – biblical Hebrew, Gujarati, Persian, Portuguese and Turkish.

¹³ Note that the entries for engineering are relatively small – just under 3,000.

¹⁴ ‘Other’ modern foreign languages include all languages except French, German and Spanish.

The trends are slightly different at grade 7 although again, to some extent, this is likely to reflect the cohorts taking each subject. Outcomes increased to the greatest extent for ‘other’ science subjects (+17.0pp),¹⁵ engineering and performing/expressive arts (both +15.1pp), and economics (+15.0pp), and by the smallest extent for ‘other’ modern foreign languages (+1.9pp), combined science (+2.9pp) and maths (+3.0pp). For some subjects, this is likely to reflect that there tends to be relatively fewer candidates achieving the higher grades. For example, for combined science, the grade 7 outcome in a typical year is relatively low (7.5%), since the more able students tend to enter the separate sciences (note that this is not the case for ‘other’ modern foreign languages, where outcomes in a typical year are around 67% at grade 7).

Final outcomes by centre type

Similar to A level, we have considered outcomes by centre type based on calculated grades and final grades (Tables 10 and 11). This analysis includes centres with entries in both 2019 and 2020, and focuses on grades 7 and 4. Note that although the same centres are included in both years, the number of entries has increased fairly significantly in some cases. This means that some changes over time might have been expected even if assessments had been sat as normal in 2020, since it cannot be guaranteed that the additional entries are from candidates that would have performed similarly to those sitting the qualifications in 2019.

When considering the calculated grades, it is clear that for most centre types the outcomes are relatively close to those in 2019 at both grades 7 and 4 – with the biggest increase at grade 4 for sixth form colleges, tertiary colleges and FE establishments. This differs to A level where there are some larger increases compared to 2019, but that is likely due to there being relatively few small cohorts at GCSE (candidates in small cohorts received their CAGs due to the unreliability of the statistical evidence).

When considering the final grades, the outcomes are generally significantly higher than 2019. The extent of the increase, however, differs by centre type. At grade 7, the increase is greatest for independent and selective centres, while at grade 4, the increase is greatest for sixth form colleges, ‘other’ centres and secondary modern centres.

Similar to A level, the differences between centre types are likely to reflect, to some extent, the nature of the cohorts. Outcomes for independent and selective centres at the top grades in a typical year are considerably higher than for the majority of other centre types, hence there are more candidates in this part of the grade range.

¹⁵ ‘Other’ science subjects include astronomy, electronics and geology. Note that the entries are relatively small – around 2,500.

Conversely, for FE establishments, sixth form and tertiary colleges, the percentage of students achieving the higher grades in a typical year is much lower, and it is likely that candidates are clustered around the middle of the grade range.

Table 10. GCSE entries by centre type compared to 2019

Centre Type	N centres	Entries 2019	Entries 2020	Change in entries
Academy	2,006	2,725,428	2,790,370	64,942
FE Establishment	344	190,003	219,787	29,784
Free Schools	141	70,854	78,868	8,014
Independent	911	257,060	261,461	4,401
Other (inc priv cand)	939	85,359	94,438	9,079
Sec Comp or Middle	1,033	1,455,506	1,483,700	28,194
Secondary Modern	69	79,613	81,064	1,451
Secondary Selective	73	107,366	109,427	2,061
Sixth Form College	107	27,792	30,014	2,222
Tertiary College	55	33,756	37,686	3,930

Table 11. GCSE outcomes by centre type for calculated grades and final grades compared to 2019

Centre Type	2019 G7	2019 G4	Calc 2020 G7	Calc 2020 G4	Final 2020 G7	Final 2020 G4	Calc-2019 G7	Calc-2019 G4	Final-2019 G7	Final-2019 G4
Academy	20.8	69.3	20.7	69.4	25.9	77.9	-0.1	0.1	5.2	8.6
FE Establishment	1.2	25.8	1.3	28.8	1.8	33.3	0.0	3.1	0.6	7.6
Free Schools	20.6	69.2	20.5	69.8	26.0	78.7	-0.1	0.6	5.4	9.5
Independent	45.8	89.5	46.9	90.3	56.4	95.3	1.2	0.8	10.7	5.7
Other (inc priv cand)	9.7	41.4	9.3	43.3	12.8	53.0	-0.4	1.9	3.1	11.7
Sec Comp or Middle	18.4	67.4	18.4	67.6	23.6	76.9	0.0	0.2	5.2	9.5
Secondary Modern	13.7	61.4	13.4	61.4	17.7	71.7	-0.3	-0.1	4.1	10.3
Secondary Selective	57.3	96.7	56.6	96.5	64.9	98.9	-0.7	-0.2	7.6	2.2
Sixth Form College	3.0	36.3	3.4	39.9	4.3	49.6	0.3	3.6	1.3	13.3
Tertiary College	4.7	32.6	4.4	36.1	5.4	41.2	-0.3	3.5	0.8	8.6

Adjustments to CAGs

Tables 12 and 13 show the percentage of CAGs that were adjusted based on the standardisation process for GCSE, and the extent of these adjustments. GCSE combined science is presented separately since it is worth 2 GCSEs and is therefore graded on a 17-point (rather than 9-point) scale. Note that the grade changes for combined science relate to both grades – for example, a grade change of 2 grades means that both grades changed by 1 grade, such as changing from 5-4 to 4-3.

These figures show that the majority of calculated grades for single award GCSEs were the same as the CAG, and over 95% were either the same grade or within 1 grade of the CAG. For combined science, nearly 98% of calculated grades were the same grade or with 1 or 2 grades of the CAG, but the percentage of calculated grades that were the same as the CAG was lower (43.6%). The latter is not surprising given that there are more grades available for combined science, which increases the likelihood of a grade changing.

Table 12. Percentage of GCSE CAGs unadjusted and adjusted by the standardisation model (excluding combined science)

Total	-3 or more grades	-2 grades	-1 grade	Unadjusted	+1 grade	+2 grades	+3 or more grades
4,387,122	0.5	3.9	32.6	57.7	5.0	0.3	<0.1

Table 13. Percentage of GCSE CAGs unadjusted and adjusted by the standardisation model (combined science)

Total	-5/6 or more grades	-3/4 grades	-1/2 grades	Unadjusted	+1/2 grades	+3/4 grades	+5/6 or more grades
407,354	0.1	1.8	42.8	43.6	11.4	0.3	<0.1

Final grades

The figures above show that, for the majority of students, the calculated grade was the same as the CAG, and only a small proportion of students had a calculated grade that was higher than their CAG. It therefore follows that the majority of final grades awarded to students were the same as the CAGs. This includes instances where the calculated grade was the same as, or lower than, the CAG.

When all GCSEs are considered (including combined science), 94.1% of the final grades awarded were the same as the CAGs, and the remaining 5.9% were calculated grades. The former includes instances where the calculated grade was the same as the CAG (just under 60% of these cases), and where the calculated grade was lower than the CAG (the remaining 40%).

Table 14. Final grades awarded to students – GCSE

	Total	Final grade = CAG	Final grade = calculated grade
GCSE	4,794,476	4,513,949	280,527

Adjustments to CAGs by centre type

Similar to A level, we have included data below on the percentage of CAGs that were adjusted by centre type. As previously outlined, these figures should be interpreted with caution given that they are influenced by the generosity of the CAGs submitted by centres, and the proportion of small cohorts within each institution type.

Table 15 shows that FE establishments, tertiary colleges and ‘other’ centres had the greatest percentage of upwards adjustments to CAGs, while FE establishments, tertiary colleges and sixth form colleges had the lowest percentage of downwards adjustments to CAGs. As discussed previously, this is likely to reflect the extent of the generosity in the CAGs, as well as the proportion of small cohorts within a subject and centre type.

Table 15. Adjustments to GCSE CAGs by centre type

Centre type	Number of candidates	% adjusted down	% unadjusted	% adjusted up
Academy	2,558,121	38.7	55.7	5.6
FE Establishment	218,697	14.4	74.1	11.5
Free Schools	76,012	36.9	55.9	7.2
Independent	248,835	38.4	56.7	4.9
Other (inc priv cand)	92,322	33.2	58.0	8.8
Sec Comp or Middle	1,352,862	41.0	53.6	5.4
Secondary Modern	73,367	40.9	53.1	6.0
Secondary Selective	107,429	30.9	66.4	2.6
Sixth Form College	29,541	24.4	68.0	7.6
Tertiary College	37,204	16.7	73.8	9.5
All Centres	4,794,390	37.7	56.5	5.9

Grade 9 in reformed GCSE subjects

[Summer 2020 was the first year that reformed 9 to 1 GCSEs were available in all subjects \(53 subjects\)](#). As in previous years, we have calculated the number of 16-year-old students in England who entered 7 or more GCSEs and received a grade 9 in all subjects. Table 16 shows that, based on the calculated grades, the number of students receiving straight grade 9s was slightly higher than in previous years – 966 students compared to 837 in 2019 and 732 in 2018 (note that in 2018 there were only 23 reformed subjects available).

When considering the final grades, the number of students with all grade 9s is significantly higher (2,438). This is not surprising given that the CAGs submitted by centres were more generous than outcomes in 2019, and the final grades were largely the same as the CAGs.

The gender split for students receiving all grades 9s is not dissimilar to previous years – just under two-thirds of students are female, regardless of whether the calculated or final grade are considered.

Table 16. Number of 16-year-old students receiving grade 9s in all GCSEs

Number of GCSEs	Final grades	Calculated grades
7	198	86
8	289	100
9	656	244
10	997	410
11	273	115
12	25	11
Total	2,438	966

Post-16 outcomes for English language and maths

On GCSE results day each year, [we typically publish outcomes for post-16 students in English language and maths](#), broken down by age (for example, 17-year-olds, 18-year-olds, and 19+).¹⁶ The corresponding figures for 2020 based on final grades are presented below, compared to 2019.

For both subjects, and at both grades, outcomes are the same or higher than outcomes in 2019 for each age group. This is not surprising considering that the CAGs submitted by centres were generally higher than results in previous years.

There are significant differences in the increases at each grade, but this is likely to reflect the nature of the post-16 cohort. For example, many post-16 students will be re-entering these subjects with the aim of achieving a grade 4. As such, the outcomes at grade 7 in a typical year are relatively low, indicating that there are relatively few post-16 students around the top of the grade range. This is less the case at grade 4, and the majority of candidates are likely to be clustered close to, or just below, this grade.

¹⁶ Note that JCQ also publish post-16 outcomes, but do not break this down by age group.

Table 17. Post-16 GCSE English language and maths outcomes compared to 2019 – final grades

Subject	Age	2019 G7	2019 G4	2020 G7	2020 G4	2020-2019 G7	2020-2019 G4
English language	17	1.2	30.5	1.3	39.8	0.1	9.3
	18	0.4	23.9	0.4	34.4	0.0	10.5
	19+	2.2	36.5	3.8	44.8	1.6	8.3
Maths	17	1.3	21.5	1.6	33.3	0.3	11.8
	18	0.3	13.4	0.5	26.9	0.2	13.5
	19+	1.7	28.1	2.8	38.7	1.1	10.6

Classification concordance between NRT and GCSE

As part of our analyses, we have also considered the relationship between outcomes in the National Reference Test (NRT) and GCSE English language and maths, for those students that sat the NRT and can be matched to their GCSE results ([further information on the NRT is available here](#)). We have [previously published analyses of the classification concordance between the NRT and GCSE grades for 2017 to 2019](#) – that is, how often students receive the same or higher/lower classification at a key grade boundary in the two assessments. This showed that the level of classification concordance varied slightly depending on the grade being considered, but was reasonably high and very stable across the years.¹⁷

On the assumption that the level of classification concordance between the NRT and GCSE in 2020 would have remained comparable to previous years if there had been no pandemic and GCSE exams had gone ahead, we can analyse the classification concordance between NRT 2020 and alternative GCSE grades of summer 2020.

Table 18 presents the level of classification concordance between NRT and actual GCSE grades in 2019 and between NRT and calculated and final grades in 2020, for each key grade boundary in each subject. A higher level of classification concordance can be seen in maths than in English. In both subjects, more classification concordance can be found at the grade 7/6 boundary than at grade 4/3, and likewise more at grade 4/3 than at grade 5/4.

¹⁷ As noted in our previous publication, differences between the NRT and GCSE mean we would not expect a perfect relationship between NRT and GCSE performance. For example, although the NRT and GCSEs examine the same content, the NRT is shorter, and varies in question style and format. Another difference is that GCSE exams take place months after the NRT, and NRT participants may improve their knowledge and skills to different degrees in the intervening months. Further, the NRT is low-stakes while GCSEs are high-stakes. Stakes can interact with student ability, test subject, test motivation and test anxiety in complex ways in affecting test performance. These differences have been taken account of in setting the NRT grade standards. Any change in the relationship between NRT and GCSE performance over the years would signal a possible change in the effect of some or all of these differences on test performance.

When comparing calculated and final grades, it is apparent that calculated grades show the most classification concordance, matching the level found with NRT and actual GCSE grades in previous years at all key grade boundaries in both subjects. The differences from final grades are small and only the difference at the grade 7/6 boundary in English is statistically significant.

As for the discordance patterns, under-performance at the NRT (relative to GCSE) has almost always been more common than over-performance. In 2020, the dominance of NRT under-performance over NRT over-performance as a pattern of classification discordance has increased, considerably in English and modestly in maths, under final grades, but not under calculated grades, which underlines the generosity of the final grades.

Table 18. NRT/GCSE classification concordance at key grade boundaries in 2019-2020 (standard error in brackets)

	2019 NRT x GCSE		2020 NRT x Calculated		2020 NRT x Final	
English						
Grade 7/6						
Concordant	84.08	(0.57)	83.83	(0.64)	81.29	(0.72)
Disconcordant: NRT>GCSE	6.62	(0.48)	7.28	(0.47)	5.49	(0.43)
Disconcordant: NRT<GCSE	9.30	(0.48)	8.90	(0.46)	13.22	(0.59)
Grade 5/4						
Concordant	73.69	(0.75)	74.80	(0.66)	73.42	(0.70)
Disconcordant: NRT>GCSE	9.39	(0.59)	9.17	(0.53)	6.41	(0.48)
Disconcordant: NRT<GCSE	16.92	(0.69)	16.03	(0.60)	20.17	(0.68)
Grade 4/3						
Concordant	76.00	(0.67)	76.97	(0.68)	75.74	(0.72)
Disconcordant: NRT>GCSE	7.60	(0.44)	7.12	(0.45)	3.89	(0.37)
Disconcordant: NRT<GCSE	16.39	(0.64)	15.91	(0.66)	20.37	(0.76)
Maths						
Grade 7/6						
Concordant	89.13	(0.48)	88.69	(0.47)	88.34	(0.51)
Disconcordant: NRT>GCSE	5.53	(0.38)	5.48	(0.36)	4.20	(0.35)
Disconcordant: NRT<GCSE	5.35	(0.35)	5.83	(0.36)	7.46	(0.39)
Grade 5/4						
Concordant	84.12	(0.56)	84.64	(0.60)	84.12	(0.61)
Disconcordant: NRT>GCSE	6.87	(0.39)	6.65	(0.44)	4.03	(0.33)
Disconcordant: NRT<GCSE	9.01	(0.46)	8.71	(0.52)	11.85	(0.57)
Grade 4/3						
Concordant	87.09	(0.59)	87.77	(0.51)	87.58	(0.54)
Disconcordant: NRT>GCSE	4.82	(0.34)	4.54	(0.36)	2.80	(0.27)
Disconcordant: NRT<GCSE	8.09	(0.44)	7.69	(0.46)	9.62	(0.51)

Summary

This report has provided an update on the analyses published in our interim report, alongside further analyses that are likely to be of interest to stakeholders. We are publishing these analyses in the interests of transparency and so that stakeholders interested in the outcomes of the standardisation model and/CAGs/final grades have a more complete picture.

There has been continued interest in analyses of calculated grades and final grades and we are now working with the Department for Education, Ofsted, and the University and Colleges Admissions Service (UCAS) to make available the data we used in 2020 awarding, alongside a wider range of data, to support further transparency. This will enable further analysis – including consideration of the relationship between summer 2020 results and other measures (such as university application and attainment data) – and further review of the standardisation model we used. We plan to make the range of data available to independent, accredited researchers via the [Office for National Statistics' Secure Research Service](#). This data-sharing project aims to support Ofqual and the wider system to learn from this summer's awarding process. We hope that researchers will be able to apply to access this data from early 2021.



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