

**GCSE 2022
Back to the Future?**

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Summary

There will be a record drop in top GCSE grades this year. In order to restore the value of GCSE grades, the government has asked Ofqual to reduce the percentages awarded to halfway between those of 2021 and 2019.

About 25% are likely to receive top grades (7/A) this year compared with the 28.9% in 2021. This would mean about 230,000 fewer reaching this level of achievement, but of course 230,000 more than in 2019.

In terms of 4/C grades, the pass rate will be about 72.0%, which translates into 280,000 fewer than in 2021. This is where the pain will be felt most, because future opportunities post-16 tend to have minimum entry requirements, so pupils failing to reach this level may not be able to go on to what they had intended to do.

The situation will be particularly acute in maths and English where there is likely to be, respectively 47,000 and 40,400 more fails this year. Not only could this deny the young people concerned their future places, but they would have to continue re-taking them until they passed or reached the age of 18. Only just over 20% pass maths resits and 30% English resits, so it can be a soul-destroying prospect.

Girls have outscored boys since the beginning of GCSEs and they opened the biggest gap ever of 9 percentage points in 2021, when grades were decided by teachers. In 2021 girls were ahead in all 47 subjects, excepting physics and statistics. They had even moved ahead in maths.

With the return to exams, the gap might be expected to narrow, but probably not by half the increase. The exams were deliberately made easier this year by giving advance notice of the question topics so they become more like course work which is one of girls' strengths.

The return to end-of-course exams in 2017 to 2019, while reducing the gap that had built during the years of modularisation, did not narrow it to the extent that had been expected.

Parents are also reporting that it was easier to get their daughters to do the work set by schools during lockdowns and school closures than their sons who were often tempted away on to their games' consoles.

Some subjects received many more top awards through teacher assessment than they did in exams. Physical education and the performing arts added 20% more, while maths, English and double science, attracted very few extra top grades. With the return to exams, we could expect the pattern to revert to what it had been, but at A-level in 2022 those subjects which had benefitted held on to most of their gains.

The pattern of exam entries was little affected by the emergency measures of the pandemic with the main trends continuing. Biology, chemistry and physics continued their recovery from the attempt to replace them by 'science' when the national curriculum came in.

The EBacc has been successful in getting schools to focus more on core subjects. Now over 80 percent of the entries are in subjects which are included.

But the EBacc is nowhere near reaching the 75 % that was set as the target for 2022. Take-up has been stuck at around 40 per cent since 2013. The reason is the reluctance of young people to study a foreign language. Spanish bucked the trend and has increased steadily, but even now its numbers are low compared with the most popular subjects.

There is a recognition by the government that it is not going to be possible to create a core of subjects that insists on a foreign language. There is already a successor in place, Attainment 8/Progress 8, which allows for a wider range of subjects and crucially does not depend on taking a language.

The changes occurring in GCSE results during the two years' of teacher assessment were very similar to those at A-level, where the results have already been published. Essentially the A-level outcomes in 2022 were:

- The top grades were cut, but not as far as the government was wanting.
- There was some narrowing of the gender gap, but girls still retained much of the increase that had occurred during teacher assessment.
- The redistribution of top grades toward performance and practical subjects remained.

GCSE results in 2022 are likely to mirror these changes.

The A-level and GCSE results offer pointers to what the new prime minister should ask the secretary of state for education to put high on agenda:

- Girls have come to dominate education, not only at GCSE, but also at A-level and in degrees, both in terms of numbers and performance. The poor showing of boys indicates that we are not fully developing their talents, which is a loss both to them and the country.
- The high failure rate among the large numbers having to re-sit maths and English and who still reach 18 without passing them raises the question of whether the GCSEs are the best way of ensuring that schools enable all children by the time they leave are able to handle words and numbers.
- Why are young people so reluctant to learn a foreign language? Could it be that it is that they do not learn them from an early enough age, as is the case with many other countries where the majority of children successfully learn to speak English?

Reform of GCSEs

- 1.3 Michael Gove's GCSE revolution was completed in 2019 save for Biblical Hebrew and four foreign languages. Chart 1.1 shows the sequence in which the reformed GCSEs were introduced. First English and maths in 2017, then the EBacc subjects in 2018, before most of the rest came on stream in 2019. The third group had only one year to bed in before the emergency measures of the pandemic.
- 1.4 These particular reforms apply only to England, with Wales and Northern Ireland going their own ways. GCSE will thus come to be increasingly different in the different parts of the UK. Of total GCSE entries in 2021, 91.1 per cent were in England.
- 1.5 The main differences between the reformed GCSEs in the three countries are:
 - Different grading scales: 9-1 in England; A*-G in Wales; and A*-G in Northern Ireland with the insertion of a C* grade.
 - In Northern Ireland's GCSEs, the new C* grade will be aligned with grade 5 in England, and its A* with England's grade 9.
 - Different subjects are offered and the content requirements of subjects with the same name differ.
 - Not all subjects are offered by the exam boards of each country. Ancient history is offered by the English boards only. The NI board is alone in offering 'agriculture and land use'. Applied science (single and double awards) is offered only by the Welsh board.
 - In England, assessment will be mainly by examination at the end of courses; in Wales and NI there will be a mixture of modular and linear courses depending on the subject.
 - Re-sits in England involve re-taking the whole examination (although continuous assessment marks may be used again); for modular courses in Wales and NI each unit can be re-taken but only once.

England

- 1.6 In England the main changes brought about by the reforms are:
 - more demanding content;
 - designed for a two-year course of study;
 - examinations at end of the course;
 - assessment other than by examination allowed only where necessary to reflect the nature of a particular subject, for example, in art and design, dance, drama, music and physical education;
 - new grading scale running from 9 (top) to 1, with U as the ultimate fail grade;

- combined science which is a double award can have 17 outcomes ranging from 9-9, 9-8 to 1-1;
- re-sits are available in November for English and maths only, the whole examination having to be retaken.

Accountability

- 1.7 GCSE results are as important to schools as to the pupils. The schools are judged on the pupils' performance. If the results fall below expectations there could be serious consequences for the school. Not surprisingly, the schools direct the pupils' energies to achieving the best scores possible on whatever the main accountability measure happens to be. These can, therefore, have a considerable bearing on entries and the results to emerge.

English Baccalaureate

- 1.8 In order to promote breadth, the government requires schools to report on how many of their Key Stage 4 pupils are taking a combination of GCSEs which is called the English Baccalaureate. This consists of English, maths, two sciences, history or geography, and a language. It was the government's ambition that, by 2022 75 per cent of schools would reach this level and by 2025 it would be 90%.
- 1.9 From 2018 onwards pupils' performance has been turned into a score based on the average of the points scored in the five subject areas. Pupil's scores are averaged to get the school's score. Both English language and English literature must be taken to count towards the English score. In science, there are two options: the double-award combined science; or three subjects from biology, chemistry, computer science and physics.

Progress 8 and Attainment 8

- 1.10 Since 2016, the EBacc has been supplanted as the main accountability measure by Attainment 8 and Progress 8. In essence, they are the EBacc subjects, with a language no longer compulsory, plus three other subjects. There are three groups from which the subjects are to be chosen to contribute to Attainment 8/Progress 8:
- English and maths, which are double-weighted in scoring;
 - Three other EBacc subjects from the sciences, computer science, geography, history and languages;
 - Three more subjects which may be EBacc subjects or can be any other GCSEs or approved arts, academic or vocational qualifications.
- 1.11 Attainment8 will report the performance and Progress8 the improvement made by the pupils compared to the national average of pupils with similar Sats results. Attainment8/Progress8 makes room for GCSEs, such as art & design, design & technology, religious studies and the performing arts, which were previously excluded. Taking eight GCSEs is not compulsory, but any missing will be scored zero.

- 1.12 Unlike A-levels, there has been a recalibration of the grade scale for GCSEs, so there was the opportunity to allow the new grades to find their own level. But Ofqual has decided to peg the new Grade 7 to the old Grade A, with A* being split into Grades 8 and 9. It was originally intended that the new Grade 5 would be the equivalent of the C grade, but this was re-considered, and ‘C’ was aligned instead to Grade 4. The change leaves some ambiguity as grade 5 is now spoken of as a strong pass.

Comparable Outcomes

- 1.13 Since 2011, Ofqual, the regulator in England, has acted to keep the grade pattern consistent over time, adjusting for prior attainment. The composition of the cohort can change quite markedly from year to year. Many schools, for example, transferred their pupils from the national GCSE in English to the international GCSE when the internal assessment component of the national award was dropped in 2014. The IGCSE retained it and thereby attracted entries from many schools. But when, from 2018, this no longer counted in the league tables the schools, switched back again. Pass rates at the various levels were, therefore, kept much the same from 2011 onwards, with if anything top grades being reduced slightly. But then Covid struck and there was a dramatic increase in top grades.

Covid

- 1.14 The 2020 exams had to be cancelled due to the high risk of fatal infection. Ofqual was initially confident that the grades could be accurately calculated by fitting teachers’ rankings into the grade pattern of the previous decade. It all seemed plausible and feasible, but while the grade pattern of previous years could be reproduced by computer programme quite easily, fitting the schools’ rankings into this mould was, to say the least, problematic. It threw up major anomalies in the individual A-levels grades, with candidates even receiving grades three down from what they were expecting and had been predicted to achieve. Not surprisingly, there was uproar, with loud and emotional protests that the calculated grades were ruining young people’s lives.
- 1.15 The Government decided enough was enough and abandoned Ofqual’s attempt at calculation (with its chief executive later losing her job). Setting aside its scepticism, the Government announced that the A-level calculated grades would be replaced by teachers’ predictions, if that was higher than the calculated grade, but that this could be retained if it was the higher. It was a formula for grade inflation.
- 1.16 In 2021, there was the hope that exams could take place, but at least it was recognised they could not early enough to allow for something more systematic than in 2020 to be arranged. Schools were requested to collect evidence on which to base their assessments using tests, assignments and projects, which would be available for inspection by the exam boards. The intention was to arrive at more realistic than the previous year, but in the event there were more top grades than ever in 2021.
- 1.17 At last, in 2022, there has been a return to exams, but not the tough ones of the Gove reforms. In order to an attempt to make them fair to the candidates who had experienced the widely different lock-down provision of schools and very different

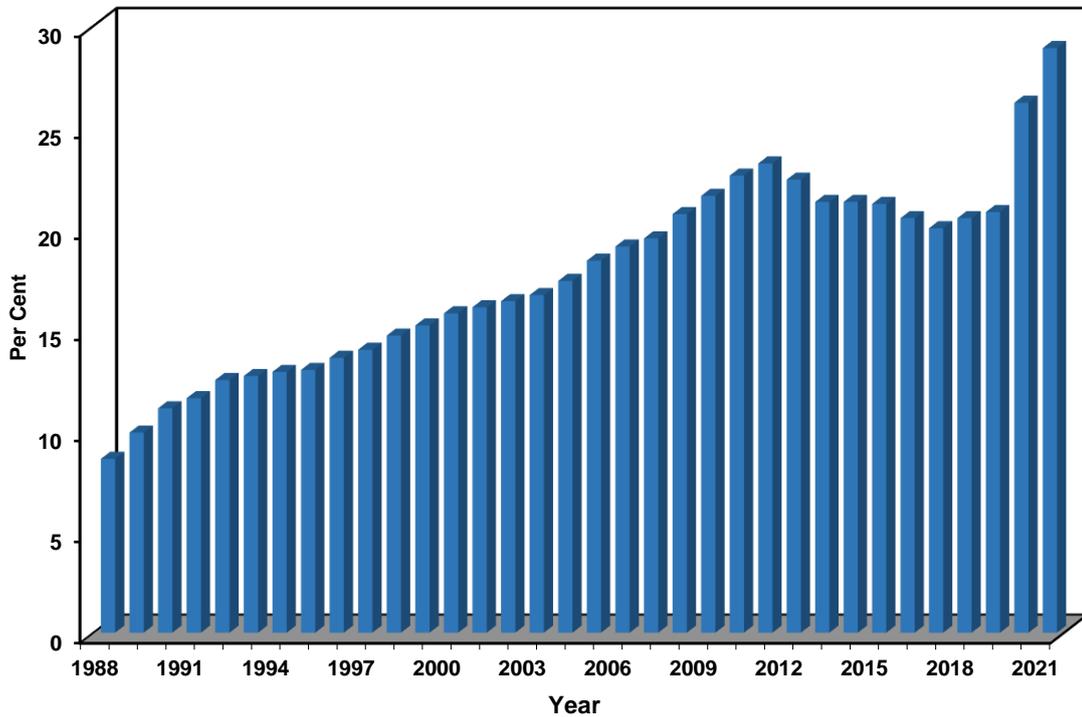
amounts of interruption to their studies, the syllabuses were restricted and advance notice given of the question topics.

- 1.18 With the return to exams in 2022, albeit of a different type, will the major changes in grade patterns of the past two years be reversed? We already know that the Government has sought to restore the value of the top grades, by bringing the grades back half-way towards where they were in 2019. But there were other major changes with girls moving even further ahead of boys and the top grades redistributed across the subjects. Will these, too, revert in the 2022 exams?

2. GCSE Trends 1988-2021

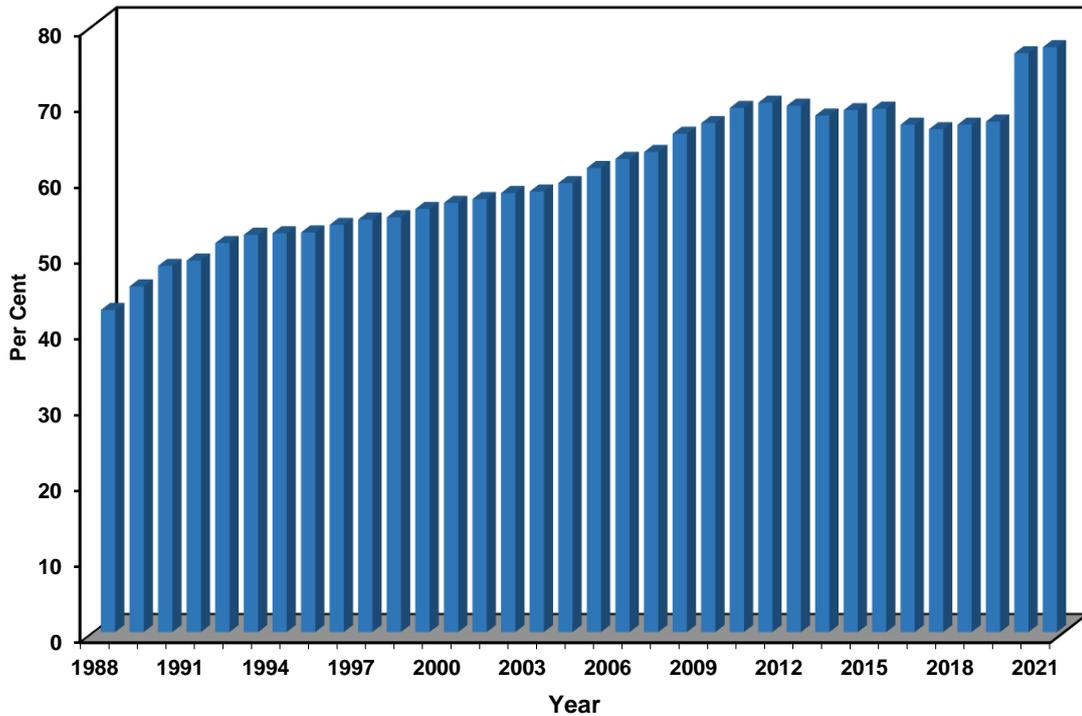
2.1. Chart 2.1 shows that there are three distinct phases in the percentages of grades awarded in the GCSE from its inception in 1988 to 2021.

Chart 2.1: UK Trends in Top (7/A) GCSE Grades



- 2.2. The chart shows the trend in top grades, which in the UK results are now Grade 7 and above in England and at least an A grade in Wales and Northern Ireland, as it used to be in England. The first phase has grades increasing year by year from 8.6% in 1988 to nearly triple that figure, 22.4%, in 2012. This is quite something in itself, because the A grade was originally intended to identify outstanding achievement and to be awarded to a maximum of ten per cent of the entries.
- 2.3. In 2012, Ofqual's 'comparable outcomes' approach aiming to keep grades consistent from year to year took effect. It led to the percentage of top grades edging downwards to become 20.8% in 2019.
- 2.4. Then Covid struck, making it impossible to hold exams. The government turned to teacher assessment in 2020 and 2021. The teachers were far too generous and top grades leapt from 20.8% per cent in 2019 to 28.9% in 2021.
- 2.5. As Chart 2.2 shows, the pass rate (at least a Grade 4 or Grade C) has gone through the same three phases, first, for a quarter of a century, increases year by year, then Ofqual taking control, only for the pass rate to run away when teachers took over. In 2021, it reached its highest ever level, rising from 63.7% to 77.1%.

Chart 2.2: UK Trends in Pass (4/C) GCSE Grades in UK



Forecast for 2022 Results in UK

2.6. The Government has rightly been very concerned about the grade inflation which had taken place in 2020 and 2021, and with the return to exams this year has asked the regulators to bring the grades down to the levels of 2019 over two years. Chart 2.3 sets out the figures which have been used to forecast the likely results in 2022.

Chart 2.3: Grades in UK

Grade	2019	2021	Forecast 2022	% Change 2019-2021	%Change 2021-2022
7/A	20.8	28.9	24.9	+38.9	-14.9
4/C	67.3	77.1	72.2	+14.6	-6.4
1/G	98.3	99.0	98.7	+0.7	-0.4

2.7. If we multiply the percentages by the total entries in 2021 (holding the entries constant at 5,745,945) we find that top grades are forecast to go down by 229,836 from what they were in 2021, in round figures 230,000. In terms of passes (4/C), there are likely to be 280,000 fewer this year than in 2021.

2.8. Although an extra 280,000 failing grades is, at first sight, staggering and it will be deeply distressing for pupils who may not have good enough results to go on to what they had planned, there were over 5.7 million entries across the UK. As a proportion it is only about one in twenty or five per cent.

Forecast for 2022 Results in England

- 2.9. We are able to conduct a finer-grained analysis of the results in England because we can look at the various levels of top grade passes rather than the grouped results of the UK data. Over 90 per cent (91.1% in 2021) of the entries come from England, so it is a good indication of what is happening across the UK as a whole.
- 2.10. Chart 2.4 shows the results at the individual grade levels. The biggest increase was in the top grade where there were 64.4 per cent more awarded in 2021 than 2019. There was also a major push from Grade 3 to get pupils into the passing grades. Grade 4, which is usually taken as the minimum passing grade, went up by 24.1%, while Grade 3 fell by 30.1%, so there had been migration upwards from higher levels as well.

Chart 2.4: Individual Grades in England, 2019-2022

Grade	2019	2021	Forecast 2022	% Change 2019-2021	%Change 2021-2022
9	4.5	7.4	6.0	+64.4	-18.9
8	6.7	9.1	7.9	+35.8	-13.2
7	9.4	12.0	10.7	+27.7	-10.8
6	13.4	14.5	14.0	+8.2	-3.4
5	16.6	17.1	16.9	+3.0	-1.2
4	16.4	16.8	16.6	+24.1	-1.2
3	17.3	12.1	14.7	-30.1	+21.5
2	9.5	6.8	8.2	-28.4	+20.6
1	4.5	3.2	3.9	-28.9	+21.9
U	1.7	1.0	1.4	-42.1	+40.0

- 2.11. Using the entry figure in England for 2021 of 5,236,858 we can calculate that the number of exam entries graded 9 in 2021 was up by 151,868 from 2019, and can be expected to fall by half - let's say 76,000 in round figures - in 2022. Similarly, we can calculate that, in England, those missing out on a pass will go up by 260,000, again about five per cent.

Conclusion

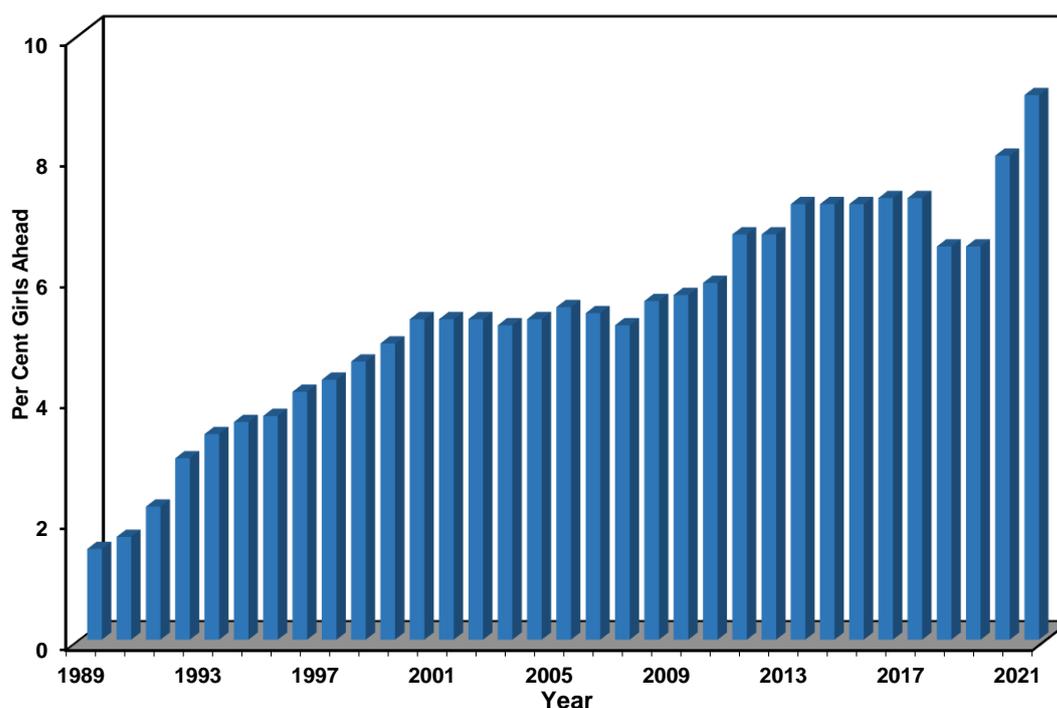
- 2.12. Examinations do not measure as accurately as thermometers or rulers, and given the importance of A-levels and GCSEs in shaping young people's futures, there have been continuing calls for them to be discarded in the case of GCSEs and in both cases replaced by teacher assessment - teachers' know their pupils best.
- 2.13. The past two years, when the pandemic was at its height, have forced the country into an experiment in which basing grades on teachers' judgements was tested on a national scale. It has been found wanting. Top grades soared and fewer dropped below minimum grades, because teachers were far too generous. The extent of the increase varied widely between schools, between the sexes, between subjects, and between regions. The evident lack of consistency and objectivity should take teacher assessment of high-stakes national examinations off the agenda for ever.

- 2.14. In short, teacher assessment was exposed as too subjective and inaccurate to be relied on. While the high grades spread a lot of happiness, the information they provided to the young people themselves, their parents, and those making decisions about their futures lacked incisiveness and precision, and many wrong decisions will have been made leading to a waste of both time and money.
- 2.15. Exams, for all their faults, are as good as it gets. Restoring the value of the grades to what they had been in 2019 will undoubtedly bring with it pain for those affected in this year and next, but it is necessary. It is important that decisions about future education and training are based on the best information possible, which our recent experiment with teacher assessment shows to be from examinations.
- 2.16. Important decisions have to be taken at 16, as well as 18, and that is why exams should remain in place. Those who would do away with them often have agendas of their own, such as not wanting to be judged by them as teachers or schools, or seeing them as an unnecessary interruption on the way to the sixth-form, but forgetting that young people embark on different pathways at 16 as well as 18.
- 2.17. The recent experiment with teacher assessment should have made more politicians and policymakers recognise that exams are the best form of high-stakes assessment that we have.

3. Gender Gap

- 3.1. Girls have outscored boys since the inception of GCSEs in 1988. Previously there had been O-levels as a step on the way to A-levels, and there was little difference. Unlike O-levels, GCSEs were modular and this approach to course organisation and assessment evidently played to girls’ strengths.
- 3.2. Chart 3.1 shows that from the outset girls opened up a lead. As with entries, it is possible to detect three phases, but this time of very varying lengths. From a modest start of 1.5 percentage points in 1989 the gap had reached 7.3 pp in 2017, then in 2018 and 2019 the Gove-reformed GCSEs - whole courses examined at the end – kicked in and the lead dropped to 6.5pp. But in the last two years with teachers deciding the grades, the gap soared to its highest-ever level, reaching 9 pp in 2021.

Chart 3.1: Gender Gap at Grade 7/A and Above



- 3.3. UK data bring together the different grading systems of England, Wales and Northern Ireland through their common points of a top grade and a pass grade. Chart 3.2 focuses on England which accounts for 91 per cent of GCSE entries and has a nine-point scale which separates top grades into three. The lowest, Grade 7, was originally set as the equivalent of the old A grade.

Chart 3.2: Comparison of the Sexes on Grades 9-7 in England

Grade	2019		2021		Percentage Increase	
	Boys	Girls	Boys	Girls	Boys	Girls
Nine	3.7	5.2	5.9	8.9	59.5	71.2
Eight	9.4	13.1	13.5	19.5	43.6	48.9
Seven	17.5	23.7	24.1	32.9	37.7	38.8

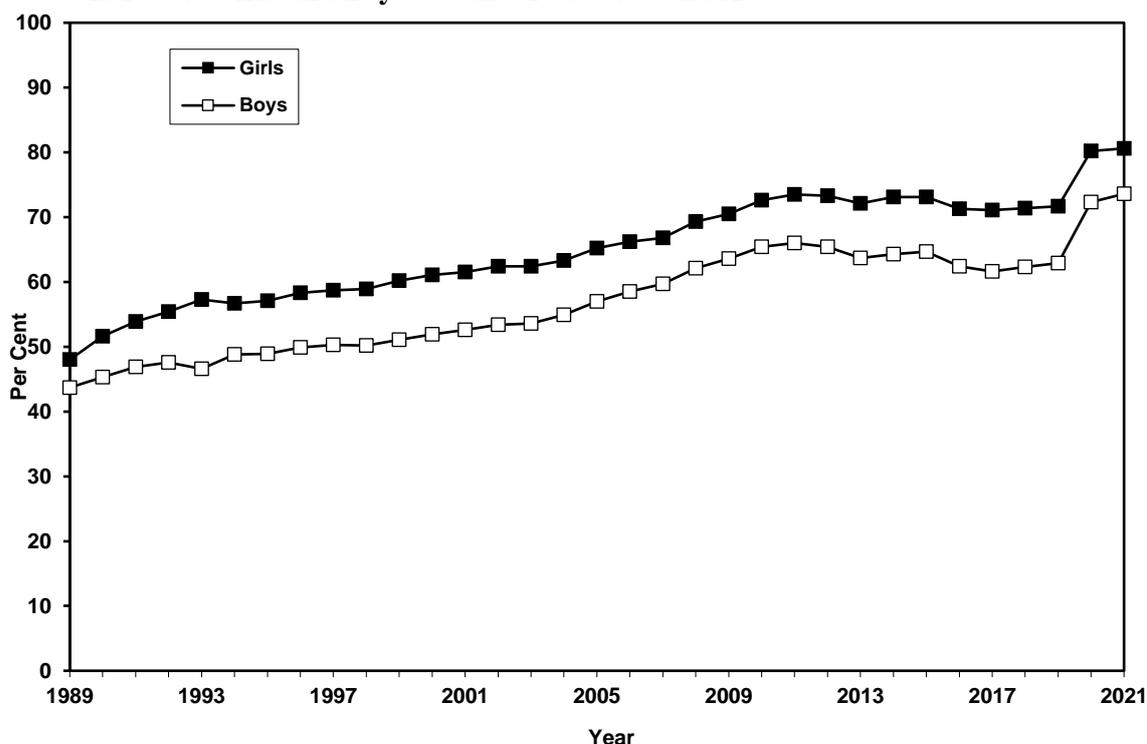
- 3.4. Chart 3.2 shows that girls went furthest ahead in the very top grade of 9, though they also gained more than boys in the other two top grades. Girls already consistently and substantially ahead, scored even further ahead in the teacher-assessment years. It was not only the overall results which showed their superior performance. As Chart 3.3 shows, they were ahead in 45 of the 47 subjects, with only physics and statistics having boys in the lead. Girls had even overtaken boys in maths.

Chart 3.3.: Difference between Sexes in Grades 7/A in UK. 2021

Subjects	Girls		Boys		Difference
	Entries	%7/A	Entries	%7/A	
Engineering	0.4	58.5	2.4	25.0	33.5
Art and Design subjects	137.9	37.9	72.1	16.4	21.5
Food Preparation and Nutrition	32.7	36.0	21.8	14.6	21.4
Design & Technology	26.6	44.8	64.6	24.2	20.6
Media / Film / TV Studies	16.9	36.8	18.8	17.3	19.5
Drama	39.7	47.3	21.5	28.4	18.9
Physical Education	30.0	53.0	50.6	34.5	18.5
Religious Studies	132.7	46.5	110.4	29.3	17.2
English Literature	306.6	33.1	309.0	18.9	14.2
Social Science subjects	28.8	37.6	12.4	23.6	14.0
English	374.1	29.0	406.2	16.1	12.9
Citizenship Studies	10.7	32.7	9.6	20.9	11.8
Computing	16.5	48.9	63.4	37.3	11.6
History	152.7	38.3	142.1	27.4	10.9
Spanish	66.5	39.6	48.3	28.8	10.8
French	76.4	38.2	55.4	27.6	10.6
Performing / Expressive Arts	8.2	43.7	0.6	34.2	9.5
Business Studies	41.9	38.9	60.6	29.9	9.0
Geography	129.9	39.8	151.8	30.8	9.0
German	19.8	42.8	18.5	34.0	8.8
Music	21.2	54.0	18.0	46.5	7.5
Other Modern Languages	13.5	76.1	11.3	69.2	6.9
Biology	93.3	59.0	90.7	52.8	6.2
Economics	2.3	56.1	4.5	51.1	5.0
Science: Double Award	442.9	14.7	453.2	10.7	4.0
Chemistry	88.8	56.7	88.2	53.1	3.6
Classical subjects	8.0	79.0	7.7	75.6	3.4
Other Sciences	0.6	57.2	2.2	55.5	1.7
Mathematics	405.7	21.3	405.4	20.8	0.5
Physics	87.5	55.1	87.9	56.0	-0.9
Statistics	7.6	31.7	10.3	33.5	-1.8
All Subjects	2874.4	33.4	2871.6	24.4	9.0

- 3.5. Girls' biggest lead was in engineering where they were ahead by 33.5 percentage point. But there were only about 400 girls taking it, so they will have been a highly self-selected group, interested and confident of their abilities. Girls also scored higher by about 20 percentage points in design & technology, art & design, and food preparation & nutrition. In addition, they were awarded substantially more top grades in drama, media studies and religious studies. Grades were much closer in maths, the sciences, statistics and economics, but with girls in front in most of them.
- 3.6. It is not only in top grades that girls lead boys. As Chart 4 shows, they have been more likely to pass (Grade 4/C and above) than boys from the outset.

Chart 3.4: Girls and Boys GCSE Grades 4/C and Above



- 3.7. Girls have come to dominate education, not only at GCSE, but also at A-level and in degrees, both in terms of numbers and performance. Whereas the sexes were about equal at O-level, girls have always done better, on average, than boys at GCSE. At A-level, while boys led at A* almost from its introduction in 2010, with the help of teacher assessment girls have overtaken them here also.
- 3.8. Not so long ago, boys comprised about three-fifths of university students, but now this ratio has been reversed. Boys also used to gain more firsts, but girls have now gone in front in many subjects. In part, this is associated with changes to course structures and assessment practices. Many degrees have become modular and rely on course work assessment, which seems to suit girls more. It has also led to an extraordinary growth in 'firsts'. It seems that girls are more aware of the value of education and apply themselves more diligently to the hard work involved.
- 3.9. With the return to objective exams, the gap in GCSE performance might be expected, but at A-level for which the 2022 results are already out, this was less than might have

been expected. It seems that during lockdown boys were inclined to escape to their PlayStations, while girls got on with the work they had been set by their schools.

- 3.10. The fact that exams are different this year may also delay the return to 'normal'. This year's exams were based on a restricted syllabus and advance notice of question topics. These changes were an attempt to make them fairer for pupils who studies had been interrupted to different extents and the wide range of provision which they experienced. The 2022 exams are very different from the usual unseen papers. In fact, they are more like writing out course work on a set occasion. As such, they may well have suited girls more than boys. It is likely, therefore, that the exams will, as at A-level, reduce some of the big gains made by girls during the enforced switch to teacher assessment, but far from all of them.
- 3.11. Although the focus is on teacher assessment and the changes it wrought, there is the underlying problem of the underperformance of boys in education. This is of national importance, because we are not developing the talents of half the population. As we have been seeing, if left unchecked this will lead to a decline in the nation's economic competitiveness and ultimately loss of its standing in the world.
- 3.12. Last year, I drew attention to what the exam results were telling us, and called for a high-level inquiry, but it was met with the complacent view that since men usually came out on top anyway what's to worry about.

4. Grades by Subject

- 4.1. The percentage of top grades awarded varies widely across the subjects. The top three in 2019 were ‘classical subjects’, ‘other modern languages’ and ‘other sciences’. Each is, in its own way, a special case. ‘Classical subjects’ are mainly taught in independent schools and grammar schools, ‘other modern languages’ are mainly taken by native speakers, and ‘other sciences’, such as geology and astronomy, are only available in a few schools, which are usually selective and high-performing.

Chart 4.1: Top Grades by Subject in 2021 and 2019 in UK

Subject	2021		2019		Increase
	%7/A	Rank	%7/A	Rank	
Economics	52.8	7	32.2	7	20.6
Physical Education	41.4	10	21.2	19	20.2
Performing & Expressive Arts	43.1	9	23.3	14	19.8
Music	50.6	8	31.6	8	19.0
Computing	39.7	12	21.4	12	18.3
Engineering	29.7	24	11.4	30	18.3
Drama	40.6	11	23.6	13	17.0
German	38.6	14	22.9	15	15.7
Business Studies	33.6	18	18.0	25	15.6
Social Science subjects	33.4	19	18.8	24	14.6
Other Modern Languages	73.0	2	60.0	2	13.0
Classical subjects	77.3	1	64.5	1	12.8
Biology	56.0	3	43.3	6	12.7
Statistics	32.7	21	20.5	21	12.2
Physics	55.6	5	44.0	5	11.6
French	33.8	17	22.9	16	10.9
Design & Technology	30.2	23	19.4	23	10.8
Chemistry	54.9	6	44.1	4	10.8
Geography	35.0	16	24.5	12	10.5
Citizenship Studies	27.1	26	16.6	29	10.5
Other Sciences	55.9	4	45.5	3	10.4
Spanish	35.1	15	25.7	10	9.4
Media / Film / TV Studies	26.6	27	17.3	28	9.3
History	33.1	20	24.6	11	8.5
Religious Studies	38.7	13	30.5	9	8.2
English Literature	26.0	28	17.8	20	8.2
Art and Design subjects	30.5	22	22.8	17	7.7
Food Prep and Nutrition	27.4	25	20.7	26	6.7
Science: Double Award	12.7	31	7.5	31	5.2
English	22.3	29	17.4	27	4.9
Mathematics	21.0	30	20.4	22	0.6
All Subjects	28.9		20.8		8.1

- 4.2. Other subjects at the top of the ranking, for example, chemistry, physics and biology in 4th, 5th and 6th places tend to be actively chosen, rather than compulsory. In the case of the separate sciences this was instead of the default subject 'science', an opportunity not available to everyone. The original intention of the 1988 national curriculum was that the separate sciences would be replaced by science up to GCSE, and they only survived because independent schools were not bound by the national curriculum and fought back hard. They won and were subsequently joined by grammar schools and top comprehensives, so choice is mainly available to young people in selective schools. The loss of these pupils is a major reason for double science being at the very bottom of the rankings, because taking some combination of science is compulsory even if it is not something for you.
- 4.3. The comparison between 2021 and 2019 in Chart 4.1 shows some subjects had benefitted greatly from grades being based on teachers' decisions. PE went up in the rankings from 19th to 10th and performing & expressive arts from 14th to 9th, both increasing their share of top grades by about 20 percentage points. That they should show up so well is understandable because in teacher assessment they were being judged in action rather than on what they could write about their subject. It raises the question of whether the Gove-reformed-exams, even though they have provision for a large element of course work in performance and practical subjects, are the best way assessing achievement in them.
- 4.4. At the foot of the rankings, Table 4.1 shows that top grades in maths hardly increased at all, and English, just above, only rose by 5pp. This, in part, is because pupils have to take them whether they want to or not. Moreover, there is also the requirement for pupils falling below Grade 4 to sit the exams again, and these two subjects account for the great majority (typically 80 per cent or more) of entries from the 17-year-olds and older.
- 4.5. Charts 4.2 and 4.3 show that in 2019 only a fifth of the resit candidates passed in maths and less than a third in English. Not surprisingly, hardly any got top grades. The fact that over a fifth of the entries in these exams were taking them having failed at least once already acts as a dead weight on the overall result, and is one of the reasons why maths and English have the lowest average grades of all the GCSE subjects.
- 4.6. In the emergency assessments of 2020 and 2021 the pass rates for the resit candidates went up dramatically, increasing to 40 per cent in maths, double the 2019 figure, and rising to 44 per cent in English. Top grades went up too, but not by enough to prevent maths falling to the very bottom of the table, with English just above it. In fact, if we substitute the grades for 16-year-olds for the overall figure, we find that although the averages would have increased in 2021, it would not have been by enough to make a material difference to the rankings.

Chart 4.2: Entries and Grades by Age in Maths, UK, 2019 and 2021

Age	2019			2021		
	% Entries	7/A	4/C	% Entries	7/A	4/C
15 & Under	0.9	43.5	76.5	0.8	55.0	84.1
16	75.9	20.2	70.8	77.5	25.9	77.5
17 & Over	23.2	1.6	22.3	21.8	2.3	39.8
Total	100.0	16.1	56.6	100.0	21.0	69.4

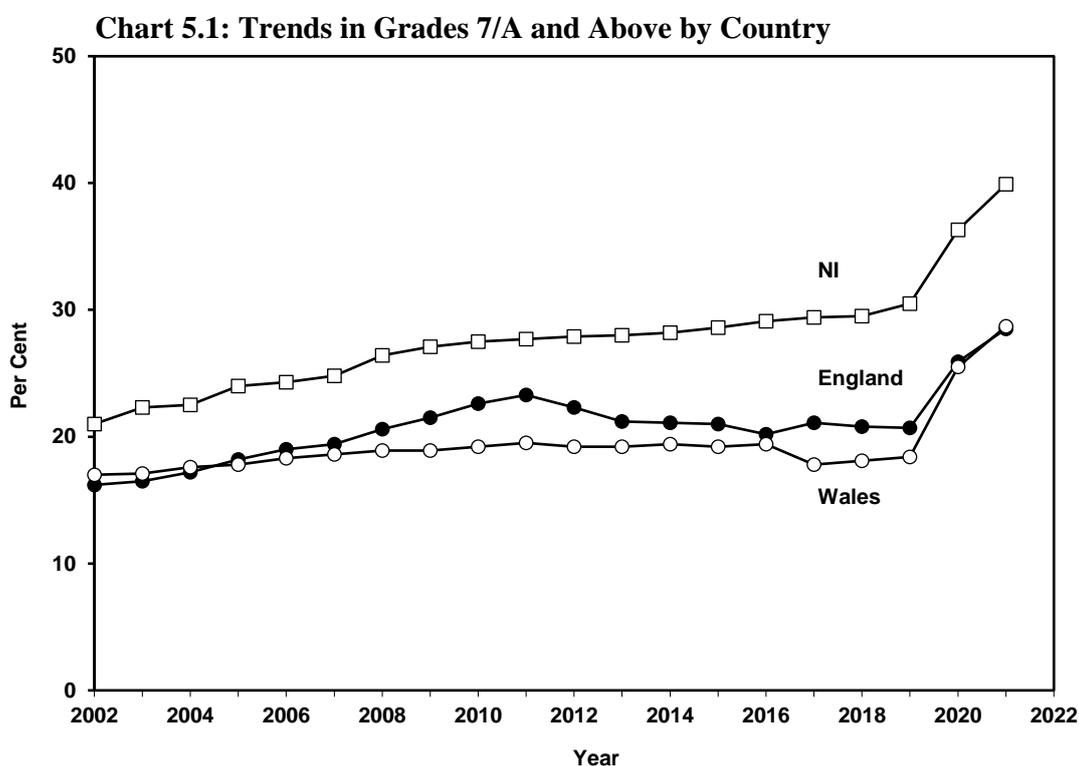
Chart 4.3: Entries and Grades by Age in English, UK, 2019 and 2021

Age	2019			2021		
	% Entries	7/A	4/C	% Entries	7/A	4/C
15 & Under	1.2	13.3	76.5	0.9	21.0	73.2
16	77.5	17.3	70.2	80.6	26.4	80.7
17 & Over	21.3	1.8	31.9	18.5	4.4	44.2
Total	100.0	14.0	62.0	100.0	22.3	73.9

- 5.1. It must be soul destroying to continually have to re-take exams that you have failed in, perhaps several times, and to be denied entry to apprenticeships and much else if you cannot pass them. Surely there is a better way of ensuring that all young people leave schools able to handle the numbers they encounter and have a sufficient grasp of English.

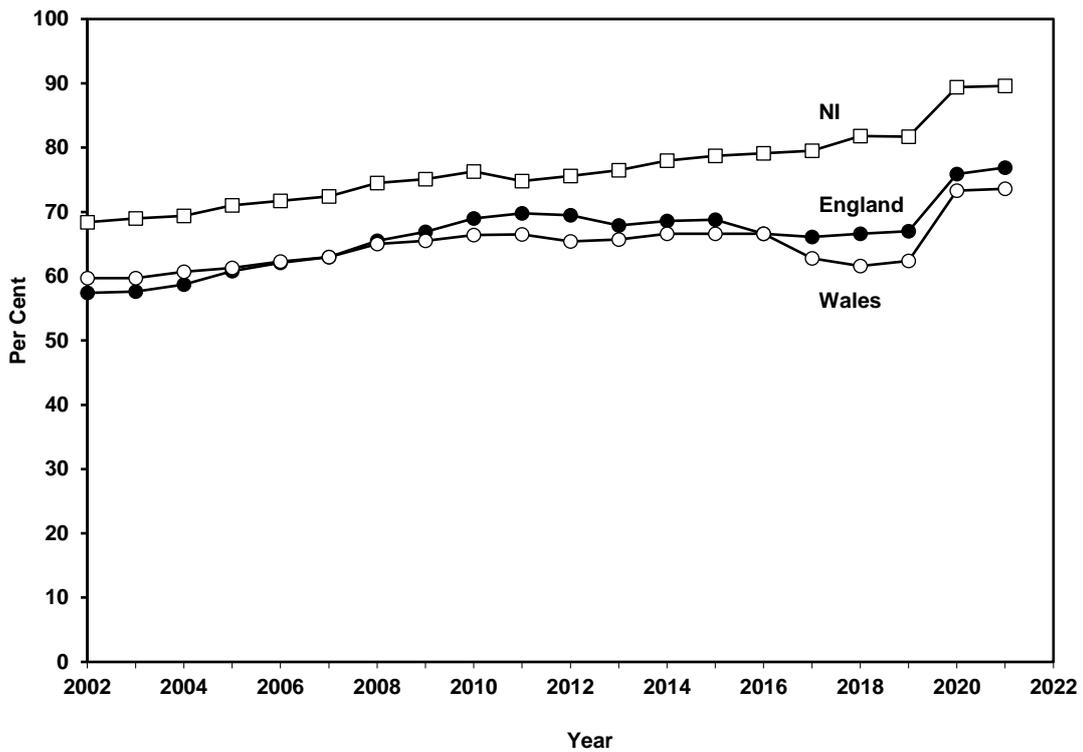
5. Grades by Countries of UK

- 5.1. The UK government has control of education in England only. GCSEs in Wales and Northern Ireland are the responsibility of the devolved administrations and, although they continue to bear the same name, they have become different from those in England and each other. The regulatory bodies do co-operate, however, to try to ensure comparable standards, but in the case of GCSEs, they now have different grading systems. Nevertheless, on results day in August they are brought together in terms of 'top grade' and 'pass grade'. It is the UK results that receive the most attention on publication day in August each year, but for a more detailed analysis the nine-point scale in England is more useful. In 2021, 91.1% of the entries came from England, compared with 5.7% from Wales and 2.9% from Northern Ireland.
- 5.2. Chart 5.1 shows that top grades (7/A) rose appreciably in all three countries when, in 2020 and 2021, they were decided by teacher assessment. Wales benefitted the most and from being behind in 2019, it caught up in 2020 and maintained parity in 2021. This suggests that teachers in Wales were the most generous in their assessments.



- 5.3. A similar pattern of results is found in Chart 5.2 for the passing grades of 4/C and above, with Northern Ireland out in front by some distance, and Wales and England usually close together. Again, there was major impact from teacher assessment, with the biggest gains being made in 2020, but while Northern Ireland and Wales tended to level off at this point, England went up further in 2021.

Chart 5.2: Trends in Grades 4/C and Above by Country



5.4. The exam success of Northern Ireland's children does not receive the attention or credit that it deserves. This may not be unconnected with the fact that it has a grammar school system. But the intriguing question is: why is Northern Ireland so far ahead of England in GCSE results, and not just in these, but also at A-level and in the international comparisons?

6. Exam Entries

- 6.1. Entries to GCSE exams have remained relatively stable over the years. Chart 6.1 shows that eight of the ten most frequently taken subjects in 1988 were again in the top ten in 2021, with the top three exactly the same. The two exceptions were the disappearance of French and physics, which were replaced by double science and religious studies.

Chart 6.1: Top Ten UK GCSE Entries

1988		2021	
Subject	N ¹	Subject	N ¹
Maths	670.1	Maths	811.1
English	666.7	English	780.2
English Literature	394.8	English Literature	615.7
Geography	305.6	Double Science	448.1
Biology	304.6	History	294.8
French	265.3	Geography	281.7
History	256.3	Religious Studies	243.1
Physics	254.1	Art & Design	210.1
Art & Design	228.0	Biology	184.0
Chemistry	217.6	Chemistry	177.0

1. In thousands.

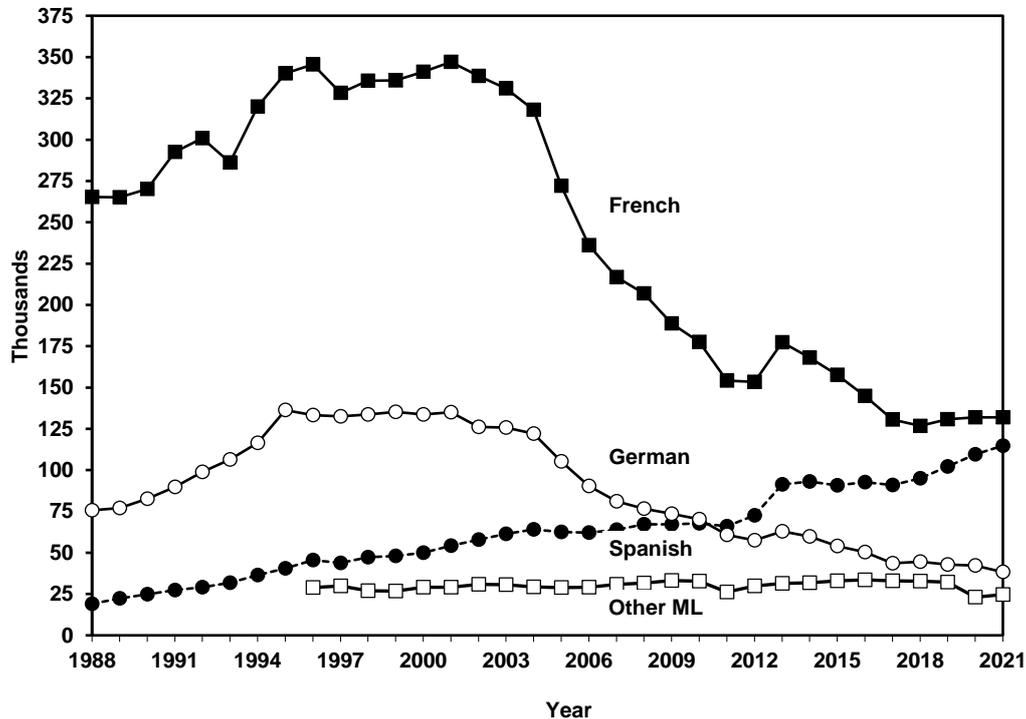
- 6.2. Both are pointers to changes which followed policy changes.

Languages

- 6.3. The most striking trend in GCSE entries has been the freefall of French and German when the exams were made optional by the Blair government in 2004. Chart 6.2 based on UK data shows that French has fallen from 318,000 entries in 1996 to just 132,000 in 2021, while German has dropped from 122,000 to 44,000. When left to choose it seems that very few young people want to learn these languages.
- 6.4. In contrast, Spanish has grown year by year from 19,000 in 1988 to 115,000 in 2021. It has overtaken German and is well on its way to doing the same to French, as has happened at A-level. As impressive as this is, it is by no means enough to compensate for the losses from French and German. Quite why there should have been this surge in popularity is unclear, but it may have something to do with the increasing popularity of Spanish-speaking countries as holiday destinations. This is plausible because Spanish, like English, is one of the four most frequently spoken languages in the world (the other two are Mandarin and Hindi), and as with the British, Spanish-speaking people feel less need to learn other languages. A more prosaic explanation is that Spanish is seen as easier than French or German.
- 6.5. There are many other foreign languages taught in our schools which are grouped together in the statistics as ‘other modern languages’, and are frequently taken by native speakers. The most popular in 2019 were Polish (5,704). Italian (5,331) and Arabic (4,203), but all dropped sharply in 2020, contributing, as Chart 6.2 shows, to

an overall reduction of 30 per cent (from 32,000 to 23,000). The major falls in European languages suggests a link to Brexit, with Polish, Italian and other families returning to their own countries. The drop in Arabic suggests that Covid also played a part.

Chart 6.2: Trends in Entries to Modern Languages



6.6. Total entries in modern languages fell by 44 per cent from 2004 to 2021 (550,200 to 309,700). The reluctance of British young people to engage with other languages is a concern in itself, but it has put the attempt by the government to establish a core Key Stage 4 curriculum of five subjects, the British Baccalaureate (EBacc), at considerable risk, as we shall discuss in the next chapter.

Biology, Chemistry and Physics

6.7. Among the biggest gainers in recent years have been the separate sciences, with biology and chemistry re-emerging in the top ten in 2021, and physics just missing out in 11th spot. There has been recent talk of the sciences pushing out the humanities as the expectations of education become more instrumental. But far from being a cuckoo in the nest, the sciences have been slowly recovering from policies which almost saw them disappear as subjects in pre-16 education.

6.8. In 1988, ‘science’ was the subject settled on for inclusion in the national curriculum. It was envisaged that the GCSEs would be double and single awards in science, and that biology, chemistry and physics GCSEs would be phased out. So would they have been were it not for the independent schools. Not required to follow the national curriculum, they put up fierce resistance, so that for a decade the separate science exams were largely confined to this sector.

6.9. It was only when the disastrous impact on entries to A-level physics particularly, and the consequences for degree admissions, was fully grasped by politicians that the government of the day responded. In 2004, Gordon Brown as Chancellor of the Exchequer, published the Science and Innovation Investment Framework 2004-14. This created incentives for state schools to return to teaching biology, chemistry and physics as separate subjects at GCSE.

Chart 6.3: Science Entries in 1988 and 2021

Subject	1988	2021	% Change ¹ 1988-2021
Biology	304,675	184,008	-39.6
Chemistry	217,638	176,950	-18.7
Physics	254,107	175,371	-31.0

1. The actual decreases are even greater because 1988 figures are for England and Wales only, whereas 2021 includes Northern Ireland as well.

6.10. That prompted some recovery, but, as Chart 6.3 shows, there is still some way to go before entries approach the levels they were at in 1988, still down by 40 per cent in biology. This is likely to be because GCSE science caters for biology better than it does physics and chemistry since it is mainly taught by biologists. Entries in 2021 are quite similar because there is a requirement that pupils taking them should take all three. This leads to the separate sciences being mainly offered in selective schools and to top sets. It is not surprising, therefore, that the grades achieved in them are considerably higher than in the GCSE science awards.

Entries in 2022

6.11. We already have a strong indication of how entries will change in 2022, since Ofqual has already published provisional figures for England, from which over 90 per cent of the GCSE entries come.

6.12. Chart 6.4 shows that the biggest increases have been in ‘other modern languages’ (which have bounced back from the Brexit/Covid drop in 2020), statistics, citizen subjects, the social sciences, and Spanish likely to soon take over from French as the most frequently taken GCSE foreign language.

Chart 6.4: Comparison of Entries in Subjects 2021 to 2022

Subjects	2021	2022	% Change
Other Modern Languages	25,225	36,310	43.9
Statistics	17,950	22,615	26.0
Citizenship Studies	20,750	22,850	10.1
Social Science Subjects	39,395	42,385	7.6
Spanish	109,655	116,355	6.1
Business Studies	95,610	100,990	5.6
Economics	6,500	6,805	4.7
Other Sciences	2,220	2,320	4.5
Geography	268,180	279,205	4.1
Food Preparation and Nutrition	49,965	51,940	4.0

Computing	77,245	79,135	2.4
Religious Studies	239,680	243,875	1.8
English Literature	572,765	582,680	1.7
Biology	171,835	174,605	1.6
Combined Science	840,955	854,450	1.6
Classical Subjects	3,540	3,595	1.6
Physics	164,330	166,550	1.4
Chemistry	165,710	167,190	0.9
French	125,655	126,185	0.4
History	278,880	278,750	0.0
Physical Education	71,425	71,215	-0.3
Mathematics	758,755	749,390	-1.2
English Language	729,605	719,790	-1.3
Art and Design subjects	197,595	194,040	-1.8
German	37,035	36,000	-2.8
Ancient Languages	11,860	11,510	-3.0
Media/Film/TV studies	32,705	31,635	-3.3
Music	35,400	34,130	-3.6
Design and Technology	82,505	78,405	-5.0
Drama	56,860	53,790	-5.4
Performing/Expressive Arts	8,780	8,245	-6.1
Engineering	2,515	2,305	-8.3
Totals	5,301,075	5,349,250	0.9

6.13. There were fewer and smaller decreases in entries. It was the performing arts, including drama and music, and practical subjects, such as engineering and design & technology, that fell the most. Apart from Spanish, languages were stalled at the levels to which they had fallen, with a further decline in German.

6.14. The lack of interest in foreign languages has implications for the governments wish in 2010 to establish a Key stage 4 core curriculum of five subjects that 75 per cent of state-funded schools would offer by 2022, and it is to that we now turn.

7. Death of EBacc?

- 7.1 When Nick Gibb became Schools Minister in the Coalition Government in 2010, he was very concerned at the way KS 4 pupils were spreading across a wide range of GCSEs and not concentrating sufficiently on core subjects. In order to remedy the situation, he set out to incentivise schools and pupils to give priority to those subjects he regarded as the most fundamental. He settled on five subject areas – English, maths, science, history/geography, and languages - and he, at first, proposed that pupils passing a recognised GCSE in each of these categories should receive a special certificate called the English Baccalaureate.
- 7.2 In the event, this proved unworkable, so Gibb turned it into an accountability measure, which meant schools in England (education is a devolved area) have to report annually on the number of their pupils taking the specified subjects and how well they had done. In order to further nudge schools into adopting it, the Department of Education set targets of 75 per cent of pupils entering the EBacc by 2022 and 90 per cent by 2025.
- 7.3 Chart 7.1 shows that, in many ways, the policy has been successful. Since 2016 entries to most EBacc subject have risen, up by more than 50 per cent in English, by over a quarter in the separate sciences, and increases in the majority of the other subjects. But there are two important exceptions: French and German entries have fallen.

Chart 7 1: Change in EBacc Subject Entries 2016-2022.

Subjects	2016	2022	% Change
English Literature	371,700	582,680	56.8
English Language	459,750	719,790	56.6
Spanish	88,150	116,355	32.0
Biology	133,700	174,605	30.6
Physics	130,600	166,550	27.5
Chemistry	131,650	167,190	27.0
Computing	63,650	79,135	24.3
Geography	227,750	279,205	22.6
Combined Science ¹	738,100	854,450	15.8
Ancient Languages	10,050	11,510	14.5
History	244,600	278,750	14.0
Other Modern Languages	33,900	36,310	7.1
Mathematics	719,400	749,390	4.2
French	135,200	126,185	-6.7
German	48,000	36,000	-25.0

1. Science plus Additional Science in 2016.

- 7.4 In contrast to the EBacc subjects, most of those not included in the measure have lost ground. Chart 7.1 shows that food preparation & nutrition attracts more than double what its predecessor, home economics, did, and art & design, business studies and economics grew by 10 per cent or more. Other than these subjects, intakes have fallen, in some cases by over 50 per cent, including performing/expressive arts, design &

technology, ‘other sciences’, and engineering. There were loud protests when the EBacc was mooted arguing that shutting out popular subjects such as religious studies, design & technology and art & design would lead to them being treated as second class and their numbers would fall. This, in fact, has happened. In 2022, provisional EBacc entries were 82 per cent of the total.

Chart 7 2: Entries of Subjects Not Included in the EBacc 2016-2022.

Subjects	2016	2022	% Change
Food Prep and Nutrition ¹	24,550	51,940	111.6
Art & Design subjects	172,550	194,040	12.5
Business studies	91,000	100,990	11.0
Economics	6,150	6,805	10.7
Social Science Subjects	42,950	42,385	-1.3
Citizenship Studies	24,300	22,850	-6.0
Classical Subjects ²	4,200	3,595	-14.4
Music	41,850	34,130	-18.4
Drama	68,250	53,790	-21.2
Religious Studies	328,000	243,875	-25.6
Media/Film/TV studies	52,250	31,635	-39.5
Physical Education	120,100	71,215	-40.7
Statistics	39,900	22,615	-43.3
Performing/Expressive Arts	18,150	8,245	-54.6
Design and Technology	175,150	78,405	-55.2
Other Sciences	5,850	2,320	-60.3
Engineering	8,100	2,305	-71.5

1. Home Economics in 2016.

2. Non EBacc subjects in the category, some like Greek and Latin do qualify.

7.5 But the EBacc combination is nowhere near reaching the 75 per cent that had been targeted for 2022. It is languishing, as it has been for some time, at around 40 per cent. The problem is the reluctance of young people in England to study a foreign language. Chart 7.3 shows provisional GCSE language entries for 2022. While those for Spanish continue to increase, but are still paltry compared to other subjects, French, German, and even ancient languages which qualify as EBacc subjects, have failed to revive. ‘Other languages’ might appear to be the exception, but there was a sharp Brexit/Covid dip in 2020. The increase in 2022 only takes the figure back to where it was in 2019.

Chart 7.3: Provisional Language Entries 2021-22

Subjects	2021	2022	% Change
French	125,655	126,185	0.4
Spanish	109,655	116,355	6.1
German	37,035	36,000	-2.8
Other Modern Languages	25,225	36,310	43.9
Ancient Languages	11,860	11,510	-3.0

Chart 7.4: Per Cent of Pupils Taking Five EBacc Subjects¹

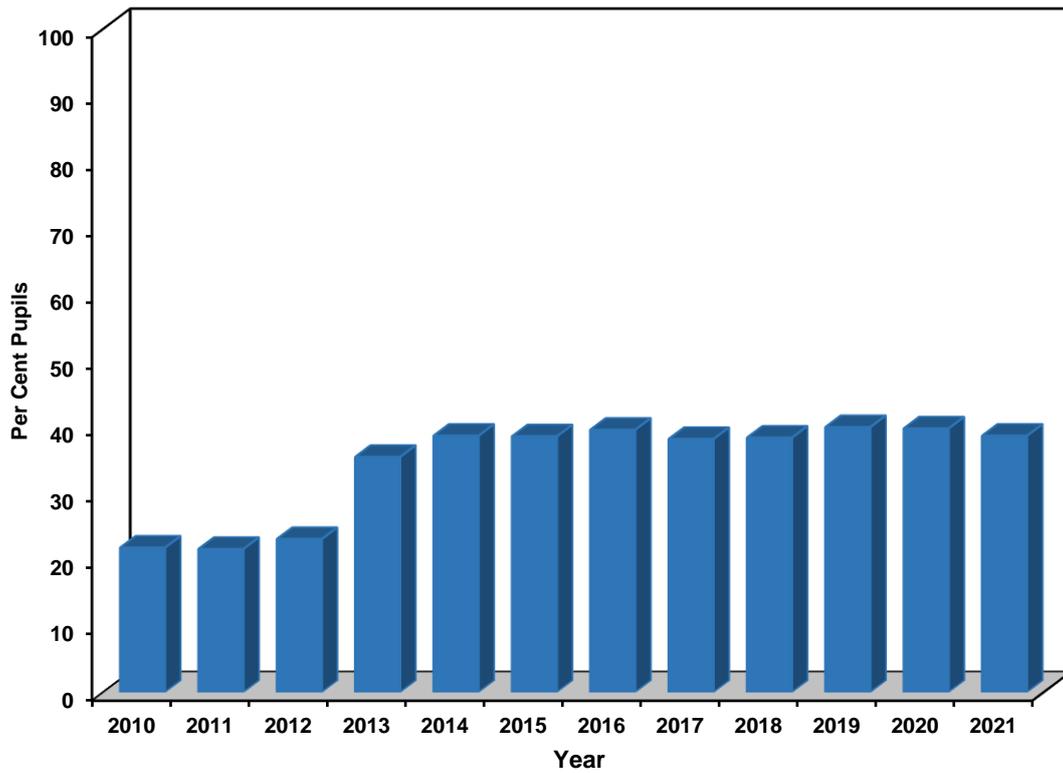
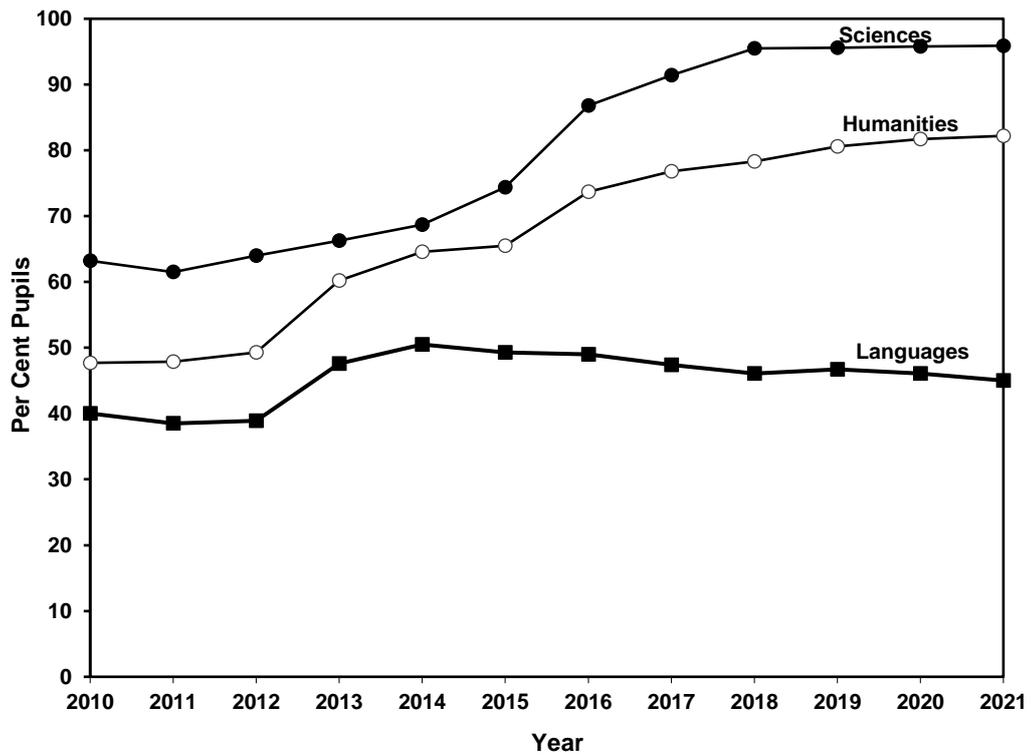


Chart 7.5: Trends in Entries to 'EBacc' Subjects¹



1. Based on data from DfE.

- 7.6 The low take-up of foreign languages has been masked to some extent by Ebacc's impact on the other four areas. There are many possible reasons why the British are not interested in learning other people's languages. It could be that we have been spoilt by the trouble other countries take to learn our language, it could be that we do not start learning languages at an earlier enough age for them to be acquired relatively easily, or it could be we do not have enough good teachers. And there may be others. If the government values learning languages, then it should set up an inquiry to clarify why it is not happening as was hoped.
- 7.7 If it does not make necessary changes, then the percentage achieving EBacc will never increase much beyond where it is now. The idea of establishing this particular set of core subjects would be over. The government appears to have already accepted this and has put in place another accountability measure, this time based on eight subjects, Attainment 8/Progress 8. As its name suggests, it allows for a wider range of subjects and crucially does not depend on taking a language. I suspect that the EBacc will be quietly phased out.

8. Prospects for 2022

- 8.1 GCSEs results this year are likely to mirror those of the A-levels, whose results were published last week. The circumstances are the same. In neither was it possible to hold examinations in 2020 and 2021 and the award of grades was based on teachers' assessments, In both, top grades shot up, girls went further ahead and some subjects, such as the performing arts, gained a lot of extra top grades.
- 8.2 The return to exams might have been expected to reverse all of these, especially as the UK government had asked Ofqual, the regulator in England, to bring the grades back to where they were in 2019 in two stages. In the event, at A- level, grades were reduced, but by less than half, the gap between girls and boys narrowed, but not by as much as it had widened, and while top grades were reduced across all subjects those which had gained the most held on to more of the gains than might have been expected.
- 8.3 If GCSE results follow suit there will be about 25.0 per cent fewer top grades, four percentage points lower than last year (and four percentage points higher than 2019). This would mean about 230,000 fewer top grades than in 2021. Disappointing as this may be to some pupils and their parents, it will not greatly reduce the chances of most progressing since at this level it is more a matter of meeting minimum requirements rather than the intensive competition that getting into the desired university can entail.
- 8.4 The increase in the failure rate, especially in maths and English, will be of much more concern to those affected, because passes in both are required for most apprenticeships, training in jobs and university places. In 2021 30.6 per cent of pupils did not reach grade four in maths and 26.1 per cent in English. Given that, according to the Government, grades this year will be set half-way between what they were in 2019 and 2021, there are likely be about 35.5 per cent missing grade four in maths, which is around 292,000 pupils, and about 40,000 more compared to 2021. In English, the respective figures are likely to be around 32 per cent not achieving a pass grade, about 253,000 pupils. This would be an additional 47,000 compared to last year.
- 8.5 Girls, having outscored boys since the beginning of GCSEs, in 2021 opened up the biggest lead ever of 9 percentage points. In 2019 it had been 6.5 pp, so that this year it could be expected to be around 7.75 pp. In A-level it was a bit less than the scheduled drop, perhaps because the advance notice of the question had made it easier and akin to submitting course work.
- 8.6 In GCSEs in 2021 girls were ahead in 45 of the 47 subjects, including maths. The only exceptions were physics and statistics. If the gap is narrowed we could see boys moving ahead once more in maths. But there won't be many turnarounds because even with the Gove-reformed examinations girl were ahead in the vast majority of subjects.
- 8.7 The subjects which gained most under teacher assessment were economics, PE performing and expressive arts, and music, increasing their percentages of top grades

by over 20 pp. If A-levels are any guide, they may well hold to their gains in the exams held in 2022.

8.8 Beyond the immediate concerns of what the 2022 results will be and how will they differ from those of 2021, the data do offer pointers to the new prime minister as to what should be on the education agenda. I would highlight three things.

- Girls have come to dominate education, not only at GCSE, but also at A-level and in degrees, both in terms of numbers and performance. It tends to be brushed aside. A legacy of feminism is the argument that men always come out on top in the end, so what does it matter that they are behind at school? But the apparent underperformance of boys indicates that we are not fully developing their talents, which is unfair on them and a severe loss to a country which is increasingly short of the skills necessary to prosper in a world becoming ever-more competitive.
- The high failure rate among the large numbers having to re-sit maths and English and who reach 18 without passing them raises the question of whether GCSEs are the best way of ensuring all children are able to handle the numbers and have a grasp of the English language that they need in order to successfully live their lives. The GCSEs may be too academic and high-flown for this purpose. Surely there must be better way.
- Why are young people so reluctant to learn a foreign language? Could it be that they do not have the opportunity of language learning from an early age, as is the case with many other countries where the majority of children successfully learn to speak English? Children born into bilingual homes seem to absorb both languages without really noticing. I know there is research indicating that age of learning does not make that much difference, but it would be worthwhile to look again at the evidence and collect more. The key to language learning in this country could be including it in both the primary school curriculum and the Sats.

8.9 One strong conclusion to emerge from the enforced experiment with teacher assessment is that it is not up to the task. Schools and teachers were shown to be over-generous, and tending to favour girls and particular subjects. There was also wide variation between schools, with some results wildly out-of-line with the school's previous performance.

8.10 Teacher assessment has its powerful proponents, not least the teacher unions and some members of the commentariat, most recently Sir Tony Blair. But the A-level and GCSE results of 2020 and 2021 have clearly shown teacher assessment cannot be relied on and the information it provides is fundamentally flawed.