

FFT Education Datalab/Nuffield Foundation

GCSE and A-Level results day site: technical documentation

Background

This microsite provides analysis of national GCSE and A-Level results in England, Wales and Northern Ireland from 2014 to 2018. The data has been sourced from the Joint Council for Qualifications. The [Nuffield Foundation](#) has provided funding for the development of the site.

There has been substantial policy change at both Key Stage 4 and Key Stage 5 during this time. All three nations have reviewed their curriculum and adopted different approaches in response. These changes affect comparisons between the three nations, and comparisons over time within each nation - this site is designed to highlight where these changes are having an impact.

This document:

- Describes the data sources
- Provides some general guidance on interpreting the data presented in the microsite
- Summarises the reforms that have taken place at GCSE and A-Level in England, Wales and Northern Ireland
- Provides guidance about interpreting the data in specific subjects

Sources

Exam entries and grades awarded

Joint Council for Qualifications ([GCSE](#), [AS-/A-Level](#))

Exam entry and attainment data is sourced from the Joint Council for Qualifications (JCQ), a membership organisation for the eight largest awarding organisations in the UK.

Each year in August, JCQ publishes the aggregate results of A-Levels and GCSEs delivered by its members. The data published is provisional - results may subsequently change due to appeals and remarks. Comparisons to previous years on this site are similarly based on provisional results.

Some results are also published filtered by nation and age, as indicated in the tables below.

Availability of GCSE statistics by nation and age

	UK	England	Wales	Northern Ireland
All ages	Y	Y	Y	Y
15-year-olds and younger	Y	N	N	N
16-year-olds	Y	N	N	N
17-year-olds and older	Y	N	N	N

Availability of A-Level statistics by nation and age

	UK	England	Wales	Northern Ireland
All ages	Y	Y	Y	Y
17-year-olds and younger	N	N	N	N
18-year-olds	N	N	N	N
19-year-olds and older	N	N	N	N

Dates of reform

England: Ofqual ([GCSE, AS-/A-Level](#))

Wales: Qualifications Wales ([GCSE and AS-/A-Level](#))

Northern Ireland: Council for the Curriculum, Examinations and Assessment ([GCSE, AS-/A-Level](#))

EBacc subjects (England only)

Department for Education ([eligible qualifications](#))

Progress 8 subjects (England only)

Department for Education ([double-weighted subjects](#))

Facilitating subjects

Russell Group ([eligible subjects](#))

What each page shows

Charts (all subject pages)

Two charts are presented on each page for a subject, the upper chart showing the number of entries and the lower chart showing attainment. The text to the right of the charts provides a summary of the data for the UK as a whole and, where applicable, provides guidance and caveats about interpretation.

Each chart can be downloaded as a picture file (JPG or PNG) and the underlying data for each chart can also be downloaded. We hope that users of the site will share these files via blogposts and social media. Use the menu icon in the top right of each chart to do so.

Drop-down controls

The contents of the charts can be changed using the drop-downs above them. Note that the drop-down above the upper chart, which shows number of entries, also controls the lower chart, which shows attainment.

For A-Levels and AS-Levels, you can choose to display data for England, Wales, Northern Ireland or the UK as whole. On the lower chart, you can choose to display attainment for boys, girls or all pupils for the selected country. All data for A-Levels relates to entrants of all ages, which will include adult entrants.

For GCSEs, you can **either** choose to display data for a country **or** for an age cohort, but not both. In other words, choosing to display 16-year-olds will return data for all 16-year-olds in the UK. On the lower chart, you can choose to display attainment for boys, girls or all pupils for **either** the selected country **or** the selected age cohort.

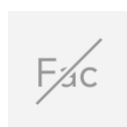
Subject flags (all subject pages, bar All subjects)

Facilitating subjects (A-Levels and AS-Levels only)

Facilitating subjects are the A-Levels which the Russell Group of universities believe leave open a wide range of study options. These are: **English literature; maths and further maths; biology; chemistry; physics; modern and classical languages; geography; and history.**



Facilitating subjects are identified by this symbol.



Subjects not considered to be facilitating subjects are identified by this symbol.

Progress 8 (GCSEs only)

Progress 8 was introduced as the headline measure used in secondary school performance tables in England in 2016. It is based on attainment in **English/English literature; maths; three EBacc subjects** (see below); and **any three other subjects**. It has led to an increase in take-up of EBacc subjects.

Results in maths and English carry greater weight in the calculation of Progress 8 than other subjects: maths results are double-weighted, as are the higher of an entrant's English language and English literature results, so long as both subjects have been taken.

2x

Subjects that are double-weighted in Progress 8 are identified by this symbol.

~~2x~~

Subjects that are not double-weighted in Progress 8 are identified by this symbol.

EBacc (GCSEs only)

The English Baccalaureate (EBacc) is a performance indicator used in secondary school performance tables in England. It is based on attainment in English/English literature, mathematics, two science subjects (including computing), a humanity (history or geography) and a modern or classical foreign language (the most common of which are French, German and Spanish).

EBacc

EBacc subjects are identified by this symbol

~~EBacc~~

Non-EBacc subjects are identified by this symbol.

Reform date (all subject pages)

For each subject or group of subjects, a reform date is given on the right-hand side of the page.

Reform dates relate to the date when most students in a given home nation will be entered for reformed versions of the qualifications. Some students may enter qualifications offered by an exam board in a home nation other than the one in which they are taking their examinations.

Definitions (certain subjects only)

The first of up to three boxes of text on subject pages provides definitional information. Note that this text box only appears where such a definition is required.

Explanatory text (all subject pages)

All subject pages contain explanatory text, that draws trends in entry numbers since 2014, or (where later) the date from which data is available. The text also sets out how attainment in the subject being considered compares to attainment across all subjects at GCSE/AS-Level/A-Level.

Context (certain subjects only)

Indicated by an exclamation mark symbol, the bottom text box on subject pages provides key context needed to understand the other information presented on the page. Note that this text box only appears where such contextual information exists.

General guidance on interpretation

Policy and qualification reforms

Significant reforms to qualifications and accountability policies have been taking place in each country since 2014 and these affect not only comparability between the three home nations but also the year-on-year comparability of the data for each country. Notes on the impact that these issues have on individual subjects can be found on the relevant subject page.

Interpreting entry numbers

Entry numbers are affected by changes in the size of the population as well as changing popularity. Each nation has policies to encourage take-up of particular qualifications. In addition, special interest groups and royal societies have various initiatives to increase take-up of subjects, e.g. STEM (science, technology, engineering and maths).

Note that, when reading the explanatory text that accompanies the charts, subjects with small entry numbers are more likely to see large percentage changes in entries - a 26% increase in entries in a subject that started off with a small number of entries, for example, would be less surprising that it would be for a subject that started off with a large number of entries.

Interpreting attainment

In England, reformed GCSEs graded 9-1 began to replace legacy GCSEs graded A*-G in 2017. To provide comparable trend data, data on *key grades* is presented.

Broadly speaking, reformed grades 9-7 correspond to legacy grades A*-A, grades 9-4 correspond to A*-C and 9-1 correspond to A*-G.

Consequently, the three lines on the chart showing GCSE attainment represent percentages of pupils achieving grade A/7 (or above), grade C/4 (or above) and grade G/1 (or above).

For A-Levels and AS-Levels, where there has been no change in grading structure since 2014, only certain grades are shown on charts - *selected grades* is the terminology used - though users are able to choose to view *all grades*.

A summary of reforms

England, Wales and Northern Ireland have reformed GCSEs and A-Levels. England and Wales have taken a phased approach over three years. Results for the first wave of subjects (English, Welsh and maths) were reported last year.

Although there are similarities between the three nations, there are important differences, which are summarised in this [infographic¹](#).

England

GCSE

GCSEs have been reformed and designed to be more challenging with coursework contributing less (if at all) to final grades. Reformed GCSEs are graded 9-1 (rather than A*-G) with grades 3-1 covering grades D-G, grades 6-4 covering grades B-C and grades 9-7 covering grades A*-A.

English language, English literature and mathematics were reformed for first teaching from September 2015 and the first set of GCSE results were reported in 2017.

This year, results in the second wave of reformed subjects are reported for the first time. These include science, geography, history and modern languages (French, German and Spanish). Results for a third wave of subjects will be reported in 2019.

Further information on which subjects have been reformed and when can be found [here²](#).

AS-Level and A-Level

Reformed A-Levels began to be introduced from September 2015. These are linear rather than modular in structure, and generally have fewer papers and less coursework. AS- and A-Levels have also been decoupled in England, which means that the AS-level no longer contributes to the overall A-level grade, with considerable drops in AS-Level entries as a result.

A-Level results for the first wave of reformed subjects were reported in 2017. This year, results have been published for the second wave of subjects, including geography, modern foreign languages (MFL), dance, drama, music, PE and religious studies. Results for the third wave, including mathematics, will be reported for the first time in 2019.

All subjects have now been reformed at AS-Level.

Further information on which subjects have been reformed and when can be found [here²](#).

Comparable outcomes

The exams regulator, Ofqual, uses a process known as comparable outcomes to set and maintain grade standards at GCSE and A-Level in England. Broadly speaking, this means that if the 16 year-old cohort of entrants in a subject at GCSE is broadly similar in terms of Key Stage 2 attainment to the previous cohort of entrants then GCSE grades will be similar to those from last year [see [this report³](#)

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[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/635311/infographic - GCSE AS and A level - 3 country regulation.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/635311/infographic_-_GCSE_AS_and_A_level_-_3_country_regulation.pdf)

² <https://www.gov.uk/government/publications/get-the-facts-gcse-and-a-level-reform/get-the-facts-as-and-a-level-reform>

³ <http://www.cambridgeassessment.org.uk/Images/181034-exploring-the-value-of-gcse-prediction-matrices-based-upon-attainment-at-key-stage-2.pdf>

for an explanation]. A similar process is adopted for A-Level (and AS-level) subjects based on Key Stage 4 attainment.

For reformed GCSEs, key grades act as anchor points in the distribution of grades. Again assuming no changes in the Key Stage 2 attainment of the cohort entered for a particular subject, the percentage of 16 year-olds awarded grades 9-4 will be similar to the percentage awarded grades A*-C the previous year. Similarly, the percentage awarded grades 9-7 will be similar to the percentage awarded grades A*-A.

Wales

GCSE

As in England, Welsh GCSEs have been reformed in three yearly phases starting in September 2015. The first set of reformed results in English, Welsh and mathematics were reported last year. Results for a wider set of reformed subjects are published this year.

Unlike in England, reformed Welsh GCSEs are graded A*-G. However, schools may also offer some subjects from English boards where they have been approved for use in Wales. These include ancient languages (Greek and Latin), citizenship and Dance. These subjects will be graded 9-1.

Further information on which subjects have been reformed and when can be found [here](#)⁴.

AS-Level and A-Level

A-Levels have also been reformed in three yearly phases starting in September 2015. Results for the first tranche of reformed subjects were published in 2017. Results in a second wave of reformed subjects are published this year, including drama, French, German, Spanish, geography, music, physical education, religious studies, and Welsh second language. All AS-Level subjects have now been reformed.

Unlike in England, AS-Levels contribute 40% of the final marks of the full A-Level. Individual units can be retaken but only once.

Schools in Wales can offer A-Levels from English boards where a Wales-specific version is not available and it has been deemed eligible for public-funding. In 2018 these include classical Greek, Latin and Dance. AS-Levels do not contribute to the final marks of A-Levels in these subjects.

Further information on which subjects have been reformed and when can be found [here](#)⁵.

Northern Ireland

GCSE

GCSEs in all subjects offered by Northern Ireland's awarding organisation CCEA were all reformed for first teaching in September 2017. The first set of results in reformed GCSEs will be published in 2019. They will be graded A*-G although a new C* grade will be introduced. CCEA will offer a mixture of linear and modular GCSEs.

⁴ <http://qualificationswales.org/english/qualifications/gcses-and-a-levels/gq-reform/what-subjects-are-available/>

⁵ <http://qualificationswales.org/english/qualifications/gcses-and-a-levels/gq-reform/what-subjects-are-available/>

However, with the exception of English language, schools in Northern Ireland can offer all GCSEs from the English awarding organisations, AQA, OCR, Edexcel and Eduqas, the division of WJEC which offers qualifications in England. From September 2017, schools could not offer Welsh GCSEs from WJEC graded A*-G.

Schools in Northern Ireland cannot offer GCSE English Language from English awarding organisations because marks for speaking and listening do not contribute to the overall grade.

Further information on which subjects have been reformed and when can be found [here](#)⁶.

AS-Level and A-Level

A-Levels in all subjects offered by Northern Ireland’s awarding organisation CCEA were reformed for first teaching in September 2016 with the exception of mathematics and professional business services. The first set of results in reformed A-Levels will be published in 2018. As in Wales, marks in AS-Level units contribute 40% of the total marks to full A-Levels.

Schools and Colleges in Northern Ireland can deliver most A-Levels offered by English and Welsh awarding organisations. As described above, these have been reformed in three yearly phases. It is not possible to identify in the JCQ data whether students in Northern Ireland have entered A-Levels offered by CCEA or by one of the English or Welsh organisations.

Further information on which subjects have been reformed and when can be found [here](#)⁶.

Notes on individual subjects

England

GCSE	Biology	The end of core science and additional science GCSEs in 2017 is believed to have prompted a number of schools to have reconsidered their science entry choices, impacting on the number of entries in the single sciences.
GCSE	Chemistry	The end of core science and additional science GCSEs in 2017 is believed to have prompted a number of schools to have reconsidered their science entry choices, impacting on the number of entries in the single sciences.
GCSE	Classical subjects	This includes Latin and Greek, which count in the EBacc, but also includes classical civilisation, which does not count in the EBacc. Reformed Latin and classical Greek GCSEs first awarded in 2018; reformed classical civilisation GCSE first awarded in 2019.
GCSE	Combined science	Reformed GCSEs in combined science replaced core and additional science (including further additional science) and were first awarded in 2018. Results for previous years are based on core and additional science. Entries fell in 2018 compared to 2017 but this followed a drop in 2017 when there were fewer “early” Year 10 (age 15) entries in core science as legacy GCSEs such as these will not be counted in 2018 School Performance Tables.
GCSE	Computer science	In 2018, students’ grades are based entirely on performance in examinations following concerns over security arrangements for

⁶ http://ccea.org.uk/regulation/qualsni/levels_accredited_first_teaching_2015

		<p>proposed assessment tasks. More information can be found at https://ofqual.blog.gov.uk/2018/04/27/gcse-computer-science-this-year-and-beyond/</p>
GCSE	Design technology	<p>New GCSEs in food and hygiene are reported separately in 2018, where previously food technology was reported within design and technology. This contributes to a drop in entries in 2018.</p>
GCSE	English	<p>There was an increase in entries in GCSE English and English literature between 2016 and 2017 as previously-eligible international GCSEs (IGCSEs) became ineligible for School Performance Tables. More information can be found at https://ffteducationdatalab.org.uk/2017/08/gcse-results-day-2017-the-key-trends-in-entries-and-results/</p> <p>Since 2017, a student's spoken language skills are also assessed by teachers, resulting in an endorsement which is reported alongside, but does not contribute towards, their GCSE grade.</p> <p>Since 2016, entries among students aged 17 and over have been increasing as a result of the post-16 conditions of funding in England. 17-19-year-olds without a grade 9-4 (or A*-G) pass in GCSE English language must continue to study English post-16.</p>
GCSE	English literature	<p>In 2017 IGCSE English literature became no longer eligible for School Performance Tables and GCSE combined English was no longer available. This explains the sharp rise in entries between 2016 and 2017 (in England in particular).</p> <p>As the increase in entry largely consisted of pupils from the lower end of the prior (Key Stage 2) attainment distribution, grades awarded compared to previous cohorts tended to be slightly lower.</p> <p>More information can be found at https://ffteducationdatalab.org.uk/2017/08/gcse-results-day-2017-the-key-trends-in-entries-and-results/</p>
GCSE	Food and hygiene	<p>Food and hygiene is a new qualification first available in 2018. Data is therefore not available for earlier years.</p>
GCSE	French	<p>From 2018, 75% of a student's grade is based on performance in examinations (previously 40%). The remaining 25% is based on teacher assessment of speaking skills.</p>
GCSE	German	<p>From 2018, 75% of a student's grade is based on performance in examinations (previously 40%). The remaining 25% is based on teacher assessment of speaking skills.</p>
GCSE	Mathematics	<p>There was an increase in entries in GCSE mathematics between 2016 and 2017 as previously-eligible international GCSEs (IGCSEs) became ineligible for School Performance Tables.</p> <p>Since 2016, entries among students aged 17 and over have been increasing as a result of the post-16 conditions of funding in England. 17-19-year-olds without a grade 9-4 (or A*-G) pass in GCSE maths must continue to study maths post-16.</p>
GCSE	Physics	<p>The end of core science and additional science GCSEs in 2017 is believed to have prompted a number of schools to have reconsidered</p>

		their science entry choices, impacting on the number of entries in the single sciences.
GCSE	Spanish	From 2018, 75% of a student's grade is based on performance in examinations (previously 40%). The remaining 25% is based on teacher assessment of speaking skills.
GCSE	Other modern languages	Reformed GCSEs in some other modern languages will be awarded for the first time in 2019, while in others they will be awarded for the first time in 2020.
AS-Level	English	Comparable data is not available before 2017. Before this point, English was recorded as a single subject, covering English language, English literature, and English language and literature.
A-Level	Biology	Since 2017, A-Level grades have been determined solely by performance in examinations. A student's practical skills are also assessed by teachers, resulting in a "practical endorsement" (pass/fail) which is reported alongside, but does not contribute to, their A-Level grade.
A-Level	Chemistry	Since 2017, A-Level grades have been determined solely by performance in examinations. A student's practical skills are also assessed by teachers, resulting in a "practical endorsement" (pass/fail) which is reported alongside, but does not contribute to their A-Level grade.
A-Level	English	Comparable data is not available before 2017. Before this point, English was recorded as a single subject, covering English language, English literature, and English language and literature.
A-level	French	In summer 2017 the exams regulator, Ofqual, agreed with exam boards an adjustment to the grade A statistical predictions that are used to guide the setting of grade boundaries in A level French, German and Spanish. This was done to take account of native speakers in these languages, following a piece of research by Ofqual. More information can be found at https://www.gov.uk/government/news/setting-grade-standards-in-a-level-modern-foreign-languages
A-level	German	In summer 2017 the exams regulator, Ofqual, agreed with exam boards an adjustment to the grade A statistical predictions that are used to guide the setting of grade boundaries in A level French, German and Spanish. This was done to take account of native speakers in these languages, following a piece of research by Ofqual. More information can be found at https://www.gov.uk/government/news/setting-grade-standards-in-a-level-modern-foreign-languages
A-Level	Maths	Reformed A-Levels were first awarded in 2018, a year earlier than would normally be expected for a qualifications first made available in September 2017. Ofqual expected that there would be a small number of very able students entering the qualification after just one year of teaching. More information can be found at https://ofqual.blog.gov.uk/2018/03/16/setting-standards-in-the-new-a-level-maths-qualifications/
A-Level	Physics	Since 2017, A-Level grades have been determined solely by performance in examinations. A student's practical skills are also assessed by teachers, resulting in a "practical endorsement" (pass/fail) which is reported alongside, but does not contribute to, their A-Level grade.

A-level	Spanish	In summer 2017 the exams regulator, Ofqual, agreed with exam boards an adjustment to the grade A statistical predictions that are used to guide the setting of grade boundaries in A level French, German and Spanish. This was done to take account of native speakers in these languages, following a piece of research by Ofqual. More information can be found at https://www.gov.uk/government/news/setting-grade-standards-in-a-level-modern-foreign-languages
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Wales

GCSE	English	<p>Entries have fallen in summer 2018 as the cohort of Year 11 (age 16) pupils have had the opportunity to take the reformed qualification in 2017 (in Year 10) or in the winter of Year 11. The previous cohort could only enter in the summer of Year 11.</p> <p>Entries among those aged 17 and above also increased in 2018 as a result of the introduction of the reformed linear GCSE. All units must be taken within the same examination series, which appears to have resulted in students waiting until the summer to take the exam rather than resitting in November.</p>
GCSE	Maths	<p>Entries have fallen in summer 2018 as the cohort of Year 11 (age 16) pupils have had the opportunity to take the reformed qualification in 2017 (in Year 10) or in the winter of Year 11. The previous cohort could only enter in the summer of Year 11.</p> <p>Entries among those aged 17 and above also increased in 2018 as a result of the introduction of the reformed linear GCSE. All units must be taken within the same examination series, which appears to have resulted in students waiting until the summer to take the exam rather than resitting in November.</p>
GCSE	Maths: numeracy	Mathematics: numeracy was a new qualification available in Wales in 2017. Data is therefore not available for earlier years. As a new subject in 2017, this subject would not have been available to Year 10 students the previous year. This is believed to have had the effect of inflating the number of Year 11 entries in 2017, with entries in 2018 expected to be lower.
GCSE	Welsh	<p>Comparable data is not available before 2017. Before this point, Welsh was recorded as a single subject, covering Welsh: first language and Welsh: second language.</p> <p>Entries have fallen in summer 2018 as the cohort of Year 11 (age 16) pupils have had the opportunity to take the reformed qualification in 2017 (in Year 10) or in the winter of Year 11. The previous cohort could only enter in the summer of Year 11.</p>

Northern Ireland

A-Level	Mathematics	A-Levels in reformed maths will be awarded for the first time in 2020.
A-Level	Professional business services	A-Levels in reformed professional business services will be awarded for the first time in 2019.