# 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, summarised below, affect comparisons between the three nations and comparisons over time within each nation.

#### The data

The data for the microsite is sourced from the Joint Council for Qualifications (JCQ), a membership organisation for the eight largest awarding organisations in the UK.

Each year, JCQ collates the aggregate results of A-Levels and GCSEs delivered by its members and publishes them on its website. UK-wide results are published for male and female students, and all students.

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	Υ	Υ	Υ	Υ
15 year olds and younger	Υ	N	N	N
16 year olds	Υ	N	N	N
17 year olds and older	Υ	N	N	N

#### Availability of GCSE statistics by nation and age

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

The published data is provisional. Results may subsequently change due to appeals and remarks. Comparisons to previous years are similarly based on provisional results.

Sources are given below:

Exam entries and grades awarded, JCQ

**GCSE** 

A-Level

Dates of reform

England, Ofqual

**GCSE** 

A-Level

Wales, Qualifications Wales

GCSE, A-Level

Northern Ireland, Council for the Curriculum, Examinations and Assessment

**GCSE** 

#### A-Level

Date of reform relates to the date when most students in a given home nation will be entered 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 live.

## 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.

The years in which subjects were reformed at A-level, AS-level and GCSE in each country are summarised in the following section. This information is also presented on the right of each page of the microsite.

## **Symbols**

## Facilitating subjects

Facilitating subjects are the A-Levels which the Russell Group of universities believe leave open a wide range of study options. These are

• Biology • Chemistry

• English literature • Geography

• History • Physics

Modern and classical languages
 Maths and further maths

Facilitating subjects are identified on A-level and AS-level pages by this symbol: [holding text].

## **Progress 8**

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, mathematics, 3 of the EBacc subjects (see below) and any 3 other subjects. It has led to an increase in take-up of EBacc subjects.

Some subjects carry greater weight in the calculation of Progress 8. They are indicated on GCSE pages by this symbol: [holding text].

#### **EBacc**

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, 2 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 subjects are indicated on GCSE pages by this symbol [holding text].

More detailed guidance about interpreting the data for particular subjects is included below. These notes are also displayed in the text to the right of the charts on the microsite.

#### Interpreting numbers of entries

Numbers of entries 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).

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

## 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 <u>infographic</u>.

## **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 here.

#### AS-Level and A-Level

Reformed A-Levels began to be introduced from September 2015. These are linear rather than modular in structure, and which generally have fewer papers and less coursework. AS- and A-Levels have also been decoupled in England, 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, 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 <u>here</u>.

## 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 <a href="this report">this report</a> for an explanation]. A similar process is adopted for A-Level subjects based on the Key Stage 4 attainment of 18 year olds.

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.

#### 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.

#### 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.

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.

## 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 <a href="here">here</a>.

# Notes on individual subjects

## **England**

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.
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.
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.
Combined Science	Reformed GCSEs in combined science replaced core and additional science (including further additional science) 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.
Computer Science	In 2018, students' grades are based entirely on performance in examinations following concerns over security arrangements for proposed assessment tasks. More info.
Design technology	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.
English	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 info.  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.  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.
	Classical Subjects  Combined Science  Computer Science  Design technology

GCSE	English	In 2017 IGCSE English literature became no longer eligible for School
	literature	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).
		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.
		More info.
GCSE	Food and hygiene	Food and hygiene is a new qualification first available in 2018. Data is therefore not available for earlier years.
GCSE	French	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	German	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	Mathematics	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.
		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 language must continue to study maths post-16.
GCSE	Physics	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	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.
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.
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.
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 info
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.

# Wales

GCSE	English	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.
		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.
GCSE	Maths	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.
		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.
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	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.  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.

## **Northern Ireland**

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