

A-LEVELS 2012

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Executive Summary

The 2012 A-level results are analysed under the four headings: Trends, Gender, Subjects and Countries.

Trends

The 2012 A-level results saw the largest fall ever in the percentage of A*/A grades awarded. Whereas in almost every year for the past thirty years they have risen, increasing from 8.9% in 1982 to 27% in 2011, in 2012 they fell by 0.4%. This will have been due in part to a policy decision of the new independent watchdog, Ofqual, established in 2010. It took the view that the time course for A-level results showed there had been grade inflation and it concluded that there should be a comparable pattern of results from year to year, unless there was a good reason. The awarding bodies were advised accordingly.

It remains to be seen to what extent chance fluctuation played a part in the 2012 results. If standards are maintained results could be expected to go up and down. Ofqual is currently consulting on major changes to A-levels and it is likely that if implemented there will have to be major grade recalibration.

Gender

With A-levels becoming modular in Curriculum 2000, first examined in 2002, girls who had lagged in the percentage awarded A grades, opened up a big lead at that level. In 2004 it reached 2.7 percentage points. That has fallen back somewhat, but in 2012 it was still 1.4 percentage points in favour of girls. Girls also moved a long way ahead in terms of A*-C, the lead reaching 6.9% in 2003. It still hovers around 5%.

This is the third year of A* and here, interestingly, boys are marginally ahead, at 8.0% against 7.9%. This is in line with the finding that in psychological tests generally the results of males are spread out with more at the top and the bottom, whereas those of females bunch more around the mean.

The extent and direction of the difference varied with subject. A-levels are freely chosen and there is often a large gender difference. Often the minority gender achieves the higher percentage of A*. Taking a subject less usual for your gender is likely to mean having to be surer of your abilities in it. Girls in physics is an example. In some subjects the gender in the majority did best – boys in maths and chemistry, and girls in biology, psychology, history and media studies – so there could be some intrinsic advantage.

Subjects

There have been major changes in subject entries in the past decade. The big winners have been religious studies, media/film/TV, psychology, and political studies; and the big losers have been French, German, computing, geography, business studies and general studies. In 2012, there has been some swing back to traditional subjects. Maths, further maths, physics, chemistry and biology all made gains. The drift away from the languages continued, but geography made some recovery.

Some of the sexy new subjects like media studies have taken a hit. Having briefly overtaken physics it has now fallen behind once more. Whilst welcome, the recent recovery in physics still leaves it a long way short of where it was thirty years ago. Changing choices probably reflect both the government's use of performance indicators, and the leading universities emphasising that not all A-levels in their eyes count the same.

Countries

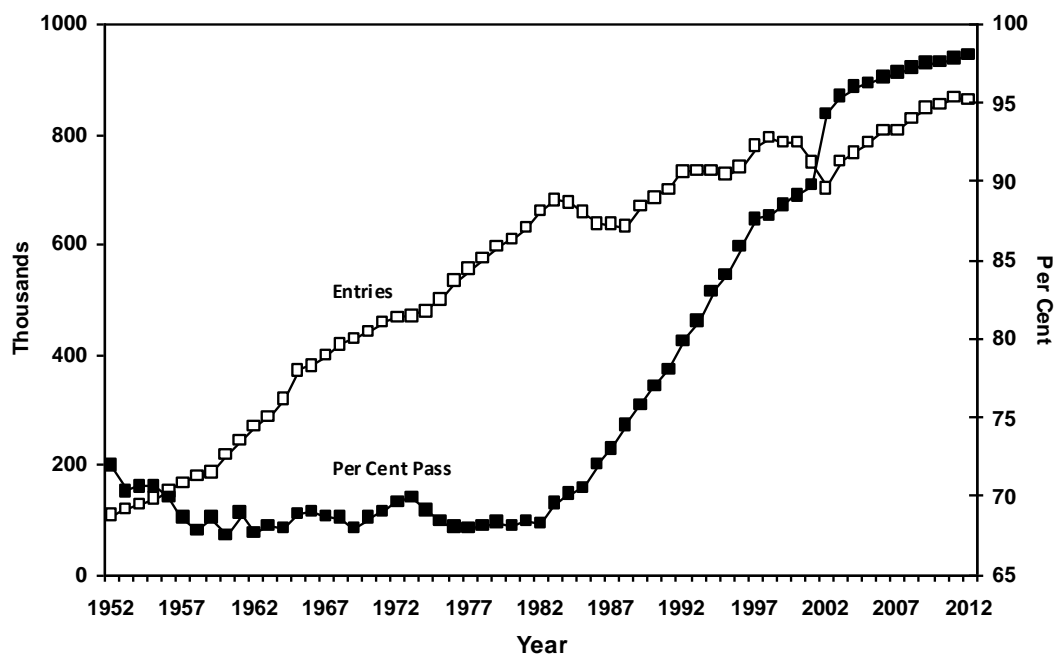
A-level performance is very different in the different parts of the UK. Pupils in Northern Ireland have consistently done much better than those in England and Wales. This may not be unconnected with the grammar school system which has operated there, but such is the emotional charge attached to selection in education that it is rarely discussed in these terms. A*/A grades for both boys and girls in Northern Ireland have fallen this year and this may be associated with changes in the educational system.

Wales has fallen back relative to England in the past decade. In 2002 it was ahead, but it is now nearly three percentage points behind. It has been suggested that the absence of nationally reported school tests in Wales means that its pupils have become less well practised in the art of test taking. The gender gap in Northern Ireland has widened over the past decade, and it is the girls who are mainly responsible for it overall lead.

1. Trends

- 1.1. 2012 was the year when Ofqual’s policy of ‘comparable outcomes’¹ really began to bite. Up until 2010 it had been possible to predict the year-on-year rises in grades by taking the average increase of the previous five years. Indeed, I became something of a guru, frequently contacted by journalists for their pre-A-level stories, by doing just that. I was uncannily accurate most of the time so there seems to have been some underlying mechanism to the regular growth. But I was caught out in 2011, when not having noticed Ofqual’s decision to intervene, I cheerfully forecast the usual increases. Instead, there was little change from 2010. That approach has been underlined in 2012 with the percentage achieving at least a B held at 52.6% and falls at A and A*. When contacted by the press for their pre-release pieces in 2012, I duly alerted them to ‘comparable outcomes’ and said little change could be expected, but this did not seem to be much of a story. (This was before the impact of ‘comparable outcomes’ on GCSE results broke.)

Chart 1.1: Trends in A-Level Entries and Passes (A-E)



Entries and Passes

- 1.2. Chart 1.1 shows that examination entries have increased more than eightfold since 1952, rising from 107,676 to 861,819 in 2012.² For the first thirty years the pass rate was set at 70%, but since 1982, when the examination became standards-based, the pass rate has risen from 68.2% in 1982 to 98% in 2012.

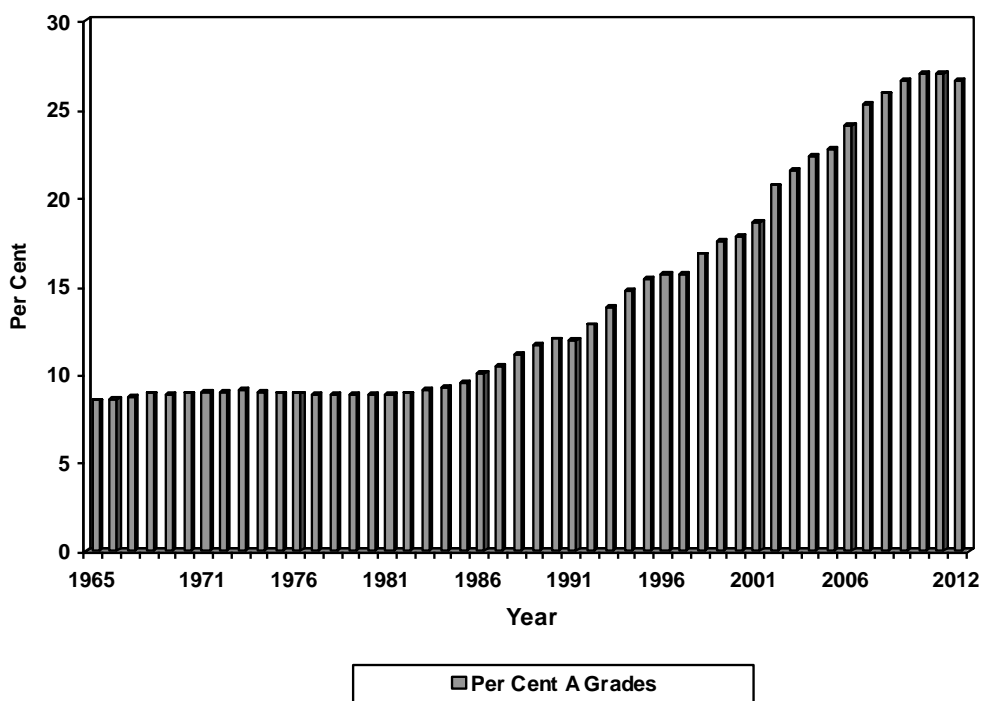
¹ Office of Qualifications and Examinations Regulation (Ofqual) Annual Report to parliament 2010/11, page 27: ‘Following discussion with the awarding organisations, we decided to prioritise “comparable outcome”, by which we mean that, all other things being equal, the achievements of candidates at subject level on the new specifications should be similar to those of candidates on the previous specifications’.

² The first year of A-levels was 1951 when the entry was 103,803, but this has been omitted from the graph for the convenience of labelling the axis – there is no suitable unit which divides the sixty-six years between 1951 and 2012

A Grades

- 1.3. Nearly everyone who sits A-levels now passes. But passing is not enough. Originally pass/fail with the possibility of a distinction, in 1965 five levels of pass were introduced, grades A to E. The maximum proportion of A grades to be awarded was initially set at 10%. But again with fixed percentages (norm-referencing) superseded by flexible standards-based assessment (criterion referencing) the A-grade pass rate took off. Chart 1.2 shows that in 1982 it was 8.9% and by 2011 it had reached 27.0%. But, in 2012, with Ofqual's active regulation, it fell back slightly to 26.6%.

Chart 1.2: Trend in A/A* Grades



Starred A

- 1.4. Nevertheless, the explosion in A grades awarded has meant that they are no longer as useful to the leading universities as they once were in distinguishing between applicants. Something above an A grade was needed, and in 2010 an A* grade was introduced. Chart 1.3 shows that the proportion awarded in the three years of its existence is close to 8%.

Chart 1.3: Trend in A*

Year	% A*	%A*/A
2010	8.1	27.0
2011	8.2	27.0
2012	7.9	26.6

- 1.5. Eight per cent is, of course, close to where the A grade itself was in 1982, so A* has, in effect, become the new A.

Comment

- 1.6. The trends in the proportions of passes at the various grades shows that examinations are not measuring devices in the sense that rulers, clocks and thermometers are. The outcomes can be adjusted, deliberately or unconsciously, to serve societal needs.
- 1.7. A-levels were introduced in 1951 as single subject examinations to overcome the limitations of the Higher School Certificate, a combined qualification, not unlike the diplomas that have been tried recently, where a slip-up on just one part could lead to failure overall. They derive directly from university entrance examinations. Universities gradually gave up their own examinations to rely on A-levels. But, as A-levels became less good at telling applicants apart, universities have been re-introducing their own tests.
- 1.8. In the early years A-levels served as the narrow gateway to 24 universities. Now there are over one hundred more. Initially, therefore, A-levels had to be highly selective. The pupils who took them were mainly at grammar and independent schools. They were those who had shown real promise at O-level so that a built-in failure rate of 30 per cent was hard to defend. But it played its part in rationing applications to universities. There were no mandatory grants, but scholarships were awarded on the basis of special papers which not all candidates took.
- 1.9. With the great increase in the number of universities, A-levels had to change to provide for the expansion. They also had to cater for a much more differentiated system. A university was no longer a university was no longer a university. There were those where places were much sought after and were, therefore, highly selective; and there were those that struggled to fill their places and had to intensively market themselves.
- 1.10. Somehow the national exam system for 18-year-olds had to accommodate the full range. It did so at first through five levels of pass, with an increasing proportion of the rising number of candidates getting at least an E. It is very doubtful if a bare pass today is in any way comparable with a pass in the early years when A-level was a pass/fail exam. Even this adaption of A-levels was not enough to qualify sufficient numbers to fill all the universities, and alongside A-levels, vocational qualifications became accepted for entry and access arrangements were invented.
- 1.11. But, as we have seen, the proportion of top grades awarded also greatly increased, so something else was needed. An Advanced Extension Award – essentially a re-run of the old A-level scholarship papers – was first tried, but it was not used by most universities and few candidates took the papers. The five levels of pass at A-level have now become six with the addition of A*.
- 1.12. Now that the university system has gone through its major growth phase there is no longer a need for more and more to be passing A-levels, and the increased numbers passing at higher levels detract from the usefulness of the examination. So the way is open for Ofqual to tighten up standards.

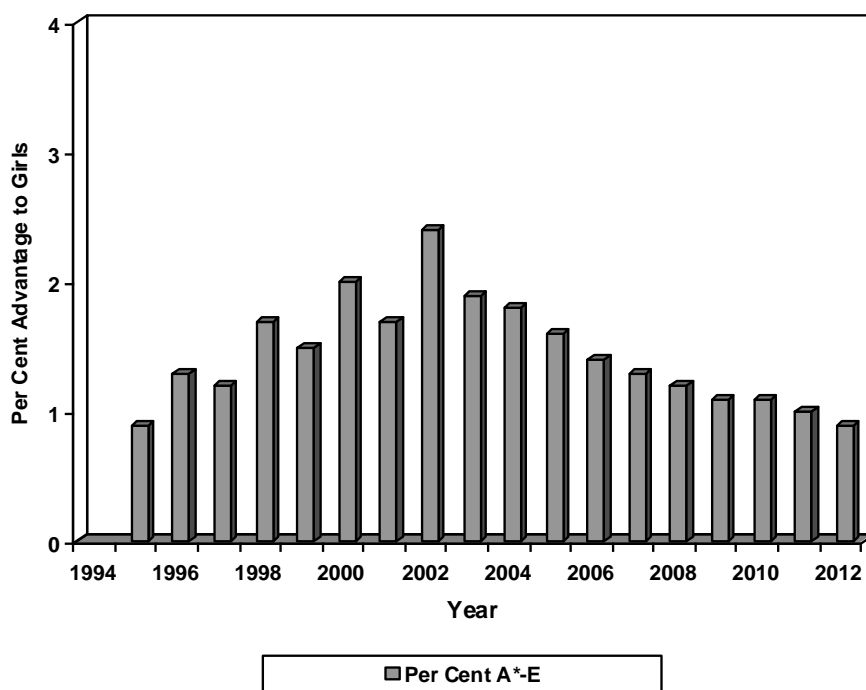
2. Gender

2.1. In recent decades girls have progressively overtaken boys both in A-level entries and the grades obtained. Apart from the overall pass rate which is close to one hundred per cent leaving little headroom for differences to show, the gap between girls and boys narrows the higher the pass level considered. This is consistent with the observation that in psychological tests generally, boys' scores tend to be spread out with more at the top and the bottom, and the girls' scores to be bunched more around the mean (which may be higher than that for boys). Alice Heim, a Cambridge psychologist, drew down the opprobrium of her gender on herself by describing this phenomenon, tongue in cheek, as 'the mediocrity of women'.

Difference at A*-E

2.2. In terms of passes overall, the girls were 0.9 percentage points ahead in 1995 and this was also the case in 2012. Chart 2.1 shows that, in between, the gap had risen to 2.4 percentage points in 2002, the first year of all-modular A-levels. The performance of both boys and girls leapt that year, by 4.5 percentage points in total, but with girls doing even better. Since 2002 the gap has fallen back to 0.9 percentage points as the girls have got very close to the ceiling of a 100% pass rate.

Chart 2.1: Per Cent Advantage to Girls in Passes A-E

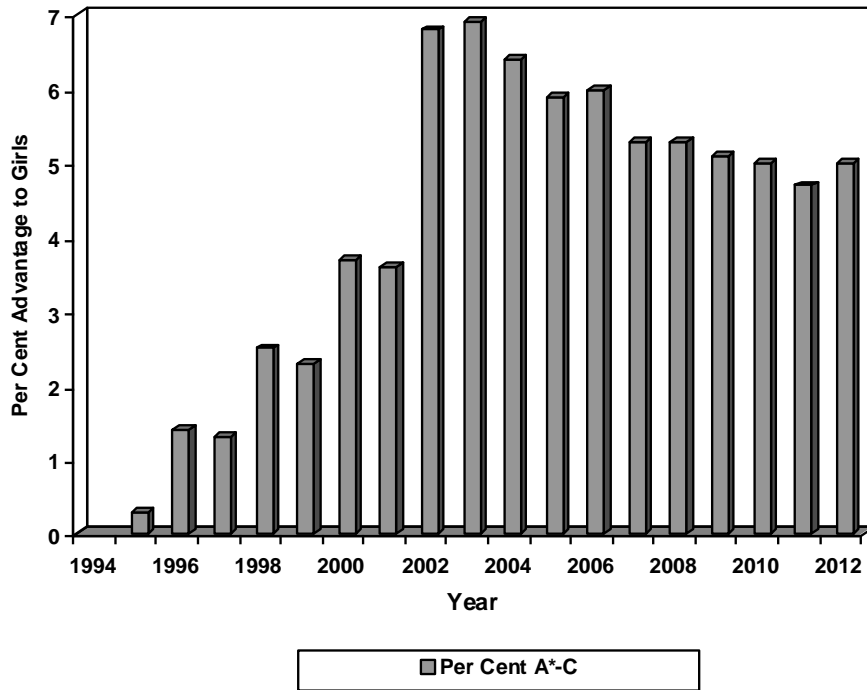


Difference at A*-C

2.3. The apparent advantage to girls in modular A-levels clearly emerges in Chart 2.2. The difference between girls and boys in terms of A*-C grades shoots up from 3.6 percentage points in 2001 to 6.8 percentage points in 2002, the first year of all modular A-levels. That gap has since narrowed somewhat, but in 2010, with the number of modules having been cut in most subjects from six to four, it was still 5 percentage points. That gap has continued into 2012. The accepted explanation for the greater success of girls in modular examinations is that they typically apply

themselves more consistently and conscientiously to the continual assessment which it involves, whereas boys seem more prepared to gear themselves up for crucial end-of-course examinations.

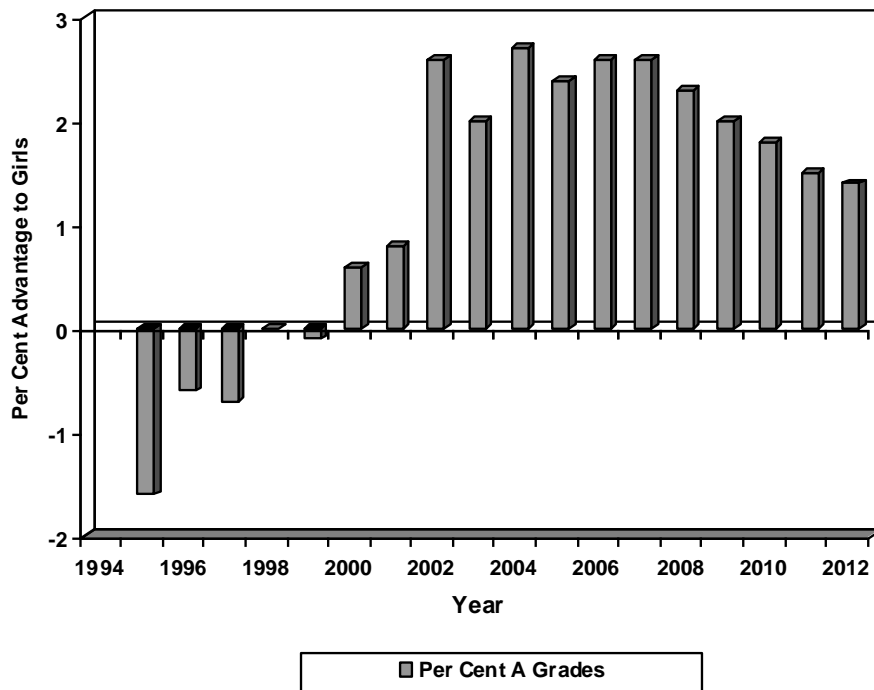
Chart 2.2: Per Cent Advantage to Girls A*-C



Difference at A/A* Grade

2.4. Passes at A/A*, illustrate the turnaround in girls' performance even better.

Chart 2.3: Per Cent Advantage to Girls at A/A*



2.5. Chart 2.3 shows that boys were 1.6 percentage points ahead in 1995 and continued to be ahead until 1998 when parity was reached. Since then girls have come to the fore with a leap from a lead of 0.8 percentage points in 2001 to 2.6 percentage points in 2002 with the wholly modular structure. The advantage to girls has continued through to 2012, but with the gap now back down to 1.4 percentage points. We are unable to say whether this is due to the reduction in the number of modules and other changes in the assessment structure or to other factors.

Difference at A*

2.6. But hard work can only take you so far in examinations and at the highest level sheer ability becomes the major determinant. A* was awarded for the third time in 2012. Chart 2.4 shows that here there is little difference in the performance of boys and girls. In the first year the girls were just ahead, then in 2011 boys and girls were equal, and now in 2012 the boys are just ahead.

Chart 2.4: % Advantage at A*

Year	Boys	Girls	Advantage to Girls
2010	7.9	8.3	+0.4
2011	8.2	8.2	0.0
2012	8.0	7.9	-0.1

Aggregate Figures

2.7. The overall trends and the gender gap are, of course, aggregate figures. The grades awarded and differences between the genders vary with the subjects, and subject entries vary between the genders and over time. It is to the differences between subjects that we now turn.

3. Subject Entries

3.1. A-levels differ considerably in their popularity and how this changes over time. Chart 3.1 shows the entries for 2012. They range from 89,638 in English to 859 in Welsh and 304 in Irish.

Chart 3.1: Subject Entries 2012

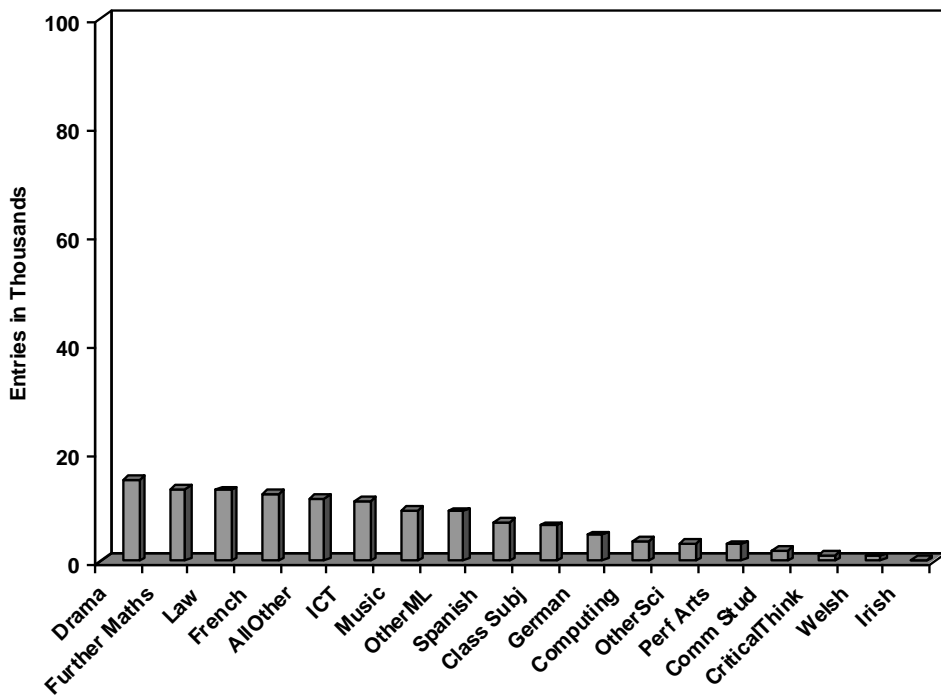
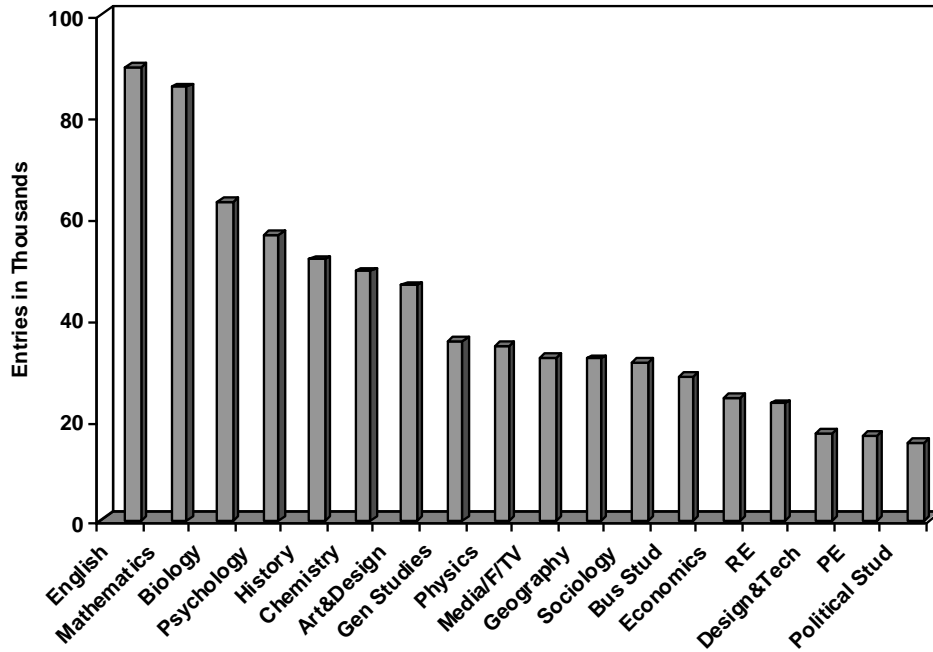
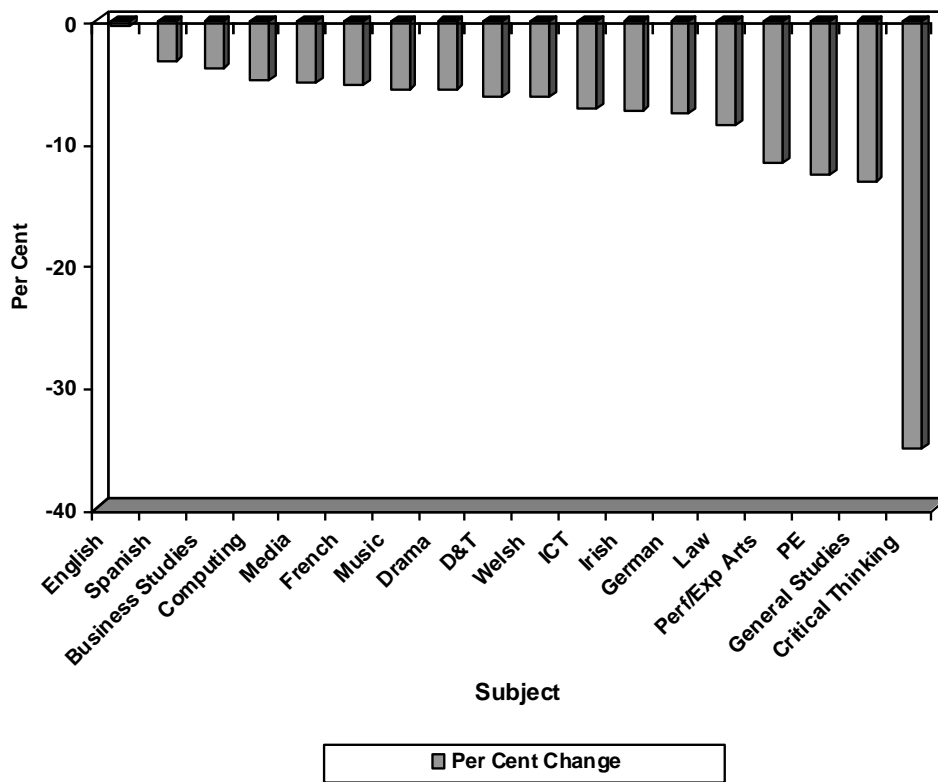
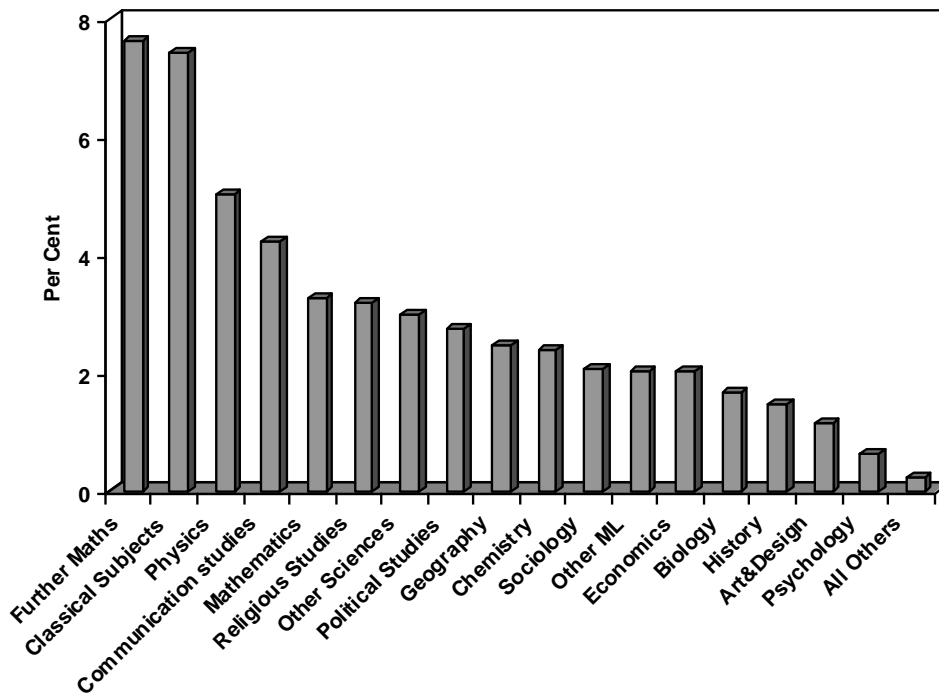


Chart 3.2: Change in Subject Entries 2011-2012



3.2. English and maths, by some margin, have most entries. In addition, nearly all of the other subjects identified as core³ by the present government are amongst those with the highest intakes. Biology, history, chemistry, physics and geography, along with

³ Included in the Ebacc GCSE performance indicator.

English and maths are all in the first eleven. Psychology, art & design, general studies and media/film/TV are there too. But all the languages are well down the list, as is computing, which has been added to eligible Ebacc subjects.

- 3.3. Chart 3.2 shows the change in entries in the past year. Further maths, physics and maths showed the greatest gains, along with classical subjects which are also included in the Ebacc. But there were continuing falls in the traditional modern languages, and ICT and computing. Only ‘other modern languages’ which can be the native language of immigrants increased. If, as the government hopes, the EBacc gives a nudge to pupils via schools to study core subjects at GCSE, some impact on patterns of A-level choice could be expected, and it will be interesting to see if the trends in languages and computing can be reversed.
- 3.4. The biggest faller was ‘critical thinking’, which increasingly looks like a good idea that has not taken off. The decline of ‘general studies’ has also continued. It was invented as an opportunity to add breadth to the typical three specialist A-levels, but it is no longer needed now there is the opportunity to pursue breadth through half-A-levels. It is also true that it does not count much for university entry and does not figure in many league tables.

Chart 3.3: Change in A-Level Entries in Selected Subjects

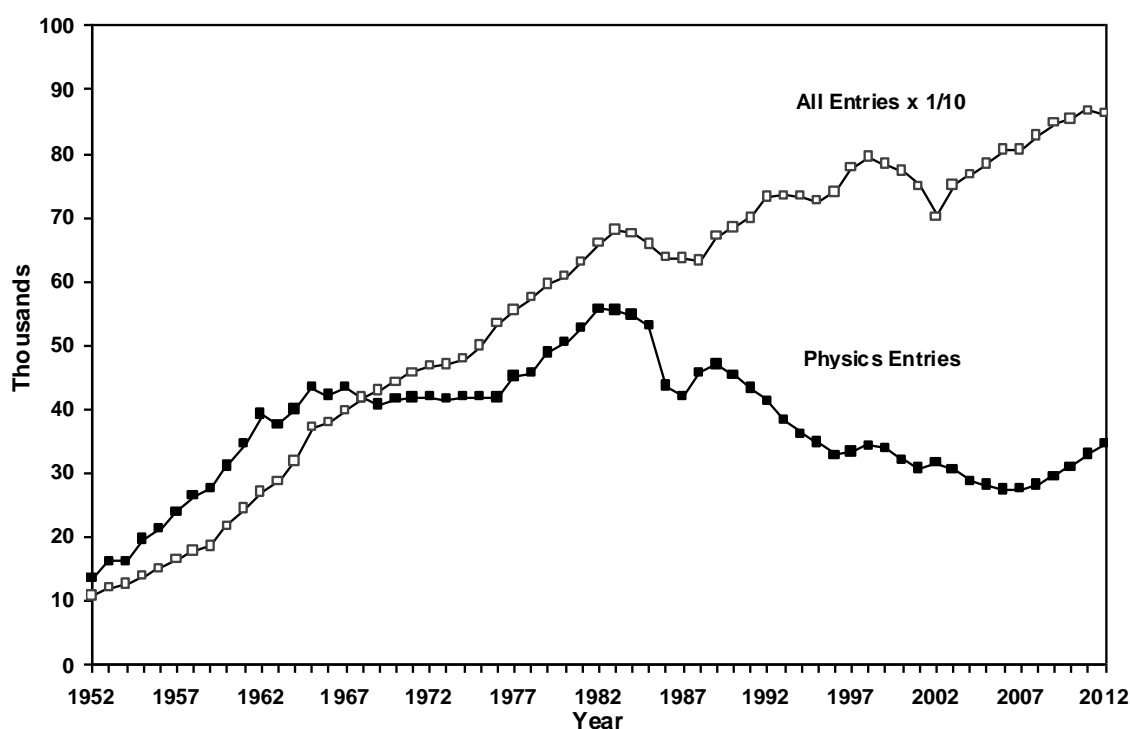
Subject	1992		2002		2012		%Change	
	N	%Total	N	%Total	N	%Total	1992-2012	2002 2012
English	86,779	12.0	72,196	10.3	89,638	10.4	3.3	24.2
Maths ¹	72,384	9.9	53,940	7.7	98,937	11.4	36.7	83.4
History	46,698	6.4	39,533	5.6	51,652	6.0	10.6	30.7
Geography	45,653	6.2	34,362	4.9	32,005	3.7	-29.9	-6.9
Biology	48,742	6.7	52,132	7.4	63,074	7.3	29.4	21.0
Chemistry	42,697	5.8	36,646	5.2	49,234	5.7	15.3	34.4
Physics	41,301	5.6	31,543	4.5	34,509	4.0	-16.4	9.4
French	31,261	4.3	15,614	2.2	12,511	1.5	-60.0	-19.9
German	11,388	1.6	7,013	1.0	4,773	0.6	-58.1	-31.9
Spanish	4,720	0.6	5,572	0.8	7,351	0.9	55.7	31.9
General Studies	53,724	7.3	58,155	8.3	35,558	4.1	-33.8	-38.9
Media/Film/TV	-	-	20,172	2.9	31,111	3.7	-	54.2
Psychology	-	-	34,611	4.9	56,486	6.6	-	63.2
Sport/PE	-	-	17,140	2.4	16,896	2.0	-	-1.4
All Subjects	731,240	100.0	701,380	100.0	861,819	100.0	17.9	22.9

1. Includes further maths

- 3.5. Chart 3.3 takes the long view of changes in A-level entries in selected subjects, showing those in 1992, 2002 and 2012. Over the 21 years the biggest percentage increase was in Spanish, followed by maths, biology, chemistry, and history. English, with by far the highest intake in 1992 accounting for 12% of the total entries, also went up. But some subjects suffered substantial falls. Entries to French and German declined by over half. General studies and geography were down by 30 per cent or more. Physics fell by 16.4%.

- 3.6. The share of all subjects, with the exception of biology, went down in 2002 compared with 1992 since in the intervening eleven years new subjects, like psychology, media/film/TV and sport/PE came on stream, and they proved very popular. In the eleven years 2002 to 2012, entries in psychology and media/film/TV grew by over 50 per cent. They were eclipsed only by maths with an increase of 83.4%. In both 1992 and 2002 maths and further maths were included in the same category in the published results and, in Chart 3.3, we have kept to that in 2012. This involves double counting, but Chart 3.2, where they are separate, shows that both were among the top five gainers from 2011 to 2012.
- 3.7. Along with maths, psychology and media/film/TV, there have been large percentage increases since 2002 in entries to chemistry, Spanish, history, and English. Entries to physics went up by almost ten per cent recovering somewhat from the earlier decline. That also seems to be happening in geography where the fall from 2002-2012 is only 6.9% compared with the 29.9% from 1992 to 2012. The other side of the coin is of continuing substantial falls in general studies, German, and French. Sport/PE also seems to be losing some of its appeal.

Chart 3.4: A-Level Physics Entries 1952-2012



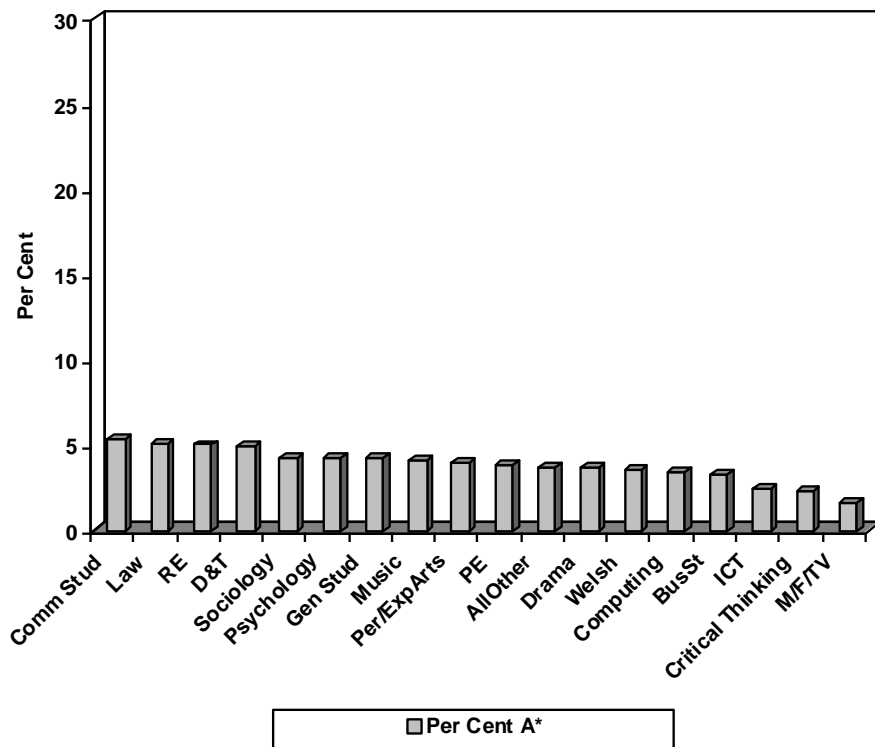
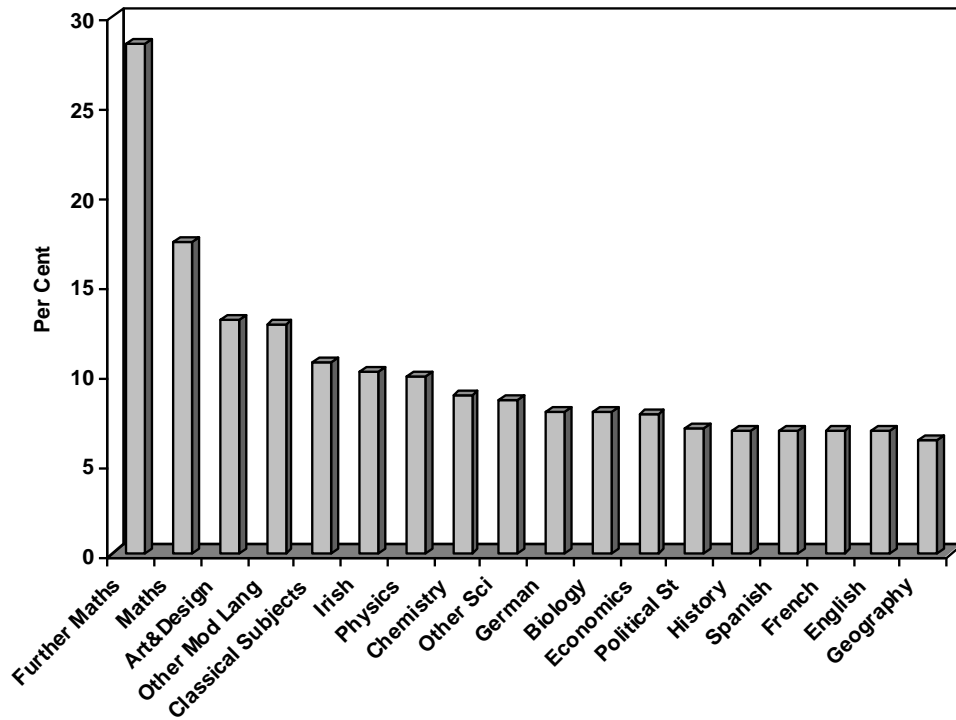
- 3.8. Chart 3.3, however, is based only three points in time, 1992, 2002 and 2012. A year-by-year time course may tell a different story. In physics, for example, the current narrative is of burgeoning physics, but tracing it back we can see there has been a substantial decrease. In 2012 there were 34,509 entries and whilst this is a welcome increase on the 28,119 of 2005, it is nowhere near the 55,728 of 1982.
- 3.9. Chart 3.4 compares physics entries with entries overall divided by ten. For fifteen years physics entries contributed more than 10% of all entries. Then after plateauing for ten years it grew again. It fell from 1982 when the number of 18-

years-olds began to decline by 30 per cent. There was a short-lived recovery, but the adoption of 'science', rather than the separate sciences, in the 1988 national curriculum, and the promotion of an associated double science GCSE, dealt A-level physics a savage blow. The various nudges to schools from the Brown government and the present government have seen the turning of the tide, but it is still a long way from where entries were in the 1980s.

4. Subject Grades

4.1. In Chapter 1 we saw that in the third year of A*, 7.9% of entries were awarded that grade, with a slightly higher proportion for boys than girls.

Chart 4.1: A* by Subject 2012



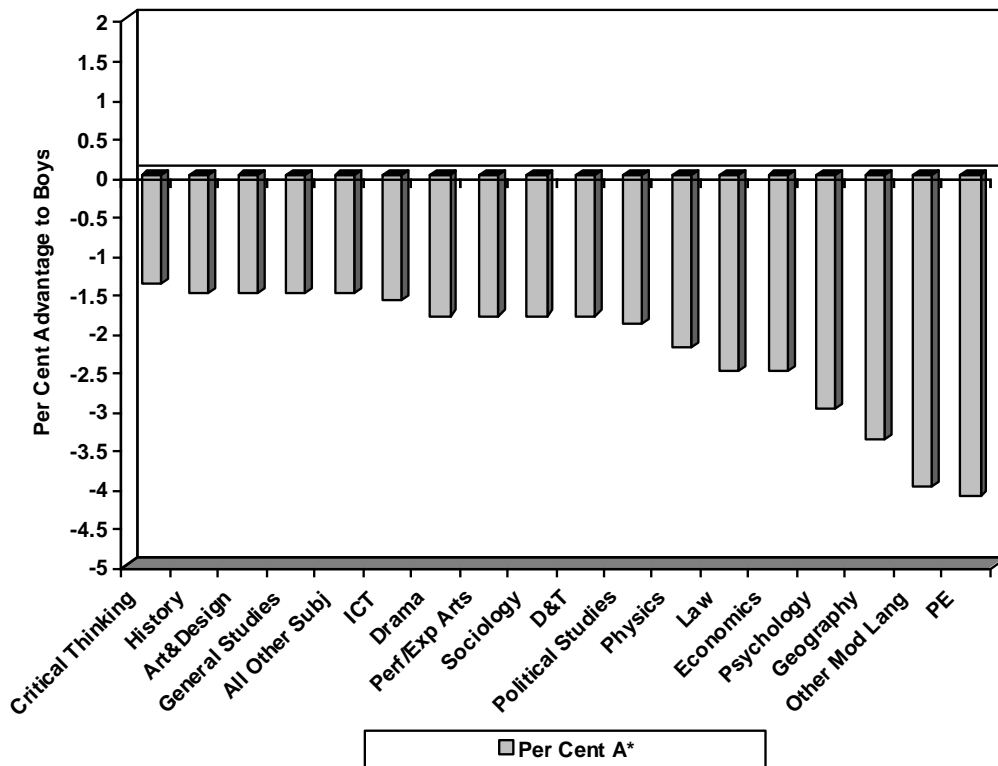
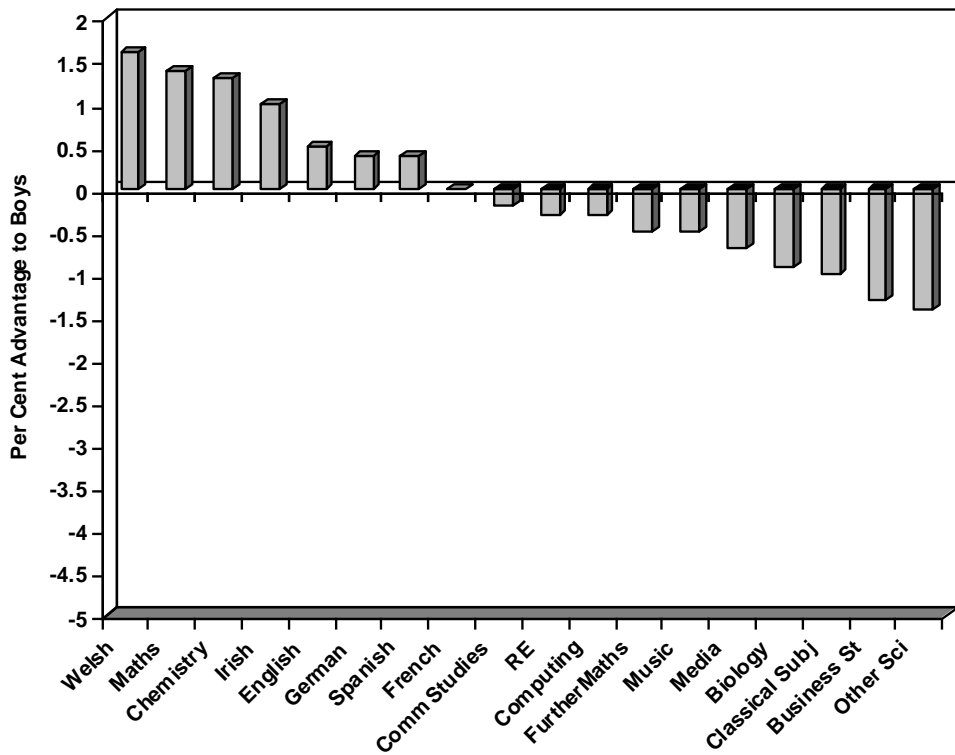
- 4.2. Both the overall figure and gender difference reflect the grades awarded in the individual subjects. Chart 4.1 shows that the subjects differ considerably in the proportions of A* awarded. The percentages range from 28.6 in further maths to 1.6 in media/film/TV. Maths, physics, chemistry, ‘other sciences’, and art & design, ‘other modern languages’, classical subjects and Irish were above average. German, biology and economics were on the average. But the newer subjects including psychology, sport/PE and critical thinking, in addition to media/film/TV, tended to be well down.
- 4.3. The genders are distributed unevenly across those subjects and Chart 4.2 begins to tease out the bearing of the different levels of performance on the overall gender difference.

Chart 4.2: A* by Subject and Gender

	All		Boys		Girls		Advantage Girls	
	Entries	%A*	Entries	%A*	Entries	%A*	Entries	%A*
English	89,638	6.8	25,800	7.1	63,838	6.6	38,038	-0.5
Maths	85,714	17.4	51,413	18.0	34,301	16.6	-17,112	-1.4
Further Maths	13,223	28.6	9,251	28.5	3,972	29.0	-5,279	0.5
History	51,652	6.9	25,161	6.2	26,491	7.7	1,330	1.5
Geography	32,005	6.3	16,784	4.7	15,221	8.1	-1,563	3.4
Biology	63,074	7.9	27,410	7.4	35,664	8.3	8,254	0.9
Chemistry	49,234	8.8	25,974	9.4	23,260	8.1	-2,714	-1.3
Physics	34,509	9.9	27,148	9.4	7,361	11.6	-19,787	2.2
French	12,511	6.8	3,918	6.8	8,593	6.8	4,675	0.0
German	4,773	7.9	1,959	8.1	2,814	7.7	855	-0.4
Spanish	7351	6.8	2,480	7.1	4,871	6.7	2,391	-0.4
Media/Film/TV	32,111	1.6	14,526	1.2	17,585	1.9	3,059	0.7
Psychology	56,486	4.2	15,178	2.0	41,308	5.0	26,130	3.0
Sport/PE	16,896	3.8	11,030	2.4	5,866	6.5	-5,164	4.1
All Subjects	861,819	7.9	395,914	8.0	465,905	7.9	69,991	-0.1

- 4.4. Broadly speaking there appear to be two patterns underlying the results shown in Chart 4.2. First, there are those subjects where the gender in the minority gets proportionally more A*. This is the case in physics, further maths, geography and PE where girls are in the minority and English, German and Spanish where boys are in the minority. This is understandable if those in the minority have to be especially sure of their abilities and interests before embarking on a subject which is unusual for their gender.
- 4.5. Secondly, there are the subjects where the gender in the majority also achieves more A*. This is the case for psychology, biology, history, and media/film/TV for girls and maths and chemistry for boys. This probably reflects differences in the abilities and interests between the genders.
- 4.6. The gender difference across all the subject categories ranked by advantage to boys is shown in Chart 4.3.

Chart 4.3: Gender Difference in A* by Subject



4.7. It emerges that the very slight advantage to boys overall at A* arises from their presence in subjects like further maths, maths, chemistry and physics where a high

proportion of A* are achieved and girls in subjects like English and psychology where relatively few A* are gained. Girls were, in fact, ahead in terms of A* in 28 out of the 36 subject categories and the genders were on par in French. Thus the boys' slightly better performance is down to just seven subjects, of which only two were large high scoring subjects – maths and chemistry.

5. Countries

- 5.1. The A-level results published in August are UK-wide results covering England, Wales and Northern Ireland. Although some Scottish students take A-levels, in the main, pupils in Scotland take Highers and Advanced Highers.

Change Year on Year

- 5.2. There are big differences in A-level performance in the different countries of the UK. Chart 5.1 shows that, in 2012, in A*/A grades awarded, pupils in Northern Ireland were 5.4 percentage points ahead of those in England and 8.3 percentage points ahead of those in Wales. However, that lead has narrowed since 2011, mainly due to Northern Ireland's performance falling back by 2.6 percentage points. England and Wales fell too, but in each case by only 0.3 percentage points.
- 5.3. Girls were well ahead of boys in all three countries in 2012 - by 5.1 points in Northern Ireland, 1.3 points in England and 1.2 points in Wales. Girls are, therefore, the major contributor to Northern Ireland's lead. But both boys and girls in Northern Ireland fell by over two percentage points from 2011 to 2012, against much smaller falls among girls in England and Wales, and boys in England. In Wales, boys even improved somewhat.

Chart 5.1: Per Cent A*/A Grades

Countries	2011			2012		
	Boys	Girls	All	Boys	Girls	All
Northern Ireland	31.5	36.9	34.5	29.1	34.2	31.9
Wales	22.7	24.8	23.9	22.9	24.1	23.6
England	26.2	27.4	26.8	25.8	27.1	26.5

Trends

- 5.4. Looking back a decade we can see, in Chart 5.2, that the countries have changed relative to each other over the past decade. In 2002, Northern Ireland was way in front. Interestingly, Wales was second 6.6 points behind, with England bringing up the rear, 8.1 points down on Northern Ireland.

Chart 5.2: Per Cent A*/A Grades

Countries	2002			2012		
	Boys	Girls	All	Boys	Girls	All
Northern Ireland	26.1	29.6	28.1	29.1	34.2	31.9
Wales	20.1	22.6	21.5	22.9	24.1	23.6
England	19.0	21.5	20.3	25.8	27.1	26.5

- 5.5. In all three jurisdictions A*/A grades rose over the decade, but England improved the most, up by 6.2 percentage points. Wales went up by only 2.1 points and so has been overtaken. Northern Ireland improved by 3.1 points to retain its lead.
- 5.6. Again, in 2002, there was a gender difference in favour of girls. Both boys and girls in England showed the biggest increases from 2002 to 2012, respectively 6.8 and 5.6 percentage points. In Northern Ireland the gains were, respectively, 3.0 and 4.6

points, taking girls further ahead. In Wales, as in England, it was the boys who made the greater improvement.

Comment

- 5.7. There is the potential for an interesting comparative study here. To what extent are the differences in performance and the changes relative to one another due to (i) the structure of the education system and (ii) the importance of accountability. Northern Ireland has until recently had grammar schools, and selection still exists, but only after some uncertainty⁴; Wales has a comprehensive system; and England a mixed economy. There are also few independent schools in Wales and Northern Ireland compared with England.⁵
- 5.8. In England, the behaviour of schools is strongly influenced by the accountability measures. Failure to meet floor standards can lead to the closure of a school and the dismissal of the head. Schools, therefore, train pupils in test taking. On the separation of its educational system from England, Wales has moved away from the use of test and exam results in school accountability. In Northern Ireland pupils are well versed in test taking because of the entrance tests to popular secondary schools.
- 5.9. It is not only in national examinations that England, Wales and Northern Ireland are performing differently. In the latest round of PISA⁶ held in 2009, Welsh 15-year-olds were well down on those in Northern Ireland and England in reading, maths and science. In aggregate, Wales scored 1,444 points against 1503 for England and 1,502 for Northern Ireland.⁷ Wales did so badly that the Welsh government has been encouraging its schools to provide training in PISA-type tests.⁸
- 5.10. In the IEA's⁹ recent TIMSS¹⁰ and PIRLS¹¹ studies. Northern Ireland was one of the top countries, performing significantly better in the tests for 10-year-olds in reading and maths than England, though not as well in science.

⁴ <http://www.elevenplusexams.co.uk/schools/regions/northern-ireland-11-plus/>.

⁵ http://www.isc.co.uk/Resources/Independent%20Schools%20Council/Research%20Archive/Bulletin%20Articles/2012/Bulletin29_ISC_Census_2012.pdf

⁶ Programme for International Student Assessment.

⁷ *PISA 2009 Results: What Students Know and Can Do*, Vol I. Tables S.1.c, Tables S.1.u and Tables S.1.x.

⁸ ⁸ <http://wales.gov.uk/topics/educationandskills/publications/guidance/pisaguide/?lang=en/>.

⁹ International Association for the Evaluation of Educational Achievement.

¹⁰ Trends in International Mathematics and Science Study.

¹¹ Progress in International Reading Literacy.