

GCSE 2011

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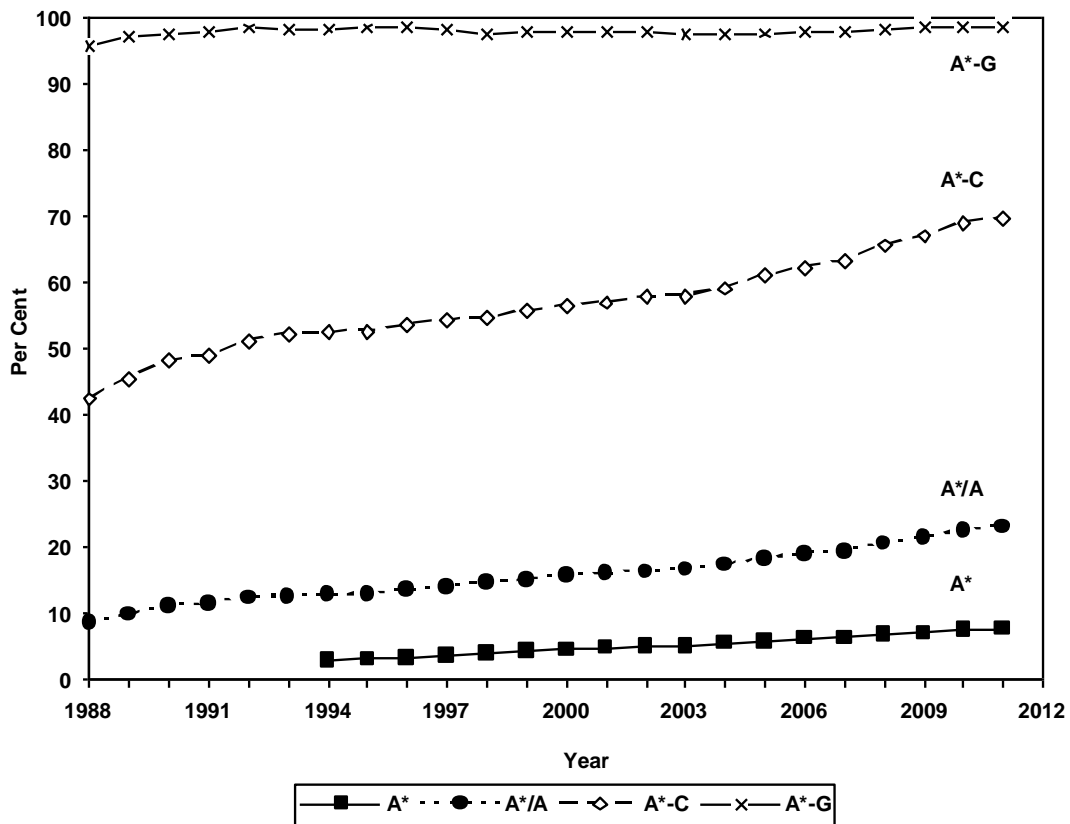
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1. Introduction

- 1.1 The GCSE was introduced in 1986 with the first examinations in 1988. It was developed from a combination of the General Certificate of Education Ordinary Level, which had been mainly for grammar school pupils, and the Certificate of Secondary Education where the top grade, but only the top grade, counted as an O-Level. In order to encompass the range of ability it was to serve, the GCSE was originally awarded at seven grades A to G. An eighth, the A*, was added in 1994.
- 1.2 Chart 1.1 shows there has been almost continuous grade improvement in the twenty-four years of its existence. A*-C is used as the main accountability measure. The pass rate at this level has increased by almost two-thirds from 42.5 per cent in 1988 to 69.8 per cent in 2011. A*/A grades have almost trebled from 8.6 per cent in 1988 to 23.2 per cent. When it was introduced in 1994, 2.9 per cent A* grades were awarded and that has now risen to 7.8 per cent. GCSE was devised as an examination that everyone could pass at an appropriate level. The A*-G pass rate reached 98.6 per cent in 1992 where give or take a few tenths of a percentage point it has remained.

Chart 1.1 Trends in GCSE Passes



- 1.3 The actual percentages on which Chart 1.1 is based are shown in Chart 1.2. The grades awarded in 2011 are in line with the pattern of recent years, in contrast to A-levels where it looked as though this year a halt had been called to rising pass rates.

On page 11, however, we do show there has been a substantial fall in the A*-C pass rate in Northern Ireland, and it has been static in Wales

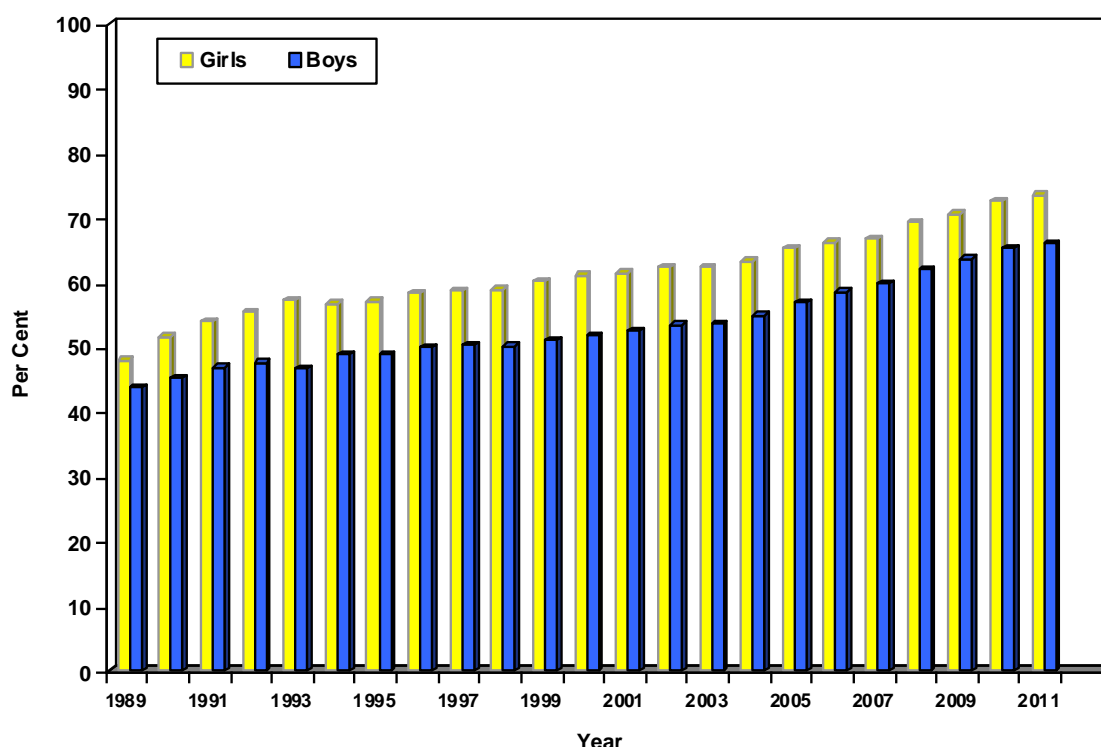
Chart 1.2 Data for Trends in GCSE Passes

Year	A*	A*/A	A*-C	A*-G	Entries (millions)
1988		8.6	42.5	95.8	
1989		9.9	45.6	97.2	
1990		11.1	48.3	97.5	
1991		11.6	49.0	97.9	
1992		12.5	51.3	98.6	5.18
1993		12.7	52.4	98.2	4.96
1994	2.9	12.9	52.6	98.5	5.16
1995	3.2	13.0	52.7	98.6	4.97
1996	3.4	13.6	53.7	98.7	5.08
1997	3.6	14.0	54.4	98.5	5.35
1998	4.1	14.7	54.7	97.7	5.41
1999	4.4	15.2	55.8	97.9	5.49
2000	4.6	15.8	56.6	97.9	5.48
2001	4.9	16.1	57.1	97.9	6.63
2002	5.0	16.4	57.9	97.9	5.66
2003	5.1	16.7	58.1	97.6	5.73
2004	5.6	17.4	59.2	97.6	5.87
2005	5.9	18.4	61.2	97.8	5.74
2006	6.3	19.1	62.4	98.1	5.75
2007	6.4	19.5	63.3	98.0	5.83
2008	6.8	20.7	65.7	98.4	5.67
2009	7.1	21.6	67.1	98.6	5.47
2010	7.5	22.6	69.1	98.7	5.37
2011	7.8	23.2	69.8	98.8	5.15

2. Gender

2.1 Girls did slightly better than boys overall in the final years of O-level, but with the coming of GCSE they opened up a gap in A*-C grades which has been seven percentage points or more since 1992 (apart from 2009 when it dipped to 6.9). Chart 2.1 illustrates the difference. It has been attributed to the modular structure and course work components of GCSE which have rewarded consistent application to school work, which is more often a characteristic of girls. Boys tend to show up better in end-of-course examinations.

Chart 2.1: Boys and Girls A*-C



2.2 In an attempt to retain the advantages of coursework while minimising the risks of outside help and excessive effort, controlled assessment has been brought in since 2009. This is intended to allow for practical work, projects and extended essays, but under standard conditions. 2011 is the first year in which the results on which this new approach will have a bearing on exam grades. But there are no obvious effects on the gender gap. This is probably because all GCSEs now have a modular structure which tends to reward hard work and persistence. The Government is proposing to move assessment to the end of courses and we shall have to wait for that to be implemented to see whether the conventional explanation of the gender gap has any substance.

2.3 Chart 2.2 shows that the wide gender gap at A*-C emerges also at other levels of achievement. The gaps at A* and A*/A are the widest ever, opening up from 0.7 and 2.6 percentage points in 1994 (the year A* was introduced) to 2.7 and 6.7 percentage points respectively in 2011.

Chart 2.2: Boys and Girls Performance at GCSE

Year	A*		A*/A		Boys	A*-C Girls	Diff
	Boys	Girls	Boys	Girls			
1989			9.1	10.6	43.7	48.0	4.3
1991			10.3	12.5	45.3	51.6	6.3
1992			10.8	13.8	46.9	53.9	7.0
1993			10.8	14.2	47.6	55.4	7.8
1994	2.5	3.2	11.2	14.8	48.8	56.7	7.9
1995	2.7	3.6	11.2	14.9	48.9	57.1	8.2
1996	2.9	3.9	11.7	15.8	49.9	58.3	8.4
1997	3.1	4.2	12.0	16.3	50.3	58.7	8.4
1998	3.4	4.9	12.3	16.9	50.2	58.9	8.7
1999	3.6	5.4	12.7	17.6	51.1	60.2	9.1
2000	3.7	5.6	13.1	18.4	51.9	61.1	9.2
2001	4.0	5.8	13.4	18.7	52.6	61.5	8.9
2002	4.1	5.9	13.7	19.0	53.4	62.4	9.0
2003	4.1	6.0	14.1	19.3	53.6	62.4	8.8
2004	4.6	6.5	14.7	20.0	54.9	63.3	8.4
2005	4.9	6.9	15.6	21.1	57.0	65.2	8.2
2006	5.3	7.3	16.4	21.8	58.5	66.2	7.7
2007	5.4	7.4	16.9	22.1	59.7	66.8	7.1
2008	5.7	7.5	17.9	23.5	62.1	69.3	7.2
2009	6.0	8.2	18.7	24.4	63.6	70.5	6.9
2010	6.3	8.6	19.6	25.5	65.4	72.6	7.2
2011	6.4	9.1	19.8	26.5	66.0	73.5	7.5

2.4 The gender gap in English shown in Chart 2.3 is startling. It has come down from 15.6 percentage points in 2000, but only to 13.8 percentage points. Poor English will affect all other subjects which depend on language fluency. Some difference between boys and girls is to be expected since psychological studies have found that, on average, girls tend to be born with greater verbal ability. On the other hand, boys are said to be born with greater numerical and spatial ability, but this does not show through, to any great extent, in the GCSE examinations. By GCSE a huge gap has opened up in English, but in maths boys are only marginally, and only recently, ahead. It looks as though the educational system has found ways of educating girls in maths, but not yet got to the bottom of giving all boys a grasp of our language. English and maths are at the heart of the main accountability measure for schools. Failure to meet the floor target of 35 per cent (soon to rise to 40 per cent then 50 per cent) with good GCSEs including English and maths could lead to a school being closed or taken over. Schools will be pulling out all the stops to get both boys and girls to the highest possible level, so why they seemingly cannot do it for boys remains a puzzle.

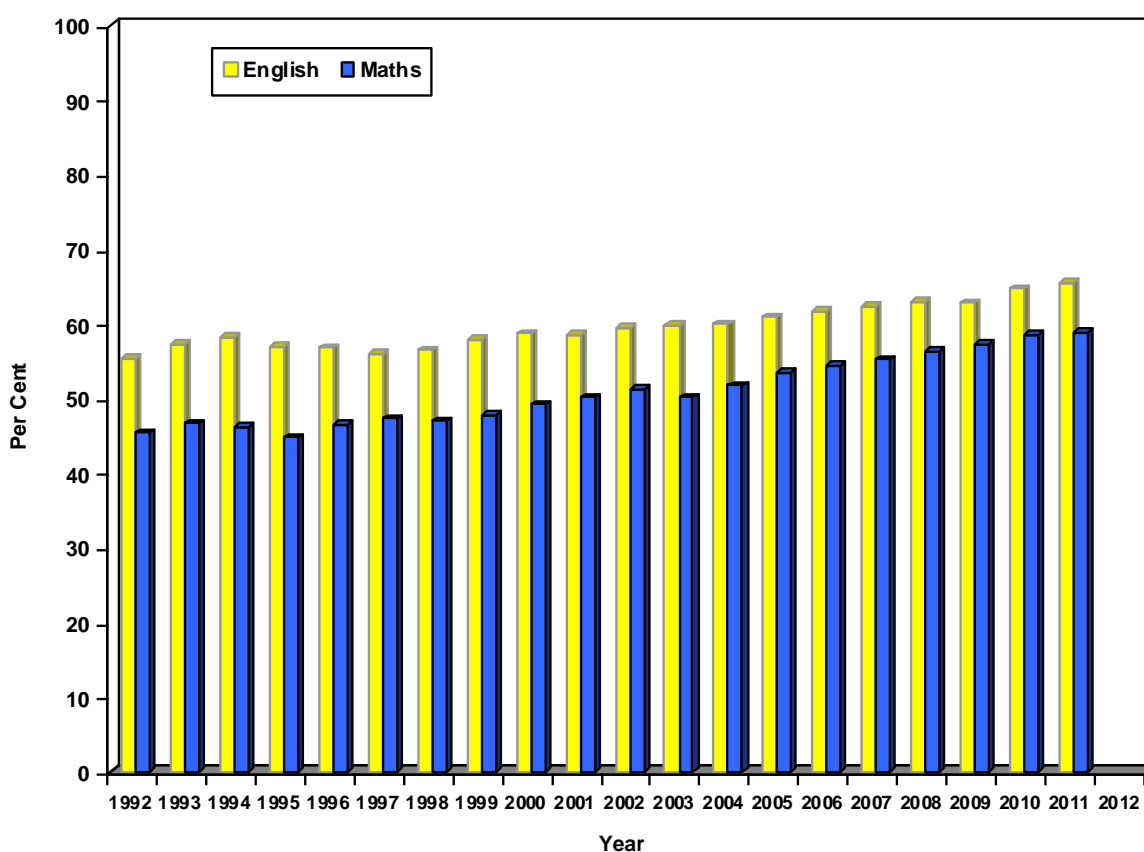
Chart 2.3: Boys and Girls A*-C in English and Maths

Year	English			Maths		
	Boys	Girls	Gap	Boys	Girls	Gap
2000	50.8	66.4	15.6	48.8	49.7	0.9
2001	50.8	66.2	15.4	49.7	50.6	0.9
2002	52.1	67.0	14.9	50.8	51.8	1.0
2003	52.2	67.4	15.2	49.4	51.1	1.7
2004	52.7	67.1	14.4	50.9	52.6	1.7
2005	53.9	67.9	14	52.5	54.4	1.9
2006	54.7	68.6	13.9	53.5	55.0	1.5
2007	55.3	69.2	13.9	54.6	55.8	1.2
2008	56.1	69.4	13.3	55.9	56.8	0.9
2009	56.2	69.3	13.1	57.6	56.8	-0.8
2010	57.9	71.8	13.9	58.6	58.3	-0.3
2011	58.7	72.5	13.8	58.9	58.6	-0.3

3. Subjects

3.1. Chart 3.1 shows that pass rates at A*-C in English and maths have both improved considerably, particularly those in maths. Since 1992 the pass rate for English is up by 9.2 percentage points and for maths by 13.4 percentage points. Nevertheless, the pass rates are below those for GCSE subjects overall. English and maths are the only two GCSEs taken by the whole cohort (even in the sciences there is a choice), and as such they are the best indicators of the performance of the system as a whole. Since 2006 they have been included in the main accountability measure for schools. Maths has tended to be something of a brake on school performance measured in this way, but A*-C grades have risen by 4.5 percentage points since its inclusion in the measure. In English the corresponding increase has been 2.9 percentage points.

Chart 3.1: English and Maths A*-C



3.2. The data on which Chart 3.1 is based are shown in Chart 3.2 together with the percentages passing at other levels. Interestingly, in spite of the big difference at A*-C where English in 2011 is ahead of maths by 5.7 percentage points, at A* it is maths which is in front. The highest grades are easier to award in convergent subjects like maths, compared with English where judgement comes more into play. In both subjects, however, the higher grades fall well below those for GCSEs overall. Again this reflects them being compulsory whereas other GCSEs are more or less freely chosen according to what the pupils like and are good at.

Chart 3. 2: English and Maths A*-C

Year	English			Maths		
	A*	A*/A	A*-C	A*	A*/A	A*-C
1992		9.6	55.3		9.0	45.4
1993		10.2	57.3		9.0	46.6
1994	1.8	10.5	58.2	1.9	8.9	46.2
1995	1.8	10.8	56.9	1.8	8.3	44.8
1996	2.0	11.0	56.8	2.0	9.0	46.5
1997	2.0	10.7	56.0	2.1	9.6	47.3
1998	2.4	11.5	56.5	2.1	9.9	46.9
1999	2.6	12.3	57.8	2.3	10.3	47.8
2000	2.9	13.2	58.6	2.8	10.7	49.2
2001	3.1	13.6	58.5	2.8	11.1	50.1
2002	2.8	13.5	59.5	3.6	11.9	51.3
2003	3.1	14.3	59.7	3.1	11.6	50.1
2004	3.6	14.7	59.9	4.2	11.8	51.7
2005	3.7	15.1	60.9	4.1	13.0	53.4
2006	3.9	15.2	61.6	4.2	13.2	54.3
2007	3.8	15.3	62.2	4.1	13.7	55.2
2008	4.0	15.5	62.9	4.6	14.5	56.3
2009	4.1	15.6	62.7	4.6	15.4	57.2
2010	4.3	16.0	64.7	5.0	16.2	58.4
2011	4.7	16.8	64.5	5.2	16.5	58.8

3.3. Chart 3.3 shows the changing pattern of GCSE studies from 2010-2011 and Chart 3.4 the changing pattern from 1992 and 2001 to the current year. This year the age cohort has fallen by 2.6 per cent, but GCSE entries are down 4.2 per cent on last year. Entries to most subjects have fallen.

The Sciences

3.4. This year provides further evidence of the revival of the separate sciences, up by over 200 per cent in the past decade (see Chart 3.4). Although striking there is no need to invoke any extraneous effects; entries are moving back in the direction of where they were before the national curriculum. When this came in, in 1988, 'science' was the subject that was made compulsory to age 16 and to reflect this a double award GCSE in science was devised. It was intended to replace the GCSEs in biology, chemistry and physics, a move supported by the great and good in the science world from The Royal Society downwards. It was resisted, however, by the independent schools which were not subject to the national curriculum and wished to continue to teach the separate sciences. Some leading grammar schools asked to be allowed to do the same and John McGregor, as Conservative Secretary of State, reluctantly agreed but only if pupils were entered for all three to preserve the notion of science in the national curriculum.

Chart 3.3: Change in Entries 2010-11

Subject	2010	2011	%Change 2010-2011
Art	188.2	183.2	-2.7
Business Studies	77.4	69.6	-10.1
Business & Communication Systems	31.1	18.6	-40.2
Classical Subjects	15.8	14.3	-9.5
Design and Technology	287.7	253.6	-11.9
Drama	87.3	80.9	-7.3
Economics	3.1	3.7	19.4
English	705.2	649.6	-7.9
English Lit	513.5	490.1	-4.6
French	177.6	154.2	-13.2
Geography	194.6	180.7	-7.1
German	70.2	60.9	-13.2
History	221.3	218.6	-1.2
Home Economics	39.0	38.0	-2.6
Humanities	15.5	17.3	11.6
ICT	61.0	47.1	-22.8
Irish	2.2	2.0	-9.1
Maths	762.8	772.9	1.3
Maths (additional)	17.2	13.3	-22.7
Media/Film/TV	67.8	67.4	-0.6
Music	51.3	48.1	-6.2
Performing and Expressive Arts	24.1	22.2	-7.9
PE	123.9	108.4	-12.5
Religious Studies	188.7	222.0	17.6
Biology	129.5	147.9	14.2
Chemistry	122.0	141.7	16.1
Physics	120.5	140.2	16.3
Science	449.7	406.0	-9.7
Additional Science	352.5	306.3	-13.1
Science Double Award	15.0		
Science Single Award	4.1		
Spanish	67.7	66.0	-2.5
Statistics	69.5	53.4	-23.2
Welsh First Lang	5.4	5.3	-1.9
Welsh Second Lang	10.3	10.0	-2.9
Welsh Lit	4.2	4.1	-2.4
Other Mod Languages	32.7	26.3	-19.6
Other Sciences	9.7	9.3	-4.1
Social Science Subjects	30.3	34.9	15.2
Other Technology	1.3	1.4	7.7
All Other Subjects	25.6	62.5	144.1
All subjects	5,378.2	5,152.0	-4.2

Chart 3.4: A Longer View of Subject Patterns

Subject	1992	2001	2011	%Change 1992-2011	%Change 2001-2011
Art	214.4	199.3	183.2	-14.6	-8.1
Business Studies	97.3	104.4	69.6	-28.5	-33.3
Business & Communication Systems			18.6		
Classical subjects	19.4	15.3	14.3	-26.3	-6.5
Design and Technology	149.4	437.0	253.6	69.7	-42.0
Drama	49.4	93.1	80.9	68.3	-13.1
Economics	19.8	5.3	3.7	-81.3	-30.2
English	641.9	666.8	649.6	1.2	-2.6
English Lit	450.3	538.4	490.1	8.8	-9.0
French	300.9	347.0	154.2	-48.8	-55.6
Geography	268.2	253.8	180.7	-32.6	-28.8
German	98.9	135.1	60.9	-38.4	-54.9
History	207.4	218.7	218.6	5.4	0.0
Home Economics	108.0	43.0	38.0	-64.8	-11.6
Humanities	46.0	21.2	17.3	-62.4	-18.4
ICT	49.1	111.9	47.1	-4.1	-57.9
Irish			2.0		
Maths	556.2	690.7	772.9	39.0	11.9
Maths (additional)			13.3		
Media/Film/TV			67.4		
Music	32.7	45.9	48.1	47.1	4.8
Performing and Expressive Arts			22.2		
PE	47.2	110.3	108.4	129.7	-1.7
Religious Studies	95.8	119.6	222.0	131.7	85.6
Biology	103.2	49.0	147.9	43.3	201.8
Chemistry	72.2	46.9	141.7	96.3	202.1
Physics	78.3	46.5	140.2	79.1	201.5
Science			406.0		
Additional Science			306.3		
Science Double Award	572.3	509.2			
Science Single Award		66.7			
Spanish	31.9	54.3	66.0	106.9	21.5
Statistics			53.4		
Welsh First Lang	11.0	4.4	5.3	-51.8	20.5
Welsh Second Lang		11.6	10.0		-13.8
Welsh Lit		3.5	4.1		17.1
Other Mod Languages		29.2	26.3		-9.9
Other Sciences		12.7	9.3		-26.8
Social Science Subjects	4.5	25.1	34.9		39.0
Other Technology		1.6	1.4		-12.5
All Other Subjects		106.5	62.5		-41.3
All subjects	5028.6	5632.9	5,152.0	2.5	-8.5

- 3.5. This had consequences for the study of the sciences at A-level. Physics in particular plummeted. Whereas the sciences in the past had been dominated by state school pupils, they now began to be populated by independent school pupils who had had the opportunity of studying the separate sciences at GCSE. It was Gordon Brown when he was at the Treasury who began the policy of promoting the revival of the separate sciences in state schools. It became a condition of a school being recognised as a science school for example.
- 3.6. GCSE physics entries, however, are still a long way short of what they were in 1989 before the pressure to switch to combined science. Even with the substantial increase in the past year entries in 2011 in physics are still 28.8 per cent below what they were in 1989 (196,900 down to 140,200). But there has undoubtedly been a big swing back. This is to the credit of Gordon Brown; it is more of a Brown effect than a Cox effect.

Geography, French and German

- 3.7. Charts 3.3 and 3.4 show that entries to geography, French and German have fallen continually over the past two decades. They are likely to be the main beneficiaries of the Government's new EBac performance measure in which they are included along with English, maths, science and some other subjects. This was announced mid way through the courses of the present GCSE candidates and there is little evidence of any impact so far.

D&T and ICT

- 3.8. Design and Technology, along with science, was part of the 1988 national curriculum compulsory to age 16 and a GCSE was provided to reflected this reorganisation of practical subjects. At first a full course was compulsory and D&T soared between 1992 and 2001, but with the lessening of the requirements it has fallen back sharply in the past decade. ICT also swelled for the same reason, but has declined as schools switched their pupils to vocational ICT awards which counted as the equivalent of four GCSEs.

Other Subjects

- 3.9. Entries to most subjects and fields went down in 2011 compared with 2010 due, at least in part, to the smaller age cohort. There were increases, however, in religious studies, social sciences and other subjects. Entries to religious studies have more than doubled in the past two decades. This may reflect a growing increase in spiritual matters in a multi-faith society, or perhaps it has been regarded as a relatively soft subject by schools on which to clock up league table points.
- 3.10. The growth in the social sciences and the coming on stream of other subjects like citizenship studies would appear to be at odds with the Government's wish to see more importance attached to traditional subjects. It will be interesting to see next year whether the EBac has the intended effect.
- 3.11. It is worth noting that economics which has been in freefall for two decades has shown some modest recovery in 2011. Its near disappearance at GCSE has been associated with the growth of business studies, but it now appears that this field is in retreat.

4. Countries of the UK

4.1 Chart 4.1 shows the trends in GCSE performance at A*-C in the different parts of the UK. Northern Ireland has been consistently well ahead that with the gap from England reducing in recent years. Wales was 2.3 percentage points ahead of England and second to Northern Ireland in 2002 but is now 3.3 percentage points behind England. A very similar pattern emerges in the A-level results. The pass rate in Northern Ireland has dropped sharply this year from the percentage shown last year (though this has been lowered by a percentage point in this year's presentation of the 2010 statistics from last year's which is shown in the chart).

Chart 4.1 Trends GCSE A*-C by Country

Year	England	Wales	NI	Total
2002	57.4	59.7	68.4	57.9
2003	57.6	59.7	69.0	58.1
2004	58.7	60.7	69.4	59.2
2005	60.8	61.3	71.0	61.2
2006	62.1	62.3	71.7	62.4
2007	63.0	63.0	72.4	63.3
2008	65.5	65.0	74.5	65.7
2009	66.9	65.5	75.1	67.1
2010	69.0	66.4	76.3	69.1
2011	69.8	66.5	74.8	69.8

4.2 We can only speculate on the reasons for the changes. Wales is notable for having abandoned external key stage tests and the publication of the results. It may be that Welsh children have become less practised at test taking than their English counterparts. Northern Ireland had a well established grammar school system and it is that that may have put it well ahead of both England and Wales. But more recently the 11+ plus has been abandoned to be replaced by some confusion and individual school assessments. It may be that the draining away of confidence in the school system in Northern Ireland has something to do with it falling pass rate and the narrowing of the gap from England.