

## II Trends in GCSE attainment gaps

Headline GCSE results have improved in each and every year since these exams were introduced in England in the late 1980s. This improvement shows no sign of slowing down. 2008 and 2009 saw the largest percentage point increases in the proportion of pupils achieving five or more grades A\*-C or equivalent. Given the importance of educational attainment at this age, there has been much focus on gaps in performance between different types of pupils which have clear implications on individuals' employment prospects and wider impacts on social and economic inequality.

In the past attention has been largely confined to the gap between girls and boys, but as more data has become more available it has been extended to include ethnicity, poverty, deprivation, Special Education Needs (SEN) and combinations of these categories. This article asks: Have national trends have been driven by similar improvements across all pupil types? Are performance gaps narrowing? Are some groups being left further behind? What are the implications of this?

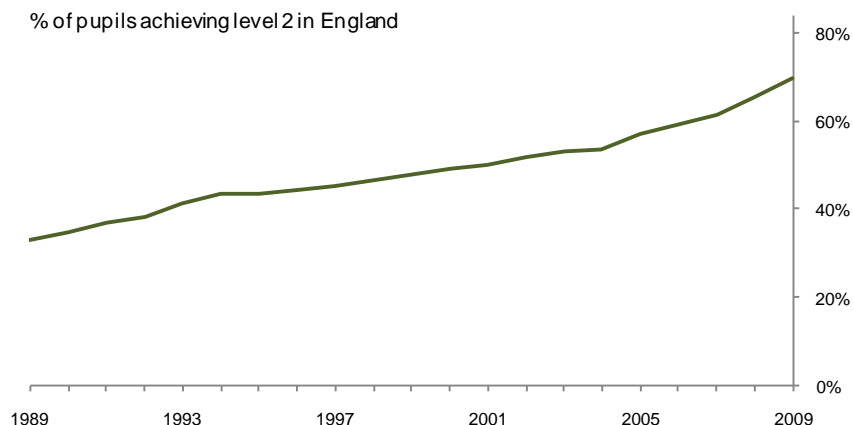
The proportion of pupils achieving five or more grades A\*-C or equivalent -the **Level 2 threshold** has been reported since GCSEs were introduced. Many other indicators have been published more recently. Individual level data on pupil characteristics was first collected in 2002 and before then only the gender gap could be produced to any degree of accuracy.

The figures in this article cover all pupils in state funded secondary schools, academies and special schools including those not entered for any exams. Since 2002 the main changes in recording practices were the switch in coverage from 15 year olds pupils to those at the end of Key Stage 4 (year 11) in 2005 which had a small positive impact and the inclusion of examinations other than GNVQs under 'equivalents' from 2004.

Detail on gaps in a wider range of GCSE performance indicators can be found in the notes for [2006/07](#), [2007/08](#) and [2008/09](#). Unless otherwise specified, figures in this article are taken from the DCSF publication [GCSE Attainment by Pupil Characteristics, in England 2008/09](#) and earlier editions.

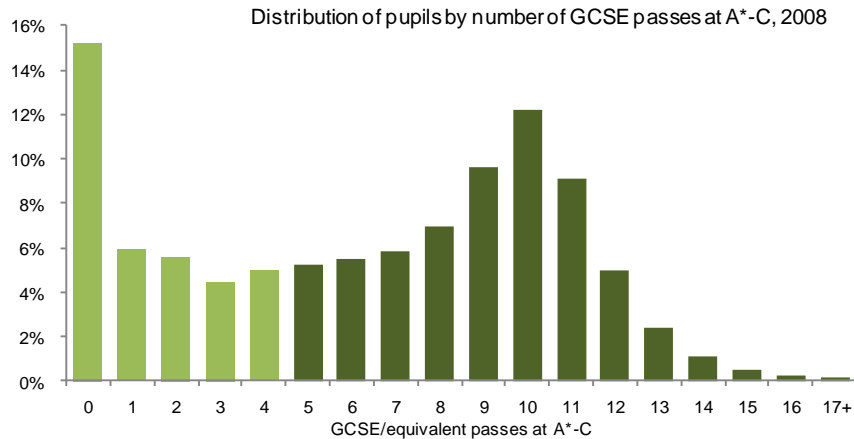
### The national trends

In 2009 70% of pupils achieved 5 or more GCSE grades A\*-C or equivalent (level 2). Trends are illustrated below.



This is a pass/fail indicator. For national results to reach 100% all pupils would have to reach the threshold -there would be no gaps on this measure. While even getting very close to 100% is highly improbable we might expect that, beyond a certain point, performance gaps for any large group of pupils will *have* to fall for national results to continue improving. When results plateau in a high performing group the low performing group needs to catch up for an overall improvement. There is no evidence that such a point has yet been met for any classification of pupils. However, the general tendency is there for this type of indicator where national results keep improving. If we expect that gaps ought to be falling and they are not, then attention should be focussed on these groups as well as those with the largest absolute gaps.

A look at the underlying data can help us to better understand this pass/fail indicator. The next chart gives detail of performance in 2008. One obvious fact it illustrates is that a large proportion of those who failed to achieve level 2 gained zero passes at GCSE grades A\*-C or equivalent. Pupils with SEN made up the majority of this group.



Source: National Pupil Database, DCSF

Taking this shape as broadly indicative of the underlying distribution of performance it is clear that large national improvements can only come from better results at the very lowest end. This is what has happened in the recent past. For instance, between 2006 and 2008 the proportion of pupils at the end of Key Stage 4 with less than one pass at A\*-C fell from 22% to 15%.<sup>i</sup>

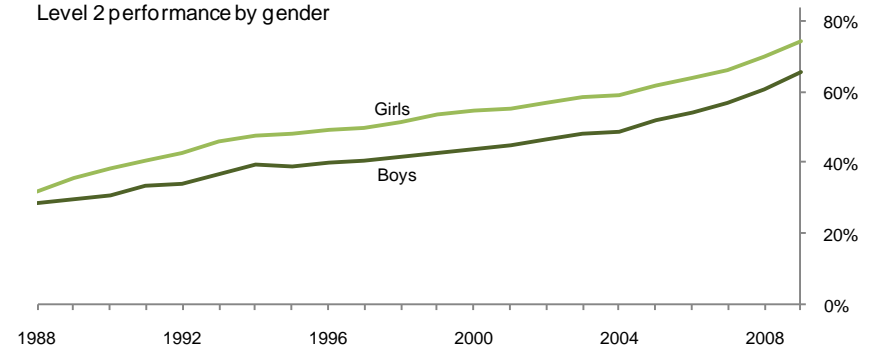
**Performance gaps**

*Gender*

During the 1950s and 1960s a higher proportion of boys achieved five or more good O-level passes. This situation reversed in the early 1970s and girls have outperformed boys on this measure ever since.<sup>ii</sup>

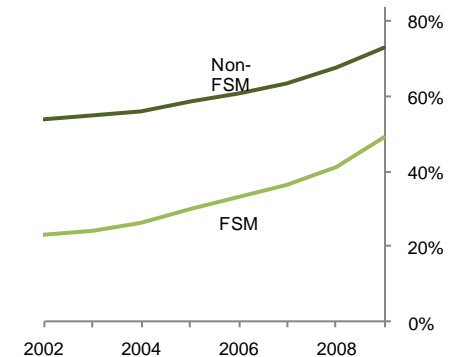
The next chart looks at trends in level 2 attainment since GCSEs were introduced. The gap increased from 3.5 points in the late 1980s to nine points in the early 1990s and remained at around ten points over the following decade. Since 2004 the gap has fallen gradually as boys have improved more rapidly. It remained at eight points in 2009. This is not the largest gap in performance, but it is one of the most persistent and with roughly equal numbers in each group it would take improvements across a larger number of pupils to breach it.

Level 2 performance by gender



*Free school meals*

Eligibility for free school meals is dependent on family receipt of one of a number of income-related benefits or support under the asylum system. It is seen as an indicator of poverty. The chart opposite shows that the gap in level 2 attainment is much larger than the gender gap. It was 31 points in 2002 and fell in each year from 2003 to 24 points in 2009. The simplicity of this measure is also its main flaw. It is a black and white measure and there are no shades of grey –degrees of poverty- can be accounted for.



*Deprivation*

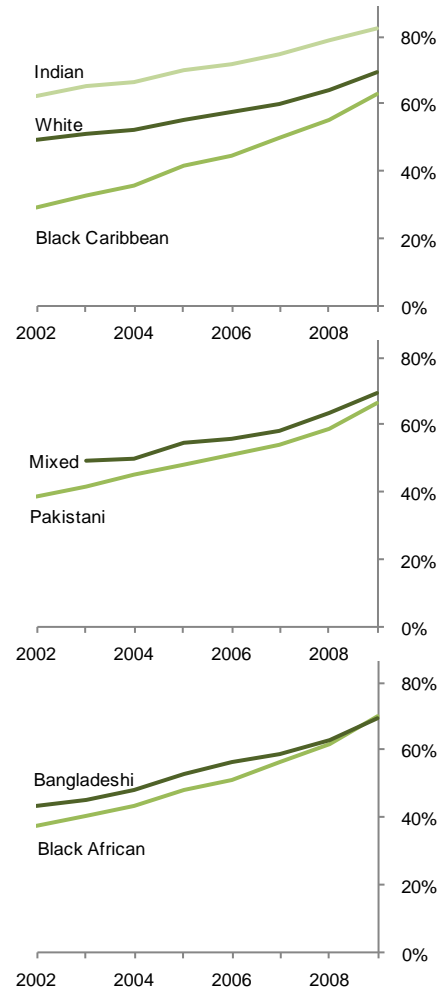
In recent years the DCSF has published results by 10% deprivation band based on the area where the pupil lives.<sup>iii</sup> These have been published for 2002 and on a revised basis since 2007. The attainment pattern is very clear- each increase in deprivation is linked to a clear fall in GCSE performance. The figures from 2007 indicate a narrowing of these gaps. Level 2 attainment for the most deprived increased by 15 percentage points in two years, while improvement at the top was 6 points. The gap between

the top and bottom 10% groups was 27 points in 2009. It stood at 47 points (using different area coding) in 2002. The large number of categories and the clear and consistent gaps between each one show, more than any other, the relative flattening off of performance among the groups with well established high performance. ‘Saturation point’ on this indicator may be approaching for them. National improvements are largely coming from poorer performing groups and are likely to do so more in the future.

**Ethnicity**

Performance patterns by ethnic group are more complicated than any other covered here. Pupils from an Indian background outperformed all others in each year, although there is some evidence that this has fallen recently. The other main points are:

- White –close to average as they make up the majority of pupils. Moved from just above, to just below average between 2002 and 2009.
- Black Caribbean –lowest attainment levels, but most catch-up, gap with national average fallen from 20 to 7 points.
- Pakistani –gap cut from 11 to 3 points.
- Black African and Bangladeshi – both caught up the average from 2002 gaps of 11 and 6 points respectively.
- Mixed –caught up national average in 2009 from being 2 points behind in 2004.

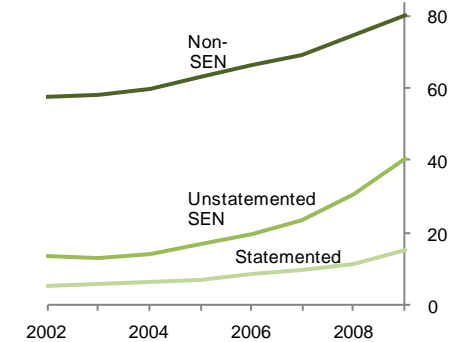


Performance gaps on this measure are much smaller by first language. Pupils with a first language other than English were around three points below other pupils in 2002 and this fell to just over one point in 2009.

**Special Educational Needs**

Pupils with SEN might be seen as a group which is much less likely to perform well in exams, but variations in type and degree of need mean that the performance of these pupils is more complex than this.

Pupils without SEN had a consistent gap over the national average of 8-10 points. Pupils with (less severe) unstatemented SEN saw little improvement in this measure for the first part of this period, but the gap has narrowed more recently and their level 2 attainment reached 40% in 2009. GCSE performance of pupils with statements of SEN has not kept pace with national improvements and was 55 points below the national average in 2009. This is much variation by type of need. For instance, among those with more severe needs<sup>iv</sup> more than half of pupils with visual or hearing impairments and more than 40% of those with a physical disability met the level 2 threshold.

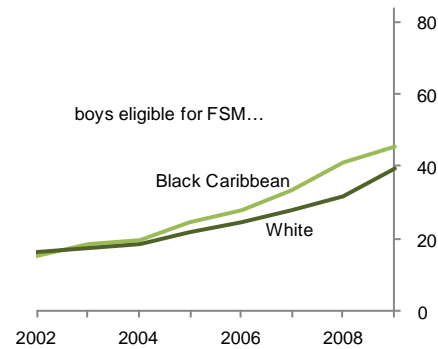


**Combinations of characteristics**

Over the past few years there has been more attention on the underperformance of white ‘working class’ boys. Some commentators conclude that the educational system has ignored the needs of these pupils.

Taking pupils who are eligible for free school meals as a proxy for ‘working class’ and looking at gender and ethnicity, the two sub-groups with the lowest levels of performance were White and Black-Caribbean boys eligible for free school meals.<sup>v</sup>

These two groups started off with very similar levels of performance in 2002, but Black-Caribbean boys from poorer families have improved their performance faster than their White counterparts. Both still lag well behind the national average; by around 25 and 30 points for Black Caribbean and White boys respectively.

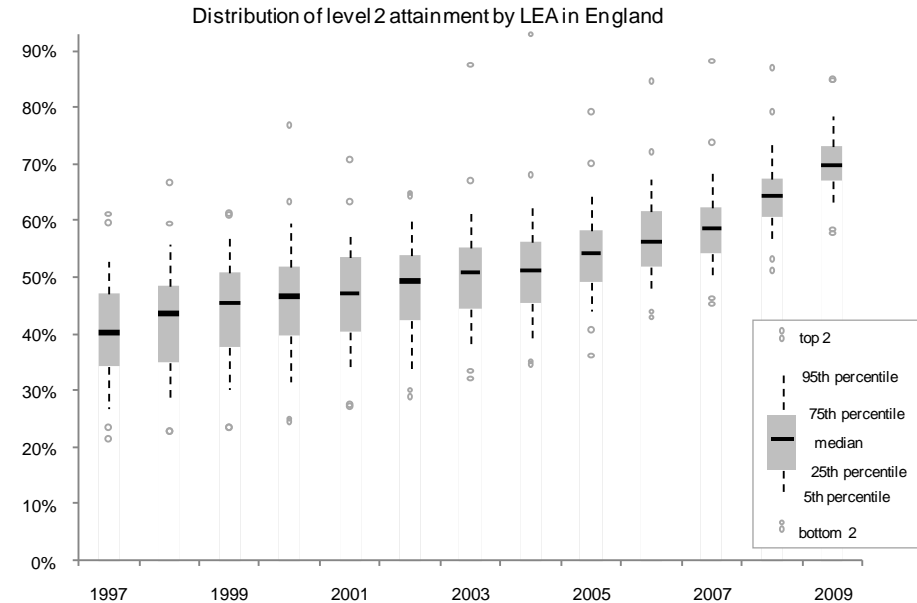


This group of White boys had clearly the lowest level of performance of any sizeable group of pupils when analysed by gender, ethnicity and free school meal status. It is also worth noting that performance gaps by free school meal status are larger for White pupils than for any other ethnic group – more than double those found among pupils from Black or Asian backgrounds.

**Geographical variations**

While the prime focus of this article is gaps between different types of pupils, geographical variations are another useful indicator of differences in attainment. Given the general decline in gaps between different groups of pupils we would expect to see a fall in the variation across the country. There were 150 local authorities for most of the last 10 years so variations need to be measured differently. The next chart gives summary indicators for the distribution of results since 1997.

There has been a very clear narrowing of the spread of results alongside the general improvement. In 2009 95% of local authorities were covered by a range of 16 percentage points on level 2 compared to 27 points a decade earlier. Improvements in performance have still been seen at the top end. A chart which shows trends for all local authorities can be seen [here](#). This allows the user to highlight single authorities and download the data.



**Conclusions**

The majority of gaps in level 2 attainment have been cut; some have disappeared completely; others are still very large. Variations in the size of these gaps give an indication of which pupil characteristics are most important on this measure. These include free school meal eligibility, deprivation and SEN status. When results are analysed by more than one pupil characteristic some distinctive patterns appear, such as white boys from poorer backgrounds being 'left behind'. The performance gap between girls and boys is not the largest, but it is one of the most persistent. It is clear that the overall increase in national attainment at this level has been driven by generally faster improvements among those groups with established patterns of under attainment. In all likelihood this will be the case for any future improvements and these performance gaps will close further. Would this mean an end to educational inequality?

No.

This is one measure of attainment at GCSE. The analysis at the start of this article highlighted the very broad range of results that pupils achieve. The level 2 threshold figure simply looks at the numbers on either side of a 'pass/fail' line. Any further improvement (among that group) is disregarded. Performance in some groups is nearing 'saturation point' where so many meet level 2 that further increases become less and less likely. As performance improves beyond a certain level gaps decline and if we believe that educational inequality remains, the measure is less useful.

Since 2005 the DCSF has routinely published data on the proportion of pupils who achieve level 2 and have passes at grade C or better at English and Maths -level 2 (E&M). As this includes two additional hurdles it is more stringent. In 2009 51% of pupils achieved level 2 (E&M) compared to 70% on level 2 alone. Level 2 (E&M) performance has improved by 9 points since 2002 compared to 18 points for level 2 alone. Data on level 2 (E&M) attainment by pupil characteristics have been published since 2005. Gaps are generally larger and have fallen by less than for level 2 alone. This might be expected given the trends and level of the national level 2 (E&M) results. The main patterns since 2005 were:

- There has been a small fall in the gender gap which is smaller than that for level 2 alone
- The gap by free school meal eligibility has remained virtually unchanged.
- There was a larger range of performance by ethnic group. Black Caribbean and Pakistani pupils especially lag well behind their peers.
- More than double the number of pupils from the least deprived 10% of areas reached this standard than those from the bottom 20%.

This measure is still a pass/fail test, albeit a harder one. The criticisms of the level 2 measure could be applied to level 2 (E&M), especially if performance starts to improve at a faster rate. At present it is a better measure of the real gaps in attainment in education at age 16. Indicators which respond to any improvement in grade (such as average points score) may have this advantage, but they tell the reader nothing about the

distribution of results. The level 2 measures at least give an indication of pupils who have passed a certain threshold. Improvements in a group's average points score could be made by improvements in the results of the brightest pupils alone. The level 2 measures are also easier to understand and well established.

Such measures should be the starting point only in any investigation of gaps in GCSE attainment. Analysis of the full range of published and unpublished data is the only way to properly spot important patterns of performance; identify sub-groups of pupils that are doing particularly well or badly; and look at how these patterns are altered by the inclusion of other variables. Even then the quantitative results from national datasets can only ever tell us so much.

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<sup>i</sup> *National Pupil Database*, DCSF

<sup>ii</sup> *Education: Historical statistics*, House of Commons Library Standard Note 4252

<sup>iii</sup> Based on the Income Deprivation affecting Children Index (IDACI) for super output areas.

<sup>iv</sup> Those at School Action Plus stage or with a statement

<sup>v</sup> Excludes the small number of pupils from gypsy or traveller families